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Twenty-Seventh Annual Report

OF THE

Bureau of Statistics

OF

LABOR AND INDUSTRIES

OF

New Jersey

For the Year Ending October 31st

1904.

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STATE OF NEW JERSEY,
OFFICE OF BUREAU OF STATISTICS,
TRENTON, October 31, 1904.

To His Excellency Franklin Murphy, Governor:

DEAR SIR—In accordance with the provisions of Chapter 105, Laws of 1878, and the several amendments thereto, I have the honor of submitting to the Senate and General Assembly, through you, the twenty-seventh annual report of the Bureau of Statistics.

W. C. GARRISON,
Chief.



INTRODUCTION.

The volume herewith submitted is the twenty-seventh of the series of annual reports issued by the Bureau of Statistics since it was organized in 1878, and the second prepared by the undersigned since he assumed the duties of the office of Chief of the bureau, nearly two years ago.

The subjects treated are, with the exception of a chapter on the mines and blast furnaces of the State, another on the company stores and the Cash Payment of Wages Law of 1899, and a third on industrial betterment institutions in New Jersey manufacturing establishments, those that are customarily investigated and reported on by the bureau from year to year. These are: The Statistics of Manufactures; The Cost of Living; The Vegetable and Fruit Canning Industry; Labor Legislation of the Session of 1904, and Decisions of the Higher Courts of the State in Cases Affecting the Interests of Labor and Industry.

The statistics of manufactures for the year 1903 are presented in comparison with those of the previous year, in a series of fourteen general tables, with several sub-tables used for analytical purposes, and all instances of increase or decrease in 1903 as compared with 1902 in the various elements composing the presentation are fully recorded in numbers and percentages. These statistics are based on returns from 1,811 identical establishments for both years, and the comparisons show a very gratifying advance in general prosperity among them during the year 1903.

Capital invested in these establishments has grown from \$327,148,806 in 1902, to \$339,345,417 in 1903. The total value of stock or material used in the processes of manufacture has grown from \$298,918,930 in 1902, to \$326,497,266 in 1903. The value of goods made in 1902 was \$501,797,405; in 1903 it was \$554,498,080.

The amount paid in wages to actual wage workers was \$101,870,338 in 1902; in 1903 it was \$107,496,757. The average yearly earnings of labor employed in these establishments, men, women and young people, were \$467.44 in 1902; in 1903, the average yearly earnings were \$471.81. The average number of hours worked per day was 9.72 in 1902; in 1903 it was 9.63, a very slight reduction, but important, as showing that the tendency is toward a shorter work-day. In 1902 these establishments employed a total working force of 243,535 persons; in 1903, the number had increased to 250,547.

It is hoped that these figures may induce a careful reading of the tables and the explanations relating to each of them, which will be found in the analysis, by all who are interested in maintaining and advancing the great industrial interests of our State.

It may be well to again refer to the fact that these statistics are based on returns from exclusively *factory industries*, and that they do not include the thousands of small productive ventures such as bakeshops, dressmakers, milliners, custom tailors, etc., which are counted among and go to swell the number of manufacturing establishments reported by the United States census authorities. Further reference to the character of the establishments included in these statistics will be found in the introduction to the tables.

The Company Stores and the Cash Payment of Wages Law of 1899 deals with the social and industrial improvement that has been brought about in the environment of that large and worthy class of workmen employed in the glass and mining districts of the State, for whose relief that much needed act was placed upon the statute books. All lovers of fair dealing will rejoice to know that the impositions complained of for years by these workmen have practically ceased to exist since the law went into operation five years ago.

The chapter devoted to Industrial Betterment Institutions is one of the most important among the contents of the entire book. This compilation includes such plans or systems for lightening the burdens of labor and drawing employer and employe together in bonds of mutual good will, as were found to be in operation among the manufacturing establishments of the State at the time

of making the investigation. The work was published in pamphlet form early in the summer, and formed part of the bureau's exhibit in the Department of Social Economy at the St. Louis Exposition, for which a *Gold Medal* was awarded. Copies of the pamphlet have been sent on request to many foreign governments, to colleges in which social economics is made a particular subject of study, and to the managers of large manufacturing establishments, within and outside of our own State, who wished to know what plans of industrial betterment had been proven to be practicable by the experience of others, with a view to establishing something on the same lines in their own works for the benefit of their employes. The contents of the pamphlet have been translated into several of the European languages, and evidence of interest in the subject with which it deals has come to the undersigned from far and near, in such volume as to encourage a hope that the ideas embodied in our modest effort may yet exert an important influence in solving the great problem of how to harmonize the relations of capital and labor.

The report is divided into four parts, in which the following subjects are included:

Part One—The Statistics of Manufactures; the Statistics of Steam Railroad Transportation in New Jersey; and the Fruit and Vegetable Canning Industry.

Part Two—The Cost of Living in New Jersey; the Company Stores and Cash Payment of Wages Law of 1899; the Iron Mines and Blast Furnaces of New Jersey, and the Labor Legislation of 1904, together with the Court Decisions on Cases Affecting the Interests of Labor and Industry.

Part Three—This part consists entirely of the chapter on Industrial Betterment Institutions.

Part Four—The Labor Chronology.

All of the above named topics are prefaced by a more or less extended introduction, which seems to preclude the necessity of any further reference to them here.

It may, perhaps, be opportune to state here for the information of manufacturers, that in accordance with an act of Congress of 1902, the Federal Census Bureau is required to take a census of

the factory industries of the United States midway between the decennial periods for making the full and complete census which is taken every ten years. The first count of this character will be made during the early part of the year 1905, and the practical direction of all details connected with the work in New Jersey will, under arrangements partly agreed upon, devolve jointly upon the Chief of this bureau and some special officers to be appointed by the United States Census Bureau.

The count of manufacturing establishments, together with the information asked for annually by this office on State authority for the purpose of compiling the statistics of manufactures, will, for the year 1905, be made in co-operation with the Federal Census authorities.

The schedule to be circulated in making the canvass of manufacturing establishments in this State will be in all essential respects substantially identical with the one used by this bureau for the same purpose during the past eight years.

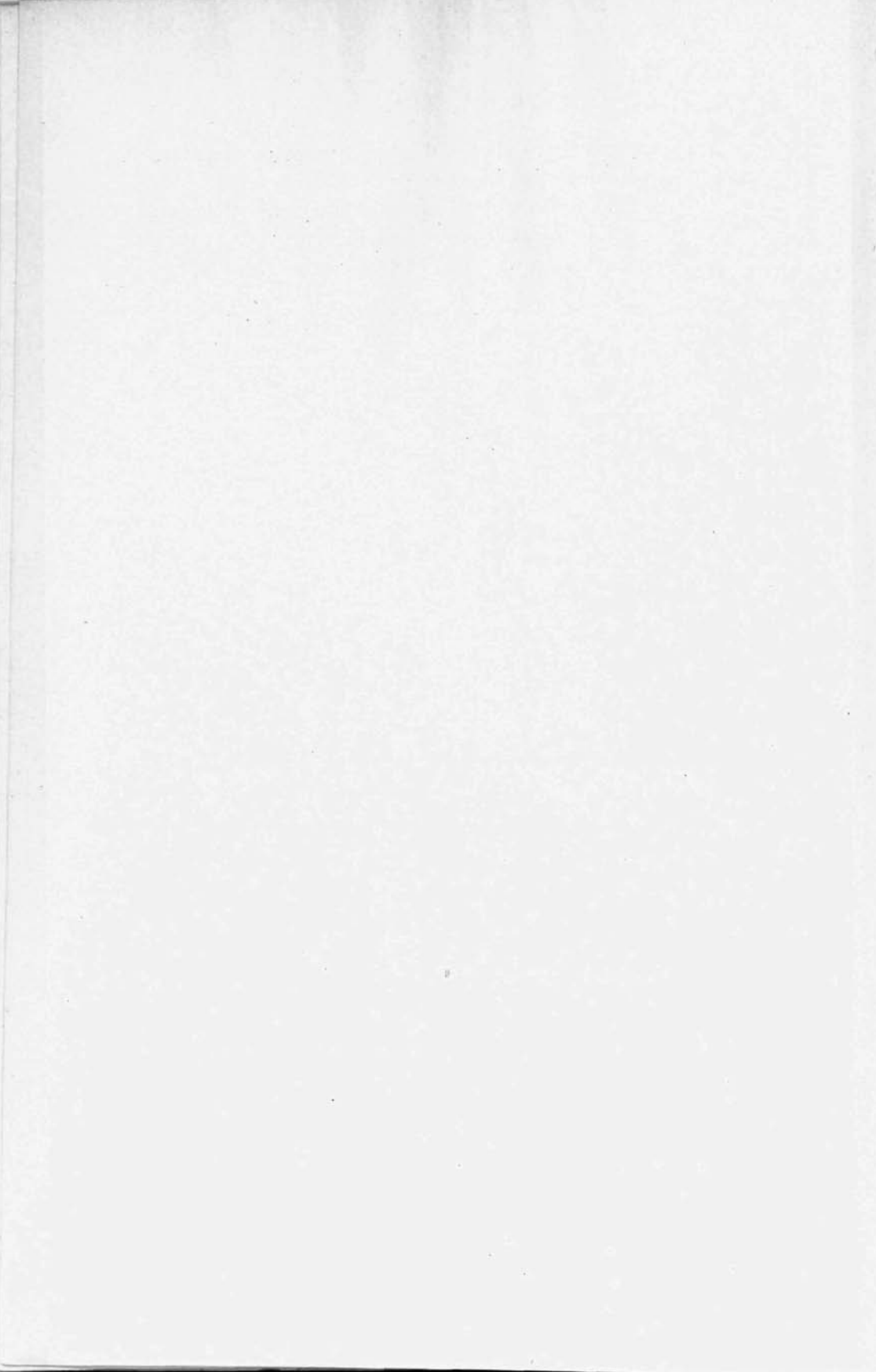
The purpose on the part of this office in making collaborating arrangements with the United States Census authorities, and placing its facilities and knowledge of local conditions at their service, is, primarily, to assist in making the canvass as thorough as possible for the credit of our State, and to avoid at the same time having to annoy manufacturers by calling on them for two reports on identical lines in the same year—one for the Federal and the other for the State Government. The schedule to be used in the manufacturing census of this year in New Jersey will, therefore, as the undersigned is at present advised, be issued by and under the authority of the Federal and State Governments; the reports will be returned to this office, and the data obtained made available alike for the United States Census and for our own statistics of manufactures, the annual collection and publication of which is made obligatory on this bureau by law. During the years between 1905 and 1910, the canvass of manufacturing establishments will be conducted as heretofore, by this bureau alone.

I desire to acknowledge with thanks the kind and courteous readiness which the manufacturers of the State, and the managers of the great trunk lines of railroad and other public-spirited

officials and citizens, have always displayed when requested to furnish information to this bureau.

I take pleasure also in commending the industry and intelligent zeal displayed by all the employes of the bureau, who in their particular lines have each rendered valuable service in the preparation of this report.

WINTON C. GARRISON,
Chief.



PART I.

Statistics of Manufactures of New Jersey.

Steam Railroads of New Jersey.

The Vegetable and Fruit Canning Industries
of New Jersey.

Statistics of Manufactures of New Jersey.

1902-1903.

INTRODUCTION.

The present report on the statistics of manufactures is the sixth in the series that have been issued since their collection and publication was made a part of the duty of the bureau by Chapter 124, Laws of 1899.

The form of presentation in this issue differs from that of previous years in that the data drawn from the reports of 1902 and of 1903 are given in a succession of comparison tables. Heretofore the procedure followed has been to publish alone the figures of each year, making comparisons only in the analytical tables in the case of industries reporting identical establishments for both years.

A limited form of comparison was adopted in the general tables for the report of 1901, the figures for that year having been arranged in comparison with those of 1900, but the revision of the list of manufacturing establishments made the following year, which resulted in dropping many small ones, and the addition to the list of an almost equal number of larger plants not previously included therein, compelled a return to the old form of single tables for the purposes of publication, until such time as the list of establishments to be called on continuously for reports could be satisfactorily re-constructed.

That task is now accomplished, and the 1,811 establishments whose data appears in this report for the years 1902 and 1903 are believed to substantially cover all the factory industries of the State that have been in operation long enough to be called on for reports.

The form in which these statistics appear in this issue will therefore be followed in all subsequent reports on the same subject, unless the movement started by the Director of the United States Census, Mr. S. N. D. North, for the purpose of bringing about uniformity in both the form and substance of statistical work performed by the Census Office of the United States Government, and the various State bureaus of statistics, results in a changed form being adopted by all concerned, which will certainly be a long step in the direction of unifying statistical work relating to industry in the United States.

This bureau is among the number of State offices of like character that have entered into an agreement to co-operate with the Federal Census authorities, and will certainly work hereafter on such lines as may appear in the judgment of all most likely to bring about the much desired unification of statistical work, providing, of course, that the plan adopted does not conflict with the laws of our State on the subject.

This presentation consists of twelve tables, in which is shown the character of the management of the 1,811 establishments whose reports form the basis of the tables for 1902 and 1903. Other facts shown relating to them are, the capital invested; the value of stock or material used in the processes of manufacture; the selling value of the product of manufactured goods; the smallest, greatest and average number of persons employed, by industries and by establishments; the monthly aggregate number of persons employed, male and female; the classified weekly wages or earnings of employes; the number of days in operation during the year; the average number of hours worked per day, and the average proportion of its total productive capacity which the operations of the year showed for each industry.

The establishments reporting are divided in precisely the same way as last year, that is, there are eighty-nine groups, eighty-eight of which represent that number of general industries, and one group made up of establishments not classifiable under any one of the general industry headings.

ANALYSIS OF THE COMPARISON TABLES.

Table No. 1 contains the number of establishments of the total that are controlled by corporations and by private firms, with the number of partners and stockholders interested therein, distinguished as males, females, estates, trustees, banks, etc. The following table shows in condensed form the changes that have taken place in this respect:

PRIVATE FIRMS AND PARTNERS.

PARTNERS.	1902.	1903.	Increase (+) or Decrease (-).	
			Number.	Percentage.
Number of private firms,	803	777	— 26	— 3.2
Number of male partners,	1,325	1,280	— 45	— 3.4
Number of female partners,	52	45	— 7	— 13.4
Number of special partners,	10	12	+ 2	+ 20.0
Number of estates as partners,	21	20	— 1	— 5.0
Total number of partners,	1,408	1,358	— 50	— 3.5

CORPORATIONS—STOCKHOLDERS.

STOCKHOLDERS.	1902.	1903.	Increase (+) or Decrease (-).	
			Number.	Percentage.
Number of corporations,	1,008	1,034	+ 26	+ 2.6
Number of male stockholders,	38,460	41,093	+ 2,633	+ 6.8
Number of female stockholders,	8,873	9,394	+ 521	+ 5.8
Number of banks as trustees,	1,469	1,508	+ 39	+ 2.6
Total number of stockholders,	48,802	51,995	+ 3,193	+ 6.5
Aggregate number of partners and stockholders, ..	50,210	53,353	+ 3,143	+ 6.2

As shown in the above table, twenty-six firms that were under private management in 1902 have changed to corporation organization in 1903. All the varieties of partners, excepting only the "specials," show, as a matter of course, a falling off in numbers which ranges from 3.4 per cent. to 20 per cent. The number of special partners was ten in 1902, and twelve in 1903, an increase small in actual number but high in percentage. The total number of partners among whom the ownership of the establishments under that form of management is divided is 3.5 per cent. less in 1903 than in 1902.

14 STATISTICS OF LABOR AND INDUSTRIES.

The establishments under corporate form of management have increased to exactly the same extent as the privately managed concerns have fallen away; the growth shown in 1903 as compared with 1902, is twenty-six establishments, or 3.6 per cent.

The number of male stockholders was 38,460 in 1902, and 41,093 in 1903; an increase of 2,633, or 6.8 per cent. The number of female stockholders as shown in the table is surprisingly large for both years and shows a very considerable gain in 1903 over that of the previous year. The actual increase was 521, or 5.8 per cent.

The total number of stockholders having capital invested in the establishments under corporate organization was 48,802 in 1902, and 51,995 in 1903. The increase in number has been 3,193, or 6.5 per cent.

In 1902 the average number of stockholders per establishment was 48.4; in 1903, the average number is 50.2, an increase of 1.8 for each concern. The aggregate number of stockholders and partners of all the various classes combined was 50,210 in 1902, and 53,353 in 1903; the increase shown is 3,143, or 6.2 per cent.

The striking increase in the number of establishments under corporate form of organization, as shown by the transfer to it of so large a number of partnership or private firms during the year covered by this comparison, shows in a very pronounced way the prevalence of a belief among industrialists that this form of management makes for greater economy and efficiency than is attainable under the other.

Although a very marked decline is shown in the number of private firms, the average number of partners to each firm shows no variation whatever, it being 1.75 for both years.

The conditions regarding the management of industry for 1903 may be thus summarized: The returns represent 1,811 establishments classified under eighty-nine industry headings. These establishments are conducted by 777 private firms and 1,034 corporations. Expressed in percentages, 42.90 are in the hands of private firms and 57.10 per cent. are managed by corporations. The private firms have a joint membership of 1,358, of whom 94.26 per cent. are males, 3.31 per cent. females, and 2.43 per cent. special partners and estates.

The corporations stand for the investments of 51,995 persons, of whom 41,093, or 79.03 per cent., are males; 9,394, or 18.06 per cent., are females; and, 1,508, or 2.91 per cent., are banks, trustees, etc. The average number of partners to a private firm is 1.75, and the average number of stockholders to a corporation is 50.20.

Table No. 2 shows in comparison the amount of capital invested during the years 1902 and 1903 in each of the industries appearing on the table, and the aggregates for all industries are given on the bottom line. The absolute amount of increase or decrease in the capital invested in each industry during the year 1903 is shown with their equivalent percentages.

The term "capital" is, of course, susceptible of varied construction, according to the extent of the field covered. As used here, it includes, or should include, if manufacturers who furnish reports follow instructions regarding it, the following items: Value of land, buildings, machinery, tools, and all other appliances necessary to the conduct of business; cash on hand in bank, and money borrowed for use in the works.

In 1902, the capital invested in the 1,811 establishments comprised in the presentation amounted to \$327,148,806; in 1903, the capital is shown to be \$339,345,417, which is an increase of \$12,196,601, or 3.7 per cent.

Of the eighty-nine industries, 69, or 77.5 per cent. of the total number, show an increase of capital; 18, or 20.2 per cent., show a decrease and two report the same amount invested for both years. The largest percentage of increase is shown for the manufacture of "Mattresses and Bedding," namely, 175.1, and the largest numerical increase for "Machinery," \$2,104,099, or 10.7 per cent.

Of the eighteen industries that show a decrease, the largest, both numerically and by percentage, occurs in "Smelting and Refining." The falling off amounts to \$1,070,000, or 19.6 per cent. Other decreases range downward to 1.6 per cent. The most heavily capitalized industries in the State, with the amounts invested in them, are given in the following table:

16 STATISTICS OF LABOR AND INDUSTRIES.

INDUSTRIES.	Number of Establishments.	Capital Invested.		Increase (+) or Decrease (—) in 1903.		
		1902.	1903.	Amount.	Percentage.	
Artisans' tools,	35	\$4,843,101	\$5,146,254	+	\$303,153	+ 6.2
Brewery products,	32	19,891,367	20,641,006	+	749,639	+ 3.7
Brick and terra cotta,	58	8,700,947	8,526,505	—	174,442	— 2.0
Chemical products,	42	22,093,200	23,280,939	+	1,187,739	+ 5.0
Cigars and tobacco,	31	7,705,048	8,278,792	+	573,744	+ 7.4
Electrical appliances,	25	14,968,266	15,580,089	+	611,833	+ 4.1
Furnaces, ranges and heaters,	15	5,514,617	5,578,001	+	63,384	+ 1.1
Glass (window and bottle),	22	4,810,760	4,954,165	+	143,405	+ 2.9
Leather and leather goods,	77	8,869,522	9,281,898	+	412,376	+ 4.6
Machinery,	95	19,611,319	21,715,418	+	2,104,099	+ 10.7
Jewelry,	79	3,931,286	4,520,782	+	589,506	+ 14.9
Metal goods,	61	7,781,972	8,110,077	+	328,105	+ 4.2
Oils,	12	17,852,108	17,043,302	—	808,806	— 4.5
Paper,	33	5,548,185	5,155,897	—	392,288	— 7.7
Pottery,	34	6,875,263	7,250,152	+	374,889	+ 5.5
Rubber goods,	33	9,753,853	10,201,529	+	447,676	+ 4.6
Ship building,	10	6,135,687	7,204,334	+	1,068,647	+ 17.4
Silk goods (all branches),	179	25,387,215	25,717,812	+	330,597	+ 1.3
Smelting and refining,	9	5,465,000	4,395,000	—	1,070,000	— 19.6
Woolen and worsted goods,	26	8,748,539	9,297,741	+	549,202	+ 6.3
Twenty industries,	908	\$214,487,255	\$221,879,693	+	\$7,392,438	+ 3.4
Other industries,	903	112,661,551	117,465,724	+	4,804,163	+ 4.3
All industries,	1,811	\$327,148,255	\$339,345,417	+	\$12,196,601	+ 3.7

Table No. 3 gives the figures representing the entire cost value of stock or material used in the processes of manufacture and also that of such merchandise or commodities as have been consumed in the necessary changes through which the stock entering into construction has been carried through to its finished and marketable form. No comparison of quantities is given; only the actual money expended for the classes of material referred to above is shown in the table for the years 1902 and 1903. It should therefore be understood, in reading this table, that increase or decrease shown in the various industries may be due as often to changes in the market value of material as to increase or decrease in the actual quantity of stock used.

The table shows the value of stock or material used in each of the eighty-nine industries. For "All Industries" the aggregate value of material consumed in 1902 was \$298,918,930; in 1903 the amount had risen in the same establishments to \$326,497,266, an increase of \$27,578,336, or 9.2 per cent.

Of the eighty-nine industries, twenty-three show a decrease, and sixty-four an increase, of stock used in 1903, as compared with 1902, while two report practically the same values for both years.

With the exception of five industries, viz., boilers, food products, men's felt and fur hats, lamps, leather, and steel and iron forgings—which show a decrease in stock used ranging in amounts from \$402,835 to \$2,035,343, and by percentages from 3.4 to 29.2 per cent.—the reductions are small, both numerically and in proportion to the total amounts expended in these twenty-three industries for stock or material.

On the other hand, the sixty-four industries reporting increase in expenditures for material in 1903 as compared with 1902, almost without exception show sums that are large both in amounts and percentages. Eleven industries show advances in expenditure for material ranging from \$549,292 to \$7,121,518. The latter amount occurs in the business of refining oils, an industry that has experienced a remarkable degree of expansion in New Jersey during recent years.

The next greatest numerical increase is shown in "Electrical Appliances." The amount is \$6,484,560, and the percentage of gain as represented by expenditure for material in 1903 over the figures of 1902 is only a trifle less than one hundred per cent.

For the convenience of analysis, the figures relating to the value of material used in the twenty leading industries, which are included in the summary of capital invested, will be found arranged in the following table:

INDUSTRIES.	Number of Establishments.	Value of Stock Used.		Increase (+) or Decrease (—) in 1903.	
		1902.	1903.	Amount.	Percentage.
Artisans' tools,	35	\$929,638	\$1,110,142	+	\$180,504 + 19.4
Brewery products,	32	4,373,797	4,489,656	+	112,859 + 2.6
Brick and terra cotta,	58	2,029,647	2,145,388	+	115,742 + 5.7
Chemical products,	42	9,683,145	10,478,455	+	795,310 + 8.2
Cigars and tobacco,	31	4,885,897	6,084,702	+	1,198,805 + 24.5
Electrical appliances,	25	6,553,204	13,037,764	+	6,484,560 + 99.0
Furnaces, ranges and heaters,	15	2,306,707	2,572,896	+	266,189 + 11.5
Glass (window and bottle),	22	2,266,221	2,444,620	+	178,399 + 7.9
Leather and leather goods,	77	14,000,950	12,106,640	—	1,894,310 — 13.5
Machinery,	95	10,374,335	12,376,158	+	2,001,823 + 19.3
Jewelry,	79	4,035,262	4,248,360	+	213,098 + 5.3
Metal goods,	61	4,294,806	4,556,699	+	261,893 + 6.1
Oils,	12	30,491,344	37,612,862	+	7,121,518 + 23.3
Paper,	33	3,931,367	3,840,839	—	90,528 — 2.3
Pottery,	34	1,456,692	1,543,147	+	86,455 + 5.9
Rubber goods,	33	9,589,553	10,760,741	+	1,171,188 + 12.2
Ship building,	10	2,040,404	2,360,977	+	311,573 + 15.2
Silk goods (all branches),	179	28,062,702	29,599,926	+	1,537,224 + 5.5
Smelting and refining,	9	32,747,733	36,397,559	+	3,559,826 + 10.9
Woolen and worsted goods,	26	9,343,338	9,612,346	+	269,208 + 2.9
Twenty industries,	908	\$183,405,742	\$207,286,878	+	\$23,881,136 + 13.0
Other industries,	903	115,513,188	119,210,388	+	3,697,200 + 3.2
All industries,	1,811	\$298,918,930	\$326,497,266	+	\$27,578,336 + 9.2

The figures relating to the two kindred industries of "Leather" and "Leather Goods," which are entered separately on Table No. 3, are combined in this summary table, and the decrease therefore of \$2,035,343, shown in the material consumed in leather manufacturing taken separately, diminishes to \$1,894,310 when offset by the increase of \$141,033, reported alone by leather goods.

All the branches of silk manufacture are also combined in the above table, and consequently the small decreases shown by the two minor branches, "Silk Throwing" and the manufacture of "Silk Mill Supplies," are lost sight of in the large advances reported by the two great divisions of "Weaving" and Dyeing."

Table No. 4 presents the selling value of the goods produced in the 1,811 establishments considered for the years 1902 and 1903. The aggregates for each of the eighty-nine industries are given separately, and the totals for "All Industries" will be found for both years on the final line of the table.

The aggregate value of products for 1902 was \$501,797,405; in 1903, the figures had grown to \$554,498,080, an increase which rises to the enormous amount of \$52,700,675, or 10.5 per cent.

It must be borne in mind that no claim is made that these figures represent the total value of all goods manufactured in New Jersey during either of the years, and the same may be said regarding the numerical aggregates presented in the general and other tables for "All Industries," no matter to what feature of these statistics they may refer. Totals covering the entire industrial field are presented only in the United States Census reports.

The returns brought together in this and other yearly presentations of manufacturing statistics are intended to furnish comparisons which will indicate the conditions of industry from year to year.

But notwithstanding the fact that the number of establishments entering into the comparison is small, the value of their aggregate product of manufactured goods is still 90.5 per cent. of the total shown in the census of 1900, for absolutely every industrial or productive establishment in the State, no matter how small. The figures may, therefore, be regarded as typical, and the increase shown in them on all the tables may be considered

as safely indicative of industrial conditions in the State as a whole.

A decrease is shown in the value of goods made in 1903 as compared with 1902 by sixteen industries out of the eighty-nine contained in the classification. Of these, the largest falling off in value, both numerically and by percentage, occurs in the manufacture of "Lamps." The decrease amounts to \$1,399,542, and the percentage of falling off is 31.9 per cent. The large shrinkage of product shown in this industry is due to the fact that one of the largest establishments engaged in it had changed its models, and, pending the perfecting of plans for manufacturing under a new system, work was almost entirely suspended during the year 1903. The falling off shown in this table for this industry should not, therefore, be regarded in any other light than simply a temporary halt to make necessary preparations for bringing its goods up to the standard of modern requirement. In the other fifteen industries showing decrease in the value of product, the amounts and percentages are comparatively small, and probably are, in most instances, the result of falling prices rather than a diminished output of goods. This is certainly the case with regard to the three classifications into which the steel industry is divided, viz.: "Bar Steel and Iron"; "Structural Steel," and "Steel and Iron Forgings," which show an apparent falling off of 8.7 per cent., 4.3 per cent. and 1.4 per cent., respectively. One industry alone shows value of goods made to be practically the same for both years of comparison, the remaining seventy-two all show increase, the amounts and percentages of which are generally large and in some instances phenomenally so.

"Smelting and Refining" presents an increase in 1903, as compared with 1902, of \$9,847,311, or 25.4 per cent. The numerical increase in the "Oils" industry has been \$8,154,827, and in the manufacture of "Electrical Appliances" an advance of \$6,814,272 is shown. The percentages of increase in the two last-named industries is 21.8 and 59.7 per cent. respectively. The largest percentage of increase shown by any industry, 106.6 per cent., occurs in the manufacture of "Agricultural Implements."

The figures for the twenty leading industries that are treated

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similarly in previous pages of this review are brought together in the following table:

INDUSTRIES.	Number of Establishments.	Value of Goods Made.		Increase (+) or Decrease (—) in 1903.	
		1902.	1903.	Amount.	Percentage.
Artisans' tools,	35	\$2,573,553	\$2,954,324	+	\$380,771 + 14.8
Brewery products,	32	13,319,686	14,134,184	+	814,498 + 6.1
Brick and terra cotta,	58	6,284,540	6,330,099	+	45,559 + 0.6
Chemical products,	42	17,240,514	18,928,318	+	1,687,804 + 9.8
Cigars and tobacco,	31	11,321,557	14,982,287	+	3,660,730 + 32.3
Electrical appliances,	25	11,416,042	18,230,314	+	6,814,272 + 59.7
Furnaces, ranges and heaters,	15	4,590,501	5,050,686	+	459,686 + 10.0
Glass (window and bottle),	22	6,269,055	6,691,062	+	422,007 + 6.7
Leather and leather goods,	77	20,473,948	20,385,323	—	88,625 — 0.4
Machinery,	95	24,824,842	27,278,465	+	2,453,623 + 9.9
Jewelry,	79	8,057,569	8,378,649	+	321,080 + 3.9
Metal goods,	61	8,103,588	8,550,707	+	447,119 + 5.5
Oils,	12	37,484,992	45,639,819	+	8,154,819 + 21.8
Paper,	33	6,626,297	6,497,756	—	128,541 — 1.9
Pottery,	34	5,165,998	5,510,715	+	344,717 + 6.7
Rubber goods,	33	14,311,866	16,540,268	+	2,228,402 + 15.6
Ship building,	10	4,748,077	5,278,980	+	530,903 + 11.2
Silk goods (all branches),	179	48,530,470	50,452,341	+	1,921,871 + 3.9
Smelting and refining,	9	38,801,468	48,648,779	+	9,847,311 + 25.4
Woolen and worsted goods,	26	14,696,962	14,603,410	—	93,552 — 0.6
Twenty industries,	908	\$304,841,525	\$345,066,486	+	\$40,224,961 + 13.2
Other industries,	903	196,955,880	209,431,594	+	12,475,714 + 6.3
All industries,	1,811	\$501,797,405	\$554,498,080	+	\$52,700,675 + 10.5

Seventeen of the twenty leading industries presented in the above table show increase in the value of product which ranges from the highest 59.7 per cent. in "Electrical Appliances," downward to 0.6 per cent. in "Brick and Terra Cotta."

Only four of these, "Silk Goods," "Metal Goods," "Jewelry," and "Brewery Products," show increase below the average of the 903 establishments included in "Other Industries" on the second line from the bottom of the table.

The aggregate value of goods produced in the twenty principal industries was \$304,841,525 in 1902, and \$345,066,486 in 1903; the increase is \$40,224,961, or 13.2 per cent., as against \$12,475,714, or 6.3 per cent., as shown by the 903 establishments grouped under "Other Industries." It is thus shown that the 908 establishments, included in the twenty principal industries, produced 62.2 per cent. of the total value of goods made in 1903,

and 76.3 per cent of the total aggregate increase shown by "All Industries" in the latter year as compared with 1902. The average increase in these establishments is 2.7 per cent. greater than the aggregate increase shown for the entire 1,811 establishments.

Only three among the twenty selected industries show decrease in the value of product; these are, "Leather and Leather Goods," 0.4 per cent.; "Paper," 1.9 per cent., and "Woolen and Worsted Goods," 0.6 per cent.

Table No. 5 gives the average, greatest and smallest number of persons of both sexes employed in 1902 and in 1903. The figures under all three headings are shown in absolute numbers in this table, without giving the increase or decrease; these particulars are, however, entered into fully for the twenty principal industries heretofore used for special presentation.

The average number of persons employed in the 1,811 establishments in 1902 was 217,929; in 1903, the number was 227,841, an increase of 9,912, or 4.5 per cent.

The aggregate number of persons employed at periods of employment of the smallest number during 1902 was 208,908; in 1903, it was 224,145, a gain of 14,237, or 6.8 per cent.

The aggregate number of persons employed at periods of employment of the greatest number during 1902 was 226,765; in 1903, the number employed under those circumstances was 231,480, an increase of 4,715, or 2.1 per cent.

Of the eighty-nine classified industries included in the presentation, only eight show decrease in the number of persons employed at periods of employment of the smallest number; these range numerically from 167 in the manufacture of men's felt hats, down to 16 in gas and electric light fixtures; the remaining 81 industries show increase, which, as will be seen by an examination of the tables, are for the most part large.

The following table gives the average number of persons employed in the twenty principal industries during the years 1902 and 1903, with the increase or decrease in 1903, as compared with 1902, in numbers and percentages:

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INDUSTRIES.	Number of Establishments.	Aggregate Average Number of Persons Employed.		Increase (+) or Decrease (—) in 1903.		
		1902.	1903.	Number.	Percentage.	
Artisans' tools,	35	1,733	1,964	+	231	+ 13.3
Brewery products,	32	1,869	1,985	+	116	+ 6.2
Brick and terra cotta,	58	5,341	5,293	—	48	— 0.9
Chemical products,	42	5,004	5,485	+	481	+ 9.6
Cigars and tobacco,	31	4,029	6,952	+	2,923	+ 72.5
Electrical appliances,	25	4,397	5,515	+	1,118	+ 25.4
Furnaces, ranges and heaters,	15	1,530	1,599	+	69	+ 4.5
Glass (window and bottle),	22	6,139	6,150	+	12	+ 0.2
Leather and leather goods,	77	6,639	6,842	+	203	+ 3.0
Machinery,	95	15,674	16,810	+	1,136	+ 7.2
Jewelry,	79	2,821	2,927	+	106	+ 3.7
Metal goods,	61	5,519	5,567	+	48	+ 0.8
Oils,	12	3,010	3,355	+	345	+ 11.1
Paper,	33	1,959	1,969	+	10	+ 0.5
Pottery,	34	3,872	3,949	+	77	+ 1.9
Rubber goods,	33	4,549	5,192	+	643	+ 14.1
Ship building,	10	4,760	3,810	—	950	— 19.9
Silk goods (all branches),	179	27,607	28,883	+	1,276	+ 4.6
Smelting and refining,	9	3,357	2,343	—	1,014	— 3.2
Woolen and worsted goods,	26	8,438	8,391	—	47	— 0.5
Twenty industries,	908	118,246	124,981	+	6,735	+ 5.6
Other industries,	903	99,683	102,860	+	3,177	+ 3.2
All industries,	1,811	217,929	227,841	+	9,912	+ 4.5

Four of the twenty industries presented in the above table show decrease in the average number of persons employed; these are: Shipbuilding, 19.9 per cent.; smelting and refining, 3.2 per cent.; brick and terra cotta, 0.9 per cent., and woolen and worsted goods, 0.5 per cent. The large falling off in the average number of persons employed in shipbuilding is accounted for to some extent by labor disturbances which occurred during the year 1903 at one of the principal yards.

Of the sixteen industries which show increase in the average number of persons employed, by far the greatest, numerically and by percentage, is the manufacture of cigars and tobacco, which carried an average number of 2,923, or 72.5 per cent. more persons on the pay-rolls of its thirty-one establishments in 1903 than were on them in 1902. The next greatest advance in the average number of persons employed was made in the manufacture of electrical appliances, for which the table shows an increase of 1,118, or 25.4 per cent. Other industries which show increase over ten per cent. are, artisans tools, 13.3; rubber and

rubber goods, 14.1, and oils, 11.1 per cent. The increase shown by the other industries ranges from 9.6 per cent. in chemical products, downward to 0.2 per cent. in the manufacture of window glass and bottles.

The aggregate average number of persons employed in the twenty principal industries in 1902 was 118,246; in 1903 the number was 124,981, an increase of 6,735, or 5.6 per cent. in the latter as compared with the earlier year.

In "Other Industries," or all those not included in the twenty selected ones, the aggregate average number of persons employed in 1902 was 99,683, as against 102,860 in 1903; the increase in these 69 industries, which comprise 903 establishments, against the 908 included in the twenty selected industries, is 3,177, or 3.2 per cent.

It will be noticed that in this and all other tables dealing with the twenty selected industries, the percentages of increase are considerably in excess of those shown for the totals of "All Industries" on the bottom line of the tables.

A comparison of the smallest number of persons employed in each of the twenty leading industries during the years 1902 and 1903, together with the same data for all industries, is given in the following table:

INDUSTRIES.	Number of Establishments.	Aggregate of Persons Employed at Periods of Employment of the Smallest Number.		Increase (+) or Decrease (—) in 1903.		
		1902.	1903.	Number.	Percentage.	
Artisans' tools,	35	1,646	1,915	+	269	+ 16.3
Brewery products,	32	1,835	1,930	+	95	+ 5.2
Brick and terra cotta,	58	3,783	3,701	—	82	— 2.1
Chemical products,	42	4,525	5,145	+	620	+ 13.7
Cigars and tobacco,	31	3,922	6,360	+	2,438	+ 62.1
Electrical appliances,	25	3,791	5,037	+	1,246	+ 32.8
Furnaces, ranges and heaters,	13	1,441	1,553	+	112	+ 7.7
Glass (window and bottle),	22	1,599	1,215	—	384	— 24.0
Leather and leather goods,	77	6,167	6,499	+	332	+ 5.3
Machinery,	95	14,329	16,246	+	1,917	+ 13.3
Jewelry,	79	2,647	2,840	+	193	+ 7.3
Metal goods,	61	5,001	5,224	+	223	+ 4.4
Oils,	12	2,925	3,194	+	269	+ 9.2
Paper,	33	1,599	1,824	+	225	+ 14.0
Pottery,	34	3,726	3,708	—	18	— 0.5
Rubber goods,	33	4,257	4,958	+	701	+ 16.4
Ship building,	10	3,998	3,202	—	796	— 19.9
Silk goods (all branches),	179	13,523	26,825	+	13,302	+ 98.3
Smelting and refining,	9	3,050	2,241	—	809	— 26.5
Woolen and worsted goods,	26	8,194	7,955	—	1,761	— 21.5
Twenty industries,	908	91,958	111,572	+	19,614	+ 21.3
Other Industries,	903	116,950	112,573	—	4,377	— 3.7
All Industries,	1,811	208,908	224,145	+	15,237	+ 7.2

Fourteen of the specified industries which appear on the foregoing table show increase in the number of persons employed at periods of their least activity in 1903, as compared with 1902, which shows that with them the "dull season," which is known to almost every branch of industry, was much less intense in 1903 than it was during the immediately preceding year.

The greatest variations are shown in the instances where there has been increase in the smallest number employed, by the silk industry, the cigar and tobacco industry and the manufacture of electrical appliances. These three show an increase in 1903, as compared with 1902, of 98.3 per cent., 62.1 per cent., and 32.8 per cent., respectively. The great difference which appears in the lowest number of persons employed in the silk industry is due to the fact that during almost the entire summer of 1902 a strike prevailed, which closed up practically all the silk dye-houses for several weeks, and caused a total suspension or a large curtailment of production in almost all the mills situated in the city of Paterson. Almost one-half the total number of employes ordinarily engaged in the industry were in a condition of voluntary or enforced idleness during the time the strike lasted.

Six of the twenty industries are shown by the figures on the table to have employed fewer persons during their dull season in 1903 than they did in 1902; these are, in the descending order of decrease: Smelting and refining precious metals, 26.5; glass, window and bottle, 24.0 per cent.; woolen and worsted goods, 21.5 per cent.; shipbuilding, 19.6 per cent., and brick and terra cotta, 2.1 per cent.

The aggregate number of persons employed in the twenty industries was 111,572 in 1903, as against 91,958 in 1902; the increase in the first-mentioned year was 19,614, or 21.3 per cent.

The 903 establishments grouped under "Other Industries" employed an aggregate of 116,950 in 1902, during their dull season, and 112,573 in 1903, which shows a falling off in 1903, as compared with 1902, of 4,377, or 3.7 per cent.

The aggregates for "All Industries," 1,811 establishments, was 208,908 in 1902, and 224,145 in 1903, which shows a net increase of 15,237, or 7.2 per cent.

The greatest number of persons employed at any one time in the 903 establishments included in the twenty selected industries, with the increase or decrease in 1903, as compared with 1902, are given in numbers and percentages in the following table:

INDUSTRIES.	Number of Establishments.	Aggregate of Persons Employed at Periods of Employment of the Greatest Number.		Increase (+) or Decrease (—) in 1903.		
		1902.	1903.	Number.	Percentage.	
Artisans' tools,	35	1,910	1,999	+	89	+ 4.6
Brewery products,	32	1,935	2,061	+	126	+ 6.5
Brick and terra cotta,	58	6,532	6,524	—	8	— 0.1
Chemical products,	42	5,185	5,669	+	484	+ 9.3
Cigars and tobacco,	31	4,141	7,469	+	3,328	+ 80.3
Electrical appliances,	25	5,080	5,726	+	696	+ 13.8
Furnaces, ranges and heaters,...	15	1,650	1,652	+	2	+ . . .
Glass (window and bottle),...	22	7,617	7,839	+	222	+ 2.9
Leather and leather goods,...	77	6,881	7,254	+	373	+ 5.4
Machinery,	95	16,621	17,067	+	446	+ 2.6
Jewelry,	79	3,116	3,079	—	37	— 1.1
Metal goods,	61	5,919	5,790	—	129	— 2.2
Oils,	12	3,312	3,539	+	227	+ 6.8
Paper,	33	2,179	2,138	—	41	— 1.9
Pottery,	34	4,015	4,085	+	70	+ 1.7
Rubber goods,	33	4,755	5,448	+	693	+ 14.5
Ship building,	10	5,328	4,263	—	1,065	— 20.0
Silk goods (all branches),...	179	29,409	31,140	+	1,731	+ 5.8
Smelting and refining,	9	3,485	2,447	—	1,038	— 29.8
Woolen and worsted goods,.....	26	8,644	8,681	+	37	+ 0.4
Twenty industries,	908	127,664	133,870	+	6,206	+ 4.8
Other industries,	903	99,101	97,610	—	1,491	— 1.5
All industries,	1,811	226,765	231,480	+	4,715	+ 2.0

As shown in the above table, the greatest number of persons employed in the twenty selected industries in 1902 was 127,664; in 1903 it was 133,870, an increase of 6,206, or 4.8 per cent. The greatest number employed in the 903 establishments included in "Other Industries," shows a decrease of 1,491, or 1.5 per cent., in 1903 as compared with 1902. In "All Industries," 1,811 establishments, the greatest number employed at any one time during 1902 was 226,765; in 1903, the greatest number was 231,480, an increase of 4,715, or exactly 2.0 per cent. Six industries report decrease in the force employed at the periods of greatest activity in 1903, as compared with 1902; these are in the order of the falling off shown: Smelting and refining, 29.8 per cent.; shipbuilding, 20.0 per cent.; metal goods, 2.2 per cent.; paper, 1.9 per cent., and brick and terra cotta, 0.1 per cent.

As shown by Table No. 5, in the 1,811 establishments reporting the aggregate average number of persons employed during the year 1902 was 217,927, the smallest number at any time during the same period was 208,908, and the greatest, 226,765. The excess of greatest over smallest, or the number of persons who were idle some part of the time during 1902, was 17,857, or 8.2 per cent. of the average number employed. For 1903, the aggregate average number of persons employed is shown to be 227,841; the smallest number employed during the year was 224,145, and the greatest, 231,480. The excess of greatest over smallest number employed has fallen in 1903 to 7,335, or 3.2 per cent. of the average number employed, as against 8.2 per cent. in 1902. The percentage of employment is thus shown to have increased from 91.8 per cent. in 1902, to 96.8 per cent. in 1903.

A remarkably steady increase in the number of persons employed per establishment is shown by comparing the figures for each year since 1899. These are as follows:

Years.	Average Number Employed per Establishment.	Greatest Number Employed per Establishment.	Smallest Number Employed per Establishment.
1899,	102	107	95
1900,	105	107	101
1901,	115	120	109
1902,	120	125	115
1903,	126	127	123

The steadily increasing prosperity of manufacturing industry in New Jersey is strikingly illustrated by the figures in the above table, which shows the average number of persons employed per establishment to be 23.6 per cent. greater in 1903 than it was in 1899. The greatest and smallest number employed have increased in about the same proportion.

Table No. 6 shows the changes that have taken place in the excess of greatest over smallest number of persons employed in 1903 as compared with 1902. The figures are given for each of the eighty-nine industries and for all industries.

This table brings out more fully the condition of employment, showing as it does the range of steady work and of idleness in each industry, or in other words, the difference between the greatest and the smallest number of persons employed.

To assist in understanding the facts brought out by this table, it may be well to explain that minus signs, of which there are 48, show a better condition of employment in the industries to which they apply than do the plus signs. The minus sign indicates a narrower range of unemployment and a consequent wider range of employment. For the purpose of illustration, take the silk industry (broad and ribbon). In 1902, the range or difference between the smallest and greatest number of persons employed was 13,554; in 1903, this difference was only 3,640, a decrease of 9,914, or 73.1 per cent.; or to set the matter forth in another way, in 1903 the number of persons out of employment for a greater or less time in this industry was smaller by 9,914 than it was in 1902.

Forty-eight industries out of the eighty-nine which appear in the presentation show more continuous employment in 1903 than in 1902. Increase in the range of unemployment is shown in all branches of the steel industry; the greatest decline appears under the heading "Structural Steel," and was caused, no doubt, by the general prevalence of strikes in the building trades throughout the year 1903.

A comparison of the difference between the highest and lowest number employed in the 1,811 establishments during both years, shows that the number who were idle some part of the time was less in 1903 by 14,023, or 27.3 per cent., than in 1902.

Table No. 7 shows the aggregate number of persons employed by months in each of the 89 industries for the years 1902 and 1903. Male and female employes are given separately for each month, as are also the totals for both sexes.

The periods of greatest and least activity, that is to say, when work was most or least active, is shown in this table for each industry and for both years. These will be the months during which the largest and the smallest number of persons were employed. The fluctuations in employment are so fully set forth in tables numbers 5 and 6, that any reference to that subject in connection with this table would necessarily be only a repetition of what was said before in the analysis of their figures; through it, however, such changes as take place from month to month may be seen in the case of any particular industry or for

all industries combined, by glancing down the column in which the totals for each of the eighty-nine industries are given for both years of comparison.

One of the most interesting features of this table is the opportunity which it affords for studying the present status of female labor in the various industries in which it is employed. Interest in the subject is widespread and very earnest, because in it there is involved certain economic and sociological questions of the gravest importance.

In the following table the percentage of the average number of employes who are females is given for 1902 and 1903, with the percentage of increase or decrease in the number during the latter as compared with the earlier year. It may be advisable to explain that in substantially all industries there are females engaged in office work, who, taken together in the case of a line of manufactures reporting a large number of establishments, would seem to form an important numerical element; in many such instances, however, this apparently large aggregate is composed of only one female for each establishment, whose duties are entirely clerical.

There are fifty-five industries among the eighty-nine comprised in this presentation in which female labor is employed at the regular operations of manufacturing; in eight of these, the proportion is less than ten per cent. for each year, and in the remaining forty-seven it advances from ten to over ninety per cent. in certain lines of manufacture that are distinctly women's occupations, and are almost entirely monopolized by them. These percentages are given in full in the following table:

INDUSTRIES.	Percentage of Female Employees.		Increase (+) or Decrease (—) in 1903.	
	1902.	1903.	Percentage.	
Art tile,	32.7	36.1	+	3.4
Boxes (wood and paper),	65.3	63.6	—	1.7
Brushes,	32.8	32.7	—	0.1
Buttons (metal),	56.2	60.7	+	4.5
Buttons (pearl),	29.7	21.5	—	8.2
Carpets and rugs,	26.5	26.6	+	0.1
Chemical products,	19.7	19.9	+	0.2
Cigars and tobacco,	69.9	79.1	+	9.2
Clothing,	49.8	48.5	—	1.3
Confectionery,	48.5	45.0	—	3.5
Corsets and corset waists,	90.9	91.8	+	0.9
Cutlery,	9.1	9.0	—	0.1
Cotton goods,	72.9	73.4	+	0.5
Cotton goods (finishing and dyeing),	14.1	13.9	—	0.2
Drawn wire and wire cloth,	9.1	9.0	—	0.1
Electrical appliances,	14.3	11.1	—	3.2
Food products,	23.4	23.6	+	0.2
Foundry (brass),	5.3	6.2	+	0.9
Gas and electric light fixtures,	6.8	5.4	—	1.4
Glass (window and bottle),	2.6	2.6	.....
Glass mirrors,	8.2	12.6	+	4.4
Graphite products,	51.8	51.7	—	0.1
Hats (felt),	25.7	25.8	+	0.1
Hats (straw),	69.9	67.9	—	2.0
Inks and mucilage,	23.0	22.8	—	0.2
Jewelry,	27.0	25.9	—	1.1
Knit goods,	65.8	67.5	+	1.7
Laundry,	68.0	79.5	+	11.5
Leather goods,	50.3	49.0	—	1.3
Lamps,	79.8	68.8	—	2.0
Machinery,	2.3	2.5	+	0.2
Mattresses and bedding,	14.9	15.1	+	0.2
Metal goods,	22.7	24.9	+	2.2
Metal novelties,	22.2	19.2	—	3.0
Musical instruments,	14.8	14.6	—	0.2
Paints,	11.5	11.6	+	0.1
Paper,	12.1	12.5	+	0.4
Pottery,	18.0	18.4	+	0.4
Printing and bookbinding,	37.1	34.9	—	2.2
Rubber goods (hard and soft),	17.2	17.5	+	0.3
Scientific instruments,	11.4	8.0	—	3.4
Shoes,	35.2	32.2	—	3.0
Shirts,	82.0	80.4	—	1.6
Shirt waists,	89.5	90.9	+	1.4
Silk (broad and ribbon),	50.2	52.3	+	2.1
Silk dyeing,	7.7	7.4	—	0.3
Silk throwing,	57.4	56.2	—	1.2
Silk mill supplies,	24.1	24.4	+	0.3
Silver goods,	24.5	26.3	+	1.8
Textile products,	36.4	33.2	—	3.2
Thread,	64.8	63.9	—	0.9
Trunk and bag hardware,	21.2	23.3	+	2.1
Underwear (women's and children's),	91.6	91.5	—	0.1
Watches, cases and material,	26.2	26.6	+	0.4
Woolen and worsted goods,	55.8	55.7	—	0.1
Totals,	34.6	41.8	+	7.2

Twenty-eight of the 55 industries which appear in the foregoing table show decrease, and 26 show increase in the percentage of females employed in 1903, as compared with 1902; one industry reports exactly the same percentage for both years. Only in 12 industries, among the 26 showing increase, has the growth in the number of female employes exceeded one per cent.; the highest of these occurs in the laundry industry, which shows

a proportion greater by 11.5 per cent. in 1903 than in 1902. All the remainder are under one per cent., and for the most part only from one to four-tenths of one per cent.

Sixteen industries showing decrease are above one per cent., and the remaining ten are so small a fraction of one per cent. as to be scarcely worthy of notice as indicating a change in the proportion of females employed. The most marked difference occurs in the manufacture of pearl buttons, which shows a decrease in the female labor force in 1903 of 8.2 per cent., as compared with 1902.

In 1902, 34.6 per cent. of the total number of persons employed in the 55 industries comprised in the table were females; in 1903, the proportion had risen to 41.8 per cent., an increase during the latter year of 7.2 per cent. On the whole there seems not to have been many changes in the proportion of females employed in these industries that is traceable to either a hostile or a friendly attitude on the part of manufacturers toward the employment of women. The industries having the largest proportion of female operatives show, generally speaking, the smallest variation in one year compared with another; a condition which would seem to indicate that the processes of production in these lines of manufacture are such that the labor can be advantageously divided under certain conditions peculiar to them among both sexes, and that although the total number of persons employed may become greater from year to year, the relative proportions of male and female employes will change but slowly, although it is still possible that further improvements in machinery, with the consequent elimination of hard and severe manual labor, may open the way for a still more extensive employment of women in manufacturing industries.

That the growth of the industries in which female labor is not employed was greatest is proven by the fact that in "All Industries," 1,811 establishments, the proportion of the total number of persons employed who were females, was 25.4 per cent. in 1902, and only 21.7 per cent. in 1903, a falling off of 3.7 per cent. in 1903, as compared with 1902. To make the matter plainer, it may be said that in the fifty-five industries, in which females are regularly employed, the proportion of women oper-

atives to the total number employed shows a gain of 7.2 per cent. in 1903 as compared with 1902; while for the same years, the proportion of female labor found in all the eighty-nine industries has fallen 3.7 per cent. in 1903 as compared with 1902.

Table No. 8 shows the aggregate amounts paid in wages by each of the 89 industries during the years 1902 and 1903, with the increase or decrease in 1903, both in amounts and by percentages.

The total amount paid in wages in "All Industries" during the year 1902 was \$101,870,338; in 1903, it was \$107,496,757, an increase of \$5,626,419, or 5.6 per cent. An increase in the amount paid in wages is shown by 67 industries, and a decrease by 22. The percentages of increase are mostly large, and those of decrease are, with a few exceptions, small. The greatest increase, numerically and by percentage, occurs in the cigar and tobacco industry, which disbursed \$923,856, or 71.2 per cent., more for wages in 1903 than was paid out in 1902. Other industries showing large increase in disbursements for the same purpose are: Electrical appliances, \$680,559, or 33.0 per cent.; machinery, \$787,500, or 8.4 per cent.; rubber goods, \$314,413, or 14.8 per cent.; foundry (iron), \$330,866, or 12.6 per cent., and, chemical products, \$262,145, or 10.9 per cent. As before stated, the decrease shown by the 22 industries reporting a falling off in wages paid, are mostly small in amounts and percentages, as will be seen by an examination of the table; the single exception to this rule occurs in the case of the "Smelting and Refining" industry, which reports a falling off in the total amount of wages paid in 1903, as compared with 1902, of \$572,871, or 31.7 per cent.

Table No. 9 shows the average yearly earnings for each of the 89 industries, and also for all industries combined. The data is given for 1903 in comparison with 1902, and the increase or decrease in amounts and percentages are also given in this table. The averages are obtained by dividing the total amount paid in wages in each industry by the average number of persons employed therein as shown on Table No. 5.

These averages are similarly obtained for both years, and are, therefore, a fair basis of comparison for the purpose of showing

the upward or downward tendency as the case may be in the yearly earnings of labor.

For "All Industries" therefore, it is shown by this table that the average yearly earnings for men, women and children taken indiscriminately, amounted in 1902 to \$467.44, and in 1903 to \$471.81, an increase of \$4.37, or 0.9 per cent.

Twenty-eight of the eighty-nine general industries show a decrease in average yearly earnings in 1903 as compared with 1902. The decrease reported by these ranges from 6.2 per cent. in Furnaces, Ranges and Heaters to 0.3 per cent in Foundry, and also in the manufacture of Inks and Mucilage. In several of the sixty industries which show an increase, the advance in yearly earnings for 1903 as compared with 1902 is quite large in both amounts and percentages.

The greatest increase occurs in the manufacture of Straw Hats, which shows an increase of \$110.94, or 27.8 per cent. in yearly earnings, notwithstanding the fact that practically 70 per cent of the operatives employed in that industry in 1903 were females.

The highest average yearly earnings both in 1902 and 1903 are found in "Brewery Products," which were \$868.99 and \$872.12 respectively, and the lowest average yearly earnings appear for "Silk Throwing," the amounts being \$264.19 in 1902, and \$259.19 in 1903. A careful examination of Table No. 9 will show that the increases or decreases in a large majority of the instances where they occur are merely nominal, and more likely to be caused by fluctuations in employment than to actual increase or decrease in wage rates.

That average yearly earnings have steadily increased of late years is shown by the following figures:

Average yearly earnings, all industries, 1900,	\$441	19
" " " " " 1901,	446	66
" " " " " 1902,	467	13
" " " " " 1903,	471	81

The increase in average yearly earnings in 1903 as compared with 1900 is \$30.62, or 6.9 per cent.

Table No. 10 shows the classified weekly wages for each of the eighty-nine industries and also for "All Industries" for the years 1902 and 1903.

The number of males and of females receiving the various rates ranging from less than \$5 to \$20. and over per week are given separately in this table. A study of this presentation in detail will convey an accurate understanding of prevailing weekly wage rates or earnings in the factory industries of the State for both the years of comparison. A separate classification of males and females in such industries as employ both sexes, together with the actual numbers receiving the rates of each class will be found in this table, and this is undoubtedly the best possible measure of prevailing wage rates in each occupation.

The following table in which the actual numbers of males and females receiving the various wage rates, and the same figures reduced to percentages is brought forward for "All Industries."

ALL INDUSTRIES—1,911 ESTABLISHMENTS.

CLASSIFICATION OF WEEKLY WAGES.	Numbers.					
	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5.	16,755	22,401	39,156	16,182	22,907	39,089
\$5 but under \$6.	7,177	11,334	18,511	7,268	11,425	18,693
6 " " 7.	8,345	8,758	17,103	8,578	9,513	18,091
7 " " 8.	16,131	6,159	22,290	14,602	7,070	21,672
8 " " 9.	16,195	4,044	20,239	16,047	4,727	20,774
9 " " 10.	24,912	2,660	27,572	25,396	3,121	28,517
10 " " 12.	25,182	2,556	27,738	27,707	2,989	30,696
12 " " 15.	27,887	1,528	29,415	27,810	1,640	29,450
15 " " 20.	28,416	539	28,955	29,931	495	30,426
20 and over.	12,481	65	12,546	13,063	76	13,139
Total.	183,481	60,044	243,525	186,584	63,963	250,547

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PERCENTAGE OF PERSONS RECEIVING SPECIFIED WAGES.

CLASSIFICATION OF WEEKLY WAGES.	Percentages.					
	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	9.13	37.31	16.08	8.67	35.81	15.60
\$5 but under \$9,	3.91	18.88	7.60	3.90	17.86	7.46
6 " " 7,	4.55	14.59	7.02	4.60	14.87	7.22
7 " " 8,	8.79	10.26	9.15	7.83	11.06	8.65
8 " " 9,	8.83	6.74	8.31	8.69	7.39	8.30
9 " " 10,	13.58	4.43	11.32	13.61	4.88	11.39
10 " " 12,	13.72	4.26	11.39	14.85	4.68	12.25
12 " " 15,	15.20	2.53	12.08	14.90	2.57	11.75
15 " " 20,	15.49	.89	11.89	16.04	.78	12.14
20 and over,	6.80	.11	5.16	7.00	.10	5.24
Total,	100.00	100.00	100.00	100.00	100.00	100.00

The above table shows a decrease in the number of both sexes receiving weekly wage rates of less than Nine Dollars in 1902; 35.21 per cent. of the total number of male employes were in that class, and in 1903 the proportion had fallen to 33.60 per cent., a decrease of 1.61 per cent. For 1902, 87.78 per cent. of the total number of female employes were paid the various rates under nine dollars per week, and in 1903, the proportion receiving wages under that limit showed a decrease of 0.79 per cent. In 1902 the proportion of the total number of employes, male and female, who received under nine dollars per week was 48.16 per cent; in 1903, it is shown to be 47.23, a difference of 0.93 per cent. The variations in these percentages, while small in amount, are still welcome indications that wage rates are slowly but steadily advancing, as every falling off in the number receiving the smaller amounts shows a corresponding increase of those receiving the larger.

Table No. 11 shows the average number of days in operation in each of the eighty-nine industries for the years of 1902 and 1903 with the increase or decrease in numbers shown in 1903 as compared with 1902, and the same is also shown on the bottom line of the table for "All Industries."

Forty-five industries report decreases ranging from 26.19 days in the manufacture of "Pearl Buttons," to 0.12 days in the "Woolen and Worsted Industry."

Forty-three industries show an increase in the number of days in operation which ranges from 34.25 days in "Oilcloth" (floor and table) downward to 0.44 days in the manufacture of "Leather."

For "All Industries," 1,811 establishments, the average number of days worked in 1902 is shown to be 289.70 days, while for 1903 it was 288.78 days, a net decrease of 0.92 days for the latter as compared with the earlier year.

A large proportion of the industries included in the presentation were operated during both years to within only a few days of the standard number, which omitting all holidays and Sundays is fixed at 306 days. Only five industries show a higher average number of days worked, these are: "Smelting and Refining," 325.00 days; "Laundry," 307.80 days; "Boilers," 307.77 days; "Paints," 307.50 days; and "Graphite Products," 306.80 days. Only one industry, that of manufacturing "Varnishes," reports precisely the same number of days in operation for its eighteen establishments during both years, this was 304.56.

Table No. 12 shows the average number of hours worked per day for each of the eighty-nine industries, and for "All Industries" in 1903 in comparison with data of the same character for 1902. The actual increase or decrease in hours is given without, however, the same being reduced to percentages.

In 1902 the lowest average number of hours worked per day was 8.70 in the manufacture of "Cornices and Skylights," and the highest, 10.89 appearing in "Smelting and Refining." In 1903, the lowest average is found in the manufacture of "Art Tile," the figures being 8.17, and the highest, exactly 11 hours per day, occurs in the production of "Pig Iron." Eleven industries worked ten hours per day and over in 1902, and fourteen are found working over the limit in 1903.

Seventeen industries show very slight increases in working hours and thirty-eight report equally unimportant decreases, the remaining thirty-three have had exactly the same working hours per day for both years. For "All Industries," the average number of working hours per day in 1902 was 9.72, in 1903 the number was 9.63. The difference is so infinitesimally small (nine one-hundredths of an hour) as to be practically of little or no account

beyond the fact that it points, however dimly, in the direction of a shorter work day.

Table No. 13 gives in percentages the average proportion of business done by each of the eighty-nine industries and by "All Industries" for the years 1902 and 1903, together with the percentage of increase or decrease in the average proportion of its full productive capacity to which each industry was operated during 1903 as compared with 1902.

It may be well to offer a brief explanation of just what is meant by "proportion of business." This term then is used to indicate how nearly an establishment or industry has approached in its operations the greatest volume of production of which it is capable during the year for which report is made, without enlarging the buildings or increasing the output of machinery. The purpose is to ascertain just how nearly existing manufacturing plants in the State are to being fully employed. To illustrate—suppose a manufacturing establishment equipped for the production of broad silk goods had all its looms and auxiliary machinery in full and uninterrupted operation during the year, employing at the same time a force sufficient to keep the entire plant working up to the highest point of productive efficiency. The "proportion of business done" in such an establishment or industry, that is to say, the greatest it is capable of, would be as a matter of course, 100 per cent. If the same establishment had only half its number of looms running and employed only a corresponding proportion of its full working force, manifestly its product would be only one-half the full capacity and its "proportion of business done," only 50 per cent. And so the percentage varies as the volume of product approaches the total productive capacity of the plant as it was during the year for which the report was made.

The proportion of business done by "All Industries" in 1902 was 77.76 per cent.; in 1903, it is reported as 76.53 per cent., a decrease in the latter year as compared with the former of 1.23 per cent.

Thirty out of the eighty-nine industries report increases of the proportion of business done during 1903 as compared with the previous year, which range from 17.70 per cent in "Boilers,"

down to 0.36 per cent. in the manufacture of "Underwear" for women and children. Other industries showing large percentages of increase are: "Art Tile," 9.17 per cent.; "Quarrying Stone," 7.46 per cent; "Printing and Bookbinding," 5.25 per cent. Decreases are reported for fifty-four industries, the percentages ranging from 17.19 in "Buttons" (pearl) to 0.25 in "Silk Dyeing."

Although nearly double in number, the percentages of decrease are so small generally, when considered with those of the industries showing increases, that one almost offsets the other, leaving as before stated, a net decrease in 1903 over 1902, of only 1.23 per cent.

The nearest approach to full capacity in 1902 and in 1903 is shown for "Thread," in which industry, production reaches exactly 95 per cent. of a possible 100 for both years. The next highest proportion appears for "Graphite Products," in which the establishments included under that heading ran to 88 per cent. of their full capacity in 1903, as against 85 per cent. in 1902. "Woolen and Worsted Goods" showed 88.46 per cent. in 1902, and 83.85 per cent in 1903, a falling off for 1903 in this important industry of 4.61 per cent. Thirty of the eighty-nine general industries were run to 80 per cent. and over of their full capacity in 1903 as against thirty-four that reached that proportion in 1902.

The industry showing the smallest proportion of business done for both years is the manufacture of "Silver Goods," which worked to 65 per cent. of its capacity in 1902, and to only 61.33 per cent. in 1903.

Although no one among the eighty-nine industries records production equal to its full capacity of 100 per cent., and only one among them all exceeded 90 per cent., it would be a mistake to suppose that there were not many individual establishments under the various industry headings that were operated during both years up to their full productive capacity. As a matter of fact, fully 60 per cent of the 1,811 establishments considered in these tables report a proportion of business done which ranges from 90 to 100 per cent., a majority of the number showing the highest figure; there were, however, enough less prosperous es-

tablishments to bring the proportion for each industry down to the percentages given on the table.

With the aid of the percentages of the proportion of business done given on this table, the value of the full product of each industry when run to its limit may be calculated with approximate correctness; to do so, it is only necessary to increase the value of goods made as shown on Table No. 4, by the amount necessary to bring the percentage of proportion given on Table No. 13 up to 100, and the result will show the full productive capacity of the industry for which the calculation may be made. To illustrate: Table No. 4 shows the aggregate value of product for "All Industries" to have been \$554,498,080, in 1903, and Table No. 13 gives the aggregate average "Proportion of Business Done" for the same year to be 76.53 per cent. To determine the highest possible volume of production of all these establishments, the reported value of \$554,498,080 should be increased by 23.47 per cent., which is the complement of 100 per cent. The result would show \$684,638,779 as the total value of the product of these 1,811 manufacturing establishments, if each one of them were run up to their fullest possible capacity.

Table No. 14 is a special industry presentation, in which the data relating to nine of the leading industries of the State are brought together in this form for the convenience of examination and review without having to select the figures appertaining to them from each of the thirteen general tables.

TABLE No. 1.—Private Firms and Corporations, Partners and Stockholders, by Industries, 1902.

Office Number.	INDUSTRIES.	Number of Establishments considered.	Number of Private Firms.	Partners.					Number of Corporations.	Stockholders.				Aggregates—Partners and Stockholders.
				Males.	Females.	Special.	Estates.	Total.		Males.	Females.	Banks as Trustees.	Total.	
1	Agricultural imp'm'ts.	8	4	6	...	...	...	6	4	58	15	5	78	84
2	Artisans' tools.	35	16	27	2	...	...	29	19	168	44	15	227	256
3	Art tile.	6	1	1	...	...	...	1	5	43	2	26	71	72
4	Boilers.	13	6	10	...	...	...	10	7	109	23	5	137	147
5	Boxes (wood and paper).	32	25	33	1	...	...	36	7	30	9	...	39	75
6	Brewing (lager beer, ale and porter).	32	4	5	...	...	...	5	28	1,048	63	7	1,118	1,123
7	Brick and terra cotta.	58	28	42	6	...	1	49	30	1,801	747	216	2,764	2,813
8	Brushes.	9	9	10	1	...	1	12	...	...	...	...	...	...
9	Buttons.	10	5	8	...	...	...	8	5	46	18	1	65	73
10	Buttons (pearl).	16	14	26	...	...	...	26	2	13	2	...	15	41
11	Carpets and rugs.	9	2	3	...	...	...	3	7	59	7	...	66	69
12	Carriages and wagons.	32	26	37	2	...	1	40	6	42	15	...	57	97
13	Chemical products.	42	3	10	...	...	...	10	39	876	609	112	1,597	1,607
14	Cigars and tobacco.	31	20	25	2	...	...	27	11	175	44	10	229	256
15	Clothing.	17	16	22	2	...	...	24	1	4	...	...	4	28
16	Confectionery.	6	3	6	...	...	...	6	3	12	6	...	18	24
17	Corsets and skylights.	13	7	9	...	...	...	9	6	19	10	...	29	38
18	Corsets and corset waists.	10	5	11	1	1	...	13	5	42	16	...	58	71
19	Cutlery.	9	4	5	1	...	...	6	5	25	4	3	32	38
20	Cotton goods.	28	14	22	...	...	...	22	14	173	40	8	221	243
21	Cotton goods (finishing and dyeing).	14	3	4	...	...	...	4	11	171	121	41	333	337
22	Drawn wire and wire cloth.	6	...	...	...	...	...	6	...	41	4	...	45	45
23	Electrical appliances.	25	5	5	...	1	...	6	20	2,885	257	24	3,166	3,172
24	Fertilizers.	12	2	7	...	...	...	7	10	2,685	11	1	2,697	2,704
25	Food products.	24	7	11	1	...	1	13	17	2,586	1,012	2	3,600	3,613
26	Foundry (brass).	12	6	7	...	...	...	7	6	37	2	...	39	46
27	Foundry (iron).	39	17	31	...	...	...	31	22	1,243	132	56	1,431	1,462
28	Furnaces, ranges and heaters.	15	4	6	...	...	1	7	11	518	259	32	809	816
29	Gas and electric light fixtures.	8	4	5	...	...	...	5	4	16	1	1	18	23
30	Glass (window and bottle).	22	3	6	...	...	1	7	19	185	48	3	236	243
31	Glass mirrors.	3	2	7	...	...	...	7	1	6	...	...	6	13
32	Graphite products.	5	1	1	...	...	...	1	4	102	62	9	173	174
33	Hats (felt).	45	28	50	...	2	...	52	17	95	14	...	109	161
34	Hats (straw).	3	3	4	...	...	...	4	...	...	...	...	...	4
35	High explosives.	8	...	...	...	...	...	8	...	59	6	2	67	67
36	Inks and mucilage.	6	1	2	...	...	...	2	5	30	2	1	33	35
37	Jewelry.	79	56	119	1	3	3	126	23	84	17	...	101	227
38	Knit goods.	11	9	10	...	2	...	12	2	87	69	38	194	206
39	Laundry.	10	3	6	...	...	...	6	7	46	6	...	52	58
40	Leather.	62	30	49	2	...	2	53	32	185	28	5	218	271
41	Leather goods.	15	11	21	...	...	...	21	4	17	11	...	28	46
42	Lamps.	8	3	4	1	...	...	5	5	38	...	...	3	41
43	Lime and cement.	95	30	35	1	...	...	36	65	584	203	59	846	882
44	Machinery.	7	2	4	...	...	...	4	5	19	...	...	19	23
45	Mattresses and bedding.	61	13	22	...	...	...	22	48	688	130	24	842	864
46	Metal goods.	11	5	7	...	...	...	7	6	42	11	...	53	60
47	Metal novelties.	6	...	...	...	...	...	6	343	206	92	641	641	641
48	Mining (iron ore).	17	7	11	...	...	...	11	10	236	27	6	269	280
49	Musical instruments.	8	4	6	...	...	...	6	4	162	52	...	214	220
50	Oilcloth (floor and table).	12	3	5	...	...	...	5	9	2,080	2,008	354	4,442	4,447
51	Oils.	12	3	5	...	...	...	5	9	2,080	2,008	354	4,442	4,447

40 STATISTICS OF LABOR AND INDUSTRIES.

TABLE No. 1.—Private Firms and Corporations, Partners and Stockholders, by Industries, 1902—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments considered.	Partners.					Number of Corporations.	Stockholders.				Aggregates—Partners and Stockholders.
			Number of Private Firms.	Males.	Females.	Special.	Estates.		Males.	Females.	Banks as Trustees.	Total.	
52	Paints,	8	4	6	...	...	...	6	4	48	23	71	77
53	Paper,	33	9	19	2	2	1	24	24	456	192	654	678
54	Pig iron,	3	1	1	...	...	...	1	2	139	22	165	166
55	Pottery,	34	9	19	2	2	...	23	25	399	136	579	602
56	Printing and bookbinding,	20	11	17	...	...	1	18	9	71	8	81	99
57	Quarrying stone,	14	6	7	2	...	1	10	8	58	3	62	72
58	Roofing (iron and stone)	7	...	...	...	...	...	7	163	11	1	175	175
59	Rubber goods (hard and soft),	33	...	...	...	...	...	33	2,593	1,333	104	4,030	4,030
60	Saddles and harness,	10	6	8	...	...	...	8	4	15	1	16	24
61	Saddlery and harness hardware,	12	11	15	1	...	...	16	1	2	1	3	19
62	Scientific instruments,	11	2	4	...	...	...	4	9	138	20	165	169
63	Sash, blinds and doors,	25	15	29	1	...	...	30	10	67	8	75	105
64	Shoes,	34	15	25	1	...	...	28	19	143	33	178	204
65	Shirts,	21	16	32	1	...	...	33	5	19	4	23	56
66	Shirt waists (women's),	7	7	8	1	...	...	9	...	...	...	9	9
67	Shipbuilding,	10	4	6	...	...	...	6	6	70	15	94	100
68	Silk (broad and ribbon)	123	60	110	4	...	...	114	63	333	46	385	499
69	Silk dyeing,	20	7	8	...	...	...	8	13	46	4	50	58
70	Silk throwing,	22	17	25	...	...	...	25	5	14	2	18	41
71	Silk mill supplies,	14	12	19	1	...	...	20	2	5	3	8	28
72	Silver goods,	15	8	17	1	...	...	18	7	53	25	80	98
73	Smelting and refining (gold, silver, copper, etc.),	9	2	3	...	...	...	3	7	101	24	126	129
74	Soap and tallow,	11	5	11	5	...	...	16	6	56	14	70	86
75	Steel and iron (bar),	7	1	...	1	...	...	1	6	43	8	55	56
76	Steel and iron (structural),	19	6	10	...	...	...	10	13	72	16	95	105
77	Steel and iron (forging),	12	3	3	...	...	...	3	9	192	82	299	302
78	Textile products,	7	2	5	...	...	...	5	5	53	20	74	79
79	Thread,	6	1	2	...	...	...	2	*5	*15	*3	*18	20
80	Trunks and traveling bags,	9	6	10	...	...	...	10	3	13	9	23	33
81	Trunk and bag hardware,	7	4	6	...	...	...	6	3	14	...	14	20
82	Typewriters and supplies,	4	2	3	...	...	...	3	2	55	5	60	63
83	Underwear (women's and children's),	19	16	28	2	...	...	30	3	15	5	20	30
84	Varnishes,	18	4	7	...	...	...	7	14	113	32	153	160
85	Watches, cases and material,	10	3	3	...	...	...	3	7	169	39	211	214
86	Window shades,	5	4	5	2	...	1	8	1	3	1	4	12
87	Wooden goods,	35	18	31	...	...	...	31	17	159	22	181	212
88	Woolen and worsted goods,	26	11	25	...	...	1	26	15	243	65	327	353
89	Unclassified,	58	21	35	1	...	...	36	37	12,084	205	12,324	12,360
All industries,		1811	803	1325	52	10	21	1408	1008	38,460	8,873	48,802	50,210

* Three establishments have not reported these items.

STATISTICS OF MANUFACTURES.

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TABLE No. 1.—Private Firms and Corporations, Partners and Stockholders, by Industries, 1903.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Partners.					Number of Corporations.	Stockholders.				Aggregates—Partners and Stockholders.
			Number of Private Firms.										
			Males.	Females.	Special.	Estates.	Total.		Males.	Females.	Banks, as Trustees.	Total.	
1	Agricultural implements, ..	8	4	6	..	..	6	4	57	13	6	76	82
2	Artisans' tools,	35	15	28	..	..	28	20	170	43	18	231	250
3	Art tile,	6	1	1	..	..	1	5	47	7	24	78	79
4	Boilers,	13	6	9	..	..	9	7	116	28	6	150	159
5	Boxes (wood and paper), ..	32	26	35	1	1	38	6	33	7	..	40	78
6	Brewing (lager beer, ale and porter),	32	5	6	..	..	6	28	1,028	81	5	1,114	1,120
7	Brick and terra cotta,	58	28	42	4	1	47	30	1,799	751	211	2,761	2,808
8	Brushes,	9	9	9	1	1	11	..	..	..	..	..	11
9	Buttons (metal),	10	5	8	..	..	8	5	41	11	1	53	61
10	Buttons (pearl),	16	11	19	..	..	19	5	22	2	..	24	43
11	Carpets and rugs,	9	2	3	..	..	3	7	37	12	..	49	52
12	Carriages and wagons,	32	25	36	2	1	39	7	44	16	..	60	99
13	Chemical products,	42	3	10	..	..	10	39	890	685	136	1,711	1,721
14	Cigars and tobacco,	31	17	20	..	..	20	14	180	47	10	237	257
15	Clothing,	17	16	23	2	..	25	1	3	..	..	3	28
16	Confectionery,	6	3	6	..	1	7	3	10	6	..	16	23
17	Cornices and skylights, ..	13	7	10	..	..	10	6	20	7	..	27	37
18	Corsets and corset waists, ..	10	5	9	..	3	12	5	41	13	..	54	66
19	Cutlery,	9	4	5	1	..	6	5	25	4	3	32	38
20	Cotton goods,	28	14	21	..	1	22	14	166	40	9	215	237
21	Cotton goods (finishing and dyeing),	14	3	4	..	..	4	11	176	123	48	347	351
22	Drawn wire and wire cloth, ..	6	..	..	..	..	..	6	46	8	..	54	54
23	Electric appliances,	25	5	5	1	..	6	20	2,907	267	22	3,196	3,202
24	Fertilizers,	12	2	6	..	..	6	10	2,647	10	1	2,658	2,664
25	Food products,	24	7	11	1	1	13	17	2,584	1,012	3	3,599	3,612
26	Foundry (brass),	12	6	8	..	..	8	6	36	3	1	40	48
27	Foundry (iron),	39	16	29	1	..	30	23	1,482	150	74	1,706	1,736
28	Furnaces, ranges and heaters,	15	4	6	..	1	7	11	540	273	32	845	852
29	Gas and electric light fixtures,	8	4	5	..	..	5	4	18	..	1	19	24
30	Glass (window and bottle), ..	22	3	5	..	1	6	19	210	51	3	264	270
31	Glass mirrors,	3	2	6	..	..	6	1	6	..	..	6	12
32	Graphite products,	5	1	1	..	..	1	4	100	61	10	171	172
33	Hats (felt),	45	29	53	..	2	55	16	88	11	..	99	154
34	Hats (straw),	3	3	4	..	..	4	..	..	..	..	..	4
35	High explosives,	8	..	..	..	..	..	8	61	5	2	68	68
36	Inks and mucilage,	6	1	2	..	..	2	5	31	2	1	34	36
37	Jewelry,	79	55	118	1	3	123	24	86	19	..	105	228
38	Knit goods,	11	7	9	..	..	9	4	103	69	37	209	218
39	Laundry,	10	3	6	..	..	6	7	67	7	..	74	80
40	Leather,	62	30	53	2	2	57	32	179	28	5	212	269
41	Leather goods,	15	10	19	..	1	20	5	18	11	..	29	49
42	Lamps,	8	4	5	..	..	5	4	85	8	2	95	100
43	Lime and cement,	8	..	..	..	..	..	8	232	75	18	325	325
44	Machinery,	95	28	32	1	1	34	67	709	245	77	1,031	1,065
45	Mattresses and bedding,	7	2	4	..	..	4	5	17	1	1	19	23
46	Metal goods,	61	13	21	..	..	21	48	682	130	26	838	859
47	Metal novelties,	11	5	7	..	..	7	7	50	10	..	60	67
48	Mining (iron ore),	6	..	..	..	..	..	7	355	217	88	660	660
49	Musical instruments,	17	6	9	..	..	9	11	124	7	5	136	145
50	Oilcloth (floor and table), ..	8	4	6	..	..	6	4	203	105	11	319	325
51	Oils,	12	2	3	..	..	3	10	2,145	2,125	307	4,577	4,580
52	Paints,	8	3	5	..	..	5	5	134	38	..	172	177
53	Paper,	33	8	15	2	2	20	25	458	196	5	659	679
54	Pig iron,	3	1	1	..	..	1	3	151	24	6	181	182
55	Pottery,	34	8	18	2	2	22	28	389	157	36	582	604

TABLE No. 1.—Private Firms and Corporations, Partners and Stockholders, by Industries, 1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Number of Private Firms.		Partners.					Number of Corporations.	Stockholders.				Aggregates—Partners and Stockholders.
					Males.	Females.	Special.	Estates.	Total.		Males.	Females.	Banks as Trustees.	Total.	
56	Printing and bookbinding,...	20	8	13	1	14	12	90	13	103	117				
57	Quarrying stone,	14	6	8	2	10	8	63	27	1	91				
58	Roofing (iron and stone),...	7	...	...	...	...	7	164	12	...	176
59	Rubber goods (hard and soft),	33	...	...	...	...	33	2,578	1,324	107	4,009
60	Saddles and harness,	10	5	7	...	7	5	19	4	...	23				
61	Saddlery and harness hardware,	12	11	15	1	16	1	2	1	...	3				
62	Scientific instruments,	11	3	5	...	5	9	136	20	8	164				
63	Sash, blinds and doors,	25	16	29	2	31	10	69	9	...	78				
64	Shoes,	34	14	24	1	25	20	143	34	2	179				
65	Shirts,	21	15	32	1	33	6	20	4	...	24				
66	Shirt waists (women's),	7	7	8	2	10	...	...	...	...	10
67	Shipbuilding,	9	4	6	...	6	5	74	14	5	93				
68	Silk (broad and ribbon),	123	57	103	2	2	107	66	357	58	5				
69	Silk dyeing,	20	7	8	...	8	13	48	4	...	52				
70	Silk throwing,	22	17	24	...	24	5	12	3	...	15				
71	Silk mill supplies,	14	12	20	1	21	2	5	3	...	8				
72	Silver goods,	15	8	18	1	19	7	56	29	6	91				
73	Smelting and refining (gold, silver, copper, etc.),...	9	1	2	...	2	8	152	25	1	178				
74	Soap and tallow,	11	5	11	5	16	6	57	13	...	70				
75	Steel and iron (bar),	7	1	1	...	1	6	36	6	...	42				
76	Steel and iron (structural),	19	5	8	...	8	16	340	53	26	419				
77	Steel and iron (forging),	12	3	3	...	3	9	196	87	26	309				
78	Textile products,	7	2	5	...	5	5	53	20	1	74				
79	Thread,	6	1	2	...	2	5	15	...	3	18				
80	Trunks and traveling bags,	9	6	10	...	10	3	14	8	1	23				
81	Trunk and bag hardware,...	7	5	9	...	9	3	14	...	...	14		
82	Typewriters and supplies,...	4	2	3	...	3	2	54	5	...	59				
83	Underwear (women's and children's),	19	15	25	2	27	4	15	5	1	21				
84	Varnishes,	18	3	5	...	5	15	120	33	11	164				
85	Watches, cases and material,	10	3	3	...	3	7	158	41	2	201				
86	Window shades,	5	4	5	2	1	8	10	...	...	10		
87	Wooden goods,	35	17	27	...	27	18	167	23	...	190				
88	Woolen and worsted goods,	26	12	26	...	26	14	237	71	9	317				
89	Unclassified,	58	21	34	1	35	37	13,771	224	42	14,037				
All Industries,		1811	777	1280	45	12	21	1358	1034	41,093	9,394	1,508	51,995		

* Three establishments have not reported these items.

TABLE No. 2.—Capital Invested, by Industries. Increase or Decrease, 1902-1903.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Amount of Capital Invested.		Increase (+) or Decrease (—) in 1903.		
			1902.	1903.	Amount.	Percentage.	
1	Agricultural implements, ...	8	\$1,551,095	\$1,636,493	+	\$85,398	+ 5.5
2	Artisans' tools,	35	4,843,101	5,146,254	+	303,153	+ 6.2
3	Art tile,	6	317,444	276,000	—	41,444	— 13.0
4	Boilers,	13	2,342,724	2,484,450	+	141,726	+ 6.0
5	Boxes (wood and paper),	32	654,475	683,858	+	29,383	+ 4.5
6	Brewing (lager beer, ale and porter),	32	19,891,367	20,641,006	+	749,639	+ 3.7
7	Brick and terra cotta,	58	8,700,947	8,526,505	—	174,442	— 2.0
8	Brushes,	9	116,800	121,350	+	4,550	+ 3.9
9	Buttons (metal),	10	1,170,000	1,188,000	+	18,000	+ 1.5
10	Buttons (pearl),	16	306,050	320,050	+	14,000	+ 4.6
11	Carpets and rugs,	9	1,270,000	1,436,000	+	166,000	+ 13.0
12	Carriages and wagons,	32	1,159,630	1,167,064	+	7,434	+ 0.6
13	Chemical products,	42	22,093,200	23,280,939	+	1,187,739	+ 5.0
14	Cigars and tobacco,	31	7,705,048	8,278,792	+	573,744	+ 7.4
15	Clothing,	17	244,500	217,000	—	27,500	— 11.2
16	Confectionery,	6	146,000	181,000	+	35,000	+ 23.9
17	Cornices and skylights,	13	276,800	247,035	—	29,765	— 10.7
18	Corsets and corset waists,	10	782,372	794,400	+	12,028	+ 1.5
19	Cutlery,	9	524,312	552,034	+	27,722	+ 5.3
20	Cotton goods,	28	4,908,625	4,933,625	+	25,000	+ 0.5
21	Cotton goods (finishing and dyeing),	14	4,664,183	4,525,266	—	138,917	— 3.0
22	Drawn wire and wire cloth,	6	746,002	810,937	+	64,935	+ 8.7
23	Electrical appliances,	25	14,968,266	15,580,099	+	611,833	+ 4.1
24	Fertilizers,	12	2,832,128	2,902,305	+	50,177	+ 1.7
25	Food products,	24	3,925,271	4,306,243	+	380,972	+ 9.7
26	Foundry (brass),	12	819,422	716,115	—	103,307	— 12.6
27	Foundry (iron),	39	3,590,695	3,756,150	+	165,455	+ 4.6
28	Furnaces, ranges and heaters,	15	5,514,617	5,578,001	+	63,384	+ 1.1
29	Gas and electric light fixtures,	8	272,800	261,950	—	10,850	— 3.9
30	Glass (window and bottle),	22	4,810,760	4,954,165	+	143,405	+ 2.9
31	Glass mirrors,	3	128,200	255,000	+	126,800	+ 98.9
32	Graphite products,	5	1,528,500	1,528,500	—	—	—
33	Hats (felt),	45	2,846,656	2,545,462	—	301,194	— 10.5
34	Hats (straw),	3	262,574	394,419	+	131,845	+ 50.2
35	High explosives,	8	3,175,000	3,200,000	+	25,000	+ 0.8
36	Inks and mudlage,	6	496,368	496,368	—	—	—
37	Jewelry,	79	3,931,286	4,520,792	+	589,506	+ 14.9
38	Knit goods,	11	1,298,108	1,248,368	—	49,740	— 3.8
39	Laundry,	10	565,500	566,000	+	500	—
40	Leather,	62	7,974,522	8,402,398	+	427,876	+ 5.4
41	Leather goods,	15	895,000	879,500	—	15,500	— 1.7
42	Lamps,	8	1,985,090	2,251,615	+	266,525	+ 13.4
43	Lime and cement,	8	3,730,539	3,944,130	+	213,591	+ 5.7
44	Machinery,	95	19,611,319	21,715,418	+	2,104,099	+ 10.7
45	Mattresses and bedding,	7	102,500	282,000	+	179,500	+ 175.1
46	Metal goods,	61	7,781,972	8,110,077	+	328,105	+ 4.2
47	Metal novelties,	11	664,100	708,300	+	44,200	+ 6.6
48	Mining (iron ore),	6	1,840,969	1,849,310	+	8,341	+ 0.4
49	Musical instruments,	17	2,404,209	2,095,096	—	309,113	— 12.8
50	Oilcloth (floor and table),	8	1,868,000	2,457,956	+	589,956	+ 31.5
51	Oils,	12	17,852,108	17,043,302	—	808,806	— 4.5
52	Paints,	8	1,292,627	1,497,834	+	205,207	+ 15.9
53	Paper,	33	5,548,185	5,155,897	—	392,288	— 7.7
54	Pig iron,	3	1,833,519	1,901,987	+	68,468	+ 3.7
55	Pottery,	34	6,875,263	7,250,152	+	374,889	+ 5.5
56	Printing and bookbinding,	20	635,693	680,243	+	44,550	+ 7.0
57	Quarrying stone,	14	443,307	473,207	+	299,000	+ 67.4

44 STATISTICS OF LABOR AND INDUSTRIES.

TABLE No. 2.—Capital Invested, by Industries. Increase or Decrease, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Amount of Capital Invested.		Increase (+) or Decrease (—) in 1903.		
			1902.	1903.	Amount.	Percentage.	
58	Roofing (iron and stone),....	7	\$520,000	\$585,000	+	\$65,000	+ 12.5
59	Rubber goods (hard and soft),	33	9,753,853	10,201,529	+	447,676	+ 4.6
60	Saddles and harness,.....	10	152,250	153,250	+	1,000	+ 0.6
61	Saddlery and harness hardware,	12	405,500	426,500	+	21,000	+ 5.1
62	Scientific instruments,	11	1,747,000	1,781,000	+	34,000	+ 1.9
63	Sash, blinds and doors,.....	25	1,333,055	1,487,852	+	154,797	+ 11.6
64	Shoes,	34	1,990,467	2,020,256	+	29,789	+ 1.5
65	Shirts,	21	725,600	672,554	—	53,046	— 7.3
66	Shirt waists (women's),	7	74,900	86,900	+	12,000	+ 16.0
67	Shipbuilding,	10	6,135,687	7,204,334	+	1,068,647	+ 17.4
68	Silk (broad and ribbon),.....	123	20,436,121	20,727,704	+	291,583	+ 1.4
69	Silk dyeing,	20	3,656,222	3,668,558	+	12,336	+ 0.3
70	Silk throwing,	22	780,281	757,450	—	22,831	— 2.9
71	Silk mill supplies,.....	14	514,591	564,100	+	49,509	+ 9.6
72	Silver goods,	15	1,143,798	1,146,387	+	2,589	+ 0.2
73	Smelting and refining (gold, silver, copper, etc.),.....	9	5,465,000	4,395,000	—	1,070,000	— 19.6
74	Soap and tallow,	11	1,844,110	2,098,110	+	254,000	+ 13.8
75	Steel and iron (bar),.....	7	1,604,234	1,758,668	+	154,434	+ 9.6
76	Steel and iron (structural)...	19	2,226,936	2,800,697	+	573,761	+ 25.8
77	Steel and iron (forging),.....	12	4,579,657	4,550,058	—	29,599	— 0.6
78	Textile products,	7	837,000	873,500	+	36,500	+ 4.4
79	Thread,	6	* 3,040,000	* 3,040,000	.....	.....	.....
80	Trunks and traveling bags,...	9	687,000	703,000	+	16,000	+ 2.3
81	Trunk and bag hardware,....	7	501,000	503,500	+	2,500	+ 0.5
82	Typewriters and supplies,...	4	615,000	620,000	+	5,000	+ 0.8
83	Underwear (women's and children's),	19	493,900	522,900	+	29,000	+ 5.8
84	Varnishes,	18	3,724,901	4,121,294	+	396,393	+ 10.6
85	Watches, cases and material, ..	10	2,170,000	2,135,310	—	34,690	— 1.6
86	Window shades,	5	172,000	210,000	+	38,000	+ 22.1
87	Wooden goods,	35	1,827,600	1,846,906	+	19,306	+ 1.0
88	Woolen and worsted goods,...	26	8,748,539	9,297,741	+	549,202	+ 6.3
89	Unclassified,	58	20,502,856	21,428,942	+	926,086	+ 4.5
	All industries,	1811	\$327,148,806	\$339,345,417	+	\$12,196,601	+ 3.7

* One establishment has not reported this item.

TABLE No. 3.—Cost Value of Stock or Material Used, by Industries.
Increase or Decrease, 1902-1903.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Cost Value of Stock or Material Used.		Increase (+) or Decrease (—) in 1903.		
			1902.	1903.	Amount.	Percentage.	
1	Agricultural implements, ...	8	\$340,930	\$473,887	+	\$132,957	+ 38.9
2	Artisans' tools,	35	929,638	1,110,142	+	180,504	+ 19.4
3	Art tile,	6	49,547	106,730	+	57,183	+ 115.4
4	Boilers,	13	3,173,323	2,770,488	—	402,835	— 12.7
5	Boxes (wood and paper),	32	744,461	790,621	+	46,160	+ 6.2
6	Brewing (lager beer, ale and porter),	32	4,373,797	4,486,656	+	112,859	+ 2.6
7	Brick and terra cotta,	58	2,029,647	2,145,389	+	115,742	+ 5.7
8	Brushes,	9	88,369	89,814	+	1,445	+ 1.6
9	Buttons (metal),	10	457,040	472,056	+	15,016	+ 3.3
10	Buttons (pearl),	16	586,205	646,150	+	59,945	+ 10.2
11	Carpets and rugs,	9	1,146,347	1,322,592	+	176,245	+ 15.4
12	Carriages and wagons,	32	757,765	784,609	+	26,844	+ 3.5
13	Chemical products,	42	9,683,145	10,478,455	+	795,310	+ 8.2
14	Cigars and tobacco,	31	4,885,897	6,084,702	+	1,198,805	+ 24.5
15	Clothing,	17	* 435,152	† 523,055	+	87,903	+ 20.2
16	Confectionery,	6	398,224	424,970	+	26,746	+ 6.7
17	Cornices and skylights,	13	353,175	351,443	—	1,732	— 0.5
18	Corsets and corset waists,	10	867,258	837,814	—	29,444	— 3.4
19	Cutlery,	9	233,255	259,793	+	26,538	+ 11.4
20	Cotton goods,	28	4,050,303	4,366,411	+	316,108	+ 7.8
21	Cotton goods (finishing and dyeing),	14	4,443,433	4,443,552	+	119	.....
22	Drawn wire and wire cloth,	6	11,901,722	11,843,513	—	58,209	— 0.5
23	Electrical appliances,	25	6,553,204	13,037,764	+	6,484,560	+ 99.0
24	Fertilizers,	12	2,786,241	3,319,904	+	533,663	+ 19.1
25	Food products,	24	13,938,198	13,470,405	—	467,793	— 3.4
26	Foundry (brass),	12	1,159,024	1,117,286	—	41,738	— 3.6
27	Foundry (iron),	39	5,268,562	6,205,505	+	936,943	+ 17.8
28	Furnaces, ranges and heaters,	15	2,306,707	2,572,896	+	266,189	+ 11.5
29	Gas and electric light fixtures,	8	159,693	159,458	—	235	.....
30	Glass (window and bottle),	22	2,266,221	2,444,620	+	178,399	+ 7.9
31	Glass mirrors,	3	408,688	277,281	—	131,407	— 32.1
32	Graphite products,	5	772,622	904,685	+	132,063	+ 17.1
33	Hats (felt),	45	4,456,837	3,963,003	—	493,834	— 11.0
34	Hats (straw),	3	290,853	338,020	+	38,167	+ 12.7
35	High explosives,	8	2,880,953	2,727,409	—	153,544	— 5.3
36	Inks and mucilage,	6	158,871	166,639	+	7,768	+ 4.9
37	Jewelry,	79	4,035,262	4,248,360	+	213,098	+ 5.3
38	Knit goods,	11	871,213	738,803	—	132,410	— 15.2
39	Laundry,	10	244,682	259,825	+	15,142	+ 6.2
40	Leather,	62	12,948,856	10,913,513	—	2,035,343	— 15.7
41	Leather goods,	15	1,052,094	1,193,127	+	141,033	+ 13.4
42	Lamps,	8	2,171,397	1,537,396	—	634,001	— 29.2
43	Lime and cement,	8	1,577,329	2,396,378	+	819,049	+ 51.9
44	Machinery,	95	10,374,335	12,376,158	+	2,001,823	+ 19.3
45	Mattresses and bedding,	7	272,343	304,562	+	32,219	+ 11.8
46	Metal goods,	61	4,294,806	4,556,699	+	261,893	+ 6.1
47	Metal novelties,	11	500,398	605,546	+	105,148	+ 21.0
48	Mining (iron ore),	6	311,835	385,335	+	73,500	+ 23.5
49	Musical instruments,	17	1,119,624	1,278,947	+	159,323	+ 14.2
50	Oilcloth (floor and table),	8	2,121,115	2,766,348	+	645,233	+ 30.4
51	Oils,	12	30,491,344	37,612,862	+	7,121,518	+ 23.3
52	Paints,	8	2,247,221	2,407,025	+	159,804	+ 7.1
53	Paper,	33	3,931,367	3,840,839	—	90,528	— 2.3
54	Pig iron,	3	2,091,687	2,640,979	+	549,292	+ 26.2
55	Pottery,	34	1,456,692	1,543,147	+	86,455	+ 5.9
56	Printing and bookbinding,	20	622,259	787,210	+	164,951	+ 26.0
57	Quarrying stone,	14	278,580	401,811	+	123,231	+ 44.2

TABLE No. 3.—Cost Value of Stock or Material Used, by Industries.
Increase or Decrease, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Cost Value of Stock or Material Used.		Increase (+) or Decrease (—) in 1903.		
			1902.	1903.	Amount.	Percentage.	
58	Roofing (iron and stone),....	7	\$1,078,585	\$1,217,983	+	\$139,398	+ 13.0
59	Rubber goods (hard and soft),	33	9,589,553	10,760,741	+	1,171,188	+ 12.2
60	Saddles and harness,.....	10	227,522	202,524	—	24,998	— 10.9
61	Saddlery and harness hardware,	12	247,506	243,326	—	4,180	— 1.7
62	Scientific instruments,	11	1,131,181	1,198,669	+	67,488	+ 5.9
63	Sash, blinds and doors,.....	25	1,225,889	1,299,504	+	73,615	+ 6.0
64	Shoes,	34	3,417,443	3,805,954	+	388,511	+ 11.3
65	Shirts,	21	1,196,294	1,150,646	—	45,648	— 3.8
66	Shirt waists (women's),	7	264,367	282,046	+	17,679	+ 6.7
67	Shipbuilding,	10	2,049,404	2,360,977	+	311,573	+ 15.2
68	Silk (broad and ribbon),.....	123	24,588,978	25,868,180	+	1,279,202	+ 5.2
69	Silk dyeing,	20	2,832,297	3,170,552	+	338,255	+ 11.9
70	Silk throwing,	22	398,551	376,380	—	22,171	— 5.5
71	Silk mill supplies,.....	14	242,876	184,814	—	58,062	— 23.9
72	Silver goods,	15	997,144	1,016,377	+	19,233	+ 1.9
73	Smelting and refining (gold, silver, copper, etc.),.....	9	\$ 32,747,733	\$ 36,307,559	+	3,559,826	+ 10.9
74	Soap and tallow,.....	11	2,374,895	2,735,060	+	360,165	+ 15.1
75	Steel and iron (bar),.....	7	1,462,495	1,329,739	—	132,756	— 9.0
76	Steel and iron (structural),...	19	4,914,342	4,608,472	—	305,870	— 6.2
77	Steel and iron (forging),.....	12	3,199,676	2,752,348	—	447,328	— 13.9
78	Textile products,	7	814,098	853,689	+	39,591	+ 4.8
79	Thread,	6	\$ 1,765,063	\$ 1,780,876	+	15,813	+ 0.9
80	Trunks and traveling bags,...	9	474,982	474,533	—	449	— 0.1
81	Trunk and bag hardware,...	7	502,292	605,453	+	103,161	+ 20.5
82	Typewriters and supplies,...	4	132,715	139,239	+	6,524	+ 4.9
83	Underwear (women's and children's),	19	960,082	1,021,694	+	61,612	+ 6.4
84	Varnishes,	18	1,814,450	1,860,436	+	45,986	+ 2.5
85	Watches, cases and material,...	10	1,446,960	1,721,939	+	274,979	+ 19.0
86	Window shades,	5	443,000	432,800	—	10,200	— 2.3
87	Wooden goods,	35	851,813	923,238	+	71,425	+ 8.4
88	Woolen and worsted goods,...	26	9,343,338	9,612,346	+	269,008	+ 2.9
89	Unclassified,	58	7,819,390	8,886,565	+	1,067,175	+ 13.6
	All industries,	1811	\$298,918,930	\$326,497,266	+	\$27,578,336	+ 9.2

* Five establishments employing 372 hands have not reported this item.

† Five establishments employing 318 hands have not reported this item.

‡ One establishment has not reported this item.

§ Two establishments have not reported this item.

STATISTICS OF MANUFACTURES.

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TABLE No. 4.—Value of Goods Made or Work Done, by Industries.
Increase or Decrease, 1902-1903.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Selling Value of Goods Made or Work Done.		Increase (+) or Decrease (—) in 1903.		
			1902.	1903.	Amount.	Percentage.	
1	Agricultural implements, . . .	8	\$1,143,536	\$2,362,655	+	\$1,219,119	+ 106.6
2	Artisans' tools,	35	2,573,553	2,954,324	+	380,771	+ 14.8
3	Art tile,	6	185,429	315,940	+	130,511	+ 70.4
4	Boilers,	13	4,560,126	4,743,388	+	183,262	+ 4.0
5	Boxes (wood and paper), . . .	32	1,497,768	1,612,471	+	114,703	+ 7.6
6	Brewing (lager beer, ale and porter),	32	13,319,686	14,134,184	+	814,498	+ 6.1
7	Brick and terra cotta,	58	6,284,540	6,230,099	+	45,559	+ 0.7
8	Brushes,	9	269,295	276,475	+	7,180	+ 2.6
9	Buttons (metal),	10	1,326,369	1,378,810	+	52,441	+ 3.9
10	Buttons (pearl),	16	1,162,113	1,135,365	—	26,748	— 2.3
11	Carpets and rugs,	9	2,122,217	2,418,560	+	296,343	+ 13.9
12	Carriages and wagons,	32	1,783,557	1,834,264	+	50,707	+ 2.9
13	Chemical products,	42	17,240,514	18,928,318	+	1,687,804	+ 9.8
14	Cigars and tobacco,	31	11,321,557	14,982,287	+	3,660,730	+ 32.3
15	Clothing,	17	* 927,057	† 1,041,700	+	114,643	+ 12.3
16	Confectionery,	6	565,358	646,594	+	81,236	+ 14.4
17	Cornices and skylights, . . .	13	692,602	669,182	—	23,420	— 3.4
18	Corsets and corset waists, . .	10	2,199,064	2,294,698	+	95,634	+ 4.3
19	Cutlery,	9	709,476	733,850	+	24,374	+ 3.4
20	Cotton goods,	28	6,335,855	6,998,546	+	662,691	+ 10.5
21	Cotton goods (finishing and dyeing),	14	7,098,893	7,260,751	+	161,858	+ 2.3
22	Drawn wire and wire cloth, . .	6	15,369,199	15,302,598	—	66,601	— 0.4
23	Electrical appliances,	25	11,416,042	18,220,314	+	6,814,272	+ 59.7
24	Fertilizers,	12	4,173,151	4,915,270	+	742,119	+ 17.8
25	Food products,	24	16,493,274	16,776,155	+	282,881	+ 1.7
26	Foundry (brass),	12	1,925,619	1,932,195	+	6,576	+ 0.3
27	Foundry (iron),	39	9,331,489	11,038,379	+	1,706,890	+ 18.3
28	Furnaces, ranges and heaters,	15	4,590,501	5,050,187	+	459,686	+ 10.0
29	Gas and electric light fixtures,	8	388,180	358,265	—	29,915	— 7.7
30	Glass (window and bottle), . .	22	6,269,055	6,691,062	+	422,007	+ 6.7
31	Glass mirrors,	3	491,359	384,555	—	106,804	— 21.7
32	Graphite products,	5	1,549,000	1,686,595	+	137,595	+ 8.9
33	Hats (felt),	45	9,140,112	9,245,813	+	105,701	+ 11.6
34	Hats (straw),	3	635,975	846,434	+	210,459	+ 33.1
35	High explosives,	8	4,844,381	5,017,427	+	173,046	+ 3.6
36	Inks and mucilage,	6	337,294	365,596	+	28,302	+ 8.4
37	Jewelry,	79	8,057,569	8,378,649	+	321,080	+ 3.9
38	Knit goods,	11	1,550,574	1,840,338	+	210,236	+ 13.5
39	Laundry,	10	770,875	814,156	+	43,281	+ 5.6
40	Leather,	62	18,482,075	18,137,212	—	344,863	— 1.9
41	Leather goods,	15	1,991,873	2,148,111	+	156,238	+ 7.8
42	Lamps,	8	4,390,864	2,991,322	—	1,399,542	— 31.9
43	Lime and cement,	8	3,155,288	4,207,490	+	1,052,202	+ 33.3
44	Machinery,	95	24,824,842	27,278,465	+	2,453,623	+ 9.9
45	Mattresses and bedding,	7	447,191	499,880	+	52,689	+ 11.8
46	Metal goods,	61	8,103,588	8,550,707	+	447,119	+ 5.5
47	Metal novelties,	11	1,174,773	1,262,356	+	87,583	+ 7.4
48	Mining (iron ore),	6	1,058,228	1,254,420	+	196,192	+ 18.5
49	Musical Instruments,	17	3,190,810	3,413,957	+	223,147	+ 7.0
50	Oilcloth (floor and table), . .	8	3,194,109	4,279,765	+	1,085,656	+ 33.9
51	Oils,	12	37,484,992	45,639,819	+	8,154,827	+ 21.8
52	Paints,	8	3,020,024	3,482,122	+	462,098	+ 15.3
53	Paper,	33	6,626,297	6,497,756	—	128,541	— 1.9
54	Pig Iron,	3	2,600,305	2,945,434	+	345,129	+ 13.3
55	Pottery,	34	5,165,998	5,510,715	+	344,717	+ 6.7
56	Printing and bookbinding, . . .	20	1,798,623	2,362,582	+	563,959	+ 31.4
57	Quarrying stone,	14	940,368	1,194,893	+	254,525	+ 27.1

TABLE No. 4.—Value of Goods Made or Work Done, by Industries.
Increase or Decrease, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Selling Value of Goods Made or Work Done.		Increase (+) or Decrease (—) in 1903.		
			1902.	1903.	Amount.	Percentage.	
58	Roofing (iron and stone),....	7	\$1,908,008	\$2,141,983	+	\$233,975	+ 12.3
59	Rubber goods (hard and soft),	33	14,311,866	16,540,268	+	2,228,402	+ 15.6
60	Saddles and harness,.....	10	473,073	435,224	—	37,849	— 8.0
61	Saddlery and harness hardware,	12	728,517	728,696	+	179	.....
62	Scientific instruments,	11	2,441,843	2,650,962	+	209,119	+ 8.6
63	Sash, blinds and doors,.....	25	2,178,726	2,244,982	+	66,256	+ 3.0
64	Shoes,	34	6,033,053	6,568,955	+	535,902	+ 8.9
65	Shirts,	21	2,784,376	2,573,046	—	211,330	— 7.6
66	Shirt waists (women's),	7	481,975	516,274	+	34,299	+ 7.1
67	Shipbuilding,	10	4,748,077	5,278,980	+	530,903	+ 11.2
68	Silk (broad and ribbon),.....	123	41,364,594	42,651,362	+	1,286,768	+ 3.1
69	Silk dyeing,	20	5,632,327	6,269,091	+	636,764	+ 11.3
70	Silk throwing,	22	852,682	915,136	+	62,454	+ 7.3
71	Silk mill supplies,.....	14	680,867	616,752	—	64,115	— 9.4
72	Silver goods,	15	2,457,655	2,487,840	+	30,185	+ 1.2
73	Smelting and refining (gold, silver, copper, etc.),.....	9	\$ 38,801,468	\$ 48,648,779	+	9,847,311	+ 25.4
74	Soap and tallow,.....	11	3,610,805	4,125,986	+	515,181	+ 14.3
75	Steel and iron (bar),.....	7	2,280,098	2,081,279	—	198,819	— 8.7
76	Steel and iron (structural),...	19	7,873,897	7,538,553	—	335,344	— 4.3
77	Steel and iron (forging),....	12	5,931,583	5,850,081	—	81,502	— 1.4
78	Textile products,	7	1,390,180	1,470,298	+	80,118	+ 5.9
79	Thread,	6	\$ 4,302,306	\$ 4,320,517	+	18,211	+ 0.4
80	Trunks and traveling bags,...	9	1,017,692	1,008,340	—	9,352	— 0.9
81	Trunk and bag hardware,...	7	1,117,604	1,235,662	+	118,058	+ 10.6
82	Typewriters and supplies,...	4	391,397	430,858	+	39,461	+ 10.1
83	Underwear (women's and children's),	19	1,913,437	2,009,499	+	96,062	+ 5.0
84	Varnishes,	18	3,827,602	3,920,353	+	92,751	+ 2.4
85	Watches, cases and material,...	10	3,133,697	3,649,372	+	515,675	+ 16.4
86	Window shades,	5	602,000	575,500	—	26,500	— 4.4
87	Wooden goods,	35	2,244,094	2,419,899	+	175,805	+ 7.8
88	Woolen and worsted goods,...	26	14,696,962	14,603,410	—	93,552	— 0.6
89	Unclassified,	58	13,282,452	14,906,088	+	1,624,236	+ 12.2
	All Industries,	1811	\$501,797,405	\$554,498,090	+	\$52,700,675	+ 10.5

* Five establishments employing 372 hands have not reported this item.

† Five establishments employing 318 hands have not reported this item.

‡ One establishment has not reported this item.

§ Two establishments have not reported these items.

TABLE No. 5.—Smallest, Greatest and Average Number of Persons Employed, by Industries. Aggregates, 1902-1903.

In this table, by the terms "Periods of Employment of the Smallest Number" and "Periods of Employment of the Greatest Number," are meant those times as regards Aggregate Number of Persons Employed—when the smallest or greatest number respectively were employed. It must be borne in mind that the number of persons here enumerated are wage-earners only—officers, clerks and salaried persons are excluded.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Aggregate Average Number of Persons Employed.		Aggregates of Persons Employed at Periods of Employment of			
					Smallest Number.		Greatest Number.	
			1902.	1903.	1902.	1903.	1902.	1903.
1	Agricultural implements, . . .	8	359	495	291	368	424	616
2	Artisans' tools,	35	1,733	1,964	1,646	1,915	1,910	1,999
3	Art tile,	6	168	238	105	192	233	270
4	Bollers,	13	1,324	1,755	1,265	1,514	1,381	1,941
5	Boxes (wood and paper), . . .	32	1,459	1,476	1,406	1,433	1,494	1,544
6	Brewing (lager beer, ale and porter),	32	1,869	1,985	1,835	1,930	1,935	2,061
7	Brick and terra cotta,	58	5,341	5,293	3,783	3,701	6,532	6,524
8	Brushes,	9	219	232	187	210	239	248
9	Buttons (metal),	10	934	977	896	969	969	1,054
10	Buttons (pearl),	16	897	788	775	899	968	884
11	Carpets and rugs,	9	1,557	1,755	1,122	1,670	1,793	1,797
12	Carriages and wagons,	32	975	944	906	904	1,024	994
13	Chemical products,	42	5,004	5,485	4,525	5,145	5,185	5,669
14	Cigars and tobacco,	31	4,029	6,952	3,922	6,360	4,141	7,469
15	Clothing,	17	1,135	1,097	1,030	1,023	1,221	1,162
16	Confectionery,	6	208	205	180	188	247	230
17	Cornices and skylights, . . .	13	538	409	443	334	748	476
18	Corsets and corset waists, . .	10	1,927	1,893	1,774	1,859	2,030	1,931
19	Cutlery,	9	746	796	687	769	791	799
20	Cotton goods,	28	4,611	4,948	4,361	4,710	4,885	5,204
21	Cotton goods (finishing and dyeing),	14	3,579	3,696	3,178	3,620	3,714	3,749
22	Drawn wire and wire cloth, . .	6	4,638	4,722	4,140	4,174	4,901	4,968
23	Electrical appliances,	25	4,397	5,515	3,791	5,037	5,030	5,726
24	Fertilizers,	12	1,075	1,265	904	1,066	1,254	1,597
25	Food products,	24	2,001	2,145	1,747	1,920	2,221	2,554
26	Foundry (brass),	12	906	968	849	939	971	1,006
27	Foundry (iron),	39	4,852	5,479	4,377	5,097	5,265	5,830
28	Furnaces, ranges and heaters,	15	1,530	1,599	1,441	1,553	1,650	1,652
29	Gas and electric light fixtures,	8	294	278	271	264	312	297
30	Glass (window and bottle), . .	22	6,138	6,159	1,599	1,215	7,617	7,839
31	Glass mirrors,	3	146	159	122	125	167	175
32	Graphite products,	5	1,407	1,492	1,314	1,364	1,492	1,574
33	Hats (felt),	45	6,726	6,559	6,315	6,240	7,080	7,181
34	Hats (straw),	3	436	412	132	113	613	597
35	High explosives,	8	1,239	1,264	1,199	1,224	1,270	1,295
36	Inks and mucilage,	6	91	92	83	87	101	102
37	Jewelry,	79	2,821	2,927	2,647	2,840	3,116	3,079
38	Knit goods,	11	1,369	1,254	1,288	1,172	1,412	1,296
39	Laundry,	10	810	797	773	779	832	828
40	Leather,	62	5,259	5,540	4,974	5,283	5,410	5,895
41	Leather goods,	15	1,380	1,302	1,193	1,216	1,471	1,359
42	Lamps,	8	3,235	2,722	2,897	2,574	3,672	2,888
43	Lime and cement,	8	1,422	1,487	1,198	1,357	1,594	1,603
44	Machinery,	95	15,674	16,810	14,329	16,246	16,621	17,067
45	Mattresses and bedding,	7	194	221	187	210	207	239

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TABLE No. 5.—Smallest, Greatest and Average Number of Persons Employed, by Industries. Aggregates, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Aggregate Average Number of Persons Employed.		Aggregates of Persons Employed at Periods of Employment of			
					Smallest Number.		Greatest Number.	
			1902.	1903.	1902.	1903.	1902.	1903.
49	Metal goods,	61	5,519	5,567	5,001	5,224	5,919	5,790
47	Metal novelties,	11	743	767	700	670	809	885
48	Mining (iron ore),	6	1,617	1,635	1,557	1,456	1,718	1,757
49	Musical instruments,	17	1,707	1,784	1,530	1,668	1,833	1,889
50	Office cloth (floor and table),	8	887	1,201	808	1,120	955	1,305
51	Oils,	12	3,010	3,355	2,925	3,194	3,312	3,539
52	Paints,	8	617	630	556	593	648	696
53	Paper,	33	1,959	1,969	1,599	1,824	2,179	2,138
54	Pig iron,	3	823	923	551	768	725	1,041
55	Pottery,	34	3,872	3,949	3,726	3,708	4,015	4,085
56	Printing and bookbinding,	20	1,147	1,250	1,035	1,113	1,292	1,445
57	Quarrying stone,	14	976	1,067	588	718	1,165	1,357
58	Roofing (iron and stone),	7	360	405	318	339	392	458
59	Rubber goods (hard and soft),	33	4,549	5,192	4,257	4,958	4,755	5,448
60	Saddles and harness,	10	272	252	254	234	291	272
61	Saddlery and harness hardware,	12	513	504	486	462	523	534
62	Scientific instruments,	11	1,877	1,914	1,781	1,723	2,016	2,105
63	Sash, blinds and doors,	25	870	910	805	843	900	970
64	Shoes,	84	4,061	4,135	3,962	4,045	4,132	4,224
65	Shirts,	21	2,941	2,829	2,765	2,702	3,080	2,899
66	Shirt waists (women's),	7	460	510	393	374	500	636
67	Shipbuilding,	10	4,760	3,810	3,998	3,202	5,328	4,263
68	Silk (broad and ribbon),	123	21,445	22,456	9,071	20,785	22,625	24,425
69	Silk dyeing,	20	3,900	4,227	2,262	3,952	4,435	4,442
70	Silk throwing,	22	1,645	1,598	1,602	1,501	1,715	1,659
71	Silk mill supplies,	14	617	602	588	587	634	614
72	Silver goods,	15	1,264	1,264	1,136	1,167	1,399	1,425
73	Smelting and refining (gold, silver, copper, etc.),	9	3,357	2,343	3,050	2,241	3,485	2,447
74	Soap and tallow,	11	560	645	515	606	578	679
75	Steel and iron (bar),	7	1,157	1,080	1,087	973	1,204	1,182
76	Steel and iron (structural),	19	3,318	3,344	3,180	2,975	3,436	3,606
77	Steel and iron (forging),	12	2,680	2,942	2,528	2,713	2,798	3,106
78	Textile products,	7	883	874	858	840	921	927
79	Thread,	6	5,125	5,036	5,039	4,966	5,176	5,112
80	Trunks and traveling bags,	9	605	535	558	474	652	565
81	Trunk and bag hardware,	7	869	1,057	766	985	997	1,211
82	Typewriters and supplies,	4	184	203	85	106	218	238
83	Underwear (women's and children's),	19	1,848	1,913	1,702	1,786	1,975	2,061
84	Varnishes,	18	289	295	277	285	296	307
85	Watches, cases and material,	10	2,101	2,309	2,070	2,164	2,172	2,454
86	Window shades,	5	116	133	97	121	124	144
87	Wooden goods,	35	1,455	1,502	1,308	1,393	1,586	1,580
88	Woolen and worsted goods,	26	8,438	8,391	8,194	7,955	8,644	8,681
89	Unclassified,	58	5,968	5,996	5,203	5,553	6,466	6,261
	All industries,	1811	217,929	227,841	208,908	224,145	226,765	231,480

* Closing down for the months of July and August is an established practice in all glass factories.

TABLE No. 6.—Excess of Greatest over Smallest Number of Persons Employed. Aggregates, 1902-1903.

Office Number.	INDUSTRIES.	Excess of Greatest Over Smallest Number of Persons Employed.		Increase (+) or De- crease (—) in 1903.		
		1902.	1903.	Number.	Percentage.	
1	Agricultural implements,	133	248	+	115	+ 86.4
2	Artisan's tools,	264	84	—	180	— 68.1
3	Art tile,	128	78	—	50	— 39.0
4	Boilers,	116	427	+	311	+ 268.1
5	Boxes (wood and paper),	88	111	+	23	+ 26.1
6	Brewing (lager beer, ale and porter),...	100	131	+	31	+ 31.0
7	Brick and terra cotta,	2,749	2,823	+	74	+ 2.7
8	Brushes,	52	38	—	14	— 4.3
9	Buttons (metal),	73	164	+	91	+ 124.6
10	Buttons (pearl),	193	185	—	8	— 4.1
11	Carpets and rugs,	671	127	—	544	— 81.0
12	Carriages and wagons,	118	90	—	28	— 23.7
13	Chemical products,	660	524	—	136	— 20.6
14	Cigars and tobacco,	219	1,109	+	890	+ 40.6
15	Clothing,	191	139	—	52	— 27.2
16	Confectionery,	67	42	—	25	— 37.3
17	Cornices and skylights,	305	142	—	163	— 53.4
18	Corsets and corset waists,	256	72	—	184	— 71.8
19	Cutlery,	104	30	—	74	— 71.1
20	Cotton goods,	524	494	—	30	— 5.7
21	Cotton goods (finishing and dyeing),...	536	129	—	407	— 75.9
22	Drawn wire and wire cloth,	761	794	+	33	+ 4.3
23	Electrical appliances,	1,239	689	—	550	— 44.3
24	Fertilizers,	350	531	+	181	+ 51.7
25	Food products,	474	434	—	40	— 8.4
26	Foundry (brass),	122	67	—	55	— 45.0
27	Foundry (iron),	888	733	—	155	— 17.4
28	Furnaces, ranges and heaters,	209	99	—	110	— 52.6
29	Gas and electric light fixtures,	41	33	—	8	— 19.5
30	Glass (window and bottle),*	6,018	6,624	+	606	+ 10.1
31	Glass mirrors,	45	50	+	5	+ 11.1
32	Graphite products,	178	210	+	32	+ 18.0
33	Hats (felt),	765	941	+	176	+ 21.7
34	Hats (straw),	481	484	+	3	+ 0.6
35	High explosives,	71	71	.....	.....	.....
36	Inks and mucilage,	18	15	—	3	— 16.6
37	Jewelry,	469	239	—	230	— 49.0
38	Knit goods,	124	124	.....	.....	.....
39	Laundry,	59	49	—	10	— 17.0
40	Leather,	436	612	+	176	+ 40.3
41	Leather goods,	278	143	—	135	— 48.5
42	Lamps,	775	314	—	461	— 59.4
43	Lime and cement,	396	246	—	150	— 37.8
44	Machinery,	2,292	821	+	1,471	— 64.2
45	Mattresses and bedding,	20	29	+	9	+ 45.0
46	Metal goods,	918	566	—	352	— 38.3
47	Metal novelties,	109	215	+	106	+ 97.2
48	Mining (iron ore),	161	301	+	140	+ 87.0
49	Musical instruments,	303	221	—	82	— 27.1
50	Oilcloth (floor and table),	147	185	+	38	+ 25.9
51	Oils,	387	345	—	42	— 10.9
52	Paints,	92	73	—	19	— 20.6
53	Paper,	580	314	—	266	— 46.0
54	Pig iron,	174	273	+	99	+ 57.0
55	Pottery,	289	377	+	88	+ 30.5
56	Printing and bookbinding,	257	332	+	75	+ 29.1
57	Quarrying stone,	579	639	+	60	+ 10.3

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TABLE No. 6.—Excess of Greatest over Smallest Number of Persons Employed. Aggregates, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Excess of Greatest Over Smallest Number of Persons Employed.		Increase (+) or De- crease (—) in 1903.			
		1902.	1903.		Number.		Percentage.
58	Roofing (iron and stone),	74	119	+	45	+	60.8
59	Rubber goods (hard and soft),	498	490	—	8	—	1.6
60	Saddles and harness,	37	38	+	1	+	2.7
61	Saddlery and harness hardware,	37	72	+	35	+	94.6
62	Scientific instruments,	235	382	+	147	+	62.5
63	Sash, blinds and doors,	104	127	+	23	+	22.1
64	Shoes,	170	179	+	9	+	5.3
65	Shirts,	315	197	—	118	—	37.4
66	Shirt waists (women's),	107	262	+	155	+	145.8
67	Shipbuilding,	1,330	1,061	—	269	—	20.2
68	Silk (broad and ribbon),	13,554	3,640	—	9,914	—	73.1
69	Silk dyeing,	2,173	490	—	1,683	—	77.3
70	Silk throwing,	113	158	+	45	+	40.0
71	Silk mill supplies,	46	27	—	19	—	41.3
72	Silver goods,	263	258	—	5	—	1.8
73	Smelting and refining (gold, silver, copper, etc.,	435	206	—	229	—	52.7
74	Soap and Tallow,	63	73	+	10	+	15.9
75	Steel and iron (bar),	117	209	+	92	+	78.6
76	Steel and iron (structural),	256	631	+	375	+	146.5
77	Steel and iron (forging),	270	393	+	123	+	45.5
78	Textile products,	63	87	+	24	+	38.1
79	Thread,	137	146	+	9	+	6.5
80	Trunks and traveling bags,	94	91	—	3	—	3.2
81	Trunk and bag hardware,	231	226	—	5	—	2.1
82	Typewriters and supplies,	133	132	—	1	—	0.7
83	Underwear (women's and children's),	273	275	+	2	+	0.7
84	Varnishes,	19	22	+	3	+	15.8
85	Watches, cases and material,	102	290	+	188	+	174.5
86	Window shades,	27	23	—	4	—	14.8
87	Wooden goods,	287	187	—	100	—	34.8
88	Woolen and worsted goods,	450	723	+	276	+	61.3
89	Unclassified,	1,283	708	—	555	—	43.9
	All industries,	51,328	37,305	—	14,023	—	27.3

* Closing down for the months of July and August is an established practice in all glass factories.

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903.

AGRICULTURAL IMPLEMENTS—EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	339	...	339	464	...	464
February,	385	...	385	518	...	518
March,	424	...	424	580	...	580
April,	422	...	422	616	...	616
May,	415	...	415	609	...	609
June,	379	...	379	526	...	526
July,	291	...	291	458	...	458
August,	293	...	293	448	...	448
September,	298	...	298	469	...	469
October,	332	...	332	494	...	494
November,	352	...	352	368	...	368
December,	379	...	379	394	...	394

ARTISANS' TOOLS—THIRTY-FIVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,627	19	1,646	1,904	15	1,919
February,	1,628	20	1,648	1,900	15	1,915
March,	1,643	20	1,663	1,928	15	1,943
April,	1,667	20	1,687	1,924	15	1,939
May,	1,664	20	1,684	1,931	16	1,947
June,	1,661	20	1,681	1,941	16	1,957
July,	1,673	20	1,693	1,960	16	1,976
August,	1,675	18	1,693	1,974	15	1,989
September,	1,699	18	1,717	1,981	17	1,998
October,	1,861	19	1,880	1,982	17	1,999
November,	1,891	19	1,910	1,967	18	1,985
December,	1,871	18	1,889	1,981	18	1,999

ART TILE—SIX ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	77	28	105	149	95	244
February,	81	29	110	167	100	267
March,	82	32	114	163	105	268
April,	86	33	119	165	105	270
May,	106	40	146	157	101	258
June,	119	50	169	164	91	255
July,	117	52	169	153	94	247
August,	123	64	187	145	80	225
September,	131	73	204	147	72	219
October,	150	83	233	141	65	206
November,	146	84	230	137	66	203
December,	139	89	228	129	63	192

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

BOILERS—THIRTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,280	....	1,280	1,514	....	1,514
February,	1,274	....	1,274	1,572	....	1,572
March,	1,337	....	1,337	1,741	....	1,741
April,	1,328	....	1,328	1,761	....	1,761
May,	1,274	....	1,274	1,769	....	1,769
June,	1,265	....	1,265	1,743	....	1,743
July,	1,301	....	1,301	1,776	....	1,776
August,	1,351	....	1,351	1,714	....	1,714
September,	1,381	....	1,381	1,749	....	1,749
October,	1,380	....	1,380	1,876	....	1,876
November,	1,356	....	1,356	1,941	....	1,941
December,	1,363	....	1,363	1,908	....	1,908

BOXES (WOOD AND PAPER)—THIRTY-TWO ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	498	959	1,457	529	936	1,465
February,	489	958	1,447	518	915	1,433
March,	500	955	1,455	525	915	1,440
April,	501	963	1,464	533	925	1,458
May,	510	957	1,467	535	928	1,463
June,	503	946	1,449	539	925	1,464
July,	488	918	1,406	545	924	1,469
August,	512	947	1,459	549	941	1,490
September,	519	963	1,482	532	975	1,507
October,	527	967	1,494	564	980	1,544
November,	513	957	1,470	558	968	1,526
December,	514	940	1,454	523	936	1,459

BREWING (LAGER BEER, ALE AND PORTER)—THIRTY-TWO ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,841	....	1,841	1,930	....	1,930
February,	1,835	....	1,835	1,937	....	1,937
March,	1,862	....	1,862	1,957	....	1,957
April,	1,857	....	1,857	1,977	....	1,977
May,	1,902	....	1,902	2,008	....	2,008
June,	1,911	....	1,911	2,029	....	2,029
July,	1,935	....	1,935	2,061	....	2,061
August,	1,888	....	1,888	2,032	....	2,032
September,	1,859	....	1,859	2,002	....	2,002
October,	1,860	....	1,860	1,974	....	1,974
November,	1,837	....	1,837	1,954	....	1,954
December,	1,838	....	1,838	1,967	....	1,967

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

BRICK AND TERRA COTTA—FIFTY-EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,780	3	3,783	3,711	3	3,714
February,	3,908	3	3,911	3,698	3	3,701
March,	4,167	4	4,171	4,409	4	4,413
April,	5,540	16	5,556	5,525	20	5,545
May,	6,213	16	6,229	6,059	20	6,079
June,	6,445	15	6,460	6,383	20	6,403
July,	6,462	15	6,477	6,504	20	6,524
August,	6,518	14	6,532	6,368	20	6,388
September,	6,347	15	6,362	6,056	20	6,076
October,	5,706	14	5,720	5,685	20	5,705
November,	4,697	14	4,711	4,741	19	4,760
December,	4,180	2	4,182	4,197	6	4,203

BRUSHES—NINE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	160	71	231	149	71	220
February,	160	73	233	160	75	235
March,	162	74	236	164	84	248
April,	151	75	226	164	83	247
May,	142	72	214	159	83	242
June,	127	60	187	153	71	224
July,	127	64	191	145	65	210
August,	128	67	195	151	68	219
September,	143	75	218	161	75	236
October,	149	77	226	164	76	240
November,	158	76	234	160	78	238
December,	163	76	239	149	70	219

BUTTONS (METAL)—TEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	396	521	917	349	572	921
February,	405	502	907	370	542	912
March,	404	492	896	359	531	890
April,	430	524	954	359	568	927
May,	422	513	935	379	576	955
June,	409	517	926	378	571	949
July,	425	485	910	380	625	1,005
August,	416	517	933	400	641	1,041
September,	400	546	946	407	625	1,032
October,	405	551	956	400	627	1,027
November,	398	571	969	403	612	1,015
December,	399	560	959	425	629	1,054

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

BUTTONS (PEARL)—SIXTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	545	230	775	654	191	845
February,	544	243	787	669	187	856
March,	582	251	833	678	194	872
April,	607	260	876	686	198	884
May,	634	247	881	681	195	876
June,	658	255	913	632	170	802
July,	658	278	936	604	165	769
August,	663	284	947	576	150	726
September,	668	294	962	561	148	709
October,	675	293	968	562	144	706
November,	661	280	941	554	145	699
December,	655	285	940	560	149	709

CARPETS AND RUGS—NINE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,237	451	1,688	1,303	481	1,784
February,	1,257	464	1,721	1,291	483	1,774
March,	1,256	463	1,719	1,300	497	1,797
April,	1,257	449	1,706	1,308	488	1,796
May,	1,212	451	1,663	1,324	460	1,784
June,	837	285	1,122	1,278	458	1,736
July,	849	284	1,133	1,278	449	1,727
August,	913	293	1,206	1,269	468	1,737
September,	1,202	423	1,625	1,290	463	1,753
October,	1,197	443	1,640	1,274	469	1,743
November,	1,203	469	1,672	1,267	403	1,670
December,	1,303	490	1,793	1,269	489	1,758

CARRIAGES AND WAGONS—THIRTY-TWO ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	907	...	907	904	...	904
February,	906	...	906	924	...	924
March,	968	...	968	909	...	909
April,	1,019	...	1,019	934	...	934
May,	1,020	...	1,020	959	...	959
June,	1,016	...	1,016	994	...	994
July,	1,014	...	1,014	974	...	974
August,	1,024	...	1,024	980	...	980
September,	995	...	995	965	...	965
October,	977	...	977	934	...	934
November,	929	...	929	935	...	935
December,	931	...	931	918	...	918

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

CHEMICAL PRODUCTS—FORTY-TWO ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,743	782	4,525	4,219	926	5,145
February,	3,760	969	4,729	4,260	946	5,206
March,	3,829	1,006	4,835	4,386	1,005	5,391
April,	3,861	1,053	4,914	4,445	1,040	5,485
May,	3,994	1,019	5,013	4,396	1,109	5,505
June,	4,146	1,018	5,164	4,442	1,119	5,561
July,	4,104	1,005	5,109	4,484	1,158	5,642
August,	4,154	996	5,150	4,444	1,225	5,669
September,	4,096	985	5,081	4,464	1,162	5,626
October,	4,176	1,009	5,185	4,446	1,188	5,634
November,	4,148	1,032	5,180	4,389	1,164	5,553
December,	4,198	961	5,159	4,335	1,064	5,399

CIGARS AND TOBACCO—THIRTY-ONE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,172	2,830	4,002	1,418	4,942	6,360
February,	1,150	2,772	3,922	1,400	5,046	6,446
March,	1,175	2,755	3,930	1,415	5,153	6,568
April,	1,226	2,762	3,988	1,399	5,157	6,556
May,	1,244	2,804	4,048	1,431	5,222	6,653
June,	1,275	2,866	4,141	1,434	5,421	6,855
July,	1,217	2,771	3,988	1,451	5,725	7,176
August,	1,204	2,765	3,969	1,444	5,797	7,241
September,	1,205	2,804	4,009	1,518	5,951	7,469
October,	1,226	2,905	4,131	1,474	5,981	7,455
November,	1,210	2,900	4,110	1,498	5,894	7,392
December,	1,200	2,905	4,105	1,502	5,752	7,254

CLOTHING—SEVENTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	527	503	1,030	522	501	1,023
February,	547	536	1,083	551	518	1,069
March,	549	515	1,064	560	520	1,080
April,	569	532	1,101	567	519	1,086
May,	593	558	1,151	573	522	1,095
June,	570	584	1,153	573	552	1,125
July,	573	609	1,182	570	565	1,135
August,	594	627	1,221	584	544	1,128
September,	580	605	1,185	591	571	1,162
October,	583	590	1,173	562	554	1,116
November,	576	581	1,157	564	546	1,110
December,	561	553	1,114	562	470	1,032

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

CONFECTIONERY—SIX ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	103	97	200	106	84	190
February,	100	95	195	109	92	201
March,	108	109	217	114	92	206
April,	106	95	201	114	89	203
May,	106	86	192	118	92	210
June,	104	93	197	116	89	205
July,	97	83	180	108	80	188
August,	99	83	182	111	82	193
September,	113	120	233	112	88	200
October,	119	128	247	118	100	218
November,	118	108	226	124	106	230
December,	116	113	229	116	105	221

CORNICES AND SKYLIGHTS—THIRTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	515	....	515	476	....	476
February,	467	....	467	384	....	384
March,	469	....	469	407	....	407
April,	508	....	508	379	....	379
May,	748	....	748	464	....	464
June,	653	....	653	381	....	381
July,	673	....	673	461	....	461
August,	598	....	598	334	....	334
September,	478	....	478	370	....	370
October,	463	....	463	406	....	406
November,	446	....	446	422	....	422
December,	443	....	443	418	....	418

CORSETS AND CORSET WAISTS—TEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	157	1,617	1,774	155	1,704	1,859
February,	161	1,625	1,786	154	1,715	1,869
March,	169	1,700	1,869	154	1,746	1,900
April,	175	1,765	1,940	157	1,752	1,909
May,	181	1,798	1,979	154	1,766	1,920
June,	179	1,784	1,963	153	1,749	1,902
July,	175	1,753	1,928	153	1,721	1,874
August,	176	1,728	1,904	150	1,709	1,859
September,	181	1,764	1,945	154	1,752	1,906
October,	183	1,837	2,020	153	1,778	1,931
November,	181	1,849	2,030	154	1,767	1,921
December,	186	1,799	1,985	152	1,709	1,861

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

CUTLERY—NINE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	624	63	687	699	74	773
February,	651	68	719	704	78	782
March,	657	66	723	711	71	782
April,	677	66	743	710	68	778
May,	686	59	745	710	71	781
June,	670	60	730	708	66	774
July,	663	65	728	699	71	770
August,	684	70	754	705	70	775
September,	717	71	788	710	74	784
October,	700	73	773	712	77	789
November,	709	82	791	721	78	799
December,	703	73	776	701	68	769

COTTON GOODS—TWENTY-EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,196	3,165	4,361	1,358	3,617	4,975
February,	1,207	3,212	4,419	1,360	3,570	4,930
March,	1,230	3,257	4,487	1,374	3,656	5,030
April,	1,255	3,294	4,549	1,375	3,495	4,870
May,	1,260	3,281	4,541	1,354	3,634	4,988
June,	1,236	3,303	4,539	1,273	3,613	4,886
July,	1,250	3,314	4,564	1,293	3,502	4,795
August,	1,232	3,398	4,630	1,171	3,539	4,710
September,	1,274	3,454	4,728	1,280	3,594	4,874
October,	1,295	3,590	4,885	1,306	3,658	4,964
November,	1,266	3,549	4,815	1,333	3,821	5,154
December,	1,264	3,553	4,817	1,329	3,875	5,204

COTTON GOODS (FINISHING AND DYEING)—FOURTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,066	533	3,599	3,152	502	3,654
February,	3,028	528	3,556	3,137	508	3,645
March,	3,113	538	3,651	3,182	539	3,721
April,	3,180	534	3,714	3,237	512	3,749
May,	3,088	522	3,610	3,211	526	3,737
June,	3,157	502	3,659	3,190	519	3,709
July,	3,132	491	3,623	3,201	529	3,730
August,	3,140	496	3,636	3,190	518	3,708
September,	3,107	493	3,600	3,194	509	3,703
October,	3,083	476	3,559	3,185	501	3,686
November,	2,737	441	3,178	3,190	501	3,691
December,	3,056	504	3,560	3,120	500	3,620

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

DRAWN WIRE AND WIRE CLOTH—SIX ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,738	402	4,140	3,767	407	4,174
February,	3,865	395	4,260	3,996	397	4,393
March,	3,875	383	4,258	4,006	395	4,401
April,	4,129	381	4,510	4,257	395	4,652
May,	4,272	514	4,786	4,406	525	4,931
June,	4,282	512	4,794	4,040	522	4,562
July,	4,303	392	4,695	4,358	390	4,748
August,	4,311	393	4,704	4,375	382	4,757
September,	4,471	394	4,865	4,536	385	4,921
October,	4,500	396	4,896	4,563	386	4,949
November,	4,375	369	4,844	4,444	468	4,912
December,	4,452	449	4,901	4,512	456	4,968

ELECTRICAL APPLIANCES—TWENTY-FIVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,334	457	3,791	4,716	889	5,605
February,	3,392	468	3,860	4,648	866	5,514
March,	3,446	528	3,974	4,736	924	5,660
April,	3,522	596	4,118	4,837	889	5,726
May,	3,774	619	4,393	4,839	804	5,643
June,	3,796	637	4,433	4,645	726	5,371
July,	3,732	654	4,386	4,725	745	5,470
August,	3,936	723	4,659	4,769	890	5,659
September,	3,875	702	4,577	4,714	902	5,616
October,	3,960	660	4,620	4,670	869	5,539
November,	4,172	748	4,920	4,544	804	5,348
December,	4,263	767	5,030	4,247	790	5,037

FERTILIZERS—TWELVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	881	23	904	1,153	23	1,176
February,	984	23	1,007	1,325	23	1,348
March,	1,129	26	1,155	1,522	22	1,544
April,	1,231	23	1,254	1,571	26	1,597
May,	974	22	996	1,192	19	1,211
June,	976	17	993	1,136	8	1,144
July,	962	12	974	1,150	11	1,161
August,	1,086	20	1,106	1,213	10	1,223
September,	1,210	13	1,223	1,340	10	1,350
October,	1,091	13	1,104	1,203	6	1,209
November,	1,076	17	1,093	1,139	7	1,146
December,	1,075	20	1,095	1,050	16	1,066

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

FOOD PRODUCTS—TWENTY-FOUR ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,555	472	2,027	1,683	533	2,216
February,	1,523	428	1,951	1,650	499	2,149
March,	1,487	435	1,922	1,597	493	2,090
April,	1,490	435	1,925	1,574	508	2,082
May,	1,504	425	1,929	1,546	474	2,020
June,	1,485	455	1,940	1,595	470	2,065
July,	1,421	326	1,747	1,559	361	1,920
August,	1,523	496	2,019	1,634	527	2,161
September,	1,537	509	2,046	1,650	540	2,190
October,	1,574	530	2,104	1,749	605	2,354
November,	1,646	575	2,221	1,718	543	2,261
December,	1,637	547	2,184	1,703	526	2,229

FOUNDRY (BRASS)—TWELVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	816	33	849	882	60	942
February,	826	34	860	893	58	951
March,	850	37	887	900	62	962
April,	823	42	865	905	64	969
May,	833	43	876	899	61	960
June,	827	42	869	911	60	971
July,	862	54	916	944	62	1,006
August,	871	56	927	943	60	1,003
September,	878	58	936	924	61	985
October,	897	63	960	918	61	979
November,	899	55	954	892	59	951
December,	913	58	971	883	56	939

FOUNDRY (IRON)—THIRTY-NINE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	4,378	....	4,378	5,194	....	5,194
February,	4,377	....	4,377	5,248	....	5,248
March,	4,583	....	4,583	5,329	....	5,329
April,	4,612	....	4,612	5,496	....	5,496
May,	4,713	....	4,713	5,532	....	5,532
June,	4,642	....	4,642	5,655	....	5,655
July,	5,101	....	5,101	5,729	....	5,729
August,	5,137	....	5,137	5,830	....	5,830
September,	5,077	....	5,077	5,751	....	5,751
October,	5,200	....	5,200	5,521	....	5,521
November,	5,265	....	5,265	5,360	....	5,360
December,	5,138	....	5,138	5,097	....	5,097

62 STATISTICS OF LABOR AND INDUSTRIES.

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

FURNACES, RANGES AND HEATERS—FIFTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,446	....	1,446	1,568	....	1,568
February,	1,466	....	1,466	1,618	....	1,618
March,	1,480	....	1,480	1,638	....	1,638
April,	1,454	....	1,454	1,584	....	1,584
May,	1,441	....	1,441	1,553	....	1,553
June,	1,506	....	1,506	1,574	....	1,574
July,	1,547	....	1,547	1,584	....	1,584
August,	1,627	....	1,627	1,643	....	1,643
September,	1,599	....	1,599	1,585	....	1,585
October,	1,650	....	1,650	1,613	....	1,613
November,	1,605	....	1,605	1,652	....	1,652
December,	1,534	....	1,534	1,576	....	1,576

GAS AND ELECTRIC LIGHT FIXTURES—EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	269	20	289	249	15	264
February,	259	20	279	250	15	265
March,	278	19	297	259	15	274
April,	272	20	292	267	15	282
May,	267	19	286	255	16	271
June,	251	20	271	256	16	272
July,	266	20	286	261	16	277
August,	274	20	294	257	15	272
September,	284	20	304	269	15	284
October,	286	20	306	273	15	288
November,	290	20	310	282	15	297
December,	291	21	312	278	14	292

GLASS (WINDOW AND BOTTLE)—TWENTY-TWO ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	7,410	183	7,593	7,306	184	7,490
February,	7,316	183	7,499	7,201	194	7,395
March,	7,435	182	7,617	7,277	199	7,476
April,	7,113	181	7,294	7,156	183	7,339
May,	6,757	183	6,940	6,656	179	6,835
June,	6,165	187	6,352	6,212	177	6,389
July,	1,804	116	1,920	1,651	110	1,761
August,	1,560	39	1,599	1,176	39	1,215
September,	4,604	138	4,742	5,203	162	5,365
October,	6,776	181	6,957	6,920	166	7,086
November,	7,368	195	7,563	7,437	177	7,614
December,	7,405	179	7,584	7,658	186	7,839

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

GLASS MIRRORS—THREE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	119	14	133	141	18	159
February,	127	11	138	143	19	162
March,	128	12	140	147	17	164
April,	111	11	122	145	18	163
May,	122	11	133	149	17	166
June,	139	11	150	146	19	165
July,	134	13	147	107	18	125
August,	120	18	138	124	20	144
September,	143	17	160	133	23	156
October,	151	16	167	136	23	159
November,	146	18	164	151	24	175
December,	146	17	163	147	23	170

GRAPHITE PRODUCTS—FIVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	648	666	1,314	669	695	1,364
February,	647	702	1,349	693	726	1,419
March,	653	721	1,374	694	731	1,425
April,	666	716	1,382	692	726	1,418
May,	674	718	1,392	702	738	1,440
June,	693	760	1,453	731	761	1,492
July,	729	763	1,492	756	802	1,558
August,	707	751	1,458	748	814	1,562
September,	689	761	1,450	738	806	1,544
October,	668	743	1,411	755	819	1,574
November,	673	731	1,404	747	817	1,564
December,	680	723	1,403	736	813	1,549

HATS (FELT)—FORTY-FIVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	5,154	1,813	6,967	4,901	1,725	6,626
February,	4,946	1,739	6,685	4,813	1,679	6,492
March,	4,928	1,764	6,692	4,683	1,707	6,390
April,	4,898	1,711	6,609	4,625	1,650	6,275
May,	5,048	1,795	6,843	4,650	1,635	6,285
June,	4,732	1,705	6,437	4,826	1,669	6,495
July,	4,747	1,568	6,315	5,171	1,716	6,887
August,	5,285	1,795	7,080	5,044	1,700	6,744
September,	5,010	1,715	6,725	4,790	1,670	6,460
October,	5,054	1,731	6,785	5,395	1,786	7,181
November,	5,098	1,760	6,858	4,635	1,605	6,240
December,	5,002	1,715	6,717	4,836	1,797	6,633

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

HATS (STRAW)—THREE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	173	430	603	176	421	597
February,	172	441	613	173	420	593
March,	167	438	605	169	421	590
April,	161	356	547	155	352	507
May,	101	174	275	115	211	326
June,	80	125	205	99	163	262
July,	41	97	138	38	90	128
August,	62	70	132	56	57	113
September,	119	284	403	105	200	305
October,	152	351	533	143	327	470
November,	175	421	596	166	358	524
December,	170	417	587	165	360	525

HIGH EXPLOSIVES—EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,236	10	1,246	1,214	10	1,224
February,	1,234	10	1,244	1,218	10	1,228
March,	1,247	9	1,256	1,279	16	1,295
April,	1,224	10	1,234	1,276	18	1,294
May,	1,189	10	1,199	1,243	17	1,260
June,	1,208	8	1,216	1,247	16	1,263
July,	1,217	8	1,225	1,244	12	1,256
August,	1,220	9	1,229	1,252	14	1,266
September,	1,215	9	1,224	1,243	13	1,256
October,	1,249	10	1,259	1,259	13	1,272
November,	1,260	10	1,270	1,245	13	1,258
December,	1,259	10	1,269	1,279	13	1,292

INKS AND MUCILAGE—SIX ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	71	15	86	71	16	87
February,	67	16	83	70	17	87
March,	70	16	86	71	16	87
April,	73	14	87	74	14	88
May,	70	20	90	69	20	89
June,	70	19	89	69	19	88
July,	70	19	89	72	19	91
August,	72	26	98	73	26	99
September,	71	30	101	72	30	102
October,	70	30	100	72	30	102
November,	70	23	93	71	23	94
December,	69	18	87	70	18	88

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

JEWELRY—SEVENTY-NINE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,086	746	2,732	2,111	729	2,840
February,	1,099	737	2,736	2,121	733	2,854
March,	1,095	731	2,726	2,112	750	2,862
April,	1,064	721	2,685	2,134	744	2,878
May,	1,032	715	2,647	2,124	745	2,869
June,	1,943	722	2,665	2,123	756	2,879
July,	1,937	724	2,661	2,145	746	2,891
August,	2,054	761	2,815	2,171	749	2,920
September,	2,114	796	2,910	2,218	768	2,986
October,	2,255	824	3,079	2,283	796	3,079
November,	2,273	843	3,116	2,269	796	3,065
December,	2,245	839	3,084	2,227	778	3,005

KNIT GOODS—ELEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	459	829	1,288	423	873	1,296
February,	459	860	1,319	319	853	1,172
March,	462	879	1,341	413	869	1,282
April,	471	882	1,353	416	872	1,288
May,	473	906	1,379	426	860	1,286
June,	478	919	1,397	417	871	1,288
July,	482	930	1,412	410	780	1,190
August,	483	925	1,408	412	833	1,245
September,	463	897	1,360	410	843	1,253
October,	473	917	1,390	419	863	1,282
November,	469	936	1,405	416	835	1,251
December,	446	932	1,381	396	814	1,210

LAUNDRY—TEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	243	533	776	251	529	780
February,	243	530	773	251	528	779
March,	253	533	786	254	530	784
April,	253	537	790	255	531	786
May,	269	563	832	271	557	828
June,	259	561	820	265	548	813
July,	256	560	816	265	549	814
August,	260	553	813	267	542	809
September,	270	559	829	270	553	823
October,	272	559	831	253	526	779
November,	270	560	830	253	531	784
December,	269	560	829	252	532	784

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

LEATHER—SIXTY-TWO ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	5,064	81	5,145	5,826	69	5,895
February,	5,176	66	5,242	5,791	74	5,865
March,	5,355	55	5,410	5,755	79	5,834
April,	5,237	70	5,327	5,697	76	5,773
May,	5,306	83	5,389	5,587	73	5,660
June,	5,071	91	5,162	5,320	77	5,397
July,	4,886	88	4,974	5,303	71	5,374
August,	5,048	87	5,135	5,368	76	5,444
September,	5,135	83	5,218	5,210	73	5,283
October,	5,265	66	5,331	5,224	70	5,294
November,	5,309	67	5,376	5,215	71	5,286
December,	5,330	66	5,396	5,314	67	5,381

LEATHER GOODS—FIFTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	609	584	1,193	666	666	1,332
February,	641	643	1,284	660	653	1,313
March,	656	731	1,387	665	655	1,320
April,	676	721	1,397	656	639	1,295
May,	678	708	1,386	644	572	1,216
June,	692	698	1,390	647	593	1,240
July,	708	706	1,414	652	589	1,241
August,	715	756	1,471	656	608	1,264
September,	719	740	1,453	677	669	1,346
October,	721	704	1,425	682	677	1,359
November,	708	697	1,405	681	678	1,359
December,	696	687	1,383	682	659	1,341

LAMPS—EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	782	2,115	2,897	789	1,885	2,674
February,	819	2,105	2,924	791	1,809	2,600
March,	851	2,009	2,950	794	1,862	2,656
April,	908	2,157	3,065	820	1,831	2,651
May,	918	2,123	3,041	831	1,925	2,756
June,	919	2,201	3,120	884	1,881	2,765
July,	971	2,223	3,204	879	1,859	2,738
August,	992	2,263	3,255	901	1,814	2,715
September,	1,014	2,459	3,473	917	1,846	2,763
October,	1,053	2,524	3,577	874	2,014	2,888
November,	1,041	2,631	3,672	824	1,750	2,574
December,	1,060	2,585	3,645	873	2,015	2,888

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

LIME AND CEMENT—EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,258	....	1,258	1,403	....	1,403
February,	1,198	....	1,198	1,477	....	1,477
March,	1,317	....	1,317	1,511	....	1,511
April,	1,465	....	1,465	1,588	....	1,588
May,	1,475	....	1,475	1,541	....	1,541
June,	1,460	....	1,460	1,603	....	1,603
July,	1,590	....	1,590	1,582	....	1,582
August,	1,594	....	1,594	1,472	....	1,472
September,	1,504	....	1,504	1,433	....	1,433
October,	1,457	....	1,457	1,422	....	1,422
November,	1,377	....	1,377	1,458	....	1,458
December,	1,366	....	1,366	1,357	....	1,357

MACHINERY—NINETY-FIVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	13,991	338	14,329	16,484	372	16,856
February,	14,281	342	14,623	16,570	357	16,927
March,	14,606	377	15,043	16,596	359	16,955
April,	15,011	350	15,361	16,661	406	17,067
May,	15,364	360	15,724	16,580	406	16,986
June,	15,312	386	15,698	16,545	435	16,980
July,	15,524	388	15,912	16,628	420	17,048
August,	15,574	367	15,941	16,624	406	17,030
September,	15,716	369	16,085	16,256	432	16,688
October,	15,924	379	16,303	16,076	467	16,543
November,	16,070	381	16,451	15,926	466	16,392
December,	16,254	367	16,621	15,790	456	16,246

MATTRESSES AND BEDDING—SEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	161	26	187	178	36	214
February,	165	26	191	176	39	215
March,	161	28	189	174	41	215
April,	163	29	192	183	41	224
May,	160	30	190	190	41	231
June,	163	32	195	180	41	221
July,	163	30	193	171	39	210
August,	167	29	196	174	39	213
September,	177	30	207	183	41	224
October,	173	31	204	198	41	239
November,	167	32	199	181	41	222
December,	158	30	188	184	41	225

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

METAL GOODS—SIXTY ONE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,881	1,120	5,001	3,922	1,302	5,224
February,	4,042	1,164	5,206	4,030	1,382	5,412
March,	4,168	1,209	5,377	4,142	1,411	5,553
April,	4,289	1,230	5,519	4,234	1,431	5,665
May,	4,272	1,237	5,509	4,227	1,404	5,631
June,	4,474	1,267	5,741	4,165	1,415	5,580
July,	4,252	1,244	5,496	4,146	1,356	5,502
August,	4,240	1,280	5,520	4,115	1,328	5,443
September,	4,311	1,273	5,584	4,324	1,395	5,719
October,	4,395	1,284	5,679	4,383	1,407	5,790
November,	4,534	1,385	5,919	4,265	1,420	5,685
December,	4,294	1,386	5,680	4,203	1,403	5,606

METAL NOVELTIES—ELEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	540	162	702	537	133	670
February,	540	160	700	556	139	695
March,	567	173	740	608	148	756
April,	506	161	757	589	154	743
May,	595	173	768	581	147	728
June,	566	165	731	580	133	713
July,	550	161	711	600	134	734
August,	551	156	707	633	150	783
September,	612	170	782	674	156	830
October,	639	170	809	723	162	885
November,	629	168	788	702	161	863
December,	567	158	725	653	148	801

MINING (IRON ORE)—SIX ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,589	....	1,589	1,650	....	1,650
February,	1,557	....	1,557	1,667	....	1,667
March,	1,570	....	1,570	1,677	....	1,677
April,	1,666	....	1,666	1,647	....	1,647
May,	1,689	....	1,689	1,651	....	1,651
June,	1,718	....	1,718	1,659	....	1,659
July,	1,666	....	1,666	1,740	....	1,740
August,	1,647	....	1,647	1,757	....	1,757
September,	1,593	....	1,593	1,664	....	1,664
October,	1,577	....	1,577	1,589	....	1,589
November,	1,568	....	1,568	1,467	....	1,467
December,	1,569	....	1,569	1,456	....	1,456

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

MUSICAL INSTRUMENTS—SEVENTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January.	1,381	243	1,624	1,417	251	1,668
February.	1,445	257	1,702	1,418	256	1,674
March.	1,468	253	1,721	1,510	261	1,771
April.	1,485	249	1,734	1,540	253	1,793
May.	1,518	257	1,775	1,529	258	1,787
June.	1,408	241	1,649	1,542	268	1,810
July.	1,317	213	1,530	1,447	232	1,679
August.	1,491	256	1,747	1,540	247	1,787
September.	1,417	251	1,668	1,543	261	1,804
October.	1,449	256	1,705	1,582	277	1,859
November.	1,555	278	1,833	1,611	278	1,889
December.	1,510	291	1,801	1,608	278	1,886

OILCLOTH (FLOOR AND TABLE)—EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January.	808	....	808	1,132	....	1,132
February.	819	....	819	1,124	....	1,124
March.	854	....	854	1,120	....	1,120
April.	840	....	840	1,132	....	1,132
May.	856	....	856	1,190	....	1,190
June.	882	....	882	1,193	....	1,193
July.	888	....	888	1,249	....	1,249
August.	900	....	900	1,241	....	1,241
September.	952	....	952	1,295	....	1,295
October.	946	....	946	1,305	....	1,305
November.	955	....	955	1,229	....	1,229
December.	941	....	941	1,205	....	1,205

OILS—TWELVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January.	2,979	....	2,979	3,295	....	3,295
February.	2,925	....	2,925	3,291	....	3,291
March.	3,023	....	3,023	3,194	....	3,194
April.	3,117	....	3,117	3,262	....	3,262
May.	3,120	....	3,120	3,276	....	3,276
June.	3,003	....	3,003	3,284	....	3,284
July.	2,978	....	2,978	3,390	....	3,390
August.	3,105	....	3,105	3,367	....	3,367
September.	3,312	....	3,312	3,389	....	3,389
October.	3,203	3,203	3,498	3,498
November.	3,260	3,260	3,539	3,539
December.	3,301	3,301	3,481	3,481

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

1903.

PAINTS—EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	515	67	582	570	72	642
February,	537	70	607	566	72	638
March,	565	74	639	586	80	666
April,	555	79	634	580	81	661
May,	577	78	655	582	76	658
June,	572	75	647	568	77	645
July,	547	75	622	557	71	628
August,	587	61	648	527	66	593
September,	531	71	602	549	71	620
October,	535	72	607	540	70	610
November,	534	67	601	527	67	594
December,	497	59	556	534	73	607

PAPER—THIRTY THREE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,846	264	2,110	1,759	280	2,039
February,	1,817	256	2,073	1,720	274	1,994
March,	1,791	264	2,055	1,709	272	1,981
April,	1,716	253	1,969	1,701	250	1,951
May,	1,708	215	1,923	1,680	211	1,891
June,	1,617	207	1,824	1,658	221	1,879
July,	1,484	102	1,676	1,615	209	1,824
August,	1,415	184	1,599	1,666	211	1,877
September,	1,599	229	1,828	1,740	227	1,967
October,	1,873	253	2,126	1,782	250	2,032
November,	1,877	267	2,144	1,788	268	2,056
December,	1,906	273	2,179	1,857	281	2,138

PIG IRON—THREE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	618	....	618	768	....	768
February,	608	....	608	799	....	799
March,	659	....	659	865	....	865
April,	633	....	633	913	....	913
May,	598	....	598	930	....	930
June,	602	....	602	975	....	975
July,	620	....	620	953	....	953
August,	579	....	579	941	....	941
September,	581	....	581	934	....	934
October,	551	....	551	941	....	941
November,	697	....	697	1,041	....	1,041
December,	725	....	725	1,015	....	1,015

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

POTTERY—THIRTY-FOUR ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,032	694	3,726	2,998	710	3,708
February,	3,115	711	3,826	3,052	707	3,759
March,	3,112	708	3,820	3,097	731	3,828
April,	3,148	684	3,832	3,226	709	3,935
May,	3,208	691	3,899	3,310	729	4,039
June,	3,195	721	3,916	3,285	728	4,013
July,	3,122	673	3,795	3,273	715	3,988
August,	3,164	681	3,845	3,251	700	3,951
September,	3,176	705	3,881	3,248	735	3,983
October,	3,212	697	3,909	3,318	747	4,065
November,	3,297	718	4,015	3,337	748	4,085
December,	3,287	710	3,997	3,290	739	4,020

PRINTING AND BOOKBINDING—TWENTY ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	731	451	1,182	819	439	1,258
February,	691	344	1,035	776	366	1,142
March,	697	358	1,055	771	387	1,158
April,	697	377	1,074	747	374	1,121
May,	691	358	1,049	761	352	1,113
June,	679	360	1,039	840	395	1,235
July,	690	421	1,111	845	417	1,262
August,	717	459	1,176	843	494	1,337
September,	744	472	1,216	889	536	1,425
October,	770	522	1,292	893	552	1,445
November,	770	501	1,271	911	523	1,434
December,	768	499	1,267	902	531	1,433

QUARRYING STONE—FOURTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	586	....	586	718	....	718
February,	668	....	668	745	....	745
March,	789	....	789	953	....	953
April,	982	....	982	1,085	....	1,085
May,	1,112	....	1,112	1,041	....	1,041
June,	1,111	....	1,111	1,078	....	1,078
July,	1,147	....	1,147	1,139	....	1,139
August,	1,165	....	1,165	1,357	....	1,357
September,	1,158	....	1,158	1,309	....	1,309
October,	1,142	1,142	1,287	1,287
November,	1,004	1,004	1,179	1,179
December,	846	846	910	910

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

ROOFING (IRON AND STONE)—SEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	363	14	377	328	11	339
February,	305	13	318	346	11	357
March,	357	13	370	372	11	383
April,	370	13	383	414	11	425
May,	336	15	351	409	11	420
June,	325	15	340	377	11	388
July,	334	14	348	391	11	402
August,	349	14	363	399	11	410
September,	334	12	346	446	12	458
October,	351	12	363	434	11	445
November,	380	12	392	426	11	437
December,	363	11	374	382	12	394

RUBBER GOODS (HARD AND SOFT)—THIRTY-THREE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,709	755	4,464	4,319	864	5,183
February,	3,734	796	4,530	4,427	893	5,320
March,	3,798	797	4,595	4,504	944	5,448
April,	3,813	771	4,584	4,198	790	4,988
May,	3,757	775	4,532	4,457	924	5,381
June,	3,756	779	4,535	4,418	907	5,325
July,	3,572	685	4,257	4,382	890	5,272
August,	3,690	763	4,453	4,202	866	5,068
September,	3,741	779	4,520	4,081	877	4,958
October,	3,828	797	4,625	4,195	866	5,061
November,	3,898	840	4,738	4,271	869	5,140
December,	3,912	843	4,755	4,314	862	5,176

SADDLES AND HARNESS—TEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	236	18	254	226	18	244
February,	246	20	266	240	20	260
March,	272	19	291	244	19	263
April,	264	18	282	250	18	268
May,	269	18	287	254	18	272
June,	263	19	282	244	19	263
July,	262	19	281	240	19	259
August,	247	18	265	224	18	242
September,	250	17	267	217	17	234
October,	247	18	265	225	18	243
November,	245	18	263	221	18	239
December,	249	18	267	221	18	239

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

SADDLERY AND HARNESS HARDWARE—TWELVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January.	471	15	486	490	14	504
February.	489	15	504	510	14	524
March.	495	16	511	519	15	534
April.	505	15	520	506	14	520
May.	499	14	513	513	13	526
June.	500	15	515	512	14	526
July.	500	15	515	485	14	499
August.	491	16	507	485	15	500
September.	503	15	518	483	14	497
October.	507	16	523	467	15	482
November.	502	14	516	461	13	474
December.	506	16	522	447	15	462

SCIENTIFIC INSTRUMENTS—ELEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January.	1,736	192	1,928	1,685	139	1,824
February.	1,749	192	1,941	1,666	148	1,814
March.	1,574	210	1,784	1,676	137	1,813
April.	1,594	213	1,807	1,720	138	1,858
May.	1,587	212	1,799	1,578	145	1,723
June.	1,571	210	1,781	1,611	159	1,770
July.	1,574	226	1,800	1,714	154	1,868
August.	1,604	232	1,836	1,780	169	1,949
September.	1,662	222	1,884	1,883	177	2,060
October.	1,751	228	1,979	1,907	179	2,086
November.	1,757	213	1,970	1,908	190	2,098
December.	1,803	213	2,016	1,914	191	2,105

SASH, BLINDS AND DOORS—TWENTY-FIVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January.	819	....	819	843	....	843
February.	805	....	805	848	....	848
March.	828	....	828	886	....	886
April.	892	....	892	944	....	944
May.	900	....	900	963	....	963
June.	898	....	898	970	....	970
July.	867	....	867	924	....	924
August.	856	....	856	913	....	913
September.	877	877	899	899
October.	889	889	909	909
November.	909	909	900	900
December.	896	896	916	916

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

SHOES—THIRTY-FOUR ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	2,590	1,379	3,969	2,688	1,430	4,118
February,	2,658	1,437	4,095	2,766	1,458	4,224
March,	2,650	1,420	4,070	2,724	1,460	4,184
April,	2,650	1,430	4,080	2,743	1,425	4,168
May,	2,604	1,433	4,037	2,716	1,410	4,126
June,	2,646	1,437	4,083	2,717	1,436	4,153
July,	2,595	1,467	4,062	2,669	1,446	4,115
August,	2,648	1,481	4,129	2,719	1,485	4,204
September,	2,649	1,483	4,132	2,680	1,435	4,115
October,	2,629	1,420	4,049	2,698	1,412	4,110
November,	2,645	1,419	4,064	2,673	1,380	4,053
December,	2,572	1,390	3,962	2,653	1,392	4,045

SHIRTS—TWENTY-ONE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	526	2,355	2,881	552	2,318	2,870
February,	532	2,371	2,903	567	2,299	2,866
March,	529	2,416	2,945	571	2,292	2,863
April,	563	2,493	3,056	559	2,304	2,863
May,	540	2,492	3,032	555	2,311	2,866
June,	523	2,419	2,942	526	2,300	2,826
July,	516	2,277	2,793	521	2,181	2,702
August,	542	2,223	2,765	542	2,163	2,705
September,	551	2,325	2,876	560	2,251	2,811
October,	557	2,431	2,988	542	2,264	2,806
November,	580	2,440	3,029	564	2,307	2,871
December,	602	2,478	3,080	577	2,322	2,899

SHIRT WAISTS (WOMEN'S)—SEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	47	436	483	47	542	589
February,	47	432	479	47	525	572
March,	47	430	477	52	584	636
April,	58	442	500	47	542	589
May,	47	432	479	47	512	559
June,	45	401	446	47	416	463
July,	45	348	393	45	329	374
August,	43	353	396	43	395	438
September,	55	422	477	50	440	490
October,	45	416	461	45	408	448
November,	56	410	466	47	398	445
December,	46	420	466	47	464	511

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

SHIPBUILDING—TEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	4,053	....	4,053	4,263	....	4,263
February,	3,998	....	3,998	4,208	....	4,208
March,	4,472	....	4,472	4,372	....	4,372
April,	4,459	....	4,459	4,071	....	4,071
May,	4,592	....	4,592	4,035	....	4,035
June,	4,773	....	4,773	3,718	....	3,718
July,	4,882	....	4,882	3,726	....	3,726
August,	4,966	....	4,966	3,793	....	3,793
September,	5,283	....	5,283	3,634	....	3,634
October,	5,208	....	5,208	3,454	....	3,454
November,	5,328	....	5,328	3,202	....	3,202
December,	5,110	....	5,110	3,247	....	3,247

SILK (BROAD AND RIBBON)—ONE HUNDRED AND TWENTY-THREE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	10,812	10,874	21,686	11,288	12,553	23,841
February,	10,877	11,095	21,972	11,636	12,682	24,318
March,	11,079	11,228	22,307	11,568	12,857	24,425
April,	11,078	10,994	22,072	11,502	12,563	24,065
May,	10,744	10,724	21,468	11,163	12,235	23,398
June,	9,791	9,706	19,497	10,671	11,269	21,940
July,	9,338	9,733	19,071	10,519	11,569	22,088
August,	9,823	10,178	20,001	10,359	11,232	21,591
September,	10,999	11,001	22,000	9,909	10,900	20,809
October,	10,991	11,155	22,146	9,973	10,812	20,785
November,	11,161	11,338	22,499	10,116	10,808	20,924
December,	11,328	11,297	22,625	10,264	11,027	21,291

SILK DYEING—TWENTY ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,689	273	3,962	3,822	295	4,117
February,	3,833	269	4,102	4,045	313	4,358
March,	3,950	280	4,230	4,130	312	4,442
April,	3,776	291	4,067	3,970	313	4,283
May,	1,684	278	2,262	3,749	308	4,057
June,	2,039	294	2,333	3,649	303	3,952
July,	3,641	301	3,942	3,871	308	4,179
August,	4,130	305	4,435	3,981	317	4,298
September,	3,975	324	4,299	3,929	325	4,254
October,	4,038	348	4,386	4,041	348	4,389
November,	4,092	335	4,427	3,947	334	4,281
December,	4,052	302	4,354	3,806	306	4,112

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

SILK THROWING—TWENTY-TWO ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	682	972	1,654	711	895	1,606
February,	698	958	1,656	715	903	1,618
March,	693	954	1,647	732	925	1,657
April,	710	980	1,690	708	923	1,631
May,	742	973	1,715	741	918	1,659
June,	711	936	1,647	727	931	1,658
July,	714	909	1,623	752	890	1,642
August,	703	919	1,622	691	905	1,596
September,	685	917	1,602	681	892	1,573
October,	693	944	1,637	652	881	1,533
November,	685	942	1,627	626	877	1,503
December,	684	935	1,619	660	841	1,501

SILK MILL SUPPLIES—FOURTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	461	155	616	457	147	604
February,	467	147	614	454	145	599
March,	464	145	609	463	145	608
April,	479	146	625	462	139	601
May,	465	138	603	464	150	614
June,	454	134	588	452	152	604
July,	466	144	610	456	147	603
August,	470	150	620	468	146	614
September,	474	154	628	455	146	601
October,	471	160	631	438	149	587
November,	470	153	623	444	147	591
December,	478	156	634	452	149	601

SILVER GOODS—FIFTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	930	302	1,232	859	308	1,167
February,	935	316	1,251	876	322	1,198
March,	995	296	1,291	884	338	1,222
April,	970	273	1,243	881	314	1,195
May,	953	288	1,241	881	303	1,184
June,	958	308	1,266	895	317	1,212
July,	950	298	1,248	947	271	1,218
August,	949	303	1,252	958	303	1,261
September,	1,000	340	1,340	978	342	1,320
October,	1,044	355	1,399	1,015	410	1,425
November,	937	328	1,275	1,028	387	1,415
December,	833	303	1,136	977	374	1,351

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

SMELTING AND REFINING (GOLD, SILVER, COPPER, ETC.)—NINE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,050	....	3,050	2,255	....	2,255
February,	3,398	....	3,398	2,252	....	2,252
March,	3,405	....	3,405	2,330	....	2,330
April,	3,284	....	3,284	2,241	....	2,241
May,	3,361	....	3,361	2,303	....	2,303
June,	3,480	....	3,480	2,426	....	2,426
July,	3,485	....	3,485	2,339	....	2,339
August,	3,465	....	3,465	2,386	....	2,386
September,	3,382	....	3,382	2,336	....	2,336
October,	3,429	....	3,429	2,357	....	2,357
November,	3,289	....	3,289	2,444	....	2,444
December,	3,262	....	3,262	2,447	....	2,447

SOAP AND TALLOW—ELEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	492	81	573	518	133	651
February,	472	77	549	514	134	648
March,	483	80	563	513	133	646
April,	485	83	568	513	131	644
May,	484	82	566	510	135	645
June,	485	82	567	510	133	643
July,	475	72	547	498	117	615
August,	449	66	515	490	116	606
September,	475	77	552	512	120	632
October,	484	88	572	522	136	658
November,	488	87	575	527	141	668
December,	490	88	578	533	146	679

STEEL AND IRON (BAR)—SEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,125	49	1,174	986	69	1,046
February,	1,112	51	1,163	987	63	1,050
March,	1,131	60	1,191	1,121	61	1,182
April,	1,126	72	1,198	1,108	60	1,168
May,	1,118	78	1,196	1,047	65	1,112
June,	1,070	72	1,142	1,002	63	1,155
July,	1,084	71	1,155	937	66	1,003
August,	1,134	70	1,204	953	67	1,020
September,	1,118	69	1,187	939	70	1,009
October,	1,016	71	1,087	931	65	996
November,	1,027	69	1,096	946	57	1,003
December,	1,039	54	1,093	920	53	973

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

STEEL AND IRON (STRUCTURAL)—NINETEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,436	....	3,436	2,976	....	2,976
February,	3,412	....	3,412	2,975	....	2,975
March,	3,266	....	3,266	3,080	....	3,080
April,	3,193	....	3,193	3,262	....	3,262
May,	3,214	....	3,214	3,457	....	3,457
June,	3,387	....	3,387	3,436	....	3,436
July,	3,341	....	3,341	3,431	....	3,431
August,	3,396	....	3,396	3,452	....	3,452
September,	3,366	....	3,366	3,564	....	3,564
October,	3,369	....	3,369	3,606	....	3,606
November,	3,180	....	3,180	3,516	....	3,516
December,	3,260	....	3,260	3,377	....	3,377

STEEL AND IRON (FORGING)—TWELVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	2,528	....	2,528	2,836	....	2,836
February,	2,585	....	2,585	2,932	....	2,932
March,	2,568	....	2,568	2,963	....	2,963
April,	2,534	....	2,534	3,006	....	3,006
May,	2,604	....	2,604	3,001	....	3,001
June,	2,714	....	2,714	3,008	....	3,008
July,	2,716	....	2,716	3,106	....	3,106
August,	2,753	....	2,753	3,073	....	3,073
September,	2,798	....	2,798	2,982	....	2,982
October,	2,778	....	2,778	2,905	....	2,905
November,	2,780	....	2,780	2,715	....	2,715
December,	2,797	....	2,797	2,713	....	2,713

TEXTILE PRODUCTS—SEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	558	338	896	560	301	861
February,	547	324	871	602	273	875
March,	549	312	861	598	295	893
April,	570	334	904	611	283	894
May,	570	333	903	575	288	863
June,	551	316	867	567	277	844
July,	550	308	858	563	277	840
August,	545	322	867	563	287	850
September,	552	312	864	561	294	855
October,	573	324	897	600	301	901
November,	576	312	888	589	298	887
December,	589	332	921	617	310	927

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

THREAD—SIX ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,801	3,238	5,039	1,831	3,135	4,966
February,	1,813	3,282	5,095	1,844	3,169	5,013
March,	1,805	3,303	5,108	1,826	3,213	5,039
April,	1,791	3,291	5,082	1,805	3,172	4,977
May,	1,791	3,312	5,103	1,800	3,218	5,018
June,	1,795	3,336	5,131	1,794	3,222	5,016
July,	1,826	3,350	5,176	1,806	3,210	5,016
August,	1,816	3,360	5,176	1,798	3,254	5,052
September,	1,791	3,326	5,117	1,773	3,244	5,017
October,	1,804	3,366	5,170	1,802	3,294	5,096
November,	1,813	3,346	5,159	1,819	3,287	5,106
December,	1,802	3,346	5,148	1,808	3,304	5,112

TRUNKS AND TRAVELING BAGS—NINE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	523	39	562	482	23	505
February,	520	38	558	490	23	513
March,	536	39	575	509	25	534
April,	571	38	609	540	25	565
May,	575	40	615	535	23	558
June,	601	38	639	538	26	564
July,	612	39	651	532	25	557
August,	612	40	652	520	25	545
September,	590	39	629	514	28	542
October,	591	40	631	513	28	541
November,	545	39	584	496	26	522
December,	518	40	558	449	25	474

TRUNK AND BAG HARDWARE—SEVEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	617	149	766	800	215	1,015
February,	639	162	801	816	240	1,056
March,	646	171	817	789	237	1,026
April,	673	194	867	799	249	1,048
May,	680	184	864	772	217	989
June,	670	163	833	778	231	1,009
July,	612	162	774	759	231	990
August,	678	180	858	785	253	1,038
September,	730	214	944	854	282	1,136
October,	776	221	997	930	281	1,211
November,	766	218	984	913	269	1,182
December,	732	195	927	735	250	985

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

TYPEWRITERS AND SUPPLIES—FOUR ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	193	6	199	205	8	213
February,	200	6	206	210	8	218
March,	203	6	209	214	8	222
April,	203	6	209	217	8	225
May,	198	6	204	225	8	233
June,	186	6	192	207	8	215
July,	179	5	184	199	7	206
August,	202	5	207	221	7	228
September,	213	5	218	231	7	238
October,	199	5	204	220	7	227
November,	84	1	85	104	3	107
December,	87	1	88	103	3	106

UNDERWEAR (WOMENS' AND CHILDRENS')—NINETEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	154	1,724	1,878	146	1,729	1,875
February,	154	1,725	1,879	146	1,733	1,879
March,	154	1,702	1,856	143	1,725	1,868
April,	153	1,657	1,810	141	1,694	1,835
May,	155	1,659	1,814	156	1,684	1,840
June,	154	1,588	1,742	169	1,660	1,829
July,	155	1,547	1,702	175	1,611	1,786
August,	155	1,642	1,797	177	1,742	1,919
September,	155	1,714	1,869	176	1,810	1,986
October,	155	1,820	1,975	170	1,891	2,061
November,	155	1,779	1,934	170	1,861	2,031
December,	155	1,761	1,916	175	1,872	2,047

VARNISHES—EIGHTEEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	267	10	277	280	7	287
February,	269	10	279	278	7	285
March,	272	10	282	285	8	293
April,	274	11	285	278	8	286
May,	274	11	285	280	8	288
June,	284	12	296	290	8	298
July,	283	13	296	289	8	297
August,	283	11	294	291	8	299
September,	282	14	296	293	8	301
October,	280	16	296	293	8	301
November,	278	17	295	298	9	307
December,	278	14	292	290	8	298

TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

WATCHES, CASES AND MATERIALS—TEN ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,520	541	2,070	1,611	553	2,164
February,	1,528	542	2,070	1,624	575	2,199
March,	1,532	550	2,082	1,615	595	2,210
April,	1,542	555	2,097	1,630	605	2,235
May,	1,539	538	2,077	1,647	602	2,249
June,	1,545	550	2,095	1,664	609	2,273
July,	1,562	538	2,100	1,705	612	2,317
August,	1,551	537	2,088	1,723	635	2,358
September,	1,551	557	2,108	1,752	642	2,394
October,	1,571	562	2,135	1,774	644	2,418
November,	1,568	554	2,122	1,798	656	2,454
December,	1,589	583	2,172	1,791	656	2,447

WINDOW SHADES—FIVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	116	3	119	110	11	121
February,	119	5	124	122	14	136
March,	117	5	122	128	16	144
April,	117	6	123	125	18	143
May,	115	9	124	128	16	144
June,	106	5	111	120	13	133
July,	97	3	100	114	11	125
August,	94	3	97	116	10	126
September,	108	3	111	124	10	134
October,	115	4	119	121	10	131
November,	116	4	120	122	9	131
December,	114	3	117	123	8	131

WOODEN GOODS—THIRTY-FIVE ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	1,315	25	1,340	1,451	25	1,476
February,	1,287	21	1,308	1,369	24	1,393
March,	1,383	21	1,404	1,425	20	1,445
April,	1,400	23	1,423	1,480	29	1,509
May,	1,443	20	1,463	1,512	19	1,531
June,	1,348	25	1,373	1,425	16	1,441
July,	1,367	42	1,409	1,456	14	1,470
August,	1,529	46	1,575	1,549	31	1,580
September,	1,468	58	1,526	1,507	39	1,546
October,	1,450	81	1,531	1,511	41	1,552
November,	1,506	80	1,586	1,487	52	1,539
December,	1,440	78	1,518	1,503	45	1,548

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TABLE No. 7.—Persons Employed, by Industries. Aggregate by Months, 1902-1903—(Continued).

WOOLEN AND WORSTED GOODS—TWENTY-SIX ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	3,613	4,581	8,194	3,770	4,764	8,534
February,	3,734	4,667	8,401	3,825	4,856	8,681
March,	3,729	4,680	8,409	3,820	4,815	8,635
April,	3,782	4,749	8,531	3,802	4,793	8,595
May,	3,767	4,768	8,535	3,779	4,762	8,541
June,	3,756	4,772	8,528	3,784	4,718	8,502
July,	3,805	4,839	8,644	3,780	4,661	8,441
August,	3,762	4,787	8,549	3,733	4,671	8,424
September,	3,755	4,798	8,553	3,683	4,649	8,332
October,	3,641	4,666	8,307	3,535	4,523	8,058
November,	3,652	4,610	8,262	3,500	4,455	7,955
December,	3,662	4,621	8,313	3,523	4,468	7,991

UNCLASSIFIED—FIFTY-EIGHT ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	4,410	793	5,203	4,890	721	5,611
February,	4,440	807	5,247	4,872	681	5,553
March,	4,675	808	5,483	5,179	711	5,890
April,	5,150	837	5,987	5,369	710	6,079
May,	5,661	805	6,466	5,417	701	6,118
June,	5,549	784	6,333	5,528	683	6,211
July,	5,469	728	6,197	5,240	661	5,901
August,	5,416	737	6,153	5,454	693	6,147
September,	5,418	715	6,133	5,582	679	6,261
October,	5,465	777	6,242	5,452	711	6,163
November,	5,310	770	6,080	5,381	695	6,076
December,	5,374	723	6,097	5,218	721	5,939

ALL INDUSTRIES—1,811 ESTABLISHMENTS.

Months.	1902.			1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
January,	154,928	53,980	208,908	165,356	59,275	224,631
February,	156,491	54,610	211,101	166,831	59,491	226,322
March,	160,087	55,240	215,327	170,064	60,481	230,545
April,	163,122	55,411	218,533	171,917	59,563	231,480
May,	163,240	55,130	218,370	171,408	59,397	230,805
June,	161,339	53,924	215,263	170,213	58,416	228,629
July,	157,812	53,040	210,852	166,167	57,978	224,145
August,	160,975	54,362	215,337	166,020	58,508	224,528
September,	166,063	56,333	222,396	169,166	59,229	228,395
October,	169,155	57,430	226,585	171,111	59,968	231,079
November,	168,792	57,973	226,765	168,341	59,289	227,630
December,	168,186	57,525	225,711	166,277	59,628	225,905

TABLE No. 8.—Aggregate Amounts Paid in Wages, by Industries.
Increase or Decrease, 1902-1903.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Aggregate Amounts Paid in Wages During the Year.		Increase (+) or Decrease (—) in 1903.		
			1902.	1903.	Amount.	Percentage.	
1	Agricultural implements, ...	8	\$190,061	\$256,591	+	\$66,530	+ 35.0
2	Artisans' tools,	35	914,973	1,107,555	+	192,582	+ 21.0
3	Art tile,	6	65,288	106,307	+	41,019	+ 62.8
4	Bollers,	13	742,693	992,728	+	250,035	+ 33.6
5	Boxes (wood and paper),...	32	447,170	470,459	+	23,289	+ 5.2
6	Brewing (lager beer, ale and porter),	32	1,624,151	1,731,152	+	107,001	+ 6.6
7	Brick and terra cotta,...	58	2,285,746	2,404,833	+	119,087	+ 5.3
8	Brushes,	9	83,605	89,935	+	6,330	+ 7.6
9	Buttons (metal),	10	340,677	345,378	+	4,701	+ 1.4
10	Buttons (pearl),	16	357,541	323,691	—	33,850	— 9.5
11	Carpets and rugs,	9	552,405	591,665	+	39,260	+ 7.1
12	Carriages and wagons, ...	32	537,261	541,212	+	3,951	+ 0.7
13	Chemical products,	42	2,411,856	2,674,001	+	262,145	+ 10.9
14	Cigars and tobacco,	31	1,297,386	2,220,972	+	923,586	+ 71.2
15	Clothing,	17	446,965	450,140	+	3,175	+ 0.7
16	Confectionery,	6	82,567	91,324	+	8,757	+ 10.6
17	Cornices and skylights,...	13	196,054	161,206	—	34,848	— 17.7
18	Corsets and corset waists,...	10	572,368	574,871	+	2,503	+ 0.4
19	Cutlery,	9	335,883	353,202	+	17,319	+ 5.1
20	Cotton goods,	28	1,339,945	1,432,801	+	92,856	+ 6.9
21	Cotton goods (finishing and dyeing),	14	1,618,893	1,680,106	+	61,213	+ 3.7
22	Drawn wire and wire cloth,...	6	2,723,336	2,700,893	—	22,443	— 0.8
23	Electrical appliances,	25	2,063,791	2,744,350	+	680,559	+ 33.0
24	Fertilizers,	12	525,457	634,035	+	108,578	+ 20.7
25	Food products,	24	841,481	931,465	+	89,984	+ 10.7
26	Foundry (brass),	12	457,011	494,648	+	37,637	+ 8.2
27	Foundry (iron),	39	2,629,583	2,960,449	+	330,866	+ 12.6
28	Furnaces, ranges and heaters,	15	1,008,254	987,589	—	20,665	— 2.0
29	Gas and electric light fixtures,	8	129,395	122,206	—	7,189	— 5.5
30	Glass (window and bottle),...	22	3,174,566	3,081,476	—	93,090	— 2.9
31	Glass mirrors,	3	53,884	67,184	+	13,300	+ 24.1
32	Graphite products,	5	449,511	505,846	+	56,335	+ 12.5
33	Hats (felt),	45	3,060,987	3,225,561	+	164,574	+ 5.4
34	Hats (straw),	3	171,904	208,236	+	36,242	+ 21.0
35	High explosives,	8	628,842	648,118	+	19,276	+ 3.1
36	Inks and mucilage,	6	47,164	47,527	+	363	+ 0.7
37	Jewelry,	79	1,672,917	1,753,002	+	80,085	+ 4.7
38	Knit goods,	11	377,878	369,196	—	8,682	— 2.3
39	Laundry,	10	264,659	264,248	—	411	— 0.1
40	Leather,	62	2,606,743	2,767,434	+	160,691	+ 6.2
41	Leather goods,	15	454,715	439,692	—	15,023	— 3.3
42	Lamps,	8	1,166,733	1,104,823	—	61,910	— 5.3
43	Lime and cement,	8	755,649	769,235	+	13,586	+ 1.8
44	Machinery,	95	9,365,484	10,152,984	+	787,500	+ 8.4
45	Mattresses and bedding,...	7	75,944	89,652	+	13,708	+ 18.0
46	Metal goods,	61	2,293,150	2,420,592	+	127,442	+ 5.5
47	Metal novelties,	11	304,020	319,759	+	15,739	+ 5.1
48	Mining (iron ore),	6	706,430	786,156	+	79,726	+ 11.3
49	Musical instruments,	17	855,579	950,179	+	94,600	+ 11.0
50	Oilcloth (floor and table),...	8	423,384	558,071	+	134,587	+ 31.8
51	Oils,	12	1,816,904	2,006,448	+	189,544	+ 10.4
52	Paints,	8	239,590	316,951	+	77,361	+ 32.7
53	Paper,	33	943,208	954,528	+	11,320	+ 1.2
54	Pig iron,	3	310,633	436,665	+	126,032	+ 40.8
55	Pottery,	34	2,271,873	2,414,458	+	142,585	+ 6.2
56	Printing and bookbinding,...	20	493,168	657,284	+	164,116	+ 33.3
57	Quarrying stone,	14	416,684	465,102	+	48,418	+ 11.6

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TABLE No. 8.—Aggregate Amounts Paid in Wages, by Industries.
Increase or Decrease, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Aggregate Amounts Paid in Wages during the Year.		Increase (+) or Decrease (—) in 1903.		
			1902.	1903.	Amount.	Percentage.	
58	Roofing (iron and stone),....	7	\$108,040	\$239,622	+	\$41,582	+ 21.0
59	Rubber goods (hard and soft),	33	2,116,255	2,430,668	+	314,413	+ 14.8
60	Saddles and harness,.....	10	141,258	126,893	—	14,365	— 10.0
61	Saddlery and harness hardware,	12	245,473	234,496	—	10,977	— 4.4
62	Scientific instruments,	11	840,277	1,004,389	+	164,112	+ 19.5
63	Sash, blinds and doors,.....	25	467,118	488,963	+	21,845	+ 4.6
64	Shoes,	34	1,586,207	1,725,053	+	138,846	+ 8.7
65	Shirts,	21	877,622	860,829	—	16,793	— 1.9
66	Shirt waists (women's),	7	133,351	142,764	+	9,413	+ 7.0
67	Shipbuilding,	10	3,111,780	2,431,210	—	680,570	— 21.9
68	Silk (broad and ribbon),.....	123	8,835,402	8,885,661	+	50,259	+ 0.6
69	Silk dyeing,	20	1,819,185	2,028,690	+	209,505	+ 11.5
70	Silk throwing,	22	434,597	414,186	—	20,411	— 4.7
71	Silk mill supplies,.....	14	241,856	215,334	—	26,522	— 10.9
72	Silver goods,	15	729,368	718,126	—	11,242	— 1.5
73	Smelting and refining (gold, silver, copper, etc.),.....	9	1,804,788	1,231,917	—	572,871	— 31.7
74	Soap and tallow,.....	11	242,324	275,158	+	32,834	+ 13.5
75	Steel and iron (bar),.....	7	554,514	541,628	—	12,886	— 2.3
76	Steel and iron (structural),...	19	1,789,273	1,774,709	—	14,564	— 0.8
77	Steel and iron (forging),.....	12	1,601,970	1,739,060	+	137,090	+ 8.5
78	Textile products,	7	258,840	273,033	+	14,193	+ 5.5
79	Thread,	6	1,761,154	1,763,931	+	2,777	+ 0.1
80	Trunks and traveling bags,...	9	329,439	319,415	—	10,024	— 3.0
81	Trunk and bag hardware,...	7	298,993	375,859	+	76,866	+ 25.7
82	Typewriters and supplies,...	4	111,029	123,642	+	12,613	+ 11.3
83	Underwear (women's and children's),	19	551,185	573,034	+	21,849	+ 3.9
84	Varnishes,	18	198,590	206,550	+	7,960	+ 4.0
85	Watches, cases and material,...	10	1,126,079	1,299,605	+	173,526	+ 15.4
86	Window shades,	5	66,938	76,148	+	9,210	+ 13.7
87	Wooden goods,	35	618,602	649,496	+	30,894	+ 5.0
88	Woolen and worsted goods,...	26	2,926,268	2,930,663	+	4,395	+ 0.1
89	Unclassified,	58	3,568,965	3,439,854	—	129,111	— 3.6
	All Industries,	1811	\$101,870,338	\$107,496,757	+	\$5,676,419	+ 5.6

TABLE No. 9.—Average Yearly Earnings, by Industries. Increase or Decrease, 1902-1903.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Average Yearly Earnings.		Increase (+) or Decrease (—) in 1903.	
			1902.	1903.	Amount.	Percentage.
1	Agricultural implements,	8	\$529 42	\$518 36	— \$11 06	— 2.0
2	Artisans' tools,	35	527 97	563 92	+ 35 95	+ 6.8
3	Art tile,	6	388 62	446 67	+ 58 05	+ 14.9
4	Bollers,	13	500 95	565 66	+ 4 71	+ 0.8
5	Boxes (wood and paper),	32	306 49	318 74	+ 12 25	+ 4.0
6	Brewing (lager beer, ale and porter),	32	868 99	872 12	+ 3 13	+ 0.4
7	Brick and terra cotta,	58	427 96	446 03	+ 18 07	+ 4.3
8	Brushes,	9	381 76	387 05	+ 5 29	+ 1.5
9	Buttons (metal),	10	364 75	353 51	— 11 24	— 3.1
10	Buttons (pearl),	16	398 60	410 77	+ 12 17	+ 3.0
11	Carpets and rugs,	9	354 79	337 13	— 17 66	— 4.9
12	Carriages and wagons,	32	351 04	373 31	+ 22 27	+ 4.0
13	Chemical products,	42	481 99	487 51	+ 5 52	+ 0.8
14	Cigars and tobacco,	31	322 01	319 47	— 2 54	— 1.2
15	Clothing,	17	393 48	410 34	+ 16 86	+ 4.3
16	Confectionery,	6	396 99	440 60	+ 43 61	+ 0.1
17	Cornices and skylights,	13	364 41	394 14	+ 29 73	+ 8.1
18	Corsets and corset walsts,	10	297 03	303 69	+ 6 66	+ 2.2
19	Cutlery,	9	449 95	443 72	— 6 23	— 1.4
20	Cotton goods,	28	290 60	289 57	— 1 03	— 0.4
21	Cotton goods (finishing and dyeing),	14	452 33	454 57	+ 2 24	+ 0.5
22	Drawn wire and wire cloth,	6	587 18	571 98	— 15 20	— 2.6
23	Electrical appliances,	25	469 36	497 61	+ 28 25	+ 6.0
24	Fertilizers,	12	488 80	501 13	+ 12 33	+ 2.5
25	Food products,	24	420 53	434 25	+ 13 72	+ 3.3
26	Foundry (brass),	12	504 43	511 00	+ 6 57	+ 1.3
27	Foundry (iron),	39	541 96	540 33	— 1 63	— 0.3
28	Furnaces, ranges and heaters,	15	658 99	617 63	— 41 36	— 6.2
29	Gas and electric light fixtures,	8	440 12	439 59	— 53	— 3.1
30	Glass (window and bottle),	22	517 20	501 05	— 16 15	— 14.0
31	Glass mirrors,	3	369 07	422 54	+ 53 47	+ 6.1
32	Graphite products,	5	319 48	339 03	+ 19 55	+ 8.0
33	Hats (felt),	45	455 10	491 62	+ 36 52	+ 27.8
34	Hats (straw),	3	394 48	505 42	+ 110 94	+ 1.0
35	High explosives,	8	507 54	512 75	+ 5 21	+ 0.3
36	Inks and mucilage,	6	518 29	516 60	— 1 69	— 1.0
37	Jewelry,	79	593 02	598 91	+ 5 89	+ 6.6
38	Knit goods,	11	276 03	294 41	+ 18 38	+ 1.5
39	Laundry,	10	326 73	331 55	+ 4 82	+ 0.8
40	Leather,	62	495 67	499 54	+ 3 87	+ 2.5
41	Leather goods,	15	329 50	337 70	+ 8 20	+ 12.5
42	Lamps,	8	360 66	405 88	+ 45 22	+ 2.6
43	Line and cement,	8	531 40	517 31	— 14 09	— 1.1
44	Machinery,	95	597 52	603 98	+ 6 46	+ 3.6
45	Mattresses and bedding,	7	391 46	405 66	+ 14 20	+ 4.6
46	Metal goods,	61	415 50	434 81	+ 19 31	+ 1.9
47	Metal novelties,	11	409 19	416 89	+ 7 70	+ 10.0
48	Mining (iron ore),	6	436 88	480 83	+ 43 95	+ 6.2
49	Musical instruments,	17	501 22	532 61	+ 31 39	+ 2.7
50	Oilcloth (floor and table),	8	477 44	464 67	— 12 77	— 0.9
51	Oils,	12	603 62	598 34	— 5 28	+ 11.0
52	Paints,	8	453 14	503 10	+ 49 96	+ 0.7
53	Paper,	33	481 47	484 78	+ 3 31	+ 4.9
54	Pig iron,	3	497 64	473 09	— 24 55	+ 4.2
55	Pottery,	34	586 74	611 41	+ 24 67	+ 19.4
56	Printing and bookbinding,	20	429 96	513 50	+ 83 54	+ 2.1
57	Quarrying stone,	14	426 93	435 80	+ 8 87	

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TABLE No. 9.—Average Yearly Earnings, by Industries. Increase or Decrease, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Average Yearly Earnings.		Increase (+) or Decrease (—) in 1903.	
			1902.	1903.	Amount.	Percentage.
58	Roofing (iron and stone),.....	7	\$550 11	\$591 66	+ \$41 55	+ 7.5
59	Rubber goods (hard and soft),.....	33	465 21	468 12	+ 2 91	+ 0.6
60	Saddles and harness,	10	519 33	503 54	— 15 79	— 3.0
61	Saddlery and harness hardware,.....	12	478 50	465 27	— 13 23	— 2.7
62	Scientific instruments,	11	447 67	524 76	+ 77 09	+ 17.2
63	Sash, blinds and doors,	25	536 92	537 32	+ 40	.....
64	Shoes,	34	390 60	417 18	+ 26 58	+ 6.8
65	Shirts,	21	298 41	304 28	+ 5 87	+ 2.0
66	Shirt waists (women's),	7	289 89	279 93	— 9 96	— 3.4
67	Shipbuilding,	10	653 73	638 11	— 15 62	— 2.4
68	Silk (broad and ribbon),.....	123	412 00	395 69	— 16 31	— 3.9
69	Silk dyeing,	20	466 46	479 93	+ 13 47	+ 2.9
70	Silk throwing,	22	264 19	259 19	— 5 00	— 1.9
71	Silk mill supplies,.....	14	391 99	357 69	— 34 30	— 8.7
72	Silver goods,	15	577 03	568 14	— 8 89	— 1.5
73	Smelting and refining (gold, silver, copper, etc.),	9	537 62	525 79	— 11 83	— 2.2
74	Soap and tallow,	11	432 72	426 60	— 6 12	— 1.4
75	Steel and iron (bar),.....	7	479 27	510 97	+ 31 70	+ 6.6
76	Steel and iron (structural),.....	19	539 26	530 71	— 8 55	— 1.5
77	Steel and iron (forging),.....	12	597 75	591 11	— 6 64	— 1.1
78	Textile products,	7	293 14	312 39	+ 19 25	+ 6.5
79	Thread,	6	343 64	350 26	+ 6 62	+ 1.9
80	Trunks and traveling bags,.....	9	544 52	597 03	+ 52 51	+ 9.6
81	Trunk and bag hardware,.....	7	344 07	355 59	+ 11 52	+ 3.4
82	Typewriters and supplies,.....	4	603 42	609 07	+ 5 65	+ 0.9
83	Underwear (women's and children's),	19	298 27	299 55	+ 1 28	+ 0.4
84	Varnishes,	18	687 16	698 47	+ 11 31	+ 1.6
85	Watches, cases and material,.....	10	535 97	562 84	+ 26 87	+ 5.0
86	Window shades,	5	577 05	572 54	— 4 51	— 0.7
87	Wooden goods,	35	425 16	432 42	+ 7 26	+ 1.7
88	Woolen and worsted goods,.....	26	346 80	349 26	+ 2 46	+ 0.7
89	Unclassified,	58	598 01	573 69	— 24 32	— 4.1
	All Industries,.....	1811	\$467 44	\$471 81	+ \$4 37	+ 0.9

TABLE No. 10.—Classified Weekly Wages, by Industries.

AGRICULTURAL IMPLEMENTS—EIGHT ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	22	....	22	15	....	15
\$5, but under \$6,	17	....	17	6	....	6
6, " " 7,	24	....	24	22	....	22
7, " " 8,	98	....	98	42	....	42
8, " " 9,	34	....	34	71	....	71
9, " " 10,	49	....	49	115	....	115
10, " " 12,	41	....	41	70	....	70
12, " " 15,	65	....	65	141	....	141
15, " " 20,	109	....	109	129	....	129
20, and over,	10	....	10	27	....	27
Total,	469	....	469	638	....	638

ARTISANS' TOOLS—THIRTY-FIVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	191	7	198	228	5	233
\$5, but under \$6,	86	2	88	95	3	98
6, " " 7,	98	4	102	114	2	116
7, " " 8,	138	1	139	122	1	123
8, " " 9,	139	5	144	159	4	163
9, " " 10,	177	..	177	181	1	182
10, " " 12,	274	1	275	295	1	296
12, " " 15,	334	..	334	380	1	381
15, " " 20,	324	..	324	356	..	356
20, and over,	132	..	132	132	..	132
Total,	1,893	20	1,913	2,062	18	2,080

ART TILE—SIX ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	10	84	94	13	64	77
\$5, but under \$6,	3	7	10	8	12	20
6, " " 7,	5	3	8	20	3	23
7, " " 8,	7	..	7	23	..	23
8, " " 9,	30	..	30	26	..	26
9, " " 10,	29	..	29	26	..	26
10, " " 12,	15	..	15	17	..	17
12, " " 15,	21	..	21	29	..	29
15, " " 20,	17	..	17	5	..	5
20, and over,	2	..	2	5	..	5
Total,	139	94	233	172	79	251

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

BOILERS—THIRTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	19	..	19	23	..	23
\$5, but under \$6,	16	..	16	23	..	23
6, " " 7,	32	..	32	19	..	19
7, " " 8,	72	..	72	75	..	75
8, " " 9,	109	..	109	89	..	89
9, " " 10,	513	..	513	645	..	645
10, " " 12,	217	..	217	483	..	483
12, " " 15,	206	..	206	305	..	305
15, " " 20,	213	..	213	347	..	347
20, and over,	29	..	29	45	..	45
Total,	1,426	..	1,426	2,054	..	2,054

BOXES (WOOD AND PAPER)—THIRTY-TWO ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	62	384	446	71	410	481
\$5, but under \$6,	45	273	318	40	259	299
6, " " 7,	30	193	223	41	158	199
7, " " 8,	44	83	127	40	105	145
8, " " 9,	63	51	114	60	47	107
9, " " 10,	48	20	68	84	16	100
10, " " 12,	54	13	67	66	11	77
12, " " 15,	116	5	121	109	4	113
15, " " 20,	49	....	49	63	....	63
20, and over,	17	....	17	15	....	15
Total,	528	1,022	1,550	589	1,010	1,599

BREWING (LAGER BEER, ALE AND PORTER)—THIRTY-TWO ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	17	..	17	23	..	23
\$5, but under \$6,	21	..	21	16	..	16
6, " " 7,	10	..	10	23	..	23
7, " " 8,	21	..	21	14	..	14
8, " " 9,	17	..	17	27	..	27
9, " " 10,	22	..	22	37	..	37
10, " " 12,	43	..	43	50	..	50
12, " " 15,	259	..	259	175	..	175
15, " " 20,	1,384	..	1,384	1,514	..	1,514
20, and over,	192	..	192	228	..	228
Total,	1,986	..	1,986	2,107	..	2,107

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

BRICK AND TERRA COTTA—FIFTY-EIGHT ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	304	13	317	350	13	363
\$5, but under \$6,	195	..	195	229	3	232
6, " " 7,	399	..	399	446	..	446
7, " " 8,	1,621	1	1,622	1,104	1	1,105
8, " " 9,	1,445	..	1,445	1,649	1	1,650
9, " " 10,	1,261	..	1,261	1,240	..	1,240
10, " " 12,	809	..	809	757	..	757
12, " " 15,	466	..	466	475	..	475
15, " " 20,	453	..	453	512	..	512
20, and over,	168	1	169	190	1	191
Total,	7,121	15	7,136	6,952	19	6,971

BRUSHES—NINE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	16	38	54	15	41	56
\$5, but under \$6,	5	12	17	2	24	26
6, " " 7,	16	10	26	8	18	26
7, " " 8,	17	8	25	12	18	30
8, " " 9,	19	1	20	22	2	24
9, " " 10,	27	2	29	25	..	25
10, " " 12,	15	..	15	16	2	18
12, " " 15,	24	1	25	23	1	24
15, " " 20,	19	..	19	20	..	20
20, and over,	4	..	4	5	..	5
Total,	162	72	234	148	106	254

BUTTONS (METAL)—TEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	67	364	431	51	330	381
\$5, but under \$6,	33	107	140	25	138	163
6, " " 7,	20	58	78	14	87	101
7, " " 8,	16	52	68	14	59	73
8, " " 9,	18	36	54	15	35	50
9, " " 10,	19	13	32	17	32	49
10, " " 12,	52	7	59	40	27	67
12, " " 15,	30	2	32	51	23	74
15, " " 20,	82	..	82	75	3	78
20, and over,	60	..	60	98	2	100
Total,	397	639	1,036	400	736	1,136

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

BUTTONS (PEARL)—SIXTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	133	68	201	90	50	140
\$5, but under \$6,	50	49	99	44	38	82
6, " " 7,	51	74	125	60	53	113
7, " " 8,	66	57	123	62	38	100
8, " " 9,	36	20	56	34	16	50
9, " " 10,	55	5	60	67	4	71
10, " " 12,	80	4	84	60	2	62
12, " " 15,	116	..	116	136	..	136
15, " " 20,	141	..	141	155	..	155
20, and over,	17	..	17	13	..	13
Total,	745	277	1,022	721	201	922

CARPETS AND RUGS—NINE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	191	161	352	175	133	308
\$5, but under \$6,	99	143	242	108	149	257
6, " " 7,	187	81	268	165	101	266
7, " " 8,	220	28	248	246	30	276
8, " " 9,	123	46	169	70	33	103
9, " " 10,	116	17	133	154	26	180
10, " " 12,	189	5	194	211	13	224
12, " " 15,	117	..	117	147	..	147
15, " " 20,	63	..	63	68	..	68
20, and over,	9	..	9	14	..	14
Total,	1,314	481	1,795	1,358	485	1,843

CARRIAGES AND WAGONS—THIRTY-TWO ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	18	..	18	17	..	17
\$5, but under \$6,	28	..	28	42	..	42
6, " " 7,	25	..	25	18	..	18
7, " " 8,	61	..	61	55	..	55
8, " " 9,	105	..	105	78	..	78
9, " " 10,	103	..	103	169	..	169
10, " " 12,	183	..	183	147	..	147
12, " " 15,	266	..	266	249	..	249
15, " " 20,	194	..	194	182	..	182
20, and over,	47	..	47	34	..	34
Total,	1,030	..	1,030	991	..	991

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

CHEMICAL PRODUCTS—FORTY-TWO ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	277	567	844	193	490	683
\$5, but under \$6,	138	208	346	121	258	379
6, " " 7,	188	170	358	200	179	379
7, " " 8,	195	106	301	252	159	411
8, " " 9,	232	76	308	243	87	330
9, " " 10,	1,077	35	1,112	1,085	38	1,123
10, " " 12,	1,007	23	1,030	1,132	22	1,154
12, " " 15,	841	9	850	848	14	862
15, " " 20,	518	5	523	493	5	498
20, and over,	204	....	204	222	....	222
Total,	4,677	1,199	5,876	4,789	1,252	6,041

CIGARS AND TOBACCO—THIRTY-ONE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	148	876	1,024	225	2,436	2,661
\$5, but under \$6,	56	674	730	73	810	883
6, " " 7,	58	379	437	98	750	848
7, " " 8,	90	282	372	80	822	902
8, " " 9,	118	279	397	159	595	754
9, " " 10,	194	174	368	163	456	619
10, " " 12,	175	198	373	205	248	453
12, " " 15,	228	121	349	238	60	298
15, " " 20,	178	50	228	244	2	246
20, and over,	103	....	103	87	....	87
Total,	1,348	3,033	4,381	1,572	6,179	7,751

CLOTHING—SEVENTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	26	199	225	18	189	207
\$5, but under \$6,	31	133	164	25	123	148
6, " " 7,	32	154	186	31	160	191
7, " " 8,	38	84	122	47	64	111
8, " " 9,	42	46	88	49	90	139
9, " " 10,	52	15	67	43	17	60
10, " " 12,	118	14	132	95	19	114
12, " " 15,	151	2	153	144	7	151
15, " " 20,	70	....	70	120	....	120
20, and over,	32	....	32	120	....	120
Total,	592	647	1,239	692	669	1,361

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

CONFECTIONERY—SIX ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5, .....	..	51	51	4	40	44
\$5, but under \$6,	3	24	27	6	13	19
6, " " 7,	7	19	26	8	12	20
7, " " 8,	21	13	34	20	12	32
8, " " 9,	17	8	25	17	11	28
9, " " 10,	8	6	14	17	12	29
10, " " 12,	16	3	19	9	5	14
12, " " 15,	26	..	26	25	2	27
15, " " 20,	16	..	16	13	..	13
20, and over,	10	..	10	12	..	12
Total,	124	124	248	131	107	238

CORNICES AND SKYLIGHTS—THIRTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	22	..	22	32	..	32
\$5, but under \$6,	21	..	21	15	..	15
6, " " 7,	2	..	2	12	..	12
7, " " 8,	13	..	13	7	..	7
8, " " 9,	14	..	14	13	..	13
9, " " 10,	51	..	51	28	..	28
10, " " 12,	46	..	46	56	..	56
12, " " 15,	37	..	37	48	..	48
15, " " 20,	86	..	86	75	..	75
20, and over,	59	..	59	54	..	54
Total,	351	..	351	340	..	340

CORSETS AND CORSET WAISTS—TEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	12	498	510	10	512	522
\$5, but under \$6,	15	365	380	11	367	378
6, " " 7,	6	254	260	7	256	263
7, " " 8,	12	294	306	11	269	280
8, " " 9,	9	199	208	8	195	203
9, " " 10,	13	115	128	15	129	144
10, " " 12,	14	126	140	16	134	150
12, " " 15,	26	27	53	26	28	54
15, " " 20,	26	14	40	28	11	39
20, and over,	23	2	25	20	1	21
Total,	156	1,894	2,050	152	1,902	2,054

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

CUTLERY—NINE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	164	53	217	169	39	208
\$5, but under \$6,	48	16	64	65	22	87
6, " " 7,	53	7	60	59	11	70
7, " " 8,	63	1	64	44	3	47
8, " " 9,	48	1	49	43	1	44
9, " " 10,	65	..	65	74	1	75
10, " " 12,	82	2	84	79	..	79
12, " " 15,	83	..	83	94	..	94
15, " " 20,	91	..	91	80	..	80
20, and over,	46	..	46	48	..	48
Total,	743	80	823	755	77	832

COTTON GOODS—TWENTY-EIGHT ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	261	1,870	2,131	154	1,673	1,827
\$5, but under \$6,	88	678	766	100	804	904
6, " " 7,	121	397	518	141	554	695
7, " " 8,	200	381	581	263	433	696
8, " " 9,	161	184	345	129	257	386
9, " " 10,	159	84	243	191	154	345
10, " " 12,	138	38	176	155	64	219
12, " " 15,	113	15	128	134	18	152
15, " " 20,	104	4	108	116	6	122
20, and over,	48	....	48	58	....	58
Total,	1,393	3,651	5,044	1,441	3,963	5,404

COTTON GOODS (FINISHING AND DYEING)—FOURTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	323	217	540	256	223	479
\$5, but under \$6,	169	197	366	178	194	372
6, " " 7,	117	109	226	139	125	264
7, " " 8,	1,036	12	1,048	918	13	931
8, " " 9,	618	1	619	549	3	552
9, " " 10,	335	....	335	479	5	484
10, " " 12,	275	1	276	247	6	253
12, " " 15,	236	1	237	262	5	267
15, " " 20,	159	1	160	178	1	179
20, and over,	115	....	115	126	....	126
Total,	3,383	539	3,922	3,332	575	3,907

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

DRAWN WIRE AND WIRE CLOTH—SIX ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	469	400	929	492	471	963
\$5, but under \$6,	245	17	262	237	12	249
6, " " 7,	275	28	305	276	33	309
7, " " 8,	403	17	420	403	10	413
8, " " 9,	481	8	489	479	5	484
9, " " 10,	512	1	513	495	2	497
10, " " 12,	743	1	744	780	2	782
12, " " 15,	525	....	525	542	....	542
15, " " 20,	388	....	388	468	....	468
20, and over,	249	....	249	251	....	251
Total,	4,290	532	4,824	4,423	535	4,958

ELECTRICAL APPLIANCES—TWENTY-FIVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	521	162	683	537	322	859
\$5, but under \$6,	185	219	404	191	196	387
6, " " 7,	188	123	311	222	161	383
7, " " 8,	198	95	293	267	78	345
8, " " 9,	266	74	340	367	34	401
9, " " 10,	598	58	656	910	15	925
10, " " 12,	524	14	538	681	6	687
12, " " 15,	643	6	649	795	5	800
15, " " 20,	774	1	775	748	1	749
20, and over,	336	....	336	303	....	303
Total,	4,233	752	4,985	5,021	818	5,839

FERTILIZERS—TWELVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	17	..	17	26	..	26
\$5, but under \$6,	7	2	9	8	1	9
6, " " 7,	14	14	28	13	17	30
7, " " 8,	13	7	20	19	3	22
8, " " 9,	191	..	191	45	..	45
9, " " 10,	1,016	3	1,019	608	..	608
10, " " 12,	152	..	152	833	2	835
12, " " 15,	126	..	126	137	3	140
15, " " 20,	89	..	89	104	..	104
20, and over,	18	..	18	26	..	26
Total,	1,643	26	1,669	1,819	26	1,845

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

FOOD PRODUCTS—TWENTY-FOUR ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	130	219	349	118	193	311
\$5, but under \$6,	42	162	204	45	176	221
6, " " 7,	75	96	171	85	106	191
7, " " 8,	194	19	213	178	33	211
8, " " 9,	100	6	106	82	10	92
9, " " 10,	184	4	188	228	3	231
10, " " 12,	197	6	203	275	7	282
12, " " 15,	410	2	412	388	3	391
15, " " 20,	232	....	232	278	....	278
20, and over,	53	1	54	71	1	72
Total,	1,617	515	2,132	1,748	532	2,280

FOUNDRY (BRASS)—TWELVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	92	24	116	88	20	108
\$5, but under \$6,	34	19	53	26	7	33
6, " " 7,	26	9	35	28	11	39
7, " " 8,	98	10	108	92	14	106
8, " " 9,	68	6	74	66	8	74
9, " " 10,	96	2	98	89	2	91
10, " " 12,	139	..	139	137	..	137
12, " " 15,	156	..	156	163	..	163
15, " " 20,	183	..	183	236	..	236
20, and over,	50	..	50	31	..	31
Total,	942	70	1,012	956	62	1,018

FOUNDRY (IRON)—THIRTY-NINE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	236	..	236	289	..	289
\$5, but under \$6,	152	..	152	130	..	130
6, " " 7,	167	..	167	206	..	206
7, " " 8,	471	..	471	380	..	380
8, " " 9,	1,016	..	1,016	964	..	964
9, " " 10,	963	..	963	1,228	..	1,228
10, " " 12,	650	..	650	764	..	764
12, " " 15,	851	..	851	957	..	957
15, " " 20,	872	..	872	1,037	..	1,037
20, and over,	232	..	232	231	..	231
Total,	5,610	..	5,610	6,186	..	6,186

FURNACES, RANGES AND HEATERS—FIFTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	83	..	83	75	..	75
\$5, but under \$6,	37	..	37	43	..	43
6, " " 7,	47	..	47	57	..	57
7, " " 8,	48	..	48	78	..	78
8, " " 9,	59	..	59	63	..	63
9, " " 10,	346	..	346	223	..	223
10, " " 12,	176	..	176	245	..	245
12, " " 15,	260	..	260	297	..	297
15, " " 20,	421	..	421	430	..	430
20, and over,	270	..	270	245	..	245
Total,	1,747	..	1,747	1,756	..	1,756

GAS AND ELECTRIC LIGHT FIXTURES—EIGHT ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	53	15	68	53	8	61
\$5, but under \$6,	25	1	26	30	2	32
6, " " 7,	28	3	31	23	2	25
7, " " 8,	23	2	25	37	3	40
8, " " 9,	20	..	20	22	..	22
9, " " 10,	24	..	24	20	..	20
10, " " 12,	43	..	43	30	..	30
12, " " 15,	49	..	49	55	..	55
15, " " 20,	32	..	32	27	..	27
20, and over,	6	..	6	5	..	5
Total,	303	21	324	302	15	317

GLASS (WINDOW AND BOTTLE)—TWENTY-TWO ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	2,230	130	2,360	2,126	145	2,271
\$5, but under \$6,	461	11	472	411	21	432
6, " " 7,	483	19	502	475	18	493
7, " " 8,	650	2	652	497	2	499
8, " " 9,	431	2	433	500	3	503
9, " " 10,	484	1	485	338	1	339
10, " " 12,	587	1	588	556	3	559
12, " " 15,	520	....	520	439	....	439
15, " " 20,	512	....	512	386	....	386
20, and over,	1,762	....	1,762	1,960	....	1,960
Total,	8,120	166	8,286	7,688	193	7,881

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

GLASS MIRRORS—THREE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	24	3	27	18	3	21
\$5, but under \$6,	12	6	18	18	7	25
6, " " 7,	10	6	16	14	6	20
7, " " 8,	13	2	15	18	4	22
8, " " 9,	6	..	6	8	1	9
9, " " 10,	5	..	5	17	..	17
10, " " 12,	15	..	15	9	..	9
12, " " 15,	24	..	24	22	..	22
15, " " 20,	29	..	29	23	..	23
20, and over,	4	..	4	3	..	3
Total,	142	17	159	150	21	171

GRAPHITE PRODUCTS—FIVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	215	531	746	235	538	773
\$5, but under \$6,	88	117	205	79	88	167
6, " " 7,	72	66	138	61	92	153
7, " " 8,	30	18	48	51	45	96
8, " " 9,	37	7	44	24	30	54
9, " " 10,	56	22	78	42	12	54
10, " " 12,	65	15	80	78	2	80
12, " " 15,	76	5	81	98	1	99
15, " " 20,	33	....	33	64	2	66
20, and over,	35	....	35	32	....	32
Total,	707	781	1,488	764	810	1,574

HATS (FELT)—FORTY-FIVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	171	319	490	165	281	446
\$5, but under \$6,	137	233	370	115	172	287
6, " " 7,	149	257	406	114	249	363
7, " " 8,	217	232	449	143	206	349
8, " " 9,	244	229	473	151	172	323
9, " " 10,	290	119	409	264	159	423
10, " " 12,	556	95	651	510	132	642
12, " " 15,	769	27	796	670	42	712
15, " " 20,	1,263	14	1,277	1,271	10	1,281
20, and over,	646	3	649	775	775
Total,	4,442	1,528	5,970	4,178	1,423	5,601

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

HATS (STRAW)—THREE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	23	141	164	21	116	137
\$5, but under \$6,	10	47	57	10	39	49
6, " " 7,	12	56	68	9	45	54
7, " " 8,	5	46	51	4	46	50
8, " " 9,	9	54	63	7	48	55
9, " " 10,	12	40	52	17	51	68
10, " " 12,	20	28	48	20	29	49
12, " " 15,	37	21	58	31	20	51
15, " " 20,	33	2	35	43	2	45
20, and over,	11	....	11	29	....	29
Total,	172	485	607	191	396	587

HIGH EXPLOSIVES—EIGHT ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	17	2	19	14	2	16
\$5, but under \$6,	19	..	19	20	..	20
6, " " 7,	27	7	34	28	11	39
7, " " 8,	58	1	59	60	..	60
8, " " 9,	65	..	65	61	..	61
9, " " 10,	508	..	508	504	..	504
10, " " 12,	279	..	279	281	..	281
12, " " 15,	283	..	283	288	..	288
15, " " 20,	97	..	97	103	..	103
20, and over,	24	..	24	26	..	26
Total,	1,377	10	1,387	1,385	13	1,398

INKS AND MUCILAGE—SIX ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	6	27	33	6	27	33
\$5, but under \$6,	3	2	5	4	2	6
6, " " 7,	1	2	3	4	2	6
7, " " 8,	7	..	7	6	..	6
8, " " 9,	3	..	3	4	..	4
9, " " 10,	4	..	4	9	..	9
10, " " 12,	7	..	7	7	..	7
12, " " 15,	13	..	13	15	..	15
15, " " 20,	18	..	18	11	..	11
20, and over,	10	..	10	6	..	6
Total,	72	31	103	72	31	103

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

JEWELRY—SEVENTY-NINE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	275	210	494	282	201	483
\$5, but under \$6,	74	93	167	80	91	171
6, " " 7,	67	94	161	44	104	148
7, " " 8,	65	129	194	83	97	180
8, " " 9,	77	106	183	61	94	155
9, " " 10,	65	88	153	54	69	123
10, " " 12,	151	68	219	169	85	254
12, " " 15,	301	45	346	284	57	341
15, " " 20,	634	9	643	660	2	662
20, and over,	601	....	601	567	....	567
Total,	2,310	851	3,161	2,284	800	3,084

KNIT GOODS—ELEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	173	416	589	142	330	472
\$5, but under \$6,	38	192	230	33	197	230
6, " " 7,	31	126	157	31	132	163
7, " " 8,	41	93	134	37	95	132
8, " " 9,	27	71	98	34	85	119
9, " " 10,	29	36	65	31	44	75
10, " " 12,	38	25	63	42	27	69
12, " " 15,	43	9	52	61	10	71
15, " " 20,	36	3	39	38	3	41
20, and over,	22	1	23	27	....	27
Total,	478	972	1,450	476	923	1,399

LAUNDRY—TEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	4	179	183	7	166	173
\$5, but under \$6,	15	152	167	7	148	155
6, " " 7,	1	111	112	....	125	125
7, " " 8,	1	41	42	2	53	55
8, " " 9,	18	14	32	14	26	40
9, " " 10,	62	19	81	63	15	78
10, " " 12,	35	45	80	32	31	63
12, " " 15,	47	9	56	92	9	101
15, " " 20,	37	10	47	53	53
20, and over,	4	4	7	7
Total,	224	580	804	277	573	850

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

LEATHER—SIXTY-TWO ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5.	260	28	288	311	15	326
\$5, but under \$6.	202	28	230	183	25	208
6, " " 7.	235	17	252	247	19	266
7, " " 8.	317	11	328	421	14	435
8, " " 9.	351	7	358	360	4	364
9, " " 10.	813	1	814	769	1	770
10, " " 12.	1,059	..	1,059	966	1	967
12, " " 15.	1,085	..	1,085	1,124	..	1,124
15, " " 20.	847	..	847	918	..	918
20, and over.	353	..	353	396	..	396
Total.	5,522	92	5,614	5,695	79	5,774

LEATHER GOODS—FIFTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5.	160	366	526	161	317	478
\$5, but under \$6.	67	154	221	72	141	213
6, " " 7.	62	91	153	55	82	137
7, " " 8.	52	33	85	51	31	82
8, " " 9.	42	34	76	48	27	75
9, " " 10.	52	13	65	52	13	65
10, " " 12.	110	6	116	85	12	97
12, " " 15.	87	7	94	108	8	116
15, " " 20.	73	....	73	68	....	68
20, and over.	22	....	22	22	....	22
Total.	727	704	1,431	722	631	1,353

LAMPS—EIGHT ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5.	136	923	1,059	58	268	326
\$5, but under \$6.	77	341	418	59	351	410
6, " " 7.	92	574	666	31	218	249
7, " " 8.	75	366	441	116	372	488
8, " " 9.	124	284	408	115	365	480
9, " " 10.	84	128	212	45	182	227
10, " " 12.	141	53	194	197	194	391
12, " " 15.	151	12	163	135	19	154
15, " " 20.	168	....	168	148	2	150
20, and over.	22	....	22	21	..	21
Total.	1,070	2,681	3,751	925	1,971	2,896

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

LIME AND CEMENT—EIGHT ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	60	..	60	128	..	128
\$5, but under \$6,	6	..	6	45	..	45
6, " " 7,	20	..	20	59	..	59
7, " " 8,	825	..	825	150	..	150
8, " " 9,	248	..	248	287	..	287
9, " " 10,	176	..	176	386	..	386
10, " " 12,	215	..	215	305	..	305
12, " " 15,	159	..	159	264	..	264
15, " " 20,	96	..	96	128	..	128
20, and over,	21	..	21	32	..	32
Total,	1,826	..	1,826	1,784	..	1,784

MACHINERY—NINETY-FIVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	1,342	87	1,429	1,323	68	1,391
\$5, but under \$6,	418	70	488	520	64	584
6, " " 7,	495	84	579	534	93	627
7, " " 8,	767	49	816	792	56	848
8, " " 9,	900	36	936	1,000	33	1,033
9, " " 10,	1,752	37	1,789	1,705	31	1,736
10, " " 12,	1,892	13	1,905	2,159	21	2,180
12, " " 15,	3,292	5	3,297	3,438	6	3,444
15, " " 20,	4,959	..	4,959	5,199	..	5,199
20, and over,	1,006	..	1,006	1,084	..	1,084
Total,	16,823	381	17,204	17,754	372	18,126

MATTRESSES AND BEDDING—SEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	40	..	40	44	11	55
\$5, but under \$6,	12	17	29	20	16	36
6, " " 7,	10	6	16	11	1	12
7, " " 8,	23	..	23	20	1	21
8, " " 9,	15	5	20	12	2	14
9, " " 10,	17	4	21	14	9	23
10, " " 12,	14	..	14	29	..	29
12, " " 15,	25	1	26	23	1	24
15, " " 20,	18	..	18	24	..	24
20, and over,	3	..	3	3	..	3
Total,	177	33	210	200	41	241

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

METAL GOODS—SIXTY-ONE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	612	618	1,230	586	670	1,256
\$5, but under \$6,	270	258	528	268	312	580
6, " " 7,	349	233	582	331	291	622
7, " " 8,	399	104	503	388	131	519
8, " " 9,	368	64	432	363	65	428
9, " " 10,	723	32	755	717	23	740
10, " " 12,	604	23	627	756	28	784
12, " " 15,	600	9	609	616	12	628
15, " " 20,	540	3	543	588	3	591
20, and over,	203	....	203	281	2	283
Total,	4,688	1,344	6,012	4,894	1,537	6,431

METAL NOVELTIES—ELEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	166	130	296	158	97	255
\$5, but under \$6,	51	25	76	84	43	127
6, " " 7,	54	21	75	60	14	74
7, " " 8,	33	14	47	42	8	50
8, " " 9,	66	3	69	55	5	60
9, " " 10,	53	2	55	65	2	67
10, " " 12,	60	3	63	66	6	72
12, " " 15,	104	2	106	120	4	124
15, " " 20,	86	....	86	84	....	84
20, and over,	23	....	23	30	....	30
Total,	696	200	896	764	179	943

MINING (IRON ORE)—SIX ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	59	..	59	74	..	74
\$5, but under \$6,	36	..	36	14	..	14
6, " " 7,	45	..	45	19	..	19
7, " " 8,	154	..	154	65	..	65
8, " " 9,	303	..	303	180	..	180
9, " " 10,	636	..	636	274	..	274
10, " " 12,	418	..	418	829	..	829
12, " " 15,	160	..	160	403	..	403
15, " " 20,	14	..	14	64	..	64
20, and over, .....	..	..	..	3	..	3
Total,	1,825	..	1,825	1,905	..	1,905

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

MUSICAL INSTRUMENTS—SEVENTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	132	127	259	135	107	242
\$5, but under \$6,	76	58	134	79	46	125
6, " " 7,	90	50	140	74	51	125
7, " " 8,	119	32	151	108	41	149
8, " " 9,	100	18	118	141	24	165
9, " " 10,	163	12	175	152	15	167
10, " " 12,	226	3	229	235	6	241
12, " " 15,	278	1	279	304	4	308
15, " " 20,	341	....	341	327	1	328
20, and over,	77	....	77	90	..	90
Total,	1,602	301	1,903	1,645	295	1,940

OIL CLOTH (FLOOR AND TABLE)—EIGHT ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	46	..	46	38	..	38
\$5, but under \$6,	19	..	19	28	..	28
6, " " 7,	22	..	22	36	..	36
7, " " 8,	146	..	146	160	..	160
8, " " 9,	213	..	213	201	..	201
9, " " 10,	223	..	223	316	..	316
10, " " 12,	115	..	115	143	..	143
12, " " 15,	106	..	106	200	..	200
15, " " 20,	96	..	96	128	..	128
20, and over,	36	..	36	54	..	54
Total,	1,022	..	1,022	1,304	..	1,304

OILS—TWELVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	64	..	64	80	..	80
\$5, but under \$6,	61	..	61	135	..	135
6, " " 7,	177	..	177	112	..	112
7, " " 8,	94	..	94	468	..	468
8, " " 9,	243	..	243	147	..	147
9, " " 10,	654	..	654	648	..	648
10, " " 12,	541	..	541	436	..	436
12, " " 15,	620	..	620	549	..	549
15, " " 20,	837	..	837	935	..	935
20, and over,	207	..	207	175	..	175
Total,	3,408	..	3,408	3,685	..	3,685

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	32	41	73	47	41	88
\$5, but under \$6,	19	15	34	17	18	35
6, " " 7,	15	11	26	22	6	28
7, " " 8,	27	4	31	22	3	25
8, " " 9,	35	3	38	49	3	52
9, " " 10,	143	2	145	159	3	162
10, " " 12,	146	1	147	174	4	178
12, " " 15,	83	..	83	79	..	79
15, " " 20,	50	..	50	44	1	45
20, and over,	21	..	21	18	..	18
Total,	571	77	648	631	79	710

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	171	142	313	150	125	275
\$5, but under \$6,	93	30	123	66	66	132
6, " " 7,	116	47	163	108	46	154
7, " " 8,	322	41	363	305	50	355
8, " " 9,	201	7	208	247	6	253
9, " " 10,	316	3	319	324	4	328
10, " " 12,	197	1	198	214	2	216
12, " " 15,	197	1	198	192	1	193
15, " " 20,	140	....	140	157	1	158
20, and over,	139	....	139	105	....	105
Total,	1,892	272	2,164	1,868	301	2,169

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	47	..	47	27	..	27
\$5, but under \$6,	9	..	9	14	..	14
6, " " 7,	7	..	7	56	..	56
7, " " 8,	106	..	106	296	..	296
8, " " 9,	221	..	221	209	..	209
9, " " 10,	18	..	18	131	..	131
10, " " 12,	126	..	126	263	..	263
12, " " 15,	161	..	161	157	..	157
15, " " 20,	15	..	15	50	..	50
20, and over,	24	..	24	31	..	31
Total,	734	..	734	1,234	..	1,234

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

POTTERY—THIRTY-FOUR ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	293	368	661	289	359	648
\$5, but under \$6,	124	126	250	136	142	278
6, " " 7,	172	78	250	161	84	245
7, " " 8,	263	92	355	232	82	314
8, " " 9,	191	35	226	243	41	284
9, " " 10,	254	30	284	280	38	318
10, " " 12,	335	20	355	348	13	361
12, " " 15,	405	21	426	399	16	415
15, " " 20,	567	5	572	603	6	609
20, and over,	725	1	726	789	1	790
Total,	3,829	776	4,105	3,480	782	4,262

PRINTING AND BOOKBINDING—TWENTY ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	108	308	416	121	317	438
\$5, but under \$6,	39	72	111	49	80	129
6, " " 7,	76	68	144	71	83	154
7, " " 8,	52	40	92	62	40	102
8, " " 9,	38	19	57	50	32	82
9, " " 10,	56	9	65	66	19	85
10, " " 12,	96	5	101	85	20	105
12, " " 15,	114	7	121	156	7	163
15, " " 20,	169	6	175	173	4	177
20, and over,	71	....	71	120	3	123
Total,	819	534	1,353	953	605	1,558

QUARRYING STONE—FOURTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	39	..	39	48	..	48
\$5, but under \$6,	15	..	15	16	..	16
6, " " 7,	80	..	80	82	..	82
7, " " 8,	155	..	155	144	..	144
8, " " 9,	250	..	250	325	..	325
9, " " 10,	202	..	202	203	..	203
10, " " 12,	99	..	99	103	..	103
12, " " 15,	86	..	86	88	..	88
15, " " 20,	146	..	146	140	..	140
20, and over,	176	..	176	212	..	212
Total,	1,248	..	1,248	1,361	..	1,361

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

ROOFING (IRON AND STONE)—SEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	26	13	39	13	10	23
\$5, but under \$6,	5	..	5	6	1	7
6, " " 7,	42	..	42	14	..	14
7, " " 8,	9	..	9	31	..	31
8, " " 9,	19	..	19	4	..	4
9, " " 10,	104	..	104	183	..	183
10, " " 12,	46	..	46	54	..	54
12, " " 15,	89	..	89	91	..	91
15, " " 20,	24	..	24	31	..	31
20, and over,	29	..	29	27	..	27
Total,	393	13	406	454	11	465

RUBBER GOODS (HARD AND SOFT)—THIRTY-THREE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	346	213	559	316	189	505
\$5, but under \$6,	156	279	435	170	234	404
6, " " 7,	243	159	407	258	255	513
7, " " 8,	405	61	466	403	72	475
8, " " 9,	489	66	555	492	87	579
9, " " 10,	757	46	803	935	57	992
10, " " 12,	682	30	712	868	20	888
12, " " 15,	664	10	674	810	8	818
15, " " 20,	335	2	337	414	2	416
20, and over,	114	1	115	127	1	128
Total,	4,196	867	5,063	4,793	925	5,718

SADDLES AND HARNESS—TEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	20	4	24	18	4	22
\$5, but under \$6,	16	6	22	15	6	21
6, " " 7,	12	1	13	14	1	15
7, " " 8,	14	1	15	8	1	9
8, " " 9,	20	..	20	14	..	14
9, " " 10,	18	3	21	20	3	23
10, " " 12,	40	..	40	49	..	49
12, " " 15,	74	..	74	54	..	54
15, " " 20,	58	..	58	56	..	56
20, and over,	11	..	11	14	..	14
Total,	283	15	298	262	15	277

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

SADDLERY AND HARNESS HARDWARE—TWELVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	65	1	66	66	1	67
\$5, but under \$6,	36	2	38	31	2	33
6, " " 7,	18	2	20	22	1	23
7, " " 8,	42	3	45	27	5	32
8, " " 9,	47	1	48	41	..	41
9, " " 10,	43	..	43	43	1	44
10, " " 12,	49	2	51	55	1	56
12, " " 15,	115	..	115	121	1	122
15, " " 20,	87	..	87	95	..	95
20, and over,	11	..	11	20	..	20
Total,	513	11	524	521	12	533

SCIENTIFIC INSTRUMENTS—ELEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	196	72	268	230	89	319
\$5, but under \$6,	52	31	83	77	25	102
6, " " 7,	85	46	131	79	28	107
7, " " 8,	75	21	96	101	15	116
8, " " 9,	103	10	113	129	13	142
9, " " 10,	119	41	160	160	5	165
10, " " 12,	370	7	377	305	5	310
12, " " 15,	317	1	318	414	2	416
15, " " 20,	363	..	363	362	..	362
20, and over,	157	..	157	104	..	104
Total,	1,837	229	2,066	1,961	182	2,143

SASH, BLINDS AND DOORS—TWENTY-FIVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	109	..	109	104	..	104
\$5, but under \$6,	28	..	28	24	..	24
6, " " 7,	38	..	38	30	..	30
7, " " 8,	42	..	42	58	..	58
8, " " 9,	40	..	40	110	..	110
9, " " 10,	206	..	206	134	..	134
10, " " 12,	84	..	84	100	..	100
12, " " 15,	194	..	194	185	..	185
15, " " 20,	214	..	214	234	..	234
20, and over,	26	..	26	26	..	26
Total,	981	..	981	1,005	..	1,005

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

SHOES—THIRTY-FOUR ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	398	434	832	311	466	777
\$5, but under \$6,	155	236	391	195	203	398
6, " " 7,	183	224	407	176	207	383
7, " " 8,	173	169	342	167	157	324
8, " " 9,	212	135	347	234	151	385
9, " " 10,	251	91	342	258	115	373
10, " " 12,	427	117	544	416	117	533
12, " " 15,	507	56	563	508	40	548
15, " " 20,	295	10	305	330	17	347
20, and over,	146	....	146	194	....	194
Total,	2,747	1,472	4,219	2,789	1,473	4,262

SHIRTS—TWENTY-ONE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	54	709	763	55	663	718
\$5, but under \$6,	39	575	614	34	496	530
6, " " 7,	46	436	482	32	366	398
7, " " 8,	47	373	420	44	335	379
8, " " 9,	63	240	303	43	256	299
9, " " 10,	44	143	187	33	120	153
10, " " 12,	76	107	183	71	97	168
12, " " 15,	149	45	194	125	40	165
15, " " 20,	74	8	82	123	9	132
20, and over,	14	5	19	15	5	20
Total,	606	2,641	3,247	575	2,387	2,962

SHIRT WAISTS (WOMEN'S)—SEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5, .....	..	89	89	..	170	170
\$5, but under \$6, .....	..	93	93	..	129	129
6, " " 7, .....	..	92	92	..	89	89
7, " " 8,	3	75	78	4	69	73
8, " " 9,	4	57	61	4	53	57
9, " " 10,	5	52	57	15	30	45
10, " " 12,	14	24	38	13	34	47
12, " " 15,	19	9	28	9	7	16
15, " " 20,	8	4	12	3	4	7
20, and over,	4	..	4	..	..	..
Total,	57	495	552	48	585	633

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

SHIPBUILDING—TEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	138	..	138	107	..	107
\$5, but under \$6,	46	..	46	18	..	18
6, " " 7,	84	..	84	82	..	82
7, " " 8,	344	..	344	273	..	273
8, " " 9,	92	..	92	88	..	88
9, " " 10,	1,275	..	1,275	798	..	798
10, " " 12,	913	..	913	430	..	430
12, " " 15,	783	..	783	600	..	600
15, " " 20,	1,566	..	1,566	1,260	..	1,260
20, and over,	257	..	257	251	..	251
Total,	5,498	..	5,498	3,907	..	3,907

SILK (BROAD AND RIBBON)—ONE HUNDRED AND TWENTY-THREE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	1,271	2,928	4,199	1,297	3,380	4,677
\$5, but under \$6,	552	1,760	2,312	563	1,711	2,274
6, " " 7,	493	1,412	1,905	535	1,527	2,062
7, " " 8,	812	1,338	2,150	625	1,601	2,226
8, " " 9,	961	962	1,923	1,064	1,090	2,154
9, " " 10,	1,103	760	1,863	1,055	779	1,834
10, " " 12,	2,067	1,154	3,221	2,003	1,207	3,210
12, " " 15,	2,212	930	3,142	2,128	1,036	3,164
15, " " 20,	1,641	355	1,996	1,911	370	2,281
20, and over,	525	42	567	557	53	610
Total,	11,637	11,641	23,278	11,738	12,754	24,492

SILK DYEING—TWENTY ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	156	178	334	147	173	320
\$5, but under \$6,	89	68	157	90	81	171
6, " " 7,	153	43	196	174	46	220
7, " " 8,	691	24	715	703	36	739
8, " " 9,	329	15	344	271	14	285
9, " " 10,	691	5	696	503	4	507
10, " " 12,	1,645	2	1,647	1,825	2	1,827
12, " " 15,	485	1	486	465	..	465
15, " " 20,	143	1	144	163	..	163
20, and over,	112	1	113	87	..	87
Total,	4,494	338	4,832	4,428	356	4,784

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

SILK THROWING—TWENTY-TWO ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	322	305	627	308	297	605
\$5, but under \$6,	97	251	348	80	191	271
6, " " 7,	98	438	536	106	474	580
7, " " 8,	117	18	135	92	13	105
8, " " 9,	42	8	50	40	....	40
9, " " 10,	36	1	37	27	5	32
10, " " 12,	16	....	16	28	....	28
12, " " 15,	20	....	20	22	....	22
15, " " 20,	28	....	28	26	....	26
20, and over,	8	....	8	8	....	8
Total,	784	1,021	1,805	737	980	1,717

SILK MILL SUPPLIES—FOURTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	80	52	132	72	39	111
\$5, but under \$6,	34	32	66	32	28	60
6, " " 7,	34	24	58	32	20	52
7, " " 8,	40	9	49	38	15	53
8, " " 9,	60	14	74	62	14	76
9, " " 10,	54	13	67	55	15	70
10, " " 12,	51	10	61	61	8	69
12, " " 15,	49	5	54	56	2	58
15, " " 20,	61	2	63	56	2	58
20, and over,	27	..	27	30	..	30
Total,	490	161	651	494	143	637

SILVER GOODS—FIFTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	163	134	297	178	187	365
\$5, but under \$6,	51	47	98	44	34	78
6, " " 7,	60	47	107	57	54	111
7, " " 8,	46	34	80	30	35	74
8, " " 9,	33	19	52	21	29	50
9, " " 10,	27	25	52	20	22	42
10, " " 12,	46	25	71	44	23	67
12, " " 15,	175	23	198	156	26	182
15, " " 20,	374	2	376	336	3	339
20, and over,	170	3	173	174	3	177
Total,	1,145	359	1,504	1,069	416	1,485

STATISTICS OF MANUFACTURES.

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

SMELTING AND REFINING (GOLD, SILVER, COPPER, ETC.)—NINE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	19	..	19	17	..	17
\$5, but under \$6,	14	..	14	12	..	12
6, " " 7,	18	..	18	9	..	9
7, " " 8,	138	..	138	143	..	143
8, " " 9,	945	..	945	509	..	509
9, " " 10,	326	..	326	573	..	573
10, " " 12,	757	..	757	635	..	635
12, " " 15,	985	..	985	458	..	458
15, " " 20,	355	..	355	211	..	211
20, and over,	174	..	174	113	..	113
Total,	3,711	..	3,711	2,680	..	2,680

SOAP AND TALLOW—ELEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	40	31	71	48	38	86
\$5, but under \$6,	51	15	66	61	22	83
6, " " 7,	32	11	43	30	19	49
7, " " 8,	25	10	35	27	15	42
8, " " 9,	36	5	41	32	10	42
9, " " 10,	51	6	57	49	11	60
10, " " 12,	133	5	138	155	10	165
12, " " 15,	79	6	85	76	11	87
15, " " 20,	42	..	42	37	..	37
20, and over,	16	..	16	18	..	18
Total,	505	89	594	533	136	669

STEEL AND IRON (BAR)—SEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	26	70	96	31	55	86
\$5, but under \$6,	25	1	26	18	2	20
6, " " 7,	23	..	23	20	4	24
7, " " 8,	404	..	404	217	..	217
8, " " 9,	92	..	92	203	..	203
9, " " 10,	167	..	167	164	..	164
10, " " 12,	114	..	114	148	..	148
12, " " 15,	139	..	139	136	..	136
15, " " 20,	154	..	154	162	..	162
20, and over,	81	..	81	91	..	91
Total,	1,225	71	1,225	1,190	61	1,251

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

STEEL AND IRON (STRUCTURAL)—NINETEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	75	..	75	72	..	72
\$5, but under \$6,	82	..	82	78	..	78
6, " " 7,	142	..	142	121	..	121
7, " " 8,	671	..	671	607	..	607
8, " " 9,	315	..	315	552	..	552
9, " " 10,	666	..	666	636	..	636
10, " " 12,	656	..	656	564	..	564
12, " " 15,	409	..	409	471	..	471
15, " " 20,	413	..	413	514	..	514
20, and over,	338	..	338	212	..	212
Total,	3,767	..	3,767	3,827	..	3,827

STEEL AND IRON (FORGING)—TWELVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	138	..	138	127	..	127
\$5, but under \$6,	100	..	100	98	..	98
6, " " 7,	72	..	72	102	..	102
7, " " 8,	127	..	127	139	..	139
8, " " 9,	582	..	582	484	..	484
9, " " 10,	492	..	492	626	..	626
10, " " 12,	358	..	358	456	..	456
12, " " 15,	488	..	488	561	..	561
15, " " 20,	393	..	393	437	..	437
20, and over,	117	..	117	148	..	148
Total,	2,807	..	2,867	3,178	..	3,178

TEXTILE PRODUCTS—SEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	220	130	350	220	126	346
\$5, but under \$6,	69	87	156	67	68	135
6, " " 7,	74	78	152	65	89	154
7, " " 8,	46	11	57	45	25	70
8, " " 9,	57	5	62	46	12	58
9, " " 10,	38	9	47	33	8	41
10, " " 12,	38	3	41	46	16	62
12, " " 15,	42	7	49	40	4	44
15, " " 20,	15	5	20	13	1	14
20, and over,	11	2	13	10	..	10
Total,	610	337	947	585	349	934

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

THREAD—SIX ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	369	1,382	1,751	365	1,289	1,654
\$5, but under \$6,	117	646	763	117	654	771
6, " " 7,	145	651	796	138	616	754
7, " " 8,	132	517	649	134	477	611
8, " " 9,	117	93	210	130	102	232
9, " " 10,	191	42	233	195	56	251
10, " " 12,	180	16	196	185	18	203
12, " " 15,	218	1	219	206	1	207
15, " " 20,	247	....	247	235	....	235
20, and over,	65	....	65	79	....	79
Total,	1,781	3,348	5,129	1,784	3,213	4,997

TRUNKS AND TRAVELING BAGS—NINE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	52	10	62	50	2	52
\$5, but under \$6,	39	8	47	24	7	31
6, " " 7,	51	9	60	50	6	56
7, " " 8,	68	4	72	39	3	42
8, " " 9,	67	3	70	40	2	42
9, " " 10,	72	2	74	58	1	59
10, " " 12,	90	1	91	106	3	109
12, " " 15,	81	2	83	89	3	92
15, " " 20,	58	..	58	74	..	74
20, and over,	38	..	38	29	..	29
Total,	616	39	655	559	27	586

TRUNK AND BAG HARDWARE—SEVEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	232	107	339	249	138	387
\$5, but under \$6,	61	41	102	62	60	122
6, " " 7,	101	28	129	114	27	141
7, " " 8,	32	11	43	35	18	53
8, " " 9,	27	18	45	33	15	48
9, " " 10,	62	7	69	59	11	70
10, " " 12,	68	3	71	95	10	105
12, " " 15,	89	89	130	4	134
15, " " 20,	68	1	69	69	2	71
20, and over,	43	43	30	30
Total,	783	216	999	876	285	1,161

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

TYPEWRITERS AND SUPPLIES—FOUR ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	22	1	23	31	1	32
\$5, but under \$6,	19	..	19	15	..	15
6, " " 7,	18	3	21	18	4	22
7, " " 8,	5	1	6	7	2	9
8, " " 9,	20	1	21	33	1	34
9, " " 10,	28	..	28	23	..	23
10, " " 12,	27	..	27	17	..	17
12, " " 15,	40	..	40	55	..	55
15, " " 20,	32	..	32	34	..	34
20, and over,	13	..	13	16	..	16
Total,	224	6	230	249	8	257

UNDERWEAR (WOMEN'S AND CHILDREN'S)—NINETEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	15	653	668	12	691	703
\$5, but under \$6,	15	498	513	24	327	351
6, " " 7,	12	204	216	15	304	319
7, " " 8,	10	186	196	15	187	202
8, " " 9,	10	128	138	13	124	137
9, " " 10,	13	126	139	17	129	146
10, " " 12,	18	44	62	17	48	65
12, " " 15,	31	20	51	39	23	62
15, " " 20,	16	11	27	18	11	29
20, and over,	13	3	16	14	2	16
Total,	153	1,873	2,026	184	1,846	2,030

VARNISHES—EIGHTEEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	17	6	23	17	2	19
\$5, but under \$6,	10	1	11	8	1	9
6, " " 7,	16	1	17	22	1	23
7, " " 8,	8	1	9	6	..	6
8, " " 9,	9	1	10	11	1	12
9, " " 10,	23	3	26	30	1	31
10, " " 12,	54	3	57	48	..	48
12, " " 15,	66	2	68	71	3	74
15, " " 20,	38	..	38	45	..	45
20, and over,	47	..	47	46	..	46
Total,	288	18	306	304	9	313

TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

WATCHES, CASES AND MATERIAL—TEN ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	188	170	358	172	118	290
\$5, but under \$6,	60	94	154	73	126	199
6, " " 7,	64	101	165	69	111	180
7, " " 8,	59	68	127	74	101	175
8, " " 9,	71	65	136	70	105	175
9, " " 10,	112	40	152	108	49	157
10, " " 12,	149	32	181	141	56	197
12, " " 15,	355	14	369	386	24	410
15, " " 20,	346	6	352	489	6	495
20, and over,	193	....	193	222	1	223
Total,	1,597	590	2,187	1,804	697	2,501

WINDOW SHADES—FIVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	2	2	4	7	7	14
\$5, but under \$6,	2	2	4	2	2	4
6, " " 7,	4	2	6	7	2	9
7, " " 8,	7	2	9	6	1	7
8, " " 9,	5	2	7	6	2	8
9, " " 10,	11	..	11	15	1	16
10, " " 12,	42	..	42	39	1	40
12, " " 15,	37	1	38	44	..	44
15, " " 20,	24	..	24	21	..	21
20, and over,	6	..	6	6	..	6
Total,	140	11	151	153	16	169

WOODEN GOODS—THIRTY-FIVE ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	154	61	215	123	26	149
\$5, but under \$6,	99	11	110	64	6	70
6, " " 7,	92	14	106	112	4	116
7, " " 8,	128	8	136	118	6	124
8, " " 9,	85	7	92	88	3	91
9, " " 10,	217	..	217	136	1	137
10, " " 12,	203	1	204	309	1	310
12, " " 15,	256	5	261	262	3	265
15, " " 20,	229	..	229	231	1	232
20, and over,	53	..	53	65	..	65
Total,	1,516	107	1,623	1,508	51	1,559

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TABLE No. 10.—Classified Weekly Wages, by Industries—(Continued).

WOOLEN AND WORSTED GOODS—TWENTY-SIX ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	744	2,789	3,533	618	2,546	3,164
\$5, but under \$6,	562	1,010	1,572	488	1,142	1,630
6, " " 7,	453	371	824	483	574	1,057
7, " " 8,	610	233	843	556	271	827
8, " " 9,	493	102	595	472	109	581
9, " " 10,	373	73	446	407	74	481
10, " " 12,	448	86	534	421	104	525
12, " " 15,	301	8	309	357	7	364
15, " " 20,	323	1	324	324	1	325
20, and over,	131	..	131	156	..	156
Total,	4,438	4,673	9,111	4,282	4,828	9,110

UNCLASSIFIED—FIFTY-EIGHT ESTABLISHMENTS.

Classification of Weekly Wages.	1902			1903		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	309	422	731	197	334	531
\$5, but under \$6,	151	185	336	154	187	341
6, " " 7,	163	152	315	188	113	301
7, " " 8,	288	78	366	173	65	238
8, " " 9,	326	42	368	234	34	268
9, " " 10,	1,375	20	1,395	1,727	19	1,746
10, " " 12,	707	23	730	855	21	876
12, " " 15,	812	9	821	957	4	961
15, " " 20,	1,271	4	1,275	1,086	....	1,086
20, and over,	742	742	560	560
Total,	6,144	935	7,079	6,131	777	6,908

STATISTICS OF MANUFACTURES.

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TABLE No. 11.—Average Number of Days in Operation, by Industries.
Increase or Decrease, 1902-1903.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Average Number of Days in Operation.		Increase (+) or Decrease (—) in 1903.	
			1902.	1903.	Number of Days.	
1	Agricultural implements,	8	291.50	298.25	+	6.75
2	Artisans' tools,	35	294.03	296.00	+	1.97
3	Art tile,	6	224.50	237.50	+	13.00
4	Boilers,	13	304.09	307.77	+	3.68
5	Boxes (wood and paper),	32	297.66	295.06	—	2.60
6	Brewing (lager beer, ale and porter),	32	297.66	301.45	+	3.79
7	Brick and terra cotta,	58	238.34	240.95	+	2.61
8	Brushes,	9	302.11	299.33	—	2.78
9	Buttons (metal),	10	296.40	295.60	—	1.20
10	Buttons (pearl),	16	282.81	256.62	—	26.19
11	Carpets and rugs,	9	274.67	258.78	—	15.89
12	Carriages and wagons,	32	300.63	300.56	—	0.07
13	Chemical products,	42	314.31	304.17	—	10.14
14	Cigars and tobacco,	31	284.42	289.06	+	4.64
15	Clothing,	17	289.18	282.53	—	6.65
16	Confectionery,	6	301.33	300.83	—	0.50
17	Cornices and skylights,	13	296.61	299.61	+	3.00
18	Corsets and corset waists,	10	291.00	287.00	—	4.00
19	Cutlery,	9	294.78	293.00	—	1.78
20	Cotton goods,	28	309.86	287.68	—	22.18
21	Cotton goods (finishing and dyeing),	14	296.00	294.78	—	1.22
22	Drawn wire and wire cloth,	6	306.50	300.83	—	5.67
23	Electrical appliances,	25	299.60	301.52	+	1.92
24	Fertilizers,	12	251.42	282.25	+	30.83
25	Food products,	24	275.58	279.70	+	4.12
26	Foundry (brass),	12	292.09	301.25	+	9.16
27	Foundry (iron),	39	289.00	288.79	—	0.21
28	Furnaces, ranges and heaters,	15	285.87	279.60	—	6.27
29	Gas and electric light fixtures,	8	294.00	287.75	—	6.25
30	Glass (window and bottle),	22	244.41	237.41	—	7.00
31	Glass mirrors,	3	289.67	301.33	+	11.66
32	Graphite products,	5	299.80	306.80	+	7.00
33	Hats (felt),	45	280.00	274.24	—	5.76
34	Hats (straw),	3	243.33	240.00	—	3.33
35	High explosives,	8	305.64	297.50	—	8.14
36	Inks and mucilage,	6	286.27	294.00	+	7.73
37	Jewelry,	79	286.22	286.67	+	0.45
38	Knit goods,	11	302.27	281.91	—	20.36
39	Laundry,	10	306.20	307.80	+	1.60
40	Leather,	62	294.17	294.61	+	0.44
41	Leather goods,	15	301.73	295.13	—	6.60
42	Lamps,	8	294.25	302.50	+	8.25
43	Lime and cement,	8	304.50	298.12	—	6.38
44	Machinery,	95	301.35	299.62	—	1.73
45	Mattresses and bedding,	7	302.14	294.71	—	7.43
46	Metal goods,	61	298.51	297.13	—	1.38
47	Metal novelties,	11	285.64	305.91	+	20.27
48	Mining (iron ore),	6	296.33	293.57	—	2.76
49	Musical instruments,	17	285.06	291.23	+	6.17
50	Oilcloth (floor and table),	8	261.50	295.75	+	34.25
51	Oils,	12	300.93	303.00	+	4.07
52	Paints,	8	305.00	307.50	+	2.50
53	Paper,	33	264.21	267.69	+	3.48
54	Pig iron,	3	265.00	284.50	+	19.50
55	Pottery,	34	298.79	300.50	+	1.71
56	Printing and bookbinding,	20	299.35	302.65	+	3.30
57	Quarrying stone,	14	247.14	250.35	+	3.21
58	Roofing (iron and stone),	7	297.87	305.71	+	7.84
59	Rubber goods (hard and soft),	33	289.82	289.48	—	0.34
60	Saddles and harness,	10	304.20	302.20	—	2.00
61	Saddlery and harness hardware,	12	293.42	291.50	—	3.92

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TABLE No. 11.—Average Number of Days in Operation, by Industries.
Increase or Decrease, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Average Number of Days in Operation.		Increase (+) or Decrease (—) in 1903.	
			1902.	1903.	Number of Days.	
62	Scientific instruments,	11	301.45	300.16	—	1.20
63	Sash, blinds and doors,	25	300.44	296.69	—	3.75
64	Shoes,	54	278.26	286.06	+	7.80
65	Shirts,	21	293.24	286.71	—	6.53
66	Shirt waists (women's),	7	283.29	281.00	—	2.29
67	Shipbuilding,	10	298.80	299.44	+	0.64
68	Silk (broad and ribbon),	123	284.01	283.13	—	0.88
69	Silk dyeing,	20	283.60	288.10	+	4.50
70	Silk throwing,	22	291.77	290.68	—	1.09
71	Silk mill supplies,	14	291.36	283.85	—	7.92
72	Silver goods,	15	285.47	288.60	+	3.13
73	Smelting and refining (gold, silver, copper, etc.),	9	323.89	325.00	+	1.11
74	Soap and tallow,	11	302.73	304.00	+	1.27
75	Steel and iron (bar),	7	264.72	249.86	—	14.86
76	Steel and iron (structural),	19	303.16	292.24	—	10.92
77	Steel and iron (forging),	12	296.58	293.91	—	2.67
78	Textile products,	7	281.57	282.71	+	1.14
79	Thread,	6	287.83	287.50	—	0.33
80	Trunks and traveling bags,	9	297.56	286.11	—	11.45
81	Trunk and bag hardware,	7	298.57	300.12	+	1.55
82	Typewriters and supplies,	4	290.75	289.25	—	1.50
83	Underwear (women's and children's),	19	287.68	290.52	+	2.84
84	Varnishes,	18	304.56	304.56	.....
85	Watches, cases and material,	10	289.50	290.50	+	1.00
86	Window shades,	5	300.40	296.00	—	4.40
87	Wooden goods,	35	294.89	290.54	—	4.35
88	Woolen and worsted goods,	26	287.89	289.77	—	0.12
89	Unclassified,	58	291.24	287.05	—	4.19
	All industries,	1,811	289.70	288.78	—	0.92

STATISTICS OF MANUFACTURES.

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TABLE No. 12.—Average Number of Hours Worked per Day, by Industries. Increase or Decrease, 1902-1903.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Average Number of Hours Worked per Day.		Increase (+) or Decrease (—) in 1903.
			1902.	1903.	Number of Hours.
1	Agricultural implements,	8	9.75	9.75	.....
2	Artisans' tools,	35	9.83	9.85	+ 0.02
3	Art tile,	6	9.23	8.17	— 1.16
4	Boilers,	13	9.62	9.62	.....
5	Boxes (wood and paper),	32	9.66	9.28	— 0.38
6	Brewing (lager beer, ale and porter),	32	9.81	9.33	— 0.48
7	Brick and terra cotta,	58	9.67	9.79	+ 0.12
8	Brushes,	9	9.56	9.56	.....
9	Buttons (metal),	10	9.50	9.50	.....
10	Buttons (pearl),	16	10.00	9.81	— 0.19
11	Carpets and rugs,	9	9.78	9.78	.....
12	Carriages and wagons,	32	9.87	9.81	— 0.06
13	Chemical products,	42	9.59	9.38	— 0.21
14	Cigars and tobacco,	31	9.06	9.06	.....
15	Clothing,	17	9.65	9.72	+ 0.07
16	Confectionery,	6	9.67	9.67	.....
17	Cornices and skylights,	13	8.70	8.46	— 0.24
18	Corsets and corset waists,	10	9.70	9.40	— 0.30
19	Cutlery,	9	9.89	9.89	.....
20	Cotton goods,	28	9.61	9.53	— 0.08
21	Cotton goods (finishing and dyeing),	14	10.00	9.93	— 0.07
22	Drawn wire and wire cloth,	6	9.33	9.16	— 0.17
23	Electrical appliances,	25	9.88	9.84	— 0.04
24	Fertilizers,	12	10.00	9.91	— 0.09
25	Food products,	24	9.96	10.00	+ 0.04
26	Foundry (brass),	12	9.67	9.59	— 0.08
27	Foundry (iron),	39	9.56	9.51	— 0.05
28	Furnaces, ranges and heaters,	15	9.80	9.66	— 0.14
29	Gas and electric light fixtures,	8	9.87	9.75	— 0.12
30	Glass (window and bottle),	22	9.11	9.00	— 0.11
31	Glass mirrors,	3	9.33	9.67	+ 0.34
32	Graphite products,	5	9.60	9.60	.....
33	Hats (felt),	45	9.31	9.00	— 0.31
34	Hats (straw),	3	9.67	9.67	.....
35	High explosives,	8	8.89	10.00	+ 1.11
36	Inks and mucilage,	6	9.23	9.50	+ 0.17
37	Jewelry,	79	9.48	9.10	— 0.38
38	Knit goods,	11	9.91	9.91	.....
39	Laundry,	10	9.50	9.50	.....
40	Leather,	62	9.83	9.79	— 0.04
41	Leather goods,	15	9.80	9.80	.....
42	Lamps,	8	9.75	9.75	.....
43	Lime and cement,	8	10.75	10.75	.....
44	Machinery,	95	9.73	9.62	— 0.11
45	Mattresses and bedding,	7	9.71	9.71	.....
46	Metal goods,	61	9.90	9.85	— 0.05
47	Metal novelties,	11	9.82	9.92	+ 0.10
48	Mining (iron ore),	6	10.00	10.00	.....
49	Musical instruments,	17	9.76	9.71	— 0.05
50	Oilcloth (floor and table),	8	9.50	9.50	.....
51	Oils,	12	9.92	10.00	+ 0.08
52	Paints,	8	10.00	10.00	.....
53	Paper,	33	10.12	10.24	+ 0.12
54	Pig iron,	3	9.67	11.00	+ 1.33
55	Pottery,	34	9.53	9.39	— 0.14
56	Printing and bookbinding,	20	9.35	9.25	— 0.10
57	Quarrying stone,	14	9.14	9.71	+ 0.57
58	Roofing (iron and stone),	7	9.86	10.00	+ 0.14
59	Rubber goods (hard and soft),	33	9.85	9.64	— 0.21
60	Saddles and harness,	10	9.60	9.50	— 0.10
61	Saddlery and harness hardware,	12	9.67	9.58	— 0.09

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TABLE No. 12.—Average Number of Hours Worked per Day, by Industries. Increase or Decrease, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Average Number of Hours Worked per Day.		Increase (+) or Decrease (—) in 1903.	
			1902.	1903.	Number of Hours.	
62	Scientific instruments,	11	9.82	9.75	—	0.07
63	Sash, blinds and doors,	25	9.20	9.27	+	0.07
64	Shoes,	34	9.91	9.82	—	0.09
65	Shirts,	21	9.76	9.76	.....	.....
66	Shirt waists (women's),	7	9.29	9.14	—	0.15
67	Shipbuilding,	10	9.40	9.44	+	0.04
68	Silk (broad and ribbon),	123	9.98	9.84	—	0.14
69	Silk dyeing,	20	9.85	9.85	.....	.....
70	Silk throwing,	22	10.00	9.91	—	0.09
71	Silk mill supplies,	14	9.86	9.86	.....	.....
72	Silver goods,	15	9.73	9.60	—	0.13
73	Smelting and refining (gold, silver, copper, etc.),	9	10.89	10.89	.....	.....
74	Soap and tallow,	11	9.82	9.82	.....	.....
75	Steel and iron (bar),	7	10.28	10.28	.....	.....
76	Steel and iron (structural),	19	9.42	9.42	.....	.....
77	Steel and iron (forging),	12	9.75	9.75	.....	.....
78	Textile products,	7	10.00	10.00	.....	.....
79	Thread,	6	10.00	10.00	.....	.....
80	Trunks and traveling bags,	9	9.44	9.33	—	0.11
81	Trunk and bag hardware,	7	9.71	9.88	+	0.17
82	Typewriters and supplies,	4	9.50	9.50	.....	.....
83	Underwear (women's and children's),	19	9.58	9.53	—	0.05
84	Varnishes,	18	8.94	8.94	.....	.....
85	Watches, cases and material,	10	9.80	9.80	.....	.....
86	Window shades,	5	9.40	9.40	.....	.....
87	Wooden goods,	35	9.66	9.49	—	0.17
88	Woolen and worsted goods,	26	9.96	10.00	+	0.04
89	Unclassified,	58	9.76	9.62	—	0.14
	All industries,	1,811	9.72	9.63	—	0.09

TABLE No. 13.—Average Proportion of Business Done, by Industries.
Increase or Decrease, 1902-1903.

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Average Proportion of Business Done, Percentage.		Increase (+) or Decrease (—) in 1903.	
			1902.	1903.	Percentage.	
1	Agricultural implements,	8	78.13	70.62	—	7.51
2	Artisans' tools,	35	82.00	83.43	+	1.43
3	Art tile,	6	47.50	56.67	+	9.17
4	Boilers,	13	66.15	83.85	+	17.70
5	Boxes (wood and paper),	32	83.75	82.81	—	0.94
6	Brewing (lager beer, ale and porter),	32	72.03	70.30	—	1.73
7	Brick and terra cotta,	58	76.55	74.14	—	2.41
8	Brushes,	9	80.56	78.89	—	1.67
9	Buttons (metal),	10	72.50	75.50	+	3.00
10	Buttons (pearl),	16	85.00	67.81	—	17.19
11	Carpets and rugs,	9	81.67	77.77	—	3.90
12	Carriages and wagons,	32	75.78	72.19	—	3.59
13	Chemical products,	42	82.97	79.88	—	3.09
14	Cigars and tobacco,	31	73.55	78.22	+	4.67
15	Clothing,	17	75.00	78.53	+	3.53
16	Confectionery,	6	83.33	77.50	—	5.83
17	Cornices and skylights,	13	76.54	73.46	—	3.08
18	Corsets and corset waists,	10	86.00	84.00	—	2.00
19	Cutlery,	9	78.33	75.56	—	2.77
20	Cotton goods,	28	84.82	83.21	—	1.61
21	Cotton goods (finishing and dyeing),	14	80.71	83.93	+	3.22
22	Drawn wire and wire cloth,	6	86.67	85.83	—	0.84
23	Electrical appliances,	25	82.00	76.00	—	6.00
24	Fertilizers,	12	73.33	72.91	—	0.42
25	Food products,	24	73.96	76.66	+	2.70
26	Foundry (brass),	12	78.75	75.83	—	2.92
27	Foundry (iron),	39	76.92	77.64	+	0.72
28	Furnaces, ranges and heaters,	15	77.00	73.00	—	4.00
29	Gas and electric light fixtures,	8	67.50	66.88	—	0.62
30	Glass (window and bottle),	22	80.00	81.36	+	1.36
31	Glass mirrors,	3	85.00	81.67	—	3.33
32	Graphite products,	5	85.00	88.00	+	3.00
33	Hats (felt),	45	77.33	71.89	—	5.44
34	Hats (straw),	3	75.00	78.33	+	3.33
35	High explosives,	8	84.38	84.38	—	.....
36	Inks and mucilage,	6	81.67	82.50	+	0.83
37	Jewelry,	79	78.29	77.59	—	0.70
38	Knit goods,	11	85.91	77.73	—	8.18
39	Laundry,	10	84.50	84.00	—	0.50
40	Leather,	62	78.15	77.34	—	0.81
41	Leather goods,	15	76.00	76.00	—	.....
42	Lamps,	8	75.62	72.50	—	3.12
43	Lime and cement,	8	80.00	78.50	—	1.50
44	Machinery,	95	77.85	75.89	—	1.96
45	Mattresses and bedding,	7	66.43	67.14	+	0.71
46	Metal goods,	61	74.26	75.82	+	1.56
47	Metal novelties,	11	75.00	67.50	—	7.50
48	Mining (iron ore),	6	73.33	69.30	—	3.70
49	Musical instruments,	17	73.24	75.00	+	1.76
50	Oilcloth (floor and table),	8	85.62	86.25	+	0.63
51	Oils,	12	75.83	80.83	+	5.00
52	Paints,	8	84.37	83.75	—	0.62
53	Paper,	33	82.73	83.03	+	0.30
54	Pig iron,	3	65.00	67.50	+	2.50
55	Pottery,	34	78.23	75.28	—	2.95
56	Printing and bookbinding,	20	69.25	74.50	+	5.25
57	Quarrying stone,	14	72.54	80.00	+	7.46
58	Roofing (iron and stone),	7	83.57	85.71	+	2.14
59	Rubber goods (hard and soft),	33	78.48	80.15	+	1.67
60	Saddles and harness,	10	80.00	74.00	—	6.00
61	Saddlery and harness hardware,	12	77.08	74.17	—	2.91

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TABLE No. 13.—Average Proportion of Business Done, by Industries.
Increase or Decrease, 1902-1903—(Continued).

Office Number.	INDUSTRIES.	Number of Establishments Considered.	Average Proportion of Business Done, Percentage.		Increase (+) or Decrease (—) in 1903.	
			1902.	1903.	Percentage.	
62	Scientific instruments,	11	78.64	75.00	—	3.64
63	Sash, blinds and doors,	25	80.40	78.77	—	1.63
64	Shoes,	34	73.38	75.58	+	2.20
65	Shirts,	21	79.05	80.24	+	1.19
66	Shirt waists (women's),	7	74.29	72.86	—	1.43
67	Shipbuilding,	10	70.50	67.78	—	2.72
68	Silk (broad and ribbon),	123	75.16	72.28	—	2.88
69	Silk dyeing,	20	71.25	71.00	—	0.25
70	Silk throwing,	22	85.91	81.81	—	4.10
71	Silk mill supplies,	14	75.00	71.79	—	3.21
72	Silver goods,	15	65.00	61.33	—	3.67
73	Smelting and refining (gold, silver, copper, etc.),	9	83.33	86.67	+	3.34
74	Soap and tallow,	11	81.82	77.27	—	4.55
75	Steel and iron (bar),	7	79.29	75.00	—	4.29
76	Steel and iron (structural),	19	74.21	67.14	—	7.07
77	Steel and iron (forging),	12	79.17	76.67	—	2.50
78	Textile products,	7	82.86	80.71	—	2.15
79	Thread,	6	95.00	95.00	.....
80	Trunks and traveling bags,	9	70.56	71.67	+	1.11
81	Trunk and bag hardware,	7	85.71	82.50	—	3.21
82	Typewriters and supplies,	4	73.75	70.00	—	3.75
83	Underwear (women's and children's),	19	80.00	80.26	+	0.26
84	Varnishes,	18	78.89	76.67	—	2.22
85	Watches, cases and material,	10	83.00	84.00	+	1.00
86	Window shades,	5	83.00	83.00	.....
87	Wooden goods,	35	75.43	73.43	—	2.00
88	Woolen and worsted goods,	26	88.46	83.85	—	4.61
89	Unclassified,	58	77.59	76.81	—	0.78
	All Industries,	1,811	77.76	76.53	—	1.23

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TABLE No. 14.—Industry Presentation, 1903.

BRICK AND TERRA COTTA.

Number of Partners and Stockholders Considered.		Capital Invested, Stock Used and Goods Made.	
Number of establishments reporting, ..	58	Capital Invested.	
Number of private firms,	28	Amount of capital invested,.....	
Number of partners,	47	\$8,526,505	
Males,	42	Stock Used—Aggregate Value.	
Females,	4	Total value of stock used,.....	
Special,	1	\$2,145,380	
Estates,	30	Goods Made—Aggregate Value.	
Number of corporations,	2,761	Total value of goods made,	
Number of stockholders,	1,799	\$6,330,099	
Males,	751		
Females,	211		
Banks, trustees, etc.,	2,808		
Aggregates—partners and stockholders,			

PERSONS EMPLOYED.

Persons Employed.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
Average number,	5,278	15	5,293	99.72	.28	100
Smallest number,	3,698	3	3,701	99.92	.08	100
Greatest number,	6,504	20	6,524	99.69	.31	100
Excess of greatest over smallest number,	2,806	17	2,823	99.40	.60	100

PERSONS EMPLOYED, BY MONTHS.

Months.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
January,	3,711	3	3,714	99.92	.08	100
February,	3,698	3	3,701	99.92	.08	100
March,	4,409	4	4,413	99.91	.09	100
April,	5,525	20	5,545	99.64	.36	100
May,	6,059	20	6,079	99.67	.33	100
June,	6,383	20	6,403	99.69	.31	100
July,	6,504	20	6,524	99.69	.31	100
August,	6,368	20	6,388	99.68	.32	100
September,	6,056	20	6,076	99.67	.33	100
October,	5,685	20	5,705	99.65	.35	100
November,	4,741	19	4,760	99.60	.40	100
December,	4,197	6	4,203	99.86	.14	100

WAGES, EARNINGS, PROPORTION OF BUSINESS DONE, AND DAYS IN OPERATION.

Wages and Earnings.		Proportion of Business Done and Days in Operation.	
Total amount paid in wages, ..	\$2,404,833 00	Average proportion of business done,	
Average yearly earnings,	446 03	per cent.,	74.14
		Days in operation, average,	240.95

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CLASSIFIED WEEKLY WAGES.

Classification of Weekly Wages.	Number Receiving			Percentage Receiving		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	350	13	363	5.03	68.43	5.22
\$5, but under \$6,	229	3	232	3.29	15.79	3.33
6, " " 7,	446	..	446	6.42	....	6.39
7, " " 8,	1,104	1	1,105	15.88	5.26	15.85
8, " " 9,	1,649	1	1,650	23.72	5.26	23.67
9, " " 10,	1,240	..	1,240	17.84	....	17.79
10, " " 12,	757	..	757	10.89	....	10.86
12, " " 15,	475	..	475	6.83	....	6.81
15, " " 20,	512	..	512	7.37	....	7.34
20 and over,	190	1	191	2.73	5.26	2.74
Total,	6,952	19	6,971	100.00	100.00	100.00

TABLE No. 14.—Industry Presentation, 1903—(Continued).

BREWING (LAGER BEER, ALE AND PORTER).

Number of Partners and Stockholders Considered.		Capital Invested, Stock Used and Goods Made.	
Number of establishments reporting...	33	Capital Invested.	
Number of private firms,	5	Amount of capital invested, \$20,641,006	
Number of partners,	6	Stock Used—Aggregate Value.	
Males,	6	Total value of stock used, \$4,486,656	
Females, .....	..	Goods Made—Aggregate Value.	
Special, .....	..	Total value of goods made, \$14,134,184	
Estates, .....	..	
Number of corporations,	28		
Number of stockholders,	1,114		
Males,	1,028		
Females,	81		
Banks, trustees, etc.,	5		
Aggregates—partners and stockholders, 1,120			

PERSONS EMPLOYED.

Persons Employed.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
Average number,	1,985	..	1,985	100	....	100
Smallest number,	1,930	..	1,930	100	....	100
Greatest number,	2,061	..	2,061	100	....	100
Excess of greatest over smallest number, 131	131	..	131	100	....	100

PERSONS EMPLOYED, BY MONTHS.

Months.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
January,	1,930	..	1,930	100	....	100
February,	1,937	..	1,937	100	....	100
March,	1,957	..	1,957	100	....	100
April,	1,977	..	1,977	100	....	100
May,	2,008	..	2,008	100	....	100
June,	2,029	..	2,029	100	....	100
July,	2,061	..	2,061	100	....	100
August,	2,032	..	2,032	100	....	100
September,	2,002	..	2,002	100	....	100
October,	1,974	..	1,974	100	....	100
November,	1,954	..	1,954	100	....	100
December,	1,967	..	1,967	100	....	100

WAGES, EARNINGS, PROPORTION OF BUSINESS DONE, AND DAYS IN OPERATION.

Wages and Earnings.		Proportion of Business Done and Days in Operation.	
Total amount paid in wages,...	\$1,731,152 00	Average proportion of business done,	
Average yearly earnings,	872 12	per cent.,	70.39
		Days in operation, average,	301.45

(2588743)—CLASSIFIED WEEKLY WAGES.

Classification of Weekly Wages.	Number Receiving—			Percentage Receiving—		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	23	..	23	1.09	....	1.09
\$5, but under \$6,	16	..	16	.76	....	.76
6, " " 7,	23	..	23	1.09	....	1.09
7, " " 8,	14	..	14	.66	....	.66
8, " " 9,	27	..	27	1.28	....	1.28
9, " " 10,	37	..	37	1.76	....	1.76
10, " " 12,	50	..	50	2.37	....	2.37
12, " " 15,	175	..	175	8.31	....	8.31
15, " " 20,	1,514	..	1,514	71.86	....	71.86
20 and over,	228	..	228	10.82	10.82
Total,	2,107	..	2,107	100.00	100.00

STATISTICS OF MANUFACTURES.

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TABLE No. 14.—Industry Presentation, 1903—(Continued).

GLASS (WINDOW AND BOTTLE).

Number of Partners and Stockholders Considered.		Capital Invested, Stock Used and Goods Made.	
Number of establishments reporting...	22	Capital Invested.	
Number of private firms,	3		
Number of partners,	6	Amount of capital invested,	
Males,	5	\$4,954,165	
Females,			
Special,			
Estates,	1	Stock Used—Aggregate Value.	
Number of corporations,	19	Total value of stock used,	
Number of stockholders,	264	\$2,444,020	
Males,	210		
Females,	51	Goods Made—Aggregate Value.	
Banks, trustees, etc.,	3	Total value of goods made,	
Aggregates—partners and stockholders,	270	\$6,691,062	

PERSONS EMPLOYED.

Persons Employed.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
Average number,	5,987	163	6,150	97.35	2.65	100
Smallest number,	1,176	39	1,215	96.79	3.21	100
Greatest number,	7,653	190	7,852	97.47	2.53	100
Excess of greatest over smallest number,	6,477	160	6,637	97.59	2.41	100

PERSONS EMPLOYED, BY MONTHS.

Months.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
January,	7,306	184	7,490	97.54	2.46	100
February,	7,201	194	7,395	97.38	2.62	100
March,	7,277	190	7,476	97.34	2.66	100
April,	7,156	183	7,339	97.51	2.49	100
May,	6,656	179	6,835	97.38	2.62	100
June,	6,212	177	6,389	97.23	2.77	100
July,	1,651	110	1,761	93.75	6.25	100
August,	1,176	39	1,215	96.79	3.21	100
September,	5,203	162	5,365	96.98	3.02	100
October,	6,920	166	7,086	97.66	2.34	100
November,	7,437	177	7,614	97.68	2.32	100
December,	7,653	186	7,839	97.63	2.37	100

WAGES, EARNINGS, PROPORTION OF BUSINESS DONE, AND DAYS IN OPERATION.

Wages and Earnings.		Proportion of Business Done and Days in Operation.	
Total amount paid in wages...	\$3,081,476 00	Average proportion of business done,	
Average yearly earnings,	501 05	per cent.,	81.36
		Days in operation, average,	237.41

CLASSIFIED WEEKLY WAGES.

Classification of Weekly Wages.	Number Receiving—			Percentage Receiving—		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	2,126	145	2,271	27.65	75.13	28.82
\$5, but under \$6,	411	21	432	5.35	10.88	5.48
6, " " 7,	475	18	493	6.18	9.33	6.26
7, " " 8,	497	2	499	6.46	1.04	6.33
8, " " 9,	500	3	503	6.50	1.55	6.39
9, " " 10,	338	1	339	4.40	.52	4.30
10, " " 12,	556	3	559	7.23	1.55	7.09
12, " " 15,	439	..	439	5.71	....	5.56
15, " " 20,	386	..	386	5.02	....	4.90
20, and over,	1,960	..	1,960	25.50	24.87
Total,	7,688	193	7,881	100.00	100.00	100.00

STATISTICS OF MANUFACTURES.

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TABLE No. 14.—Industry Presentation, 1903—(Continued).

HATS (FELT).

Number of Partners and Stockholders Considered.		Capital Invested, Stock Used and Goods Made.	
Number of establishments reporting...	45	Capital Invested.	
Number of private firms.....	29	Amount of capital invested,....	
Number of partners.....	55	\$2,545,462	
Males.....	53	Stock Used—Aggregate Value.	
Females.....	.....	Total value of stock used,	
Special.....	.....	\$3,963,003	
Estates.....	2	Goods Made—Aggregate Value.	
Number of corporations.....	16	Total value of goods made,	
Number of stockholders.....	99	\$9,245,813	
Males.....	88		
Females.....	11		
Banks, trustees, etc.,.....	.....	
Aggregates—partners and stockholders,	154		

PERSONS EMPLOYED.

Persons Employed.	Males.	Females.	Total.	Percentage of		
				Males.	Females.	Total.
Average number.....	4,864	1,695	6,559	74.16	25.84	100
Smallest number.....	4,625	1,605	6,230	74.22	25.78	100
Greatest number.....	5,395	1,797	7,192	75.02	24.98	100
Excess of greatest over smallest number.	770	192	962	80.04	19.96	100

PERSONS EMPLOYED, BY MONTHS.

Months.	Males.	Females.	Total.	Percentage of		
				Males.	Females.	Total.
January.....	4,901	1,725	6,626	78.49	21.51	100
February.....	4,813	1,679	6,492	74.14	25.86	100
March.....	4,683	1,707	6,390	73.29	26.71	100
April.....	4,625	1,650	6,275	73.71	26.29	100
May.....	4,650	1,635	6,285	73.98	26.02	100
June.....	4,826	1,669	6,495	74.30	25.70	100
July.....	5,171	1,716	6,887	74.94	25.06	100
August.....	5,044	1,700	6,744	74.79	25.21	100
September.....	4,790	1,670	6,460	74.15	25.85	100
October.....	5,395	1,786	7,181	75.13	24.87	100
November.....	4,635	1,605	6,240	74.28	25.72	100
December.....	4,836	1,797	6,633	72.91	27.09	100

WAGES, EARNINGS, PROPORTION OF BUSINESS DONE, AND DAYS IN OPERATION.

Wages and Earnings.		Proportion of Business Done and Days in Operation.	
Total amount paid in wages...	\$3,225,561 00	Average proportion of business done,	
Average yearly earnings,	491 62	per cent.,	71.89
		Days in operation, average,	274.24

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CLASSIFIED WEEKLY WAGES.

Classification of Weekly Wages.	Number Receiving			Percentage Receiving		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5.	165	281	446	3.95	19.75	7.96
\$5, but under \$6.	115	172	287	2.75	12.09	5.13
6. " " 7.	114	249	363	2.73	17.50	6.48
7. " " 8.	143	206	349	3.43	14.48	6.23
8. " " 9.	151	172	323	3.61	12.09	5.77
9. " " 10.	264	159	423	6.31	11.15	7.55
10. " " 12.	510	132	642	12.21	9.28	11.46
12. " " 15.	670	42	712	16.04	2.96	12.71
15. " " 20.	1,271	10	1,281	30.42	.70	22.87
20. and over.	775	775	18.55	13.84
Total.	4,178	1,423	5,601	100.00	100.00	100.00

STATISTICS OF MANUFACTURES.

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TABLE No. 14.—Industry Presentation, 1903—(Continued).

JEWELRY.

Number of Partners and Stockholders Considered.		Capital Invested, Stock Used and Goods Made.
Number of establishments reporting...	79	
Number of private firms,	55	Capital Invested.
Number of partners,	123	Amount of capital invested,..... \$4,520,792
Males,	118	
Females,	1	
Special,	1	
Estates,	3	Stock Used—Aggregate Value.
Number of corporations,	24	Total value of stock used, \$4,248,300
Number of stockholders,	105	
Males,	86	
Females,	19	Goods Made—Aggregate Value.
Banks, trustees, etc., .....	.....	Total value of goods made, \$8,378,649
Aggregates—partners and stockholders, 228		

PERSONS EMPLOYED.

Persons Employed.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
Average number,	2,170	757	2,927	74.14	25.86	100
Smallest number,	2,111	729	2,840	74.33	25.67	100
Greatest number,	2,283	796	3,079	74.15	25.85	100
Excess of greatest over smallest number.	172	67	239	71.97	28.03	100

PERSONS EMPLOYED, BY MONTHS.

Months.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
January,	2,111	729	2,840	74.33	25.67	100
February,	2,121	733	2,854	74.32	25.68	100
March,	2,112	750	2,862	73.79	26.21	100
April,	2,134	744	2,878	74.15	25.85	100
May,	2,124	745	2,869	74.03	25.97	100
June,	2,123	756	2,879	73.74	26.26	100
July,	2,145	746	2,891	74.20	25.80	100
August,	2,171	749	2,920	74.35	25.65	100
September,	2,218	768	2,986	74.28	25.72	100
October,	2,283	796	3,079	74.15	25.85	100
November,	2,269	796	3,065	74.03	25.97	100
December,	2,227	778	3,005	74.11	25.89	100

WAGES, EARNINGS, PROPORTION OF BUSINESS DONE, AND DAYS IN OPERATION.

Wages and Earnings.	Proportion of Business Done and Days in Operation.
Total amount paid in wages... \$1,753,002 00	Average proportion of business done,
Average yearly earnings, 598 91	per cent., 77.59
	Days in operation, average, 286.67

CLASSIFIED WEEKLY WAGES.

Classification of Weekly Wages.	Number Receiving			Percentage Receiving		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	282	201	483	12.35	25.13	15.66
\$5, but under \$6,	80	91	171	3.50	11.37	5.54
6, " " 7,	44	104	148	1.93	13.00	4.80
7, " " 8,	83	97	180	3.63	12.12	5.84
8, " " 9,	61	94	155	2.67	11.75	5.03
9, " " 10,	54	69	123	2.36	8.63	3.99
10, " " 12,	169	85	254	7.40	10.62	8.24
12, " " 15,	284	57	341	12.43	7.13	11.06
15, " " 20,	660	2	662	28.90	.25	21.46
20. and over,	567	....	567	24.83	....	18.38
Total,	2,284	800	3,084	100.00	100.00	100.00

TABLE No. 14.—Industry Presentation, 1903—(Continued).

LEATHER.

Number of Partners and Stockholders Considered.		Capital Invested, Stock Used and Goods Made.	
Number of establishments reporting...	62	Capital Invested.	
Number of private firms,	30	Amount of capital invested,..... \$8,402,398	
Number of partners,	57	Stock Used—Aggregate Value.	
Males,	53	Total value of stock used, \$10,913,513	
Females,	2	Goods Made—Aggregate Value.	
Special,	2	Total value of goods made, \$18,137,212	
Estates,	2		
Number of corporations,	32		
Number of stockholders,	212		
Males,	179		
Females,	28		
Banks, trustees, etc.,	5		
Aggregates—partners and stockholders,	269		

PERSONS EMPLOYED.

Persons Employed.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
Average number,	5,468	73	5,541	98.68	1.32	100
Smallest number,	5,210	67	5,277	98.73	1.27	100
Greatest number,	5,826	79	5,905	98.66	1.34	100
Excess of greatest over smallest number,	616	12	628	98.09	1.91	100

PERSONS EMPLOYED, BY MONTHS.

Months.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
January,	5,826	69	5,895	98.83	1.17	100
February,	5,791	74	5,865	98.74	1.26	100
March,	5,755	79	5,834	98.64	1.36	100
April,	5,697	76	5,773	98.68	1.32	100
May,	5,587	73	5,660	98.71	1.29	100
June,	5,320	77	5,397	98.57	1.43	100
July,	5,303	71	5,374	98.68	1.32	100
August,	5,368	76	5,444	98.60	1.40	100
September,	5,210	73	5,283	98.62	1.38	100
October,	5,224	70	5,294	98.68	1.32	100
November,	5,215	71	5,286	98.66	1.34	100
December,	5,314	67	5,381	98.75	1.25	100

WAGES, EARNINGS, PROPORTION OF BUSINESS DONE, AND DAYS IN OPERATION.

Wages and Earnings.		Proportion of Business Done and Days in Operation.	
Total amount paid in wages,...	\$2,767,434 00	Average proportion of business done,	
Average yearly earnings,	499 54	per cent.,	77.34
		Days in operation, average,	294.61

CLASSIFIED WEEKLY WAGES.

Classification of Weekly Wages.	Number Receiving—			Percentage Receiving—		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	311	15	326	5.46	18.98	5.65
\$5, but under \$6,	183	25	208	3.21	31.65	3.60
6, " " 7,	247	19	266	4.34	24.05	4.61
7, " " 8,	421	14	435	7.39	17.72	7.53
8, " " 9,	360	4	364	6.33	5.06	6.31
9, " " 10,	769	1	770	13.50	1.27	13.32
10, " " 12,	966	1	967	16.96	1.27	16.75
12, " " 15,	1,124	....	1,124	19.74	....	19.47
15, " " 20,	918	....	918	16.12	....	15.90
20, and over,	396	....	396	6.95	....	6.86
Total,	5,695	79	5,774	100.00	100.00	100.00

TABLE No. 14.—Industry Presentation, 1903—(Continued).

MACHINERY.

Number of Partners and Stockholders Considered.		Capital Invested, Stock Used and Goods Made.
Number of establishments reporting...	95	
Number of private firms,	28	Capital Invested.
Number of partners,	34	Amount of capital invested, \$21,715,418
Males,	32	
Females,	1	
Special,		
Estates,	1	Stock Used—Aggregate Value.
Number of corporations,	67	Total value of stock used, \$12,376,158
Number of stockholders,	1,031	
Males,	709	
Females,	245	Goods Made—Aggregate Value.
Banks, trustees, etc.,	77	Total value of goods made, \$27,278,465
Aggregates—partners and stockholders, 1,065		

PERSONS EMPLOYED.

Persons Employed.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
Average number,	16,395	415	16,810	97.53	2.47	100
Smallest number,	15,790	357	16,147	97.79	2.21	100
Greatest number,	16,661	467	17,128	97.27	2.73	100
Excess of greatest over smallest number, 871		110	981	88.70	11.21	100

PERSONS EMPLOYED, BY MONTHS.

Months.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
January,	16,484	372	16,856	97.79	2.21	100
February,	16,570	357	16,927	97.89	2.11	100
March,	16,596	359	16,955	97.88	2.12	100
April,	16,661	406	17,067	97.62	2.38	100
May,	16,580	406	16,986	97.61	2.39	100
June,	16,545	435	16,980	97.44	2.56	100
July,	16,628	420	17,048	97.54	2.46	100
August,	16,624	406	17,030	97.62	2.38	100
September,	16,256	432	16,688	97.41	2.59	100
October,	16,076	467	16,543	97.18	2.82	100
November,	15,926	466	16,392	97.16	2.84	100
December,	15,790	456	16,246	97.19	2.81	100

WAGES, EARNINGS, PROPORTION OF BUSINESS DONE, AND DAYS IN OPERATION.

Wages and Earnings.	Proportion of Business Done and Days in Operation.
Total amount paid in wages, ..\$10,152,984 00	Average proportion of business done,
Average yearly earnings, 603 98	per cent., 75.89
	Days in operation, average, 289.62

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CLASSIFIED WEEKLY WAGES.

Classification of Weekly Wages.	—Number Receiving—			—Percentage Receiving—		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	1,323	68	1,391	7.45	18.28	7.68
\$5, but under \$6,	520	64	584	2.93	17.20	3.22
6, " " 7,	534	93	627	3.01	25.00	3.46
7, " " 8,	792	56	848	4.46	15.06	4.68
8, " " 9,	1,000	33	1,033	5.63	8.87	5.70
9, " " 10,	1,705	31	1,736	9.60	8.34	9.58
10, " " 12,	2,159	21	2,180	12.16	5.64	12.03
12, " " 15,	3,438	6	3,444	19.37	1.61	19.00
15, " " 20,	5,199	....	5,199	29.28	....	28.68
20, and over,	1,084	....	1,084	6.11	....	5.97
Total,	17,754	372	18,126	100.00	100.00	100.00

TABLE No. 14.—Industry Presentation, 1903—(Continued).

SILK GOODS—ALL BRANCHES INCLUDED.

Number of Partners and Stockholders Considered.		Capital Invested, Stock Used and Goods Made.
Number of establishments reporting...	165	
Number of private firms,	81	Capital Invested.
Number of partners,	139	
Males,	135	Amount of capital invested, \$25,153,712
Females,	2	
Special,		
Estates,	2	Stock Used—Aggregate Value.
Number of corporations,	84	
Number of stockholders,	487	Total value of stock used, \$29,415,112
Males,	417	
Females,	65	Goods Made—Aggregate Value.
Banks, trustees, etc.,	5	
Aggregates—partners and stockholders,	626	Total value of goods made, \$49,835,589

PERSONS EMPLOYED.

Persons Employed.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
Average number,	15,359	12,922	28,281	54.31	45.69	100
Smallest number,	14,519	12,019	26,538	54.71	45.29	100
Greatest number,	16,430	14,094	30,524	53.83	46.17	100
Excess of greatest over smallest number,	1,911	2,075	3,986	47.94	52.06	100

PERSONS EMPLOYED, BY MONTHS.

Months.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
January,	15,821	13,743	29,564	53.51	46.49	100
February,	16,396	13,898	30,294	54.12	45.88	100
March,	16,430	14,094	30,524	53.83	46.17	100
April,	16,180	13,799	29,979	53.97	46.03	100
May,	15,653	13,461	29,114	53.76	46.24	100
June,	15,047	12,503	27,550	54.61	45.39	100
July,	15,142	12,767	27,909	54.25	45.75	100
August,	15,031	12,454	27,485	54.69	45.31	100
September,	14,519	12,117	26,636	54.51	45.49	100
October,	14,666	12,041	26,707	54.91	45.09	100
November,	14,689	12,019	26,708	54.99	45.01	100
December,	14,730	12,174	26,904	54.75	45.25	100

WAGES, EARNINGS, PROPORTION OF BUSINESS DONE, AND DAYS IN OPERATION.

Wages and Earnings.	Proportion of Business Done and Days in Operation.
Total amount paid in wages, .. \$11,328,537 00	Average proportion of business done,
Average yearly earnings, 400 57	per cent., 73.39
	Days in operation, average, 284.74

138 STATISTICS OF LABOR AND INDUSTRIES.

CLASSIFIED WEEKLY WAGES.

Classification of Weekly Wages.	Number Receiving			Percentage Receiving		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5.	1,752	3,850	5,602	10.37	27.32	18.08
\$5, but under \$6.	733	1,983	2,716	4.34	14.07	8.76
6, " " 7.	815	2,047	2,862	4.82	14.53	9.23
7, " " 8.	1,420	1,650	3,070	8.40	11.71	9.90
8, " " 9.	1,375	1,104	2,479	8.13	7.84	8.00
9, " " 10.	1,585	788	2,373	9.38	5.59	7.66
10, " " 12.	3,856	1,209	5,065	22.81	8.58	16.34
12, " " 15.	2,615	1,036	3,651	15.47	7.35	11.80
15, " " 20.	2,100	370	2,470	12.42	2.63	7.96
20, and over,	652	53	705	3.86	.38	2.27
Total,	16,903	14,090	30,993	100.00	100.00	100.00

TABLE No. 14.—Industry Presentation, 1903—(Continued).

WOOLEN AND WORSTED GOODS.

Number of Partners and Stockholders Considered.		Capital Invested, Stock Used and Goods Made.
Number of establishments reporting...	26	Capital Invested.
Number of private firms,	12	Amount of capital invested, \$9,297,741
Number of partners,	26	
Males,	26	
Females,		
Special,		
Estates,		
Number of corporations,	14	Stock Used—Aggregate Value.
Number of stockholders,	317	Total value of stock used, \$9,612,346
Males,	237	
Females,	71	
Banks, trustees, etc.,	9	Goods Made—Aggregate Value.
Aggregates—partners and stockholders, 343		Total value of goods made, \$14,603,410

PERSONS EMPLOYED.

Persons Employed.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total.
Average number,	3,713	4,678	8,391	44.25	55.75	100
Smallest number,	3,500	4,455	7,955	42.87	57.13	100
Greatest number,	3,825	4,856	8,681	44.06	55.94	100
Excess of greatest over smallest number, 325		401	726	44.77	55.23	100

PERSONS EMPLOYED, BY MONTHS.

Months.	Males.	Females.	Total.	Percentage of—		
				Males.	Females.	Total
January,	3,770	4,764	8,534	44.18	55.82	100
February,	3,825	4,856	8,681	44.06	55.94	100
March,	3,820	4,815	8,635	44.24	55.76	100
April,	3,802	4,793	8,595	44.24	55.76	100
May,	3,779	4,762	8,541	44.25	55.75	100
June,	3,784	4,718	8,502	44.51	55.49	100
July,	3,780	4,661	8,441	44.78	55.22	100
August,	3,753	4,671	8,424	44.55	55.45	100
September,	3,683	4,649	8,332	44.20	55.80	100
October,	3,535	4,523	8,058	43.87	56.13	100
November,	3,500	4,455	7,955	44.00	56.00	100
December,	3,523	4,468	7,991	44.09	55.91	100

WAGES, EARNINGS, PROPORTION OF BUSINESS DONE, AND DAYS IN OPERATION.

Wages and Earnings.	Proportion of Business Done and Days in Operation.
Total amount paid in wages... \$2,930,663 00	Average proportion of business done.
Average yearly earnings, 349 26	per cent., 83.85
	Days in operation, average, 287.77

CLASSIFIED WEEKLY WAGES.

Classification of Weekly Wages.	—Number Receiving—			—Percentage Receiving—		
	Males.	Females.	Total.	Males.	Females.	Total.
Under \$5,	618	2,546	3,164	14.43	52.73	34.73
\$5, but under \$6,	488	1,142	1,630	11.40	23.65	17.89
6, " " 7,	483	574	1,057	11.28	11.89	11.60
7, " " 8,	556	271	827	12.98	5.61	9.08
8, " " 9,	472	109	581	11.02	2.26	6.38
9, " " 10,	407	74	481	9.51	1.53	5.28
10, " " 12,	421	104	525	9.83	2.16	5.76
12, " " 15,	357	7	364	8.34	.15	4.00
15, " " 20,	324	1	325	7.57	.02	3.57
20, and over,	156	156	3.64	1.71
Total,	4,282	4,828	9,110	100.00	100.00	100.00

STATISTICS OF MANUFACTURES.

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STOCK OR MATERIAL USED.—Aggregate Quantities and Aggregate Value, 1903.

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Cost Value.
Agricultural Implements—			
Iron castings,	Pounds,	4,127,223	\$150,108
Bronze castings,	Pounds,	44,341	8,425
Steel,	Tons,	1,513	55,872
Iron,	Tons,	220	7,025
Lumber,	Feet,	505,000	16,037
Steel,	Not given, .....	.....	34,246
Steel tubes,	Not given, .....	.....	18,886
Pig and sheet tin,	Not given, .....	.....	8,735
Other material, .....	.....	.....	174,555
Total value of material used,			\$473,887

Artisans' Tools—			
Steel,	Tons,	5,085	\$160,219
Steel and iron,	Tons,	2,162	60,529
Iron castings,	Tons,	237	18,261
Brass castings,	Tons,	133	7,719
Steel,	Pounds,	663,320	26,281
Coal,	Tons,	453	2,411
Steel,	Not given, .....	.....	245,244
Iron,	Not given, .....	.....	8,953
Coal and fuel oil,	Not given, .....	.....	16,456
Other material, .....	.....	.....	564,069
Total value of material used,			\$1,110,142

Boilers—			
Steel plates,	Pounds,	21,100,905	\$421,487
Sheet iron,	Pounds,	1,916,594	51,498
Steel and iron,	Pounds,	2,161,200	51,483
Castings,	Pounds,	24,421,730	478,463
Tin,	Pounds,	497,897	29,469
Copper,	Pounds,	170,500	34,100
Brass,	Pounds,	22,100	3,100
Pig iron,	Tons,	995	18,231
Scrap iron,	Tons,	307	3,922
Coke,	Tons,	335	1,142
Iron and copper tubing,	Feet,	3,033,658	665,199
Bar steel, sheet steel and iron, bolts, rivets, etc.,	Not given, .....	.....	105,020
Other material, .....	.....	.....	907,374
Total value of material used,			\$2,770,488

Boxes (Wood and Paper)—			
Straw board,	Tons,	4,561	\$150,539
News board,	Tons,	258	9,800
Paper,	Reams,	16,321	40,329
Lumber,	Feet,	11,162,900	234,202
Glue,	Barrels,	155	3,343
Nails,	Kegs,	1,540	3,739
Straw boards, paper, lumber and glue,	Not given, .....	.....	275,975
Other material, .....	.....	.....	72,694
Total value of material used,			\$790,621

142 STATISTICS OF LABOR AND INDUSTRIES.

STOCK OR MATERIAL USED.—Aggregate Quantities and Aggregate Value, 1903—(Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Cost Value.
Brewing (Lager Beer, Ale and Porter)—			
Malt,	Bushel,	2,665,971	\$2,171,027
Hops,	Pounds,	2,268,009	638,549
Barley,	Bushel,	476,502	295,218
Meal,	Pounds,	3,000,310	36,688
Other material, .....	.....	.....	1,345,174
Total value of material used,			\$4,486,656
Brushes—			
Bristles,	Pounds,	33,625	\$20,693
Horsehair,	Pounds,	11,200	4,800
Sea root,	Pounds,	1,200	175
Wood blocks,	Gross,	3,545	4,333
Wire,	Pounds,	3,830	1,310
Fibre,	Pounds,	82,373	7,423
Bristles, fibre, tampico, etc.,	Not given, ....	.....	25,121
Other material, .....	.....	.....	25,509
Total value of material used,			\$89,814
Buttons (Pearl)—			
Pearl shell,	Pounds,	629,520	\$270,862
Pearl shell,	Not given, ....	.....	213,000
Ivory nuts,	Tons,	652	31,670
Other material, .....	.....	.....	130,618
Total value of material used,			\$646,150
Carpets and Rugs—			
Wool yarn,	Pounds,	3,411,526	\$590,161
Cotton yarn,	Pounds,	1,277,614	208,570
Jute yarn,	Pounds,	2,520,832	191,684
Body filler,	Pounds,	1,900,000	133,000
Cotton warp,	Pounds,	190,000	38,000
Other material, .....	.....	.....	161,177
Total value of material used,			\$1,322,592
Cigars and Tobacco—			
Tobacco,	Pounds,	27,008,986	\$4,125,969
Cigar boxes,	Number,	1,080,349	96,224
Tobacco and cigar boxes,	Not given, ....	.....	600,410
Other material, .....	.....	.....	1,262,099
Total value of material used,			\$6,084,702

STATISTICS OF MANUFACTURES.

143

STOCK OR MATERIAL USED.—Aggregate Quantities and Aggregate Value, 1903—(Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Cost Value.
Cornices and Skylights—			
Galvanized iron,	Pounds,	909,614	\$93,707
Copper,	Pounds,	162,550	32,044
Tin,	Boxes,	2,472	31,049
Glass,	Boxes,	302	5,400
Lead, zinc and solder,	Pounds,	162,700	13,618
Spelter,	Pounds,	1,000,000	50,000
Tar and felt,	Not given, .....	.....	4,938
Other material, .....	.....	.....	120,687
Total value of material used,			\$351,443
Corsets and Corset Waists—			
Jeans and sateens,	Yards,	2,743,335	\$270,729
Corset steels,	Pounds,	191,476	57,136
Clasps, etc.,	Gross,	16,100	54,900
Whalebone,	Pounds,	5,000	50,000
Jeans, sateens, steels, etc.,	Not given, .....	.....	259,103
Other material, .....	.....	.....	145,946
Total value of material used,			\$837,814
Cotton Goods—			
Cotton,	Pounds,	10,039,675	\$1,141,247
Cotton cloth,	Yards,	1,116,464	423,720
Cotton yarns,	Pounds,	2,154,000	416,197
Cotton and linen cloth, yarns, etc.,	Not given, .....	.....	2,062,329
Other material, .....	.....	.....	322,918
Total value of material used,			\$4,366,411
Fertilizers—			
Bones,	Tons,	81,435	\$772,776
Potash,	Tons,	22,516	589,713
Phosphate,	Tons,	64,462	336,896
Other crude material, .....	.....	.....	1,620,519
Total value of material used,			\$3,319,904
Foundry (Iron)—			
Pig iron,	Tons,	221,257	\$3,891,670
Scrap iron,	Tons,	13,266	187,373
Bar iron,	Tons,	410	16,400
Pig and scrap iron,	Tons,	8,111	142,876
Steel,	Tons,	2,097	85,397
Coal,	Tons,	2,722	12,090
Coke,	Tons,	3,005	16,258
Coal and coke,	Tons,	3,443	18,947
Brass,	Pounds,	74,961	8,611
Fuel oil,	Gallons,	116,108	6,022
Pig and scrap iron, steel coke, coke, etc.,	Not given, .....	.....	82,974
Other material, .....	.....	.....	1,736,887
Total value of material used,			\$6,205,503

144 STATISTICS OF LABOR AND INDUSTRIES.

STOCK OR MATERIAL USED.—Aggregate Quantities and Aggregate Value, 1903—(Continued):

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Cost Value.
Furnaces, Ranges and Heaters—			
Pig iron,	Tons,	16,064	\$303,678
Bar iron,	Tons,	332	13,594
Brass tubes,	Pounds,	822,710	164,542
Coal,	Tons,	4,600	19,615
Coke,	Tons,	1,570	7,630
Sand,	Tons,	4,508	9,060
Glass,	Boxes,	5,050	20,678
Pig iron, castings, tubes, etc.,	Not given, .....	.....	1,522,093
Other material, .....	.....	.....	512,006
Total value of material used,			\$2,572,896
Glass (Window and Bottle)—			
Sand,	Tons,	36,074	\$58,115
Soda ash,	Tons,	12,202	235,868
Lime,	Tons,	4,269	16,821
Fuel oil,	Gallons,	1,503,471	42,075
Coal,	Tons,	44,731	144,181
Wood,	Cords,	7,774	29,293
Nitrate of soda,	Tons,	1,652	33,584
Lumber,	Not given, .....	.....	63,103
Sand, soda, lime, coal, etc.,	Not given, .....	.....	1,052,369
Other material, .....	.....	.....	769,211
Total value of material used,			\$2,444,620
Hats (Felt)—			
Fur,	Pounds,	996,486	\$1,155,433
Trimnings,	Pieces,	157,397	173,159
Leathers,	Dozen,	62,860	70,607
Hat bodies,	Dozen,	8,536	59,848
Rabbit and hare skins,	Number,	4,056,345	225,908
Fur, bands, leather, etc.,	Not given, .....	.....	1,963,909
Other material, .....	.....	.....	314,139
Total value of material used,			\$3,963,003
Jewelry—			
Gold, .....	.....	.....	\$1,965,697
Silver, .....	.....	.....	149,654
Precious stones, .....	.....	.....	968,109
Gold and silver (not reported separately), .....	.....	.....	1,133,116
Other material, .....	.....	.....	31,784
Total value of material used,			\$4,248,360
Knit Goods—			
Wool yarn,	Pounds,	223,835	\$146,522
Cotton yarn,	Pounds,	703,957	136,722
Worsted yarn,	Pounds,	35,957	38,833
Silk,	Pounds,	7,250	31,500
Wool and cotton yarn,	Not given, .....	.....	261,939
Other material,	123,287
Total value of material used,			\$738,803

STATISTICS OF MANUFACTURES.

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STOCK OR MATERIAL USED.—Aggregate Quantities and Aggregate Value, 1903—(Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Cost Value.
Leather—			
Hides,	Number,	508,438	\$4,360,115
Sheep and goat skins,	Dozen,	328,639	2,050,648
Alligator skins,	Number,	8,446	9,852
Calf skins,	Dozen,	2,400	33,000
Rough leather,	Sides,	33,799	166,327
Horse hides,	Number,	68,466	92,171
Buffings,	Sides,	109,115	305,609
Skivers,	Dozen,	13,533	71,726
Bark,	Tons,	5,639	75,229
Sumac,	Tons,	205	9,832
Gambier,	Pounds,	348,448	18,336
Linseed oil,	Gallons,	107,327	49,738
Extract,	Barrels,	1,958	41,219
Naphtha,	Gallons,	247,565	25,408
Chemicals and colors,	Not given, .....	.....	140,455
Hides, skins, chemicals, etc.,	Not given, .....	.....	1,828,609
Other material, .....	.....	.....	1,635,239
Total value of material used,			\$10,913,513

Machinery—			
Pig iron,	Tons,	15,992	\$319,477
Bar iron and steel,	Tons,	856	54,426
Scrap iron,	Tons,	3,344	64,201
Iron castings,	Tons,	5,036	316,351
Steel castings,	Tons,	2,017	161,426
Forgings,	Tons,	462	37,270
Steel and iron,	Tons,	11,428	204,015
Composition castings,	Tons,	63	22,986
Steel plates,	Tons,	4,756	191,286
Steel rails,	Tons,	1,125	38,025
Tubes,	Tons,	105	12,525
Copper,	Pounds,	280,466	34,555
Coal and coke,	Tons,	4,032	18,335
Lumber,	Feet,	645,000	21,990
Pig iron, steel, iron, brass, tubes, lumber, etc.,	Not given, .....	.....	8,340,272
Other material, .....	.....	.....	2,539,018
Total value of material used,			\$12,376,158

Metal Goods—			
Copper,	Pounds,	4,863,981	\$641,434
Spelter,	Pounds,	841,340	42,889
Zinc,	Pounds,	300,000	21,000
Nickel,	Pounds,	120,307	48,123
Brass,	Pounds,	708,874	106,895
Tin,	Boxes,	12,038	47,561
Tin plate,	Tons,	4,383	291,000
Tin (pig),	Tons,	23	13,740
Aluminum,	Tons,	51	31,800

146 STATISTICS OF LABOR AND INDUSTRIES.

STOCK OR MATERIAL USED.—Aggregate Quantities and Aggregate Value, 1903—(Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Cost Value.
Metal Goods (Continued)—			
Steel,	Tons,	900	63,000
Steel,	Pounds,	1,034,000	37,183
Steel and iron,	Pounds,	411,218	26,083
Iron,	Tons,	945	28,123
Pig iron,	Tons,	781	13,097
Lead,	Tons,	497	46,264
Tubing (brass),	Feet,	196,162	13,393
Tubing (iron),	Feet,	292,988	6,025
Brass, copper, steel, iron, wire, tin, etc.,	Not given, .....	.....	2,225,483
Other material, .....	.....	.....	853,606
Total value of material used,			\$4,556,699
Oil Cloth (Floor and Table)—			
Burlap,	Tons,	2,300	\$280,000
Burlap,	Yards,	7,360,000	472,500
Cork,	Tons,	5,100	134,000
Oil,	Tons,	2,200	290,000
Linseed oil,	Gallons,	995,492	410,273
Cottons,	Yards,	5,983,551	398,377
Burlap, oil, paint, etc.,	Not given, .....	.....	298,317
Other material, .....	.....	.....	482,881
Total value of material used,			\$2,766,348
Oils—			
Crude oil,	Gallons,	743,381,031	\$32,092,374
Barrels and parts, .....	.....	.....	1,239,338
Other oils and material, .....	.....	.....	4,281,150
Total value of material used,			\$37,612,862
Paper—			
Paper stock,	Tons,	34,380	\$368,380
Sulphite,	Tons,	700	20,000
Rags,	Tons,	3,250	52,000
Paper,	Pounds,	13,221,686	446,828
Jute,	Pounds,	2,679,820	29,121
Acids,	Pounds,	5,056,000	28,317
Wax,	Pounds,	900,000	58,000
Gunny,	Pounds,	13,038,417	114,505
Rope,	Pounds,	1,196,447	27,284
Paper, colors, clay, glue, varnishes, oil, sulphite, etc.,	Not given, .....	.....	2,145,092
Other material, .....	.....	.....	551,312
Total value of material used,			\$3,840,839

STOCK OR MATERIAL USED.—Aggregate Quantities and Aggregate Value, 1903—(Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Cost Value.
Rubber Goods (Hard and Soft)—			
Crude rubber,	Pounds,	9,032,422	\$4,484,378
Scrap rubber,	Pounds,	9,034,903	451,540
Reclaimed rubber,	Pounds,	1,659,526	192,310
Cotton fabrics,	Yards,	3,343,546	418,932
Cotton duck,	Pounds,	1,937,377	322,480
Yarn (cotton and linen),	Pounds,	1,100,000	208,000
Sulphur,	Tons,	1,070	54,798
Crude rubber, scrap rubber, cotton, com- pounds, etc.,	Not given, ....	.....	2,949,564
Other material, .....	.....	.....	1,678,739
Total value of material used,			\$10,760,741
Silk (Broad and Ribbon)—			
Raw silk,	Pounds,	5,265,345	\$22,744,907
Spun silk,	Pounds,	41,500	90,000
Cotton,	Pounds,	946,874	312,787
Other material, .....	.....	.....	2,720,486
Total value of material used,			\$25,868,180
Silver Goods—			
Gold,	Dwts,	117,352	\$121,283
Silver,	Ounces,	845,998	480,286
Gold and silver,	Not given, ....	.....	94,820
Other material, .....	.....	.....	319,988
Total value of material used,			\$1,016,377
Soap and Tallow—			
Tallow,	Pounds,	6,250,000	\$364,063
Tallow and oil,	Not given, ....	.....	137,780
Tallow, grease, oil, rosin, etc.,	Not given, ....	.....	2,027,739
Other material, .....	.....	.....	20,878
Total value of material used,			\$2,735,060
Steel and Iron (Structural)—			
Iron, steel and castings,	Tons,	37,338	\$1,336,313
Pig iron,	Tons,	21,493	468,742
Scrap iron,	Tons,	27,145	460,957
Steel plates,	Pounds,	20,915,042	371,787
Other steel and iron,	Not given, ....	.....	1,243,735
Other material, .....	.....	.....	726,938
Total value of material used,			\$4,608,472

148 STATISTICS OF LABOR AND INDUSTRIES.

STOCK OR MATERIAL USED.—Aggregate Quantities and Aggregate Value, 1903—(Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Cost Value.
Steel and Iron (Forgings)—			
Billets,	Tons,	21,693	\$720,320
Steel and iron,	Tons,	15,940	491,077
Pig iron,	Tons,	20,222	438,565
Other steel and iron,	Not given, .....	.....	1,036,009
Other material, .....	.....	.....	66,877
Total value of material used,			\$2,752,348
Trunks and Traveling Bags—			
Leather,	Sides,	20,727	\$65,147
Bag frames,	Dozen,	3,600	18,000
Lumber,	Feet,	800,000	20,000
Iron,	Tons,	161	16,200
Hardware,	Not given, .....	.....	24,000
Leather, iron, cotton goods, paper, boards, varnish, paints, etc., .....	.....	.....	281,175
Other material, .....	.....	.....	50,011
Total value of material used,			\$474,533
Trunk and Bag Hardware—			
Brass,	Pounds,	984,391	\$155,303
Tin plate,	Boxes,	2,350	23,050
Steel (sheet),	Pounds,	563,758	29,775
Steel,	Tons,	820	50,500
Castings,	Pounds,	18,500	12,700
Brass, steel, iron, tin, zinc, etc.,	Not given, .....	.....	150,000
Other material, .....	.....	.....	184,125
Total value of material used,			\$605,453
Varnishes—			
Gum copal,	Pounds,	2,440,334	\$440,145
Linseed oil,	Gallons,	388,345	179,606
Turpentine,	Gallons,	711,665	364,611
Naphtha,	Gallons,	124,966	14,152
Other gum, oil and turpentine,	Not given, .....	.....	492,203
Other material, .....	.....	.....	369,719
Total value of material used,			\$1,860,436
Woolen and Worsted Goods—			
Wool,	Pounds,	24,931,022	\$5,731,962
Wool and shoddy,	Pounds,	5,134,970	810,542
Wool yarn,	Pounds,	231,000	207,250
Worsted yarn,	Pounds,	590,000	503,000
Cotton yarn,	Pounds,	198,366	24,746
Cotton warp,	Pounds,	265,522	59,444
Rags and clips,	Pounds,	802,497	60,000
Dye stuff, soap, oil, etc.,	Not given, .....	.....	50,262
Other material,	2,165,140
Total value of material used,			\$9,612,346

STATISTICS OF MANUFACTURES.

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GOODS MADE.—Aggregate Quantities and Aggregate Value, 1903.

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Selling Value.
Agricultural Implements—			
Cream separators,	Number,	19,291	\$1,872,100
Lawn mowers (horse and hand),	Number,	15,102	80,610
Potato planters,	Number,	663	33,150
Horse cultivators,	Number,	17,227	136,442
Sprayers,	Number,	180	7,920
Plows,	Number,	150	2,380
Threshing machines,	Number,	55	8,850
Hand seed drills, wheel hoes, etc.,	Number,	13,410	60,345
Harrows and parts,	Not given, .....	.....	47,534
Other implements, .....	.....	.....	113,324
Total value of goods made,			\$2,362,655

Artisans' Tools—

Files and rasps,	Dozen,	681,214	\$862,700
Hatchets and axes,	Dozen,	9,700	22,800
Nippers,	Dozen,	7,000	49,000
Tongs,	Dozen,	2,550	6,000
Pincers,	Dozen,	2,000	15,000
Ticket punches,	Dozen,	1,250	5,000
Hammers,	Dozen,	5,150	25,750
Pliers,	Gross,	150	6,750
Hammers and sledges,	Not given, .....	.....	334,406
Saws,	Not given, .....	.....	122,684
Well-boring tools,	Not given, .....	.....	172,650
Anvils and vises,	Number,	9,075	72,500
Clippers,	Number,	63,859	29,491
Mechanics' tools,	Not given, .....	.....	659,989
Other tools, .....	.....	.....	569,595
Total value of goods made,			\$2,954,324

Boilers—

Boilers (stationary and marine),	H. P.,	404,757	\$3,625,769
Boilers (stationary and marine),	Number,	265	237,403
Copper range boilers,	Number,	3,841	75,152
House-heating boilers,	Number,	201	18,100
Heaters,	Number,	135	11,750
Tanks,	Number,	285	16,750
Stand pipes,	Number,	28	10,100
Other boilers, stacks, stokers, etc.,	Not given, .....	.....	748,364

Total value of goods made, \$4,743,388

Boxes (Wood and Paper)—

Paper boxes,	Number,	43,957,511	\$644,684
Wood boxes,	Number,	2,173,363	191,568
Cigar boxes,	Number,	550,000	46,200
Boxes (kind not given),	Not given, .....	.....	640,263
Other boxes, etc., .....	.....	.....	89,756

Total value of goods made, \$1,612,471

150 STATISTICS OF LABOR AND INDUSTRIES.

GOODS MADE.—Aggregate Quantities and Aggregate Value, 1903— (Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Selling Value.
Brewing (Lager Beer, Ale and Porter)—			
Lager beer, ale and porter,	Barrels,	2,612,758	\$13,731,530
Malt,	Bushels,	538,149	382,003
Other malt products, .....	.....	.....	20,561
Total value of goods made,			\$14,134,184
Brushes—			
Brushes,	Gross,	6,987	\$161,975
Brushes,	Not given, .....	.....	114,500
Total value of goods made,			\$276,475
Buttons (Pearl)—			
Buttons (pearl),	Gross,	159,125	\$278,330
Buttons (pearl),	Not given, .....	.....	577,000
Pearl goods, .....	.....	.....	280,035
Total value of goods made,			\$1,135,365
Carpets and Rugs—			
Carpets,	Yards,	443,628	\$426,852
Smyrna rugs,	Square yards,	475,510	350,000
Smyrna rugs,	Number,	144,100	243,560
Smyrna and jute rugs,	Number,	487,373	428,329
Smyrna rugs,	Not given, .....	.....	730,000
Jute carpets,	Number,	4,200	58,800
Other goods made, .....	.....	.....	181,019
Total value of goods made,			\$2,418,560
Cigars and Tobacco—			
Cigars,	Number,	323,390,005	\$5,960,903
Tobacco and snuff,	Pounds,	26,271,426	8,977,908
Cigarettes,	Number,	9,000,000	41,000
Other goods made, .....	.....	.....	2,476
Total value of goods made,			\$14,982,287
Cornices and Skylights—			
Cornices,	Number,	253	\$35,800
Skylights,	Number,	522	20,000
Cornices and skylights,	Not given, .....	.....	508,988
Other goods made, .....	.....	.....	104,394
Total value of goods made,			\$669,182
Corsets and Corset Waists—			
Corsets and corset waists,	Dozen,	455,474	\$1,874,699
Corsets and corset waists,	Not given, .....	.....	420,000
Total value of goods made,			\$2,294,699

**GOODS MADE.—Aggregate Quantities and Aggregate Value, 1903—
(Continued).**

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Selling Value.
Cotton Goods—			
Cotton cloth,	Yards,	22,238,807	\$1,137,899
Cotton yarns,	Pounds,	2,998,543	745,710
Fabrics,	Square yards, .	2,641,253	1,228,413
Handkerchiefs,	Dozen,	792,019	576,421
Handkerchiefs,	Not given, .....	.....	1,903,252
Lace curtains,	Not given, .....	.....	225,000
Other goods made, .....	.....	.....	1,181,851
Total value of goods made,			\$6,998,546
Fertilizers—			
Fertilizers,	Tons,	250,022	\$3,914,497
Bone black,	Tons,	7,229	325,305
Grease,	Tons,	3,474	295,290
Phosphates,	Pounds,	2,503,195	60,267
Fish fertilizers,	Tons,	3,975	73,836
Fish oil,	Barrels,	23,111	22,612
Other articles, .....	.....	.....	223,463
Total value of goods made,			\$4,915,270
Foundry (Iron)—			
Cast-iron pipe,	Tons,	176,233	\$5,550,513
Castings,	Tons,	58,016	3,376,629
Castings,	Not given, .....	.....	859,783
Other articles, .....	.....	.....	1,251,454
Total value of goods made,			\$11,038,379
Furnaces, Ranges and Heaters—			
Heaters,	Number,	1,808	\$414,713
Heaters,	Pounds,	1,771,038	78,761
Steam condensers,	Number,	242	394,921
Cooling towers,	Number,	24	69,915
Radiators,	Pounds,	6,360,124	188,841
Castings,	Tons,	2,795	283,378
Blowers,	Number,	349	35,000
Steam pumps,	Number,	187	147,698
Furnaces, ranges, stoves, boilers, castings, etc.,	Not given, .....	.....	2,091,645
Other articles, .....	.....	.....	1,345,315
Total value of goods made,			\$5,050,187
Glass (Window and Bottle)—			
Glass bottles,	Gross,	419,969	\$1,331,852
Jars,	Gross,	170,648	600,237
Window glass,	Boxes,	106,434	256,709
Glass bottles, jars, window glass and glass- ware,	Not given,	4,437,264
Other goods made,	65,000
Total value of goods made,			\$6,691,062

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GOODS MADE.—Aggregate Quantities and Aggregate Value, 1903— (Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Selling Value.
Hats (Felt)—			
Hats,	Dozen,	574,627	\$7,347,840
Hat bodies,	Dozen,	810,583	31,072
Hatters' fur,	Pounds,	590,067	467,244
Hats,	Not given, .....	.....	1,191,727
Other articles, .....	.....	.....	207,921
Total value of goods made,.....			\$9,245,813
Jewelry—			
Finished jewelry,	Not given, .....	.....	\$8,378,649
Total value of goods made,.....			\$8,378,649
Knit Goods—			
Underwear,	Dozen,	145,116	\$816,615
Hosiery,	Dozen,	165,895	193,172
Other knit goods,.....	Not given, .....	.....	330,551
Total value of goods made,.....			\$1,340,338
Leather—			
Patent and enameled,.....	Sides,	175,698	\$2,168,283
Carriage,	Hides,	110,200	876,500
Furniture,	Hides,	42,400	534,680
Harness,	Sides,	351,235	1,882,769
Shoe,	Pounds,	1,307,640	129,618
Colt,	Dozen,	63,957	1,042,452
Glazed kid,	Dozen,	422,934	4,064,065
Calf skins,	Dozen,	9,694	281,425
Skivers,	Dozen,	12,179	90,835
Horse,	Number,	68,466	133,682
Alligator,	Number,	17,663	26,337
Buffings,	Sides,.....	93,010	352,809
Bookbinders,	Feet,	2,025,475	148,863
Hat,	Gross,	33,772	179,632
Other leather (kind not stated),.....	Not given, .....	.....	1,124,764
Patent and enameled,.....	Not given, .....	.....	4,336,676
Other goods made, .....	.....	.....	764,422
Total value of goods made,.....			\$18,137,212
Machinery—			
Locomotives,	Number,	411	\$6,286,018
Sewing machines and parts,.....	Not given, .....	.....	8,334,312
Printing machinery,	Number,	242	575,955
Printing machinery,	Not given, .....	.....	238,232
Textile machinery,	Number,	1,133	166,505
Canning machinery,	Number,	370	88,490
Cigar machinery,	Number,	4,060	99,000
Electric machinery,	Number,	105	61,590

**GOODS MADE.—Aggregate Quantities and Aggregate Value, 1903—
(Continued).**

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Selling Value.
Machinery (Continued).—			
Hatters' machinery,	Number,	7,123	33,815
Ice machinery,	Number,	6	10,450
Presses (foot and drop),	Number,	352	206,293
Elevators,	Number,	19	7,521
Corliss engines,	Number,	32	171,510
Corliss engines,	Not given, .....	.....	210,000
Steam engines,	Number,	293	496,580
Hoisting engines,	Number,	388	300,420
Gas engines,	Number,	324	102,820
Engines, boilers and appurtenances,	Not given, .....	.....	485,000
Turbines,	H. P.,	15,000	300,000
Castings,	Not given, .....	.....	331,860
Machinery (various kinds),	Not given, .....	.....	3,558,753
Machinery, dies, presses, castings, pulleys, shaftings, etc., .....	.....	.....	4,106,790
Other goods made, .....	.....	.....	1,106,051
Total value of goods made,			\$27,278,465
Metal Goods.—			
Brass and iron bedsteads,	Number,	53,938	\$390,143
Jar caps,	Gross,	70,000	100,000
Builders' hardware,	Not given, .....	.....	319,906
Locks,	Dozen,	12,601	23,724
Rivets, tubing, rods and sheet-metal goods, ..	Not given, .....	.....	6,668,508
Other goods, .....	.....	.....	1,048,426
Total value of goods made,			\$8,550,707
Oil Cloth (Floor and Table).—			
Linoleum and oil cloth,	Pieces,	583,600	\$2,349,988
Oil cloth,	Yards,	5,466,148	1,022,599
Linoleum,	Yards,	2,360,000	808,054
Other goods, .....	.....	.....	99,124
Total value of goods made,			\$4,279,765
Oils.—			
Refined oil,	Gallons,	365,672,390	\$25,854,932
Lubricating oil,	Gallons,	46,757,736	3,829,532
Naphtha,	Gallons,	59,983,721	4,020,575
Fuel oil and wax,	Gallons,	114,245,335	5,729,855
Benzine,	Gallons,	606,250	59,063
Oil vitriol,	Tons,	55,500	666,000
Lubricating oil and grease, .....	.....	.....	702,787
Lard oil, neatsfoot oil and stearine, .....	.....	.....	258,755
Fish oil and scrap,	34,800
Other oils, etc.,	4,483,520
Total value of goods made,			\$45,630,819

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GOODS MADE.—Aggregate Quantities and Aggregate Value, 1903— (Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Selling Value.
Paper—			
Wall paper,	Rolls,	27,389,801	\$1,502,958
Tissue paper,	Tons,	2,840	610,678
Roofing paper,	Tons,	5,370	199,723
Building paper,	Tons,	3,268	82,467
Coated and card paper,	Tons,	4,773	394,868
Manila paper,	Pounds,	13,379,860	652,987
Parchment paper,	Pounds,	4,254,220	382,880
Waxed and bankers' paper,	Not given, .....	.....	516,868
Trunk, binders', box and news boards,	Not given, .....	.....	789,650
Other paper (various kinds),	Not given, .....	.....	1,364,677
Total value of goods made,			\$6,497,756
Rubber Goods (Hard and Soft)—			
Belting,	Pounds,	3,964,403	\$909,429
Hose,	Pounds,	4,753,243	1,108,029
Packing,	Pounds,	1,425,413	445,023
Rubber boots and shoes,	Pairs,	1,801,619	1,788,219
Emery wheels,	Pounds,	291,851	85,640
Reclaimed rubber,	Pounds,	7,101,236	775,435
Druggists' goods, .....	.....	.....	320,000
Mechanical goods, .....	.....	.....	2,664,130
Stationers' goods, .....	.....	.....	257,783
Belting, hose, packing, etc.,	Not given, .....	.....	6,856,821
Other rubber goods, .....	.....	.....	1,329,750
Total value of goods made,			\$16,540,268
Silk (Broad and Ribbon)—			
Broad silk,	Yards,	26,178,032	\$18,607,619
Broad silk,	Pieces,	107,113	3,692,243
Ribbons,	Yards,	79,230,960	2,540,009
Ribbons,	Boxes,	158,733	1,851,801
Ribbons,	Pieces,	3,687,134	4,141,621
Ribbons,	Cartons,	131,239	1,265,274
Handkerchiefs,	Dozen,	41,516	98,598
Mufflers,	Dozen,	50,793	322,508
Vestings,	Yards,	160,007	24,000
Veilings,	Yards,	1,000,000	90,000
Veilings,	Pieces,	77,603	165,671
Veilings,	Dozen,	8,142	67,923
Umbrella silk,	Yards,	321,770	226,700
Silk plush,	Yards,	342,538	208,948
Cotton plush,	Yards,	291,576	104,967
Lining silk,	Yards,	91,340	127,876
Bindings,	Yards,	11,905,459	114,717
Braids,	Gross,	170,000	165,725
Tie silk,	Yards,	1,609,662	1,088,128
Broad, tie, ribbon, etc.,	Not given, .....	.....	6,667,096
Other goods, .....	.....	.....	1,079,938
Total value of goods made,			\$42,651,362

**GOODS MADE.—Aggregate Quantities and Aggregate Value, 1903—
(Continued).**

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Selling Value.
Silver Goods—			
Silverware,			\$1,583,442
Silver-plated ware,			186,792
Silver-deposit ware,			55,475
Silver novelties,			210,372
Other goods,			451,750
Total value of goods made,.....			\$2,487,840
Soap and Tallow—			
Laundry soap,	Pounds,	5,588,732	\$244,570
Laundry and toilet soaps, perfumery, candles, textile soap, tallow, etc.,	Not given,		3,881,416
Total value of goods made,.....			\$4,125,986
Steel and Iron (Structural)—			
Structural steel and iron,.....	Tons,	80,042	\$4,514,373
Structural steel and iron,.....	Not given,		800,302
Wire and wire rope,.....	Tons,	5,500	874,122
Rods,	Tons,	6,315	285,232
Steel pipe,	Feet,	96,659	568,575
Other articles,			495,949
Total value of goods made,.....			\$7,538,553
Steel and Iron (Forgings)—			
Machine and tool steel,.....	Pounds,	32,567,212	\$1,212,800
Steel castings,	Tons,	15,779	1,748,275
Steel and iron forgings,.....	Tons,	2,104	144,958
Steel-tired wheels,	Tons,	3,309	278,882
Iron castings,	Tons,	615	28,457
Carriage, wagon and truck springs,.....	Tons,	1,050	105,365
Other forgings,			2,331,344
Total value of goods made,.....			\$5,850,081
Trunks and Traveling Bags—			
Trunks,	Number,	68,900	\$256,500
Trunks (toy),	Number,	13,000	10,000
Bags, satchels and cases,.....	Number,	88,594	249,872
Trunks and bags,	Not given,		490,561
Other goods,			1,407
Total value of goods made,.....			\$1,008,340
Trunk and Bag Hardware—			
Bag, purse and pocketbook frames,.....	Gross,	61,000	\$105,000
Bag, purse and pocketbook frames,.....	Not given,		1,121,962
Other goods,			8,700
Total value of goods made,.....			\$1,235,662

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GOODS MADE.—Aggregate Quantities and Aggregate Value, 1903— (Continued).

Industry, and Specified Stock Used.	Basis of Measurement.	Aggregate Quantities.	Aggregate Selling Value.
Varnishes—			
Varnishes,	Gallons,	945,998	\$1,267,770
Japans,	Gallons,	55,250	49,500
Varnishes and japans,	Gallons,	236,885	474,882
Varnishes, japans, shellac, dryers, colors, etc.,	Not given, ....	.....	2,024,201
Other goods, .....	.....	.....	104,000
Total value of goods made,			\$3,920,353
Woolen and Worsted Goods—			
Woolen and worsted cloth,	Pieces,	168,200	\$4,628,250
Woolen and worsted cloth,	Yards,	3,787,326	1,946,391
Woolen and worsted cloth,	Pounds,	738,000	700,773
Worsted yarn,	Pounds,	5,658,563	4,737,026
Wool yarn,	Pounds,	243,125	121,563
Cassimeres,	Yards,	374,376	225,740
Flannels,	Yards,	370,000	49,500
Nolls and wastes,	Pounds,	146,567	52,261
Nolls and wastes,	Not given, ....	.....	332,395
Other goods, .....	.....	.....	1,799,611
Total value of goods made,			\$14,603,410

Steam Railroad Transportation in New Jersey, 1903.

The interesting data relating to employment and wages of labor employed by the great trunk line companies, whose roads cross New Jersey and terminate on the part of her shore line fronting on New York bay and Hudson river, are presented collectively for all companies, and also for each individual road in the series of tables which follow. The figures given relate only to employes whose duties are performed in whole or for the most part within the geographical limits of this State and are for the year ending October 31st, 1904.

The collective table showing the data for all roads is so arranged as to permit comparisons of the various features presented for the years 1902 and 1903 to be made. The totals for both years, with the increase or decrease shown in the various items are given in absolute numbers and by percentages in the following table:

COMPARISON Showing Miles of Road, Persons Employed, Time Worked, Daily Wages, Annual Earnings, Etc., For All Railroads, 1903-1904.

	1903.	1904.	Increase (+) or Decrease (—) in 1904 as Com- pared with 1903.			
			Amount.	Percentage.		
Aggregate number of miles of railroad in New Jersey,	1,607.40	1,627.98	+	20.58	+	1.3
Aggregate number of persons em- ployed,	38,363	37,654	—	709	—	1.8
Aggregate number of days worked,...	11,393,021	11,012,594	—	380,427	—	3.3
Aggregate average number of days worked per employe,	279	292	+	13	+	3.2
Aggregate average number of hours worked per day,	10.5	10.4	—	0.1	.....
Aggregate average number of days not on duty, including Sundays,	68	73	+	5	+	7.3
Aggregate amount paid in wages,...	\$21,923,259.51	\$22,440,399.00	+	\$517,139.49	+	2.3
Aggregate average wages per day,...	\$1.92	\$2.04	+	\$0.12	+	6.2
Aggregate average yearly earnings per employe,	\$571.47	\$595.96	+	\$24.49	+	4.3
Aggregate number of employes injured while at work,	1,891	1,255	—	636	—	33.6
Aggregate number of employes whose injuries resulted in death,	83	77	—	6	—	7.2

The increase shown by the above table in the aggregate number of miles in operation—20.58 miles—is the result of a slight expansion amounting to less than one mile on the part of four companies and a comparatively large one by one company, the Lehigh Valley, which reports an extension of its tracks in this State amounting to 18.69 miles.

In the number of persons employed, the table shows a reduction of 709, or 1.8 per cent. as compared with 1903; this shrinkage is, as a matter of course, reflected in the item relating to the aggregate average number of days worked by the combined labor forces of all the roads, which shows a shrinkage of 380,427 days, or 3.3 per cent. in 1904 below the figures of the previous year.

In the average number of days employed per employe, the table shows an increase of 13 days, or 3.2 per cent., which would seem to fully compensate the reduction in the number of employes.

The figures relating to the wages of labor employed on the railroads shows a most decided advance in 1904 as compared with 1903; for, notwithstanding the fact that 1.8 per cent. fewer persons were on the pay-rolls, the aggregate amount paid in wages is \$517,139.49, or 2.3 per cent. greater. Average daily wages increased 6.2 per cent; or from \$1.92 to \$2.04 per day. Average yearly earnings were \$571.47 in 1903 and \$595.96 in 1904, an increase of \$24.49, or 4.3 per cent.

The average yearly earning of railroad men as here shown exceed those of the average workman employed in manufacturing industry by the sum of \$124.15. The yearly earnings of the latter in New Jersey being \$471.81 for the year 1903.

The figures relating to casualties among railroad men while on duty are furnished by only four of the seven trunk lines included in the compilation. From the data in hand, however, it is highly gratifying to observe that a very great decrease has taken place in the number of accidents and also in the number of these that terminated fatally.

In 1903 the four roads reporting casualties gave 1,891 as the number that had occurred during the year, and 83, or 4.4 per cent., as the proportion that resulted in death. In 1904 the same roads report 1,255 as the number of casualties, 77 or 6.1 per cent. of

which had fatal endings. A comparison of the absolute number of accidents to employes for the two years shows a reduction of 636, or 33.6 per cent., in the number that occurred in 1904 as compared with 1903, a reduction in the roll of victims that is very gratifying, no matter by what means it has been brought about. The reduction in the number of employes during the year was only 1.8 per cent., as against a falling off of 33.6 per cent. in the number of casualties.

The class of labor that is most exposed to accidents is the trainmen, and from it comes by far the larger number of those injured or killed while on duty. Next in order of liability comes the linemen, under which designation is included the switchmen, trackmen, yardmen, and depot or station men.

CLASSIFICATION of Persons Employed on the Steam Railroads in New Jersey, for the Fiscal Year Ending June 30th, 1904.

Number of Persons Employed, Number of Hours on Duty per Day, Total Amount Paid in Wages, Average Daily Wage-rates, and Annual Earnings.
Summary Table No. 1.—Aggregates and Averages, by Companies.

CLASSIFICATION.													
	Years.	Number of miles of road in New Jersey.	Number of persons employed.	Aggregate number of days employed.	Average number of days employed per employee.	Average number of hours employed per day.	Average number days during year not on duty, Sundays included.	Aggregate amount paid in wages.	Average wages per day.	Average yearly earnings per employee.	Number of employees injured during year.	Number of employees whose injuries resulted in death.	
Pennsylvania Railroad Company,	1903	405.08	16,329	5,138,034	314	10.0	51	\$10,222,616 77	\$1 97	\$618 47	1116	44	
Philadelphia and Reading Railway Company,	1904	405.98	15,896	4,559,131	259	10.3	76	9,619,194 36	2 15	624 00	860	44	
Central Railroad Company of New Jersey,	1903	222.61	1,976	621,304	314	10.0	51	990,178 09	1 60	501 10	22	3	
Delaware, Lackawanna and Western Railroad Company,	1904	222.61	1,896	607,701	321	10.3	44	899,701 60	1 64	527 27	19	4	
Eric Railroad Company,	1903	380.00	7,949	2,104,564	265	10.8	100	4,238,817 76	2 01	533 00	582	23	
Lehigh Valley Railroad Company,	1904	206.92	6,400	1,948,907	304	10.6	73	3,151,756 39	1 85	531 76	171	13	
New York, Susquehanna and Western Railroad Company,	1903	141.93	2,294	660,304	288	10.8	77	1,208,175 48	1 92	552 82	136	16	
Totals,	1904	131.50	1,207	337,522	279	10.7	86	640,435 34	1 90	530 80	1255	77	

STEAM RAILROAD TRANSPORTATION.

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CLASSIFICATION of Persons Employed on the Steam Railroads in New Jersey, for the Fiscal Year Ending June 30th, 1904—(Continued).

Number of Persons Employed, Number of Days on Duty, Total Amount Paid in Wages, Average Daily Wage-rates, and Annual Earnings per Employee, for Each Class.

Pennsylvania Railroad Company. Number of Miles of Road in New Jersey—405.98.

CLASSIFICATION.	Number of persons employed.	Aggregate number of days employed.	Average number of days employed per employee.	Average number of hours employed per day.	Average number days during year not on duty. Sundays included.	Aggregate amount paid in wages.	Average wages per day.	Average yearly earnings per employee.	Number of employees injured during year.	Number of employees whose injuries resulted in death.
Conductors,	470	164,211	349	11	16	\$525,804 98	\$3 20	\$1,118 73	283	20
Brakemen,	945	303,936	322	11	43	697,033 85	2 29	737 60		
Engineers,	565	180,022	319	11	46	722,010 17	4 00	1,277 89		
Firemen,	568	179,784	317	11	48	428,479 70	2 38	754 36		
Switchmen,	186	62,444	336	11	29	104,882 57	1 68	563 88	6	1
Flagmen,	275	87,276	317	12	48	155,986 01	1 79	567 22	14	3
Engine wipers, etc.,	235	76,007	323	11	42	139,054 97	1 83	591 72	16	...
Yardmen,	812	250,707	309	11	56	670,539 77	2 67	825 79	15	2
Trackmen,	1,985	554,430	279	10	86	818,495 13	1 48	412 34	75	7
Agents,	151	51,982	344	10	21	122,278 27	2 35	809 79	...	...
Assistant agents,	45	15,092	335	11	30	22,567 00	1 50	501 48	...	...
Baggagemen,	89	28,566	321	10	44	56,332 24	1 97	632 95	1	...
Clerks,	907	288,566	318	9	47	621,352 17	2 15	684 88	1	...
Other depot men,	1,613	497,048	308	10	57	1,082,187 55	2 17	670 91	201	...
Machinists and helpers,	594	185,716	313	10	52	420,739 23	2 26	708 31	17	...
Blacksmiths and helpers,	168	52,163	310	10	55	109,462 13	2 10	651 56	8	...
Bollermakers and helpers,	196	60,408	308	10	57	131,070 96	2 17	668 73	18	...
Carbuilders and repairers,	687	211,746	308	10	57	441,235 72	2 08	642 26	21	1
Carpenters & bridgeb'ld's,	496	153,338	309	10	56	319,783 32	2 09	644 72	37	2
Construction gangs,	221	22,321	101	10	264	38,310 72	1 71	173 35	...	...
Telegraph operators,	328	116,558	355	10	10	247,390 70	2 13	754 24	1	...
Division Supt.'s office,	60	17,880	298	9	67	61,643 49	3 43	1,027 39	...	...
Supply department,	6	2,079	346	10	19	3,186 00	1 53	531 00	...	...
Other employees,	4,294	1,036,851	241	10	124	1,979,367 71	1 91	460 96	146	8
Total,	15,896	4,599,131	289	10.3	76	\$9,919,194 36	\$2 15	\$624 00	860	44

* 1,729 employees are required to pass into the States of New York and Pennsylvania in connection with their duties.

CLASSIFICATION of Persons Employed on the Steam Railroads in New Jersey, for the Fiscal Year Ending June 30th, 1904—(Continued).

Number of Persons Employed, Number of Days on Duty, Total Amount Paid in Wages, Average Daily Wage-rates, and Annual Earnings per Employee, for Each Class.

Philadelphia and Reading Railway Company (Atlantic City Railroad, Delaware and Bound Brook Railroad, Port Reading Railroad). Number of Miles of Road in New Jersey—222.61.

CLASSIFICATION.	Number of persons employed.	Aggregate number of days employed.	Average number of days employed per employee.	Average number of hours employed per day.	Average number days during year not on duty, Sundays included.	Aggregate amount paid in wages.	Average wages per day.	Average yearly earnings per employee.	Number of employees injured during year.	Number of employees whose injuries resulted in death.
Conductors,	61	19,841	325	.....	40	\$59,521 91	\$3 00	\$975 77	2	.....
Brakemen,	120	38,850	324	.....	41	71,870 86	1 85	598 02	11	3
Engineers,	74	24,000	322	.....	43	86,341 76	3 56	1,147 84	4	.....
Firemen,	74	24,000	322	.....	43	52,650 27	2 21	711 49	.....	.....
Switchmen,	55	17,854	325	.....	40	24,118 85	1 35	438 53	.....	.....
Flagmen,	55	17,450	317	.....	48	20,939 44	1 20	380 72	.....	.....
Engine wipers, etc.,	73	23,630	324	.....	41	32,370 59	1 37	443 43	.....	.....
Yardmen,	91	29,330	322	.....	43	55,726 95	1 90	612 38	.....	.....
Trackmen,	571	179,920	315	.....	50	233,895 11	1 30	409 02	.....	.....
Agents,	83	28,630	345	.....	20	45,808 19	1 60	551 91	.....	.....
Assistant agents,	15	5,270	351	.....	14	7,375 43	1 40	491 60	.....	.....
Baggagemen,	39	13,632	350	.....	15	25,256 85	1 85	647 61	.....	.....
Clerks,	56	19,155	342	.....	23	30,648 05	1 60	547 29	.....	.....
Other depot men,	258	80,425	312	.....	53	112,595 97	1 40	436 42	.....	.....
Machinists and helpers,	15	4,681	312	.....	53	10,298 25	2 20	686 55	.....	.....
Blacksmiths and helpers,	6	1,940	323	.....	42	4,111 91	2 12	685 32	.....	.....
Boilermakers and helpers,	5	1,677	337	.....	28	3,857 76	2 20	771 55	.....	.....
Carbuilders and repairers,	30	9,402	313	.....	52	17,863 50	1 90	595 45	.....	.....
Carpenters & bridgeb'ld's,	34	10,900	321	.....	44	22,822 60	2 09	671 25	.....	.....
Construction gangs,	105	31,090	296	.....	69	41,071 35	1 35	390 73	.....	.....
Telegraph operators,	39	14,173	363	.....	5	21,967 68	1 55	563 27	.....	.....
Division Supt.'s office,	5	1,769	354	.....	11	3,802 58	2 15	760 51	.....	.....
Other employees,	32	10,062	314	.....	51	13,885 76	1 38	433 93	2	1
Total,	1,896	607,701	321	.....	44	\$990,701 60	\$1 64	\$527 27	19	4

CLASSIFICATION of Persons Employed on the Steam Railroads in New Jersey, for the Fiscal Year Ending June 30th, 1904—(Continued).

Number of Persons Employed, Number of Days on Duty, Total Amount Paid in Wages, Average Daily Wage-rates, and Annual Earnings per Employee, for Each Class.

Central Railroad of New Jersey. Number of Miles of Road in New Jersey—390.56.

CLASSIFICATION.	Number of persons employed.	Aggregate number of days employed.	Average number of days employed per employee.	Average number of hours employed per day.	Average number days during year not on duty, Sundays included.	Aggregate amount paid in wages.	Average wages per day.	Average yearly earnings per employee.	Number of employees injured during year.	Number of employees whose injuries resulted in death.
General officers,	1	314	314	.....	51	\$6,000 00	\$19 11	\$6,000 00	.....	.....
Other officers,	13	4,077	314	.....	51	34,184 73	8 38	2,620 59	.....	.....
Clerks,	15	4,467	298	9	67	11,507 66	2 58	767 18	.....	.....
Station agents,	140	45,649	326	11	39	96,449 18	2 09	681 78	.....	.....
Other station men,	770	233,090	303	11	62	400,555 35	1 76	531 89	.....	.....
Engineers,	314	103,864	331	10	34	385,751 90	3 71	1,228 51	22	2
Firemen,	330	104,729	317	10	48	242,567 42	2 32	735 05	27	2
Conductors,	260	78,134	301	12	64	246,480 23	3 15	948 00	19	2
Other trainmen,	638	203,970	320	12	45	449,378 26	2 20	704 35	126	4
Marchers,	223	65,556	278	10	89	175,707 50	2 76	630 33	9	.....
Carpenters,	303	85,367	278	10	89	196,778 71	2 72	630 33	9	.....
Other workmen,	940	249,736	269	10	99	308,273 12	2 74	530 34	1	.....
Section foremen,	100	30,717	269	10	38	50,273 02	2 17	530 34	1	.....
Other foremen,	1,108	310,311	280	10	83	428,500 09	1 38	385 20	.....	1
Switzerland,	300	97,574	325	12	40	166,972 54	1 71	556 58	9	.....
Telegraph operators and dispatchers,	109	34,635	318	12	47	80,694 41	2 33	740 04	.....	.....
Employees, account floating equipment,	202	54,274	268	10	97	134,715 95	2 48	666 92	.....	.....
All other employees and laborers,	1,480	447,937	303	10	62	846,759 95	1 89	572 14	24	4
Total,	7,238	2,152,371	297	10.5	68	\$4,482,618 95	\$2 08	\$617 61	241	13

CLASSIFICATION of Persons Employed on the Steam Railroads in New Jersey, for the Fiscal Year Ending June 30th, 1904—(Continued).

Number of Persons Employed, Number of Days on Duty, Total Amount Paid in Wages, Average Daily Wage-rates, and Annual Earnings per Employee, for Each Class.

D., L. and W. Railroad (Morris and Essex Division, and Sussex Railroad).
Number of Miles of Road in New Jersey—206.92.

CLASSIFICATION.	Number of persons employed.	Aggregate number of days employed.	Average number of days employed per employee.	Average number of hours employed per day.	Average number days during year not on duty, Sundays included.	Aggregate amount paid in wages.	Average wages per day.	Average yearly earnings per employee.	Number of employees injured during year.	Number of employees whose injuries resulted in death.
Officers (not including general officers),.....	9	2,817	313	8-10	52	\$35,700 00	\$12 73	\$3,966 66	...	...
Conductors,	116	38,672	333	12	32	137,837 47	3 57	1,188 25	8	1
Brakemen,	305	99,159	325	12	40	232,053 72	3 34	760 81	54	3
Engineers,	247	79,572	322	10	43	299,168 50	3 76	1,211 21	13	...
Firemen,	261	79,572	305	10	60	181,375 98	2 28	694 93	11	1
Switchmen,	30	11,715	390	12	...	20,888 92	1 78	695 63	...	...
Flagmen and gatemen,	331	121,355	366	12	...	129,640 98	1 07	391 66	2	4
Engine wipers, etc.,	55	19,591	356	12	9	25,647 12	1 31	466 31	2	...
Yardmen,	236	85,499	362	12	3	210,575 55	2 47	892 27	1	...
Trackmen,	1,215	324,388	267	10	98	424,474 55	1 31	349 36	12	4
Agents,	105	37,887	360	9-12	5	71,825 43	1 90	684 02	...	...
Baggagemen,	107	37,800	353	12	12	63,674 17	1 69	595 09	...	1
Clerks,	252	90,969	361	9-10	4	160,377 92	1 76	636 42	...	...
Other depot men,	201	72,222	359	12	6	95,949 55	1 33	477 36	5	...
Machinists and helpers,	151	43,697	289	10	76	105,822 74	2 42	700 81	2	...
Blacksmiths and helpers,	54	15,069	279	10	86	31,555 35	2 10	584 35	...	...
Boilermakers and helpers,	42	12,522	298	10	67	29,286 49	2 34	697 30	...	...
Carbuilders and repairers,	373	169,703	296	10	69	316,708 99	1 80	552 72	3	1
Carpenters & bridgeb'ld's,	328	75,513	230	10	135	177,788 96	2 38	542 04	4	...
Telegraph operators,	36	12,987	361	10	4	27,765 41	2 13	771 26	1	...
Division Supt.'s office,	13	4,745	365	9	...	11,040 00	2 33	849 23	...	...
Supply department,	50	15,569	311	10	54	23,390 24	1 50	466 60	...	...
Other employees,	1,683	497,884	296	8-12	69	863,681 13	1 73	513 18	12	1
Total,	4,400	1,948,907	304	10.6	61	\$3,676,209 17	\$1 90	\$574 41	135	16

CLASSIFICATION of Persons Employed on the Steam Railroads in New Jersey, for the Fiscal Year Ending June 30th, 1904—(Continued).

Number of Persons Employed, Number of Days on Duty, Total Amount Paid in Wages, Average Daily Wage-rates, and Annual Earnings per Employee, for Each Class.

Erie Railroad Company. Number of Miles of Road in New Jersey—141.933.

CLASSIFICATION.	Number of persons employed.	Aggregate number of days employed.	Average number of days employed per employee.	Average number of hours employed per day.	Average number days during year not on duty, Sundays included.	Aggregate amount paid in wages.	Average wages per day.	Average yearly earnings per employee.	Number of employees injured during year.	Number of employees whose injuries resulted in death.
General officers,	3	1,269	423	8	...	\$26,628 52	\$20 98	\$8,876 17	...	...
Conductors,	65	21,553	331	10	34	66,377 97	3 08	1,021 20	...	...
Brakemen,	221	66,242	300	10	65	148,206 42	3 23	670 62	...	...
Engineers,	95	28,175	297	10	68	103,631 81	3 67	1,090 86	...	...
Firemen,	107	28,338	265	10	100	65,535 95	2 31	612 49	...	...
Switchmen,										
Flagmen,	60	18,457	307	12	58	26,014 37	1 41	433 57	...	...
Engine wipers, etc.,										
Yardmen,										
Trackmen,	453	105,942	234	12	131	148,553 67	1 40	327 03	...	...
Agents,										
Assistant agents,	37	13,077	354	12	11	23,875 11	1 82	645 27	...	...
Baggage-men,										
Clerks,	372	111,523	300	12	65	180,123 64	1 61	484 20	...	...
Other depot men,										
Machinists and helpers,										
Blacksmiths & helpers,	82	22,941	280	10	85	62,600 51	2 73	763 42	...	...
Boilermakers & helpers,										
Carbuilders & repairers,	71	19,110	269	10	96	41,591 19	2 18	585 79	...	...
Carpenters & bridge-builders,										
Telegraph operators,	60	19,699	328	10	37	36,875 62	1 87	614 59	...	...
Other employees,	626	193,662	309	12	56	344,109 89	1 78	549 70	...	...
Total,	2,252	649,988	289	10.6	76	\$1,274,124 67	\$1 96	\$565 77	...	...

CLASSIFICATION of Persons Employed on the Steam Railroads in New Jersey, for the Fiscal Year Ending June 30th, 1904—(Continued).

Number of Persons Employed, Number of Days on Duty, Total Amount Paid in Wages, Average Daily Wage-rates, and Annual Earnings per Employee, for Each Class.

Lehigh Valley Railroad Company. Number of Miles of Road in New Jersey—128.48.

CLASSIFICATION	Number of persons employed.	Aggregate number of days employed.	Average number of days employed per employee.	Average number of hours employed per day.	Average number days during year not on duty, Sundays included.	Aggregate amount paid in Wages.	Average wages per day.	Average yearly earnings per employee.	Number of employees injured during year.	Number of employees whose injuries resulted in death.
Conductors,	14	5,302	386	.....	.....	\$16,719 56	\$3 09	\$1,194 25	.....	.....
Other trainmen,	41	14,415	351	.....	14	30,061 01	2 09	733 20	.....	.....
Engineers,	102	31,370	307	.....	58	116,321 00	3 71	1,140 40	.....	.....
Firemen,	119	33,078	278	.....	87	78,308 51	2 36	658 06	.....	.....
Switchmen, flagmen and watchmen,	289	91,452	316	.....	49	210,319 33	2 30	727 70	.....	.....
Engine wipers, etc.,	72	29,937	415	.....	.....	43,547 09	1 46	604 82	.....	.....
Trackmen,	441	113,302	257	.....	108	162,400 28	1 43	368 25	.....	.....
Agents, assistant agents and clerks,	200	72,771	364	.....	1	157,183 30	2 16	785 91	.....	.....
Other station men,	710	169,340	239	.....	126	337,101 54	1 99	474 79	.....	.....
Machinists and helpers,	17	5,648	332	.....	33	12,606 05	2 23	741 53	.....	.....
Blacksmiths and helpers,	90	25,704	286	.....	79	44,663 47	1 74	496 26	.....	.....
Boilermakers & helpers,	74	19,211	260	.....	105	34,926 15	1 82	471 98	.....	.....
Carbuilders and repairers,	59	20,393	344	.....	21	51,454 04	2 53	872 11	.....	.....
Carpenters,	73	23,376	320	.....	45	39,633 12	1 71	547 06	.....	.....
Telegraph operators,	19	6,954	366	.....	.....	20,910 00	3 01	1,100 53	.....	.....
Division Supt.'s office,	425	54,721	129	.....	236	91,657 86	1 67	215 66	.....	.....
Other employees, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,	2,745	716,974	261	.....	104	\$1,448,114 91	\$2 02	\$527 55	.....	.....

CLASSIFICATION of Persons Employed on the Steam Railroads in New Jersey, for the Fiscal Year Ending June 30th, 1904—(Continued).

Number of Persons Employed, Number of Days on Duty, Total Amount Paid in Wages, Average Daily Wage-rates, and Annual Earnings per Employee, for Each Class.

New York, Susquehanna and Western Railroad Company. Number of Miles of Road in New Jersey—131.50.

CLASSIFICATION.	Number of persons employed.	Aggregate number of days employed.	Average number of days employed per employee.	Average number of hours employed per day.	Average number days during year not on duty, Sundays included.	Aggregate amount paid in wages.	Average wages per day.	Average yearly earnings per employee.	Number of employees injured during year.	Number of employees whose injuries resulted in death.
Conductors,	52	16,983	326	10	39	\$53,549 74	\$3 15	\$1,029 80	.....	.....
Brakemen,	162	48,680	300	10	65	98,232 13	3 02	606 37	.....	.....
Engineers,	58	18,999	327	10	33	65,483 18	3 43	1,129 02	.....	.....
Firemen,	60	19,028	317	10	48	39,436 69	2 07	657 28	.....	.....
Switchmen,										
Flagmen,	36	11,504	319	12	46	14,821 42	1 29	411 71	.....	.....
Engine wipers, etc.,										
Agents,										
Assistant agents,	55	19,471	354	12	11	32,879 86	1 69	597 81	.....	.....
Baggagemen,										
Clerks,	133	31,565	236	12	129	46,324 57	1 48	348 31	.....	.....
Other depot men,										
Machinists and helpers,	38	10,528	277	10	88	27,110 94	2 57	713 44	.....	.....
Blacksmiths and helpers,										
Boilermakers & helpers,	21	5,788	275	10	90	12,595 27	2 18	599 77	.....	.....
Carbuilders & repairers,										
Carpenters & bridge-builders,	29	10,135	340	10	16	20,207 32	1 99	696 80	.....	.....
Telegraph operators,										
Other employees,	563	144,841	257	12	108	229,794 22	1 58	408 16	.....	.....
Total,	1,207	337,522	279	10.7	86	\$640,435 34	\$1 90	\$530 60	.....	.....

Report of the Director of the Bureau of Plant Industry
for the year ending June 30, 1904

Presented to the Senate and House of Representatives
at their respective sessions, January 1905

WASHINGTON: GOVERNMENT PRINTING OFFICE
1905

The Fruit and Vegetable Canning Industry of New Jersey—1903.

The pack of both vegetables and fruits in the canneries of New Jersey for the year 1903, as reported to the Bureau, shows a falling off in all but a few articles as compared with 1902, and brings the business back in the matter of production to about where it stood in 1901.

The decrease is due principally to a short crop of the various commodities handled by canners, which was caused in New Jersey and through this section of the country generally by unfavorable weather conditions which prevailed throughout the season. That an overstocked market has had nothing to do with it is proven by the fact that the pack of tomatoes, which in New Jersey showed the largest percentage of falling off in 1903, was very greatly increased in other States where the canning industry is established on a large scale. The crop was good in these places and very bad here, hence the packing was done where the supply of material was cheapest and most abundant. It may, therefore, be regarded as certain that the falling off in New Jersey is not to be permanent; but rather being due entirely to transitory causes, the industry will return to its normal condition of prosperity when these have passed away.

That the crops within reach of the canning plants of New Jersey during the season of 1903 were totally insufficient to engage all their facilities is proven by the fact that in nine of them no work whatever was done.

Reports were received from forty-three establishments for the season of 1903, of which number thirty-six canned vegetables only and seven both fruit and vegetables.

The main points of interest relating to the industry, showing the decrease that has taken place in 1903 as compared with 1902, is given in the following table.

	1902.	1903.	Decrease	
			Amount.	Percent.
Number of canneries,	52	43	9	17.3
Capital invested,	\$1,035,482	\$976,081	\$59,401	5.8
Number of persons employed—males,	2,891	1,891	1,000	34.6
Number of persons employed—females,	4,470	3,152	1,318	29.5
Number of persons employed—total,	7,361	5,043	2,318	31.5
Total amount paid in wages,	\$367,100	\$279,171	\$87,929	23.9
Selling value of product,	\$2,164,299	\$1,465,823	\$698,476	32.3
Aggregate number of days in operation,	3,468	2,891	577	16.6
Average earning of operatives,	\$49.87	\$55.36	*\$5.49	*11.0

* Increase.

A comparison of the quantities of goods packed for both years will show the precise extent of the falling off in the season of 1903 and the varieties of vegetables and fruits most affected thereby. The figures are given in the following table. To simplify the comparison the goods packed in three and two-pound cans are reduced to pounds, and the gallons which are entered in the main table by dozens are reduced to single cans of one gallon each:

VEGETABLE PACK, 1902-1903.

Articles.	Standards of Quantity.	1902.	1903.	Decrease (—) or Increase (+)	
				Amount.	Percentage.
Tomatoes,	Pounds,	43,762,380	15,417,108	— 28,345,272	— 64.7
Tomatoes,	Gallons,	1,275,864	738,696	— 537,168	— 42.1
Pumpkins,	Pounds,	1,343,304	581,460	— 761,844	— 56.7
Pumpkins,	Gallons,	85,896	62,400	— 23,496	— 27.3
Squash,	Pounds,	518,076	1,027,800	+ 509,724	+ 98.4
Squash,	Gallons,	17,472	24,600	+ 7,128	+ 40.8
Lima beans,	Pounds,	5,473,224	4,684,489	— 788,735	— 14.4
Peas,	Pounds,	5,994,280	2,511,600	— 3,482,680	— 58.0
String beans,	Pounds,	19,032	19,200	+ 168	+ 0.8
Asparagus,	Pounds,	74,160	54,000	— 20,160	— 27.2
Rhubarb,	Gallons, ....	.....	138,240	.....	.....
Beets,	Pounds,	3,312	104,400	+ 101,089	+ 3,052.2
Baked beans,	Pounds, ....	.....	252,000	.....	.....
Sweet potatoes,	Pounds,	377,468	72,000	— 305,468	— 81.2

Of the goods enumerated in the above table, the comparison shows that a marked decrease has taken place in eight of the articles, the range being from 14.4 per cent. in lima beans to 81.2 per cent. in sweet potatoes. Tomatoes, which is the principal product of the vegetable canneries, shows a falling off of 64.7 per cent., due, as said before, to the falling off in the supply, caused by unfavorable weather conditions during the growing season of 1903.

Four articles in the schedule show a very large increase; in one of them, beets, the production jumped from 3,312 pounds in 1902

to 101,089 pounds in 1903. This great growth in beet packing during one year may be taken to indicate that hereafter this vegetable is likely to take an important place among the products of New Jersey canneries:

FRUIT PACK, 1902-1903.

Articles.	Standards of Quantity.	1902.	1903.	Decrease (—) or Increase (+).	
				Amount.	Percentage.
Apples,	Pounds,....	156,420	3,600	— 152,820	— 97.7
Apples,	Gallons,....	22,836	720	— 22,116	— 96.8
Blackberries,	Pounds,....	143,112	4,800	— 138,312	— 96.6
Blackberries,	Gallons,....	10,140	5,748	— 4,392	— 43.0
Cherries,	Gallons,....	17,556	10,620	— 6,936	— 39.5
Pears,	Pounds,....	1,405,900	121,968	— 1,283,932	— 88.1
Raspberries,	Pounds,....	24,500	1,200	— 23,300	— 96.7
Raspberries,	Gallons,....	49,368	22,500	— 26,868	— 54.4
Strawberries,	Pounds,....	158,248	91,632	— 66,616	— 41.4
Strawberries,	Gallons,....	42,252	51,744	+ 9,492	+ 22.4
Plums,	Gallons,....	.....	480	.....	....

With the exception of one item, every article on the list contained in the above table shows a falling off so large that in the case of one-half of them it amounts to practical extinction. The single entry in which there has been a small increase is strawberries packed in gallon cans, which shows an advance of 22.4 per cent., but the quantity of the same fruit put up in two and three pound cans shows a falling off of 41.4 per cent.

On the whole, the season of 1903 has been a very bad one for the canners of New Jersey compared with that of 1902. The remarkably short pack of 1901, and consequent high prices, had no doubt caused a rapid extension of the business during the following year, which naturally brought about a falling off in prices and a considerable shrinkage in the production of 1903. This is, probably, the true explanation of the diminished pack of fruits, and partly so regarding vegetables, several varieties of which were, however, much more affected by the scarcity of material in the districts surrounding the canneries than by low prices brought about by competition.

THE FRUIT AND VEGETABLE CANNING INDUSTRY OF NEW JERSEY.

Location of Canneries, Management, Capital Invested, Number of Persons Employed, Total Amount Paid in Wages, Selling Value of Product, and Number of Days in Active Operation During the Year 1903.

TABLE No. 1.

Office Number.	LOCATION OF CANNERY.	Management.		Capital Invested.	Number of Persons Employed.			Total Amount Paid in Wages.	Selling Value of Product.	Number of Days in Operation.
		Private Firm. Number of Partners.	Corporation. Number of Stockholders.		Males.	Females.	Total.			
1	Alloway,	1		\$35,000	50	70	120	\$4,300	\$22,200	40
2	Bridgeton,		3	45,000	75	175	250	10,000	56,785	30
3	Bridgeton,	1		100,000	75	115	190	22,000	102,202	200
4	Bridgeton,	2		27,000	50	125	175	10,000	65,000	100
5	Bordentown,	1		30,000	50	50	100	12,000	40,000	115
6	Burlington,		3	10,000	20	30	50	1,000	10,000	150
7	Canton,	3		25,000	40	90	130	4,452	40,000	240
8	Cedarville and Cape May,	2		27,000	60	110	170	11,042	64,500	50
9	Cedarville and Tuckahoe,		3	25,000	77	135	212	10,645	65,346	60
10	Centerton,	1		30,000	7	20	27	400	2,750	40
11	Daretown,	2		2,000	6	18	24	450	5,000	30
12	Daretown,	2		10,000	4	10	14	177	4,000	16
13	Elizabeth,	1		50,000	80	90	170	7,127	38,000	45
14	Elmer,	3		15,000	60	105	165	3,000	34,325	60
15	Fairton,	1		222,000	210	270	480	91,000	378,000	150
16	Freehold,	2		12,750	27	75	102	4,800	27,500	50
17	Glassboro,		5	16,000	75	110	185	7,000	33,000	30
18	Greenwich,	2		7,500	21	40	61	1,441	7,841	28
19	Hightstown,		52	6,000	12	45	57	364	2,600	7
20	Hopewell,	2		8,500	6	23	29	252	2,750	9
21	Lambertville,	1		2,000	5	10	15	406	2,766	22
22	Lower Alloway Creek,	7		15,000	17	40	57	1,100	28,000	98
23	Mount Holly,	2		10,000	20	75	95	2,700	17,000	120
24	Mount Holly,	3		10,000	50	95	145	4,042	18,400	45
25	Newport,	1		12,000	21	40	61	1,460	9,500	43
26	Pennsgrove,	1		25,000	10	45	55	2,150	16,500	50
27	Phalanx,									
28	Quinton, Pennsville and Hancock's Bridge,	3		49,071	250	350	600	20,091	110,000	235
29	Red Bank,	1		15,000	36	52	88	4,378	10,036	312
30	Ringoes,	40		5,000	10	28	38	300	1,000	6
31	Rio Grande,	3		10,000	28	80	108	3,400	28,000	60
32	Salem,	1		10,000	50	80	130	4,777	35,000	37
33	Salem,	1		500	4	9	13	400	4,600	30
34	Salem,	1		1,000	4	8	12	500	2,000	40
35	Salem,	1		15,000	50	90	140	5,400	14,500	43
36	Secley,	7		3,200	22	25	47	913	6,800	25
37	Sharptown,	2		8,000	40	65	105	6,000	30,000	25
38	Shiloh,	3		9,000	32	40	72	1,629	15,700	60
39	South Dennis,	2		10,000	40	40	80	1,500	16,800	30
40	Titusville,	88		4,560	18	24	42	725	2,686	9
41	Williamstown,	17		20,000	75	50	125	4,200	16,400	90
42	Woodstown,	2		5,000	40	110	150	5,850	45,000	23
43	Yorktown,	1		8,000	24	35	59	1,090	8,300	20
Total,		50	231	\$976,081	1891	3152	5043	\$279,171	\$1,465,823	2891

THE FRUIT AND VEGETABLE CANNING INDUSTRY OF NEW JERSEY.

Product of Canned Fruit and Vegetables for the Year 1903.

TABLE No. 2.—FRUIT.

Office Number.	LOCATION OF CANNERY.	Apples.		Blackberries.		Cherries.	Pears.	Raspberries.		Strawberries.		Plums.
		3-pound cans. Dozens.	Gallon cans. Dozens.	2-pound cans. Dozens.	Gallon cans. Dozens.	Gallon cans. Dozens.	3-pound cans. Dozens.	2-pound cans. Dozens.	Gallon cans. Dozens.	2-pound cans. Dozens.	Gallon cans. Dozens.	Gallon cans. Dozens.
3	Bridgeton, .....	.....	.....	.....	349	325	2300	.....	1875	.....	2812	40
4	Bridgeton, .....	.....	.....	.....	100	260	.....	.....	.....	2600	600	.....
9	Cedarville, .....	.....	.....	.....	.....	.....	.....	.....	.....	318	300	.....
10	Centeron, .....	.....	.....	.....	.....	300	300	.....	.....	.....	600	.....
15	Fairton, .....	.....	.....	.....	30	400	.....	50	.....	900	.....	.....
23	Mount Holly,	100	60	200	.....	.....	388	.....	.....	.....	.....	.....
38	Shiloh, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total,	100	60	200	479	885	3388	50	1875	3818	4312	40

THE FRUIT AND VEGETABLE CANNING INDUSTRY OF NEW JERSEY.

Product of Canned Fruit and Vegetables for the Year 1903.

TABLE No. 3.—VEGETABLES.

Office Number.	LOCATION OF CANNERY.	Tomatoes.			Pumpkins.			Squash.		
		3-pound cans. Dozens.	2-pound cans. Dozens.	Gallon cans. Dozens.	3-pound cans. Dozens.	2-pound cans. Dozens.	Gallon cans. Dozens.	3-pound cans. Dozens.	2-pound cans. Dozens.	Gallon cans. Dozens.
1	Alloway,	22,000			3,500					
2	Bridgeton,	31,398			12,354		400			
3	Bridgeton,	20,000			5,200		2,200			
4	Bridgeton,	40,000			6,500	4,500	100			
5	Bordentown,							18,000		350
6	Burlington,	10,000			200					
7	Canton,	50,000								
8	Cedarville and Cape May,	29,500		4,000						
9	Cedarville and Tuckahoe,	49,700								
10	Centerton,	3,833			300					
11	Daretown,	26,000								
12	Daretown,	5,600								
13	Elizabeth,	4,000								
14	Elmer,	39,000			3,000					
15	Fairton,	25,000		2,500						
16	Freehold,									
17	Glassboro,	34,644								
18	Greenwich,	30,000		2,000	2,000		2,500			
19	Hightstown,			3,485						
20	Hopewell,	2,500								
21	Lambertville,	2,500								
22	Lower Alloway Creek,	2,333								
23	Mount Holly,	5,000		1,800				1,000	1,500	200
24	Mount Holly,	10,000						1,400		
25	Newport,	18,700		470						
26	Pennsgrove,	12,141								
27	Phalanx,		12,000	731		200			50	
28	Quinton, Pennsville and Hancock's Bridge,	120,000		4,800						
29	Red Bank,			5,018						
30	Ringoes,	1,400								
31	Rio Grande,	32,084								
32	Salem,	28,000								
33	Salem,	4,000								
34	Salem,	2,500								
35	Salem,	29,167			2,083					
36	Secley,	7,416								
37	Sharptown,	31,000								
38	Shiloh,	13,495								
39	South Dennis,	21,000			602					
40	Titusville,	2,750								
41	Williamstown,*			9,200						
42	Woodstown,	44,000								
43	Yorktown,	9,583								
Total,		820,253	12,000	61,558	12,685	5,200	5,200	21,000	50	2,050

* This firm also reports 175 dozen gallons in glass.

THE FRUIT AND VEGETABLE CANNING INDUSTRY OF NEW JERSEY.

Product of Canned Fruit and Vegetables for the Year 1903.

TABLE No. 3.—VEGETABLES—(Continued).

Office Number.	LOCATION OF CANNERY.	Lima Beans		Peas, 2-pound cans. Dozs.	Corn, 2-pound cans. Dozs.	String Beans, 2-pound cans. Dozs.	Asparagus, 3-pound cans. Dozs.	Rhubarb, Gallon cans. Dozs.	Beets, 3-pound cans. Dozs.	Baked Beans, 3-pound cans. Dozs.	Sweet Potatoes, 3-pound cans. Dozs.
		3-pound cans. Dozens.	2-pound cans. Dozens.								
1	Alloway,										
2	Bridgeton,		153								
3	Bridgeton,		400			800		500		20,000	
4	Bridgeton,		2,000					400	2,900		
5	Bordentown,		9,000	13,000							
6	Burlington,										
7	Canton,										
8	Cedarville and Cape May,			21,300							
9	Cedarville and Tuckahoe,										
10	Centerton,	200									
11	Daretown,										
12	Daretown,										
13	Elizabeth,										
14	Elmer,										
15	Fairton,										
16	Freehold,		183,334	175,000							
17	Glassboro,										
18	Greenwich,										
19	Hightstown,										
20	Hopewell,										
21	Lambertville,										
22	Lower Alloway Creek,										
23	Mount Holly,										
24	Mount Holly,						1,500				
25	Newport,										
26	Pennsgrove,										
27	Phalanx,				50					1,000	
28	Quinton, Pennsville and Hancock's Bridge,										
29	Red Bank,										
30	Ringoes,										
31	Rio Grande,										
32	Salem,										
33	Salem,										
34	Salem,										
35	Salem,										
36	Seeley,										
37	Sharptown,										
38	Shiloh,										
39	South Dennis,										
40	Titusville,										
41	Williamstown,										
42	Woodstown,										2,000
43	Yorktown,										
Total,		200	194,887	209,300	50	800	1,500	960	2,900	21,000	2,000

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

REPORT OF THE

COMMISSIONERS

PART II.

Cost of Living in New Jersey.

The Company Stores and the Cash Payment of
Wages Law of 1899.

Mines and Blast Furnaces of New Jersey.

Labor Legislation and Decisions of the Courts on
Cases Affecting the Interests of Labor and
Industry in New Jersey—1903-1904.

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PART II

CHAPTER I

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CHAPTER II

Cost of Living in New Jersey.

Retail Prices of a Selected List of Articles of Household Supplies obtained from the Principal Dealers in the Leading Cities and Towns of the Twenty-one Counties of the State.
Prices for the Month of June, 1904.

The cost of living in New Jersey, so far as the same can be determined from an examination of the retail prices charged for a very comprehensive list of table supplies at various and widely separated parts of the State, where the element of transportation and freight charges on goods as a factor in fixing prices is fully displayed.

The list of goods is the same that has been used for this purpose each year since 1898, and comprises fifty articles that are more generally in demand than any others in the entire range of food supplies. Included in this number are the different grades of such things as are placed upon the market in first, second, and in case of a few articles, third qualities.

The data required for presenting the subject is contained in three summaries and one general table.

Summary Table No. 1 shows the average cost of the entire bill of goods at each of the places named; the locality showing the lowest average is entered first, and the others follow as their prices increase over the lowest.

These prices were obtained direct from the dealers in every instance, and notwithstanding the great difference shown by the reports from one town or city as compared with another, the figures may be depended upon as being as nearly correct as first hand authority can make them.

This difference is very great, and cannot be accounted for on the theory of added cost of freight from the wholesale centers where the goods are purchased, to the towns, cities and villages where they are sold to consumers. In this case, the table (Summary No. 1), which shows the position of the various places in the State in the matter of cost of the bill of goods, gives as the localities where prices are lowest, the towns most off the main line of railroad, and therefore comparatively inconvenient for transportation purposes. Assuming freight charges to be a controlling factor in determining the selling value of goods, the places which are shown by the returns on which these tables are based should prove to have the highest prices; at least that may be said of most of them. There seems to be no definite rule—at all events there is no visible one in operation in the trade—which explains why a list of fifty different articles should cost only \$9.79 at Calfon, Hunterdon County, where railroad facilities are comparatively limited, and the very same list of goods, article for article, be sold for \$14.10 at New Brunswick, which enjoys unsurpassable transportation accommodations by both rail and water, but whatever the explanation may be, such is the case.

Besides Calfon, there are seven localities, all in parts of the the State where the railroad facilities are not the very best, in which the test bill of goods is sold for sums ranging between \$10.54 and \$10.94. In thirty-two places named on the table, prices range from \$11.03 to \$11.98; from \$12.00 to \$12.95 are the ruling prices in twenty of the towns or cities; in six others, it is from \$13.04 to \$13.55; and at two cities the prices are \$14.00 and \$14.10 respectively.

The average cost of the bill of goods throughout the entire State is \$11.912.

Summary Table No. 2 shows the figures charged for the bill of goods in 1898 in comparison with those of 1904. The absolute amount of increase or decrease in retail prices are given for the localities where comparisons are made. Decreases in nineteen localities are shown in the prices prevailing in 1904 as compared with those of 1898, which amount in the aggregate to \$18.73.

and thirty-eight places show an increase in prices which aggregates \$49.99.

The comparison shows the average cost of the bill of goods throughout the State to have been \$11.36 in 1898 and \$11.91 in 1904; an increase in the average retail prices for the latter year of 55 cents, or 4.84 per cent.

Summary Table No. 3 shows, in comparison form, the average retail prices charged for each article comprised in the test bill of goods for the years 1898 and 1904. The list contains fifty articles, and prices are set down in decimals, which records the very slightest changes that may have taken place. The increases and decreases are shown where they occur, and the differences, however minute, are also set down. Only ten out of the entire list of fifty articles show reductions in prices, and these are for the most part so minute as to require ten times the specified quantity of the article to which it relates in order to bring the difference up to one cent. All the coffees and some of the teas for which prices are quoted show these microscopic reductions, as do sugar, oatmeal and rice, also. The increases, thirty-four in number, are with few exceptions large and include many of the staple articles that are most extensively used in the food supply of families.

Principal among these is flour, first and second quality, both of which retail for \$1.206 more per barrel in 1904 than they did in 1898.

The "Cost of Living" has now been presented in this form for a series of six years, or from 1898 to and including 1904. The average prices shown for 1899 and for each succeeding year were compared with those of 1898 and the increase or decrease, as the case may have been, was duly recorded. The year 1898 has been retained for the purpose of comparison, because it was then that the first authentic data relating to prices were obtained, and also for the reason that the average prices of 1898 were greater than those of subsequent years.

The year 1899 showed the lowest average cost of the test bill of goods during the six years; the figures were \$10.63 as against \$11.36 in 1898, a decrease of 73 cents, or 6.4 per cent. From

that time each year's returns shows a steady advance in prices, the highest point being reached in these of the current year, 1904. A comparison of the prices of 1904 with 1899 shows an increase of \$1.28, or almost exactly 12 per cent. in the average cost of the table supplies comprised in the bill of goods; the average increase for the five years beginning with 1899 and ending with 1904 has been 2.4 per cent. annually.

SUMMARY TABLE No. 1.

The Cost of Living in New Jersey—Total Cost of the Entire List of Articles in the Various Cities and Towns of the State.

The comparative cost is shown by the position of each locality in the table; the cheapest being first, and others following in the order in which the cost of the bill compares with the first named city or town.

County.	City or Town.	Total Cost of Entire Bill of Goods.
Hunterdon,	Califon,	\$9 79
Middlesex,	Cranbury,	10 54
Morris,	Middle Valley,	10 59
Monmouth,	Matawan,	10 73
Sussex,	Monroe,	10 80
Monmouth,	Marlboro,	10 82
Hudson,	Harrison,	10 83
Burlington,	Burlington,	10 94
Hunterdon,	High Bridge,	11 03
Warren,	Phillipsburg,	11 10
Sussex,	Swartwood,	11 16
Morris,	Flanders,	11 28
Burlington,	Lower Bank,	11 30
Bergen,	Rutherford,	11 30
Bergen,	Garfield,	11 31
Middlesex,	Cheesequake,	11 34
Warren,	Blairstown,	11 38
Sussex,	Stillwater,	11 39
Mercer,	Princeton,	11 43
Hudson,	Hoboken,	11 44
Atlantic,	Hammonton,	11 46
Essex,	Newark,	11 48
Warren,	Oxford,	11 50
Hudson,	Jersey City,	11 53
Morris,	German Valley,	11 53
Morris,	Dover,	11 54
Hunterdon,	New Germantown,	11 55
Warren,	Marksboro,	11 56
Warren,	Allamuchy,	11 59
Warren,	Port Colden,	11 60
Gloucester,	Clayton,	11 71
Somerset,	Somerville,	11 72
Ocean,	Collier's Mills,	11 73
Ocean,	Manahawkin,	11 74
Atlantic,	Mays Landing,	11 77
Monmouth,	Allentown,	11 88
Cumberland,	Bridgeton,	11 88
Morris,	Drakestown,	11 96
Hunterdon,	Glen Gardner,	11 96
Burlington,	Mount Holly,	11 98
Union,	Elizabeth,	12 00
Bergen,	Hackensack,	12 04
Passaic,	Passaic,	12 05
Middlesex,	Dunellen,	12 06
Camden,	Camden,	12 14

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SUMMARY TABLE No. 1—(Continued).

County.	City or Town.	Total Cost of Entire Bill of Goods.
Passaic,	Paterson,	\$12 22
Morris,	Boonton,	12 22
Sussex,	Newton,	12 25
Salem,	Salem,	12 30
Warren,	Belvidere,	12 47
Monmouth,	Freehold,	12 49
Monmouth,	Asbury Park,	12 51
Bergen,	Allendale,	12 56
Warren,	Hackettstown,	12 57
Hunterdon,	Flemington,	12 61
Warren,	Washington,	12 61
Essex,	Montclair,	12 65
Essex,	Orange,	12 79
Essex,	Belleville,	12 87
Warren,	Beattystown,	12 95
Burlington,	Moorestown,	13 04
Essex,	South Orange,	13 05
Burlington,	Bordentown,	13 06
Cumberland,	Millville,	13 21
Middlesex,	Metuchen,	13 27
Morris,	Chester,	13 55
Mercer,	Trenton,	14 00
Middlesex,	New Brunswick,	14 10

Average cost of entire list in the State, \$11.912.

SUMMARY TABLE No. 2.

The Cost of Living in New Jersey—Total Cost of the Entire List of Articles in Various Cities and Towns of the State During the Month of June—Comparison of the Cost of the List for the Years 1898 and 1904.

COUNTY.	CITY OR TOWN.	Cost of Entire List of Articles.		Increase (+) or Decrease (—) in 1904, as Compared with 1898.
		1898.	1904.	
Atlantic,	Hammonton,	\$11.47	\$11.46	— \$0.01
Bergen,	Mays Landing,	10.96	11.77	+ .81
	Allendale,	12.56	12.56	.....
	Garfield,	11.92	11.31	— .61
	Hackensack,	11.44	12.04	+ .60
Burlington,	Rutherford,	12.50	11.30	— 1.20
	Bordertown, .....	.....	13.06	.....
	Burlington,	12.40	10.94	— 1.46
	Lower Bank, .....	.....	11.30	.....
	Mount Holly,	12.67	11.98	— .69
	Moorestown,	14.14	13.04	— 1.10
Camden,	Camden,	11.27	12.14	+ .87
Cumberland,	Bridgeton,	11.08	11.88	+ .80
	Millville,	14.34	13.21	— 1.13
Essex,	Belleville,	12.70	12.87	+ .17
	Montclair,	11.77	12.65	+ .88
	Newark,	11.31	11.48	+ .17
	Orange,	12.69	12.79	+ .10
	South Orange, .....	.....	13.05	.....
Gloucester,	Clayton,	11.12	11.71	+ .59
Hudson,	Hoboken,	11.44	11.44	.....
	Harrison,	8.50	10.83	+ 2.33
	Jersey City,	11.43	11.53	+ .10
Hunterdon,	Califon,	8.94	9.79	+ .85
	Flemington,	14.26	12.61	— 1.65
	Glen Gardner,	10.11	11.96	+ 1.85
	High Bridge,	11.54	11.03	— .51
	New Germantown,	9.75	11.55	+ 1.76
Mercer,	Princeton,	13.94	11.43	— 2.51
	Trenton,	13.07	14.00	+ .93
Middlesex,	Cheesapeake, .....	.....	11.34	.....
	Cranbury,	12.18	10.54	— 1.64
	Dunellen,	13.24	12.06	— 1.18
	Metuchen,	13.09	13.27	+ .18
	New Brunswick,	11.14	14.10	+ 2.96
Monmouth,	Allentown, .....	.....	11.88	.....
	Asbury Park, .....	.....	12.51	.....
	Freehold,	12.68	12.49	— .19
	Marlboro,	12.39	10.82	— 1.57
	Matawan,	11.53	10.73	— .80
	Boonton,	11.37	12.22	+ .85
Morris,	Chest R.,	10.60	13.55	+ 2.95
	Dover,	11.62	11.54	— .08
	Drakestown, .....	.....	11.96	.....
	Flanders,	8.14	11.28	+ 3.14
	German Valley,	11.33	11.53	+ .20
Ocean,	Middle Valley,	9.78	10.59	+ .81
	Collier's Mills,	11.86	11.73	— .13
	Manahawkin, .....	.....	11.74	.....
Passaic,	Passaic,	11.82	12.05	+ .23
	Paterson,	11.59	12.22	+ .63
Salem,	Salem,	12.59	12.30	— .29
Somerset,	Somerville,	13.70	11.72	— 1.98
Sussex,	Monroe,	7.00	10.80	+ 3.80
	Newton,	12.12	12.25	+ .13
	Stillwater,	11.17	11.39	+ .22
	Swartswood,	7.76	11.16	+ 3.40
Union,	Elizabeth,	10.11	12.00	+ 1.89

SUMMARY TABLE No. 2—(Continued).

The Cost of Living in New Jersey—Total Cost of the Entire List of Articles in Various Cities and Towns of the State During the Month of June—Comparison of the Cost of the List for the Years 1898 and 1904.

COUNTY.	CITY OR TOWN.	Cost of Entire List of Articles.		Increase (+) or Decrease (—) in 1904, as Compared with 1898.
		1898.	1904.	
Warren,	Allamuchy,		\$11.59	.....
	Beattystown,	\$8.54	12.95	+ \$4.41
	Belvidere,	12.32	12.47	+ .15
	Blairstown,	11.24	11.38	+ .14
	Hackettstown,	11.37	12.57	+ 1.20
	Marksboro,	9.40	11.56	+ 2.16
	Oxford,	8.81	11.50	+ 2.69
	Phillipsburg,	10.75	11.10	+ .35
	Port Colden,	10.85	11.60	+ .75
	Washington,	8.67	12.61	+ 3.94
Averages for the entire State,		\$11.36	\$11.91	+ \$0.55

SUMMARY TABLE No. 3.

Cost of Living in New Jersey—Comparison of Average Retail Prices,
Month of June, for 1898 and 1904.

ARTICLES.	BASIS OF QUANTITIES.	Average Retail Price.		Increase (+) or Decrease (-) in 1904, as Com- pared with 1898.
		1898.	1904.	
Flour, wheat, first quality,.....	Barrel,	\$5.154	\$6.360	+ \$1.206
Flour, wheat, second quality,.....	Barrel,	4.370	5.576	+ 1.206
Flour, prepared,	Pound, .....	.065	.065	— .000
Oatmeal, loose,	Pound, .....	.044	.045	+ .001
Oatmeal, package,	Package, .....	.106	.101	— .005
Sugar, granulated,	Pound, .....	.059	.053	— .006
Molasses, N. O.,	Gallon, .....	.479	.536	+ .057
Syrup,	Gallon, .....	.401	.437	+ .036
Bread, large,	Loaf, .....	.086	.086	— .000
Bread, small,	Loaf, .....	.05	.05	— .000
Butter, first quality,	Pound, .....	.219	.244	+ .025
Butter, second quality,	Pound, .....	.169	.237	+ .068
Lard,	Pound, .....	.091	.115	+ .024
Eggs,	Dozen, .....	.22	.22	— .000
Cheese, best,	Pound, .....	.141	.154	+ .013
Cheese, medium,	Pound, .....	.110	.114	+ .004
Coffee, Rio,	Pound, .....	.190	.172	— .018
Coffee, Java,	Pound, .....	.320	.307	— .013
Coffee, Maracaibo,	Pound, .....	.250	.231	— .019
Tea, black, first quality,	Pound, .....	.641	.638	— .003
Tea, green, first quality,	Pound, .....	.627	.637	+ .010
Tea, mixed, first quality,	Pound, .....	.587	.603	+ .016
Potatoes, white,	Bushel,	1.161	1.161	— .000
Potatoes, sweet,	Bushel,	1.208	1.927	+ .719
Beef, roast, rib,	Pound, .....	.156	.16	+ .004
Beef, roast, chuck,	Pound, .....	.118	.124	+ .006
Beef, steak, sirloin,	Pound, .....	.187	.197	+ .010
Beef, steak, round,	Pound, .....	.152	.167	+ .015
Beef, corned, round,	Pound, .....	.120	.129	+ .009
Beef, corned, brisket,	Pound, .....	.075	.08	+ .005
Beef, smoked,	Pound, .....	.249	.264	+ .015
Pork, fresh,	Pound, .....	.112	.133	+ .026
Pork, salt,	Pound, .....	.095	.118	+ .023
Bacon,	Pound, .....	.121	.155	+ .034
Ham,	Pound, .....	.119	.144	+ .025
Shoulder,	Pound, .....	.084	.10	+ .016
Mutton, leg,	Pound, .....	.145	.146	+ .001
Mutton, breast,	Pound, .....	.094	.095	+ .001
Mackerel, salt, No. 1,	Pound, .....	.154	.158	+ .004
Mackerel, salt, No. 2,	Pound, .....	.128	.12	— .008
Tomatoes,	Can, .....	.109	.095	— .014
Corn,	Can, .....	.101	.126	+ .025
Succotash,	Can, .....	.116	.131	+ .015
Rice,	Pound, .....	.082	.077	— .005
Prunes, first quality,	Pound, .....	.102	.105	+ .003
Prunes, second quality,	Pound, .....	.086	.073	— .013
Raisins, seeded,	Pound, .....	.095	.113	+ .018
Vinegar,	Gallon,208	.208	— .000
Soap, common,	Case,043	.049	+ .006
Kerosene oil,	Gallon,100	.136	+ .036

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SUMMARY TABLE No. 4.

Cost of Living—Retail Prices of Groceries and Supplies for the Month of June, 1904.

LOCATION.		Wheat Flour.			Oatmeal.		Sugar, granulated. Per pound.	Molasses, N. O. Per gallon.	Syrup, best—per gallon.
County.	City or Town.	First quality. Per 25 pounds.	Second quality. Per 25 pounds.	Prepared. Per pound.	Per pound.	Per 2-pound package.			
Atlantic,	Hammonton,	\$0.80	\$0.70	\$0.05	\$0.04	\$0.10	\$0.05 $\frac{1}{2}$	\$0.45	\$0.35
Bergen,	Mays Landing, .....	.90	.80	.05	.05	.09	.05 $\frac{1}{2}$	.50	.40
	Allendale, .....	.80	.70	.05	.04	.10	.05	.60	.50
	Garfield, .....	.85	.80	.05	.04	.10	.05 $\frac{1}{4}$	.48	.40
	Hackensack, .....	.79	.73	.05	.04	.10	.05	.50	.45
Burlington,	Rutherford, .....	.75	.65	.05	.04	.10	.05 $\frac{1}{2}$	.50	.50
	Bordentown, .....	.85	.75	.05	.04	.10	.05 $\frac{1}{2}$	.60	.48
	Burlington, .....	.82	.65	.08	.04	.10	.05	.50	.35
	Lower Bank, .....	.80	.75	.07	.04	.10	.05 $\frac{1}{2}$	.60	.40
Camden,	Mount Holly, .....	.80	.70	.05	.04	.10	.05	.50	.50
	Moorestown, .....	.82	.78	.05	.04	.10	.05 $\frac{1}{2}$	.50	.60
Cumberland,	Camden, .....	.75	.70	.05	.04	.10	.05	.50	.40
	Bridgeton, .....	.80	.75	.05	.05	.10	.05 $\frac{1}{2}$	.50	.40
Essex,	Millville, .....	.90	.75	.10	.06	.10	.05 $\frac{1}{2}$	.60	.50
	Belleville, .....	.85	.75	.04	.04	.10	.05 $\frac{1}{4}$	.60	.50
	Montclair, .....	.85	.80	.06	.05	.10	.05 $\frac{3}{4}$	.70	.60
	Newark, .....	.80	.75	.13	.04	.10	.05 $\frac{1}{2}$	.50	.40
Gloucester,	Orange, .....	.85	.80	.10	.05	.10	.06	.45	.46
	South Orange, .....	.85	.70	.06	.05	.12	.06	.70	.56
Hudson,	Clayton, .....	.85	.70	.05	.04	.10	.05 $\frac{1}{2}$	.50	.40
	Hoboken, .....	.80	.75	.12	.05	.10	.06	.65	.50
Hunterdon,	Harrison, .....	.85	.75	.05	.04	.10	.05	.50	.40
	Jersey City, .....	.75	.70	.10	.04	.10	.05	.60	.50
	Califon, .....	.70	.60	.04	.03	.07	.05	.40	.40
	Flemington, .....	.85	.80	.05	.05	.10	.05 $\frac{1}{2}$	.70	.40
Mercer,	Glen Gardner, .....	.85	.80	.12	.05	.10	.05 $\frac{1}{2}$	.50	.50
	High Bridge, .....	.80	.70	.08	.04	.10	.05	.50	.35
	New Germantown, .....	.80	.70	.08	.05	.12	.05 $\frac{1}{2}$	.60	.40
	Princeton, .....	.95	.60	.08	.05	.10	.05 $\frac{1}{2}$	.60	.40
Middlesex,	Trenton, .....	.85	.75	.06	.05	.12	.05 $\frac{1}{2}$	.60	.60
	Cheesecake, .....	.85	.70	.05	.03	.10	.06	.45	.35
	Cranbury, .....	.80	.70	.05	.05	.10	.05 $\frac{1}{2}$	.50	.40
	Dunellen, .....	.85	.75	.08	.05	.10	.05 $\frac{1}{2}$	.55	.40
Monmouth,	Metuchen, .....	.90	.75	.06	.05	.10	.05 $\frac{1}{2}$	.60	.45
	New Brunswick, .....	.90	.80	.08	.05	.12	.05 $\frac{1}{2}$	.55	.55
	Allentown, .....	.85	.73	.04	.05	.10	.05	.50	.40
	Asbury Park, .....	.90	.80	.08	.05	.10	.05	.45	.40
Morris,	Freehold, .....	.85	.70	.05	.05	.10	.05	.50	.40
	Marlboro, .....	.80	.75	.08	.05	.10	.05	.40	.40
	Matawan, .....	.80	.65	.05	.05	.10	.05	.50	.40
	Bonaton, .....	.85	.75	.06	.04	.10	.05	.40	.50
Ocean,	Chester, .....	.90	.80	.05	.05	.12	.05 $\frac{1}{2}$	.60	.45
	Dover, .....	.65	.60	.05	.04	.10	.05	.45	.40
	Drakestown, .....	.85	.70	.05	.04	.10	.05 $\frac{1}{2}$	.60	.40
	Flanders, .....	.80	.70	.05	.04	.10	.05	.50	.50
Passaic,	German Valley, .....	.75	.65	.12	.04	.07	.05	.50	.40
	Middle Valley, .....	.75	.65	.06	.05	.10	.05	.50	.40
	Colliers Mills, .....	.80	.60	.06	.04	.10	.05	.45	.40
	Manahawkin, .....	.80	.70	.12	.05	.09	.05 $\frac{1}{2}$	.40	.40
Salem,	Passaic, .....	.85	.75	.06	.04	.10	.05 $\frac{1}{2}$	.55	.45
	Paterson, .....	.78	.72	.05	.05	.10	.05	.60	.48
Somerset,	Salem, .....	.85	.75	.05	.05	.10	.05 $\frac{1}{2}$	.50	.40
Sussex,	Somerville, .....	.80	.75	.05	.05	.10	.05 $\frac{1}{2}$	.50	.40
	Monroe, .....	.82	.75	.05	.05	.10	.05 $\frac{1}{2}$	.50	.40
	Newton, .....	.75	.67	.06	.05	.10	.05 $\frac{3}{4}$	.65	.40
	Stillwater, .....	.80	.70	.05	.05	.12	.05 $\frac{1}{2}$	.60	.50
Union,	Swartswood, .....	.70	.65	.05	.05	.10	.05 $\frac{1}{4}$	.70	.40
	Elizabeth, .....	.80	.75	.05	.04	.10	.05	.40	.40

SUMMARY TABLE No. 4—(Continued).

Cost of Living—Retail Prices of Groceries and Supplies for the Month of June, 1904.

Bread.		Butter.					Cheese.		Coffee.			Tea.						Beef.	
Large—per loaf.	Small—per loaf.	First quality. Per pound.	Second quality. Per pound.	Lard—per pound.	Eggs—per dozen.	Best—per pound.	Medium—per pound.	Rio—per pound.	Maraculho. Per pound.	Java—per pound.	Best black. Per pound.	Best green. Per pound.	Best mixed. Per pound.	Potatoes, white—per bushel.	Roast, rib. Per pound.	Roast, chuck. Per pound.			
\$0.08	\$0.05	\$0.25	\$0.20	\$0.11	\$0.20	\$0.15	\$0.12	\$0.18	\$0.20	\$0.30	\$0.60	\$0.60	\$0.60	\$1.95	\$0.16	\$0.10			
.10	.05	.30	.25	.10	.20	.14	.11	.15	.20	.30	.60	.60	.60	2.00	.14	.12			
.10	.05	.24	.20	.12	.25	.16	.12	.15	.25	.34	.70	.70	.70	2.25	.16	.10			
.10	.05	.25	.22	.11	.23	.15	.11	.16	.23	.25	.70	.50	.50	1.50	.16	.11			
.08	.05	.23	.19	.10	.22	.18	.12	.13	.23	.31	.75	.65	.63	2.25	.18	.10			
.10	.05	.23	.18	.12	.26	.18	.12	.15	.24	.28	.75	.75	.75	1.00	.16	.12			
.10	.05	.30	.25	.12	.25	.14	.10	.25	.30	.36	.80	.80	.80	2.00	.16	.10			
.10	.05	.28	.20	.10	.24	.13	.10	.15	.25	.30	.60	.60	.60	1.50	.16	.12			
.08	.05	.30	.20	.12	.18	.16	.12	.25	.25	.35	.40	.50	.40	1.80	.16	.10			
.10	.05	.30	.25	.11	.24	.13	.10	.18	.25	.35	.60	.60	.60	2.00	.16	.12			
.10	.05	.27	.25	.11	.25	.16	.12	.15	.22	.35	1.00	1.00	1.00	1.50	.18	.12			
.05	.03	.29	.25	.11	.25	.13	.11	.20	.22	.30	.80	.80	.80	1.75	.16	.12			
.10	.05	.28	.20	.10	.24	.12	.10	.15	.22	.34	.60	.60	.60	2.00	.18	.14			
.08	.05	.30	.25	.12	.24	.18	.15	.25	.30	.35	.80	.80	.80	2.00	.16	.12			
.10	.05	.35	.23	.12	.25	.17	.12	.20	.25	.30	.60	.60	.60	2.40	.16	.12			
.10	.05	.24	.21	.12	.25	.15	.12	.17	.20	.28	.80	.80	.80	1.25	.20	.12			
.08	.05	.23	.20	.12	.27	.18	.12	.15	.22	.30	.60	.60	.60	1.65	.12	.10			
.10	.05	.25	.22	.10	.24	.18	.14	.15	.25	.32	.60	.60	.60	2.50	.16	.12			
.10	.05	.27	.22	.14	.22	.18	.12	.15	.25	.35	.80	.60	.60	2.25	.16	.12			
.10	.05	.28	.20	.11	.24	.13	.11	.15	.20	.30	.60	.60	.60	1.80	.18	.18			
.08	.05	.24	.21	.13	.28	.18	.11	.18	.25	.30	.60	.60	.60	1.00	.20	.12			
.10	.05	.25	.20	.09	.20	.15	.10	.12	.25	.30	.60	.60	.60	1.50	.14	.10			
.08	.05	.21	.19	.12	.25	.14	.12	.15	.20	.30	.50	.50	.50	2.00	.18	.12			
.08	.05	.18	.15	.10	.18	.13	.11	.10	.18	.22	.60	.60	.60	1.60	.10	.12			
.07	.04	.23	.18	.10	.20	.14	.10	.18	.20	.30	.80	.80	.80	1.80	.20	.16			
.10	.05	.18	.16	.12	.22	.16	.12	.25	.28	.30	.60	.60	.60	2.00	.12	.13			
.10	.04	.18	.12	.10	.20	.16	.12	.20	.25	.28	.50	.50	.40	2.00	.16	.12			
.08	.05	.22	.20	.12	.30	.14	.08	.15	.18	.30	.60	.60	.60	2.00	.10	.10			
.07	.05	.30	.25	.12	.24	.16	.10	.20	.25	.30	.75	.75	.50	1.00	.16	.10			
.10	.05	.30	.28	.14	.24	.16	.11	.15	.25	.35	1.00	1.00	1.00	2.00	.20	.14			
.08	.05	.25	.20	.12	.20	.15	.10	.18	.25	.32	.45	.45	.45	2.00	.16	.14			
.08	.05	.25	.20	.12	.20	.15	.10	.18	.25	.32	.50	.50	.50	1.25	.16	.12			
.07	.05	.25	.20	.12	.24	.16	.11	.13	.25	.32	.50	.50	.50	2.00	.16	.12			
.07	.05	.25	.20	.12	.24	.16	.11	.13	.25	.32	.50	.50	.50	2.00	.16	.12			
.10	.05	.26	.25	.12	.24	.18	.16	.15	.20	.30	.80	.80	.80	2.00	.22	.16			
.08	.05	.22	.18	.08	.21	.13	.11	.18	.25	.34	.80	.80	.80	2.60	.16	.12			
.08	.05	.25	.23	.10	.24	.16	.12	.25	.30	.35	.60	.60	.60	2.25	.16	.10			
.06	.05	.25	.20	.10	.21	.14	.10	.16	.22	.35	.80	.80	.80	2.20	.18	.12			
.10	.05	.25	.20	.10	.20	.13	.10	.15	.20	.25	.50	.50	.50	1.75	.16	.13			
.08	.05	.25	.20	.12	.24	.15	.12	.18	.20	.28	.60	.60	.60	1.50	.125	.14			
.07	.05	.25	.20	.12	.20	.15	.12	.14	.16	.22	.70	.70	.70	2.25	.16	.09			
.08	.05	.26	.20	.13	.20	.16	.14	.25	.30	.35	.80	.80	.70	2.25	.18	.18			
.10	.05	.25	.22	.14	.22	.14	.12	.18	.20	.28	.50	.50	.50	2.00	.18	.12			
.08	.05	.20	.16	.14	.20	.16	.12	.18	.25	.30	.70	.60	.65	1.75	.16	.14			
.07	.05	.24	.18	.12	.20	.15	.12	.15	.22	.28	.50	.50	.50	2.00	.16	.14			
.06	.05	.25	.18	.13	.16	.16	.14	.22	.26	.28	.60	.60	.50	2.00	.18	.16			
.10	.05	.25	.20	.12	.24	.16	.12	.12	.15	.25	.50	.50	.50	1.80	.10	.16			
.10	.05	.25	.20	.12	.24	.16	.12	.19	.20	.30	.60	.60	.60	2.00	.18	.16			
.06	.05	.30	.25	.10	.18	.16	.12	.15	.25	.30	.40	.40	.40	2.50	.13	.18			
.10	.05	.25	.22	.10	.25	.15	.12	.15	.25	.32	.50	.50	.50	2.25	.18	.12			
.10	.05	.24	.20	.12	.30	.18	.12	.15	.25	.32	.60	.60	.60	2.00	.16	.14			
.10	.05	.28	.25	.10	.24	.14	.12	.17	.20	.35	.80	.80	.40	2.00	.18	.14			
.08	.05	.25	.20	.10	.22	.16	.10	.18	.25	.30	.60	.60	.60	2.00	.15	.14			
.07	.05	.25	.20	.11	.17	.15	.12	.15	.18	.35	.50	.50	.50	1.50	.10	.10			
.07	.05	.25	.20	.10	.18	.16	.12	.20	.25	.30	.75	.75	.75	2.00	.14	.10			
.08	.05	.25	.20	.12	.18	.16	.12	.18	.22	.30	.60	.60	.60	1.50	.16	.10			
.07	.05	.25	.22	.12	.18	.16	.12	.15	.20	.25	.50	.50	.50	2.00	.16	.12			
.09	.05	.23	.21	.12	.23	.14	.10	.15	.18	.30	.60	.60	.60	2.50	.14	.12			

SUMMARY TABLE No. 4—(Continued).

Cost of Living—Retail Prices of Groceries and Supplies for the Month of June, 1904.

LOCATION.		Wheat Flour.			Oatmeal.		Sugar, granulated. Per pound.	Molasses, N. O. Per gallon.	Syrup, best—per gallon.
County.	City or Town.	First quality. Per 25 pounds.	Second quality. Per 25 pounds.	Prepared. Per pound.	Per pound.	Per 2-pound package.			
Warren,	Allamuchy,	\$0.80	\$0.75	\$0.05	\$0.05	\$0.10	\$0.05 1/2	\$0.60	\$0.40
	Beattystown, .....	.85	.75	.05	.05	.10	.06	.60	.40
	Belvidere, .....	.70	.60	.10	.05	.10	.05 1/2	.60	.48
	Blairstown, .....	.80	.70	.05	.04	.10	.05	.60	.45
	Hackettstown, .....	.90	.70	.05	.05	.10	.05 1/2	.60	.40
	Marksboro, .....	.80	.67	.05	.04	.10	.05 1/2	.55	.50
	Oxford, .....	.80	.75	.10	.04	.12	.05 1/2	.60	.40
	Phillipsburg, .....	.80	.70	.04	.05	.10	.05	.40	.40
	Port Colden, .....	.80	.70	.05	.05	.10	.05 1/2	.60	.50
	Washington, .....	.80	.70	.10	.05	.10	.05 1/2	.60	.48
		.817	.716	.065	.045	.101	.053	.536	.437

SUMMARY TABLE No. 4—(Continued).

Cost of Living—Retail Prices of Groceries and Supplies for the Month of June, 1904.

Bread.		Butter.				Cheese.		Coffee.			Tea.			Potatoes, white—per bushel.	Beef.	
Large—per loaf.	Small—per loaf.	First quality. Per pound.	Second quality. Per pound.	Lard—per pound.	Eggs—per dozen.	Best—per pound.	Medium—per pound.	Rio—per pound.	Maracaibo. Per pound.	Java—per pound.	Best black. Per pound.	Best green. Per pound.	Best mixed. Per pound.		Roast, rib. Per pound.	Roast, chuck. Per pound.
\$0.07	\$0.05	\$0.25	\$0.20	\$0.14	\$0.18	\$0.18	\$0.12	\$0.16	\$0.25	\$0.30	\$0.50	\$0.50	\$0.50	\$2.00	\$0.16	\$0.12
.08	.05	.18	.16	.15	.18	.16	.14	.15	.15	.30	.50	.80	.80	.50	.16	.12
.10	.05	.22	.18	.12	.22	.16	.12	.20	.30	.30	.80	.80	.50	2.50	.16	.12
.08	.05	.20	.18	.13	.18	.16	.13	.15	.25	.35	.60	.60	.50	2.00	.13	.10
.08	.05	.26	.22	.12	.22	.16	.13	.20	.25	.35	.80	.70	.75	1.75	.20	.14
.08	.05	.22	.16	.12	.18	.16	.06	.18	.22	.30	.60	.60	.60	2.00	.14	.12
.10	.05	.24	.20	.12	.20	.16	.10	.18	.25	.30	.50	.50	.50	2.00	.14	.12
.10	.05	.25	.20	.12	.22	.14	.10	.15	.20	.30	.60	.60	.50	2.00	.16	.08
.08	.05	.18	.16	.13	.22	.15	.10	.15	.20	.35	.50	.70	.50	2.00	.12	.14
.10	.05	.20	.15	.14	.20	.16	.08	.25	.25	.35	.60	.60	.60	2.40	.14	.12
.086	.05	.244	.237	.115	.22	.154	.114	.172	.231	.307	.638	.637	.603	1.927	.16	.124

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SUMMARY TABLE No. 4—(Continued).

Cost of Living—Retail Prices of Groceries and Supplies for the Month of June, 1904.

LOCATION.		Beef.					Pork.				
Country.	City or Town.	Steak, sirloin. Per pound.	Steak, round. Per pound.	Corned, round. Per pound.	Corned, brisket. Per pound.	Smoked—per pound.	Fresh—per pound.	Salt—per pound.	Bacon—per pound.	Ham—per pound.	Shoulder—per pound.
Atlantic,	Hammoncton,	\$0.20	\$0.16	\$0.12	\$0.08	\$0.28	\$0.14	\$0.11	\$0.16	\$0.16	\$0.08
	Mays Landing, .....	.20	.18	.10	.06	.24	.15	.11	.15	.14	.12
Bergen,	Alendale, .....	.20	.16	.12	.08	.25	.16	.12	.18	.14	.10
	Garfield, .....	.18	.15	.12	.08	.28	.14	.13	.14	.13	.09
	Hackensack, .....	.18	.16	.14	.05	.30	.12	.12	.12	.12	.09
	Rutherford, .....	.20	.18	.14	.08	.30	.15	.15	.18	.15	.12
Burlington, ...	Bordentown, .....	.20	.16	.12	.08	.30	.14	.14	.20	.14	.08
	Burlington, .....	.20	.18	.10	.08	.20	.15	.08	.18	.20	.10
	Lower Bank, .....	.20	.16	.12	.08	.25	.14	.12	.16	.15	.10
	Mount Holly, .....	.20	.16	.14	.10	.30	.16	.10	.18	.13	.09
	Moorestown, .....	.25	.22	.16	.10	.25	.14	.11	.18	.13	.10
Camden,	Camden, .....	.20	.16	.12	.10	.30	.16	.15	.19	.12	.10
Cumberland, ...	Bridgeton, .....	.20	.18	.12	.08	.30	.14	.12	.18	.20	.10
	Millville, .....	.20	.16	.10	.06	.25	.16	.13	.16	.16	.10
Essex,	Belleville, .....	.18	.18	.16	.10	.32	.16	.16	.17	.15	.12
	Montclair, .....	.22	.20	.16	.08	.30	.16	.15	.18	.15	.10
	Newark, .....	.18	.16	.12	.05	.30	.14	.12	.14	.13	.10
	Orange, .....	.20	.16	.12	.08	.28	.14	.13	.16	.14	.10
	South Orange, .....	.20	.16	.12	.08	.30	.14	.12	.20	.16	.09
Gloucester, ...	Clayton, .....	.22	.20	.13	.08	.25	.14	.10	.16	.14	.09
Hudson,	Hoboken, .....	.22	.18	.12	.10	.28	.18	.14	.20	.15	.09
	Harrison, .....	.16	.14	.10	.10	.25	.12	.10	.12	.12	.09
	Jersey City, .....	.25	.16	.12	.07	.25	.13	.14	.18	.14	.09
Hunterdon, ...	Califon, .....	.16	.14	.10	.06	.20	.08	.08	.10	.11	.09
	Flemington, .....	.22	.16	.14	.14	.22	.16	.12	.16	.14	.10
	Glen Gardner, .....	.20	.16	.10	.09	.28	.08	.06	.06	.20	.16
	High Bridge, .....	.18	.16	.16	.06	.28	.16	.12	.15	.14	.08
	New Germantown, ...	.18	.14	.12	.08	.20	.10	.12	.12	.14	.10
Mercer,	Princeton, .....	.20	.14	.12	.08	.22	.14	.16	.16	.15	.10
	Trenton, .....	.25	.18	.15	.07	.22	.14	.14	.16	.16	.11
Middlesex, ...	Cheesapeake, .....	.18	.14	.12	.10	.30	.14	.14	.16	.15	.12
	Cranbury, .....	.20	.18	.16	.06	.28	.14	.10	.16	.14	.09
	Dunellen, .....	.20	.18	.14	.08	.28	.14	.14	.15	.14	.09
	Metuchen, .....	.20	.18	.16	.10	.28	.16	.14	.20	.15	.12
Monmouth, ...	New Brunswick, ...	.20	.18	.14	.08	.28	.16	.16	.22	.18	.09
	Allentown, .....	.22	.18	.14	.08	.22	.12	.14	.18	.13	.09
	Asbury Park, .....	.20	.18	.14	.08	.30	.14	.12	.16	.16	.09
	Freehold, .....	.20	.18	.08	.08	.20	.10	.10	.16	.16	.10
	Marlboro, .....	.18	.15	.09	.08	.25	.14	.10	.13	.13	.09
	Matavan, .....	.22	.20	.12	.08	.25	.15	.10	.16	.14	.10
Morris,	Boonton, .....	.20	.14	.10	.06	.28	.14	.14	.15	.14	.09
	Chester, .....	.22	.16	.15	.12	.25	.09	.11	.16	.16	.13
	Dover, .....	.20	.16	.13	.06	.25	.13	.13	.13	.14	.10
	Drakestown, .....	.25	.18	.12	.08	.28	.14	.12	.14	.15	.12
	Flanders, .....	.20	.18	.12	.08	.25	.14	.10	.16	.14	.11
	German Valley, .....	.20	.18	.12	.08	.22	.14	.10	.10	.16	.10
	Middle Valley, .....	.24	.14	.10	.08	.25	.10	.10	.14	.15	.10
Ocean,	Colliers Mills, .....	.18	.16	.12	.10	.40	.14	.10	.12	.14	.10
	Manahawkin, .....	.25	.16	.10	.10	.30	.14	.10	.16	.13	.12
Passaic,	Passaic, .....	.16	.14	.14	.08	.30	.14	.12	.18	.13	.09
	Paterston, .....	.22	.18	.16	.05	.28	.15	.12	.16	.14	.10
Salem,	Salem, .....	.22	.18	.14	.08	.25	.14	.12	.16	.14	.10
Somerset, ...	Somerville, .....	.20	.18	.15	.08	.22	.15	.12	.18	.13	.08
Sussex,	Monroe, .....	.16	.15	.12	.08	.25	.14	.10	.10	.14	.11
	Newton, .....	.20	.16	.12	.06	.25	.12	.12	.16	.14	.10
	Stillwater, .....	.20	.20	.12	.08	.25	.14	.10	.16	.14	.10
	Swartswood, .....	.20	.16	.12	.08	.25	.14	.10	.14	.14	.12
Union,	Elizabeth, .....	.18	.16	.12	.08	.28	.14	.12	.14	.13	.10

SUMMARY TABLE No. 4—(Continued).

Cost of Living—Retail Prices of Groceries and Supplies for the Month of June, 1904.

Mutton.		Mackerel.		Canned Goods.			Prunes.		Seeded raisins—per pound.	Vinegar—per gallon.	Babbitt's laundry soap. Per cake.	Oil, kerosene—per gallon.	Totals.
Leg—per pound.	Breast—per pound.	Salt mackerel, No. 1. Per pound.	Salt mackerel, No. 2. Per pound.	Tomatoes. Per 2-pound can.	Corn—per can.	Succotash—per can.	Rice—per pound.	First quality. Per pound.	Second quality. Per pound.				
\$0.14	\$0.08	\$0.13	\$0.12	\$0.09	\$0.14	\$0.15	\$0.08	\$0.10	\$0.08	\$0.10	\$0.18	\$0.05	\$0.14
.14	.06	.15	.10	.10	.13	.15	.08	.10	.06	.10	.16	.05	.14
.14	.08	.15	.10	.12	.14	.14	.08	.10	.07	.12	.20	.05	.13
.16	.12	.18	.14	.10	.14	.15	.08	.12	.09	.11	.20	.05	.13
.12	.05	.15	.10	.08	.13	.10	.05	.13	.10	.10	.25	.05	.14
.13	.06	.20	.15	.08	.10	.12	.07	.10	.06	.12	.20	.04	.14
.14	.08	.18	.10	.08	.15	.13	.10	.12	.08	.12	.24	.05	.13
.14	.08	.10	.08	.06	.11	.14	.05	.10	.05	.10	.20	.05	.14
.14	.08	.15	.10	.10	.12	.15	.08	.10	.06	.12	.20	.05	.14
.13	.08	.18	.15	.07	.12	.12	.09	.10	.05	.10	.17	.05	.13
.16	.12	.16	.12	.10	.13	.13	.08	.10	.06	.11	.18	.05	.13
.14	.08	.16	.13	.05	.13	.14	.09	.13	.10	.10	.18	.04	.11
.12	.10	.16	.14	.08	.10	.12	.09	.09	.05	.12	.20	.05	.12
.16	.05	.18	.14	.12	.14	.14	.10	.10	.08	.12	.20	.05	.14
.14	.06	.20	.15	.10	.12	.15	.07	.10	.07	.12	.25	.05	.14
.14	.06	.22	.18	.10	.14	.15	.09	.12	.09	.14	.25	.05	.15
.12	.08	.18	.14	.10	.12	.14	.08	.12	.08	.12	.20	.05	.13
.14	.08	.25	.20	.10	.13	.12	.08	.12	.10	.12	.25	.05	.15
.14	.08	.25	.15	.10	.15	.18	.07	.12	.08	.14	.20	.05	.15
.20	.08	.15	.12	.10	.12	.10	.10	.12	.08	.10	.20	.05	.12
.12	.10	.15	.10	.07	.12	.12	.08	.12	.10	.12	.25	.05	.12
.12	.08	.15	.10	.06	.12	.12	.08	.10	.05	.10	.20	.04	.12
.16	.08	.14	.12	.08	.12	.12	.07	.10	.07	.10	.20	.04	.15
.15	.12	.10	.08	.05	.10	.10	.05	.08	.05	.09	.15	.04	.12
.16	.14	.16	.13	.10	.15	.15	.08	.10	.08	.12	.20	.05	.13
.16	.20	.15	.12	.10	.12	.12	.05	.12	.10	.10	.20	.05	.12
.10	.12	.15	.10	.10	.12	.12	.08	.10	.08	.10	.15	.05	.12
.12	.14	.15	.12	.08	.15	.16	.08	.08	.05	.12	.20	.05	.13
.15	.12	.15	.15	.10	.12	.15	.10	.12	.10	.12	.25	.05	.15
.16	.09	.18	.12	.10	.18	.15	.10	.15	.08	.12	.25	.05	.14
.12	.09	.14	.12	.12	.12	.12	.08	.10	.07	.12	.25	.05	.15
.16	.08	.15	.10	.08	.10	.10	.08	.10	.07	.12	.20	.05	.13
.16	.08	.15	.13	.12	.13	.15	.10	.12	.09	.12	.20	.05	.14
.20	.10	.20	.14	.10	.15	.16	.07	.15	.10	.13	.24	.05	.14
.14	.08	.20	.15	.13	.16	.16	.10	.15	.12	.12	.22	.05	.15
.18	.12	.13	.11	.10	.12	.10	.05	.10	.08	.11	.16	.05	.14
.16	.08	.15	.14	.08	.13	.13	.08	.10	.07	.12	.23	.05	.15
.16	.08	.15	.10	.10	.12	.15	.05	.10	.08	.12	.20	.05	.13
.18	.16	.10	.09	.07	.15	.15	.06	.09	.05	.12	.18	.05	.13
.12	.08	.10	.08	.10	.12	.15	.08	.10	.06	.10	.20	.05	.13
.18	.12	.15	.12	.07	.12	.10	.05	.12	.08	.10	.24	.05	.15
.17	.13	.14	.13	.15	.15	.14	.10	.12	.10	.12	.30	.05	.15
.14	.08	.18	.12	.12	.12	.14	.10	.13	.09	.12	.25	.05	.15
.14	.08	.14	.12	.12	.15	.15	.10	.10	.08	.12	.25	.05	.15
.16	.10	.12	.10	.10	.10	.10	.08	.08	.05	.12	.20	.05	.12
.18	.20	.12	.10	.12	.10	.10	.06	.08	.05	.11	.22	.05	.13
.14	.08	.16	.12	.10	.10	.10	.08	.08	.05	.12	.20	.05	.13
.18	.10	.18	.10	.08	.12	.15	.08	.10	.07	.12	.12	.05	.15
.16	.12	.25	.10	.10	.10	.10	.08	.08	.05	.11	.20	.05	.14
.14	.06	.19	.15	.07	.13	.13	.09	.13	.09	.12	.20	.05	.15
.18	.10	.16	.14	.07	.12	.15	.08	.10	.08	.12	.20	.05	.14
.16	.08	.20	.15	.10	.15	.10	.08	.10	.05	.12	.20	.05	.11
.16	.08	.15	.10	.10	.12	.10	.05	.10	.08	.12	.20	.05	.14
.16	.10	.15	.12	.10	.12	.10	.06	.08	.06	.10	.25	.05	.13
.14	.06	.18	.15	.10	.12	.15	.08	.12	.10	.10	.20	.05	.12
.14	.10	.16	.12	.12	.12	.15	.06	.08	.05	.12	.20	.05	.14
.14	.16	.16	.12	.10	.12	.12	.07	.10	.07	.12	.20	.05	.13
.08	.10	.15	.12	.08	.15	.15	.07	.12	.09	.12	.20	.05	.12

SUMMARY TABLE No. 4—(Continued).

Cost of Living—Retail Prices of Groceries and Supplies for the Month of June, 1904.

LOCATION.		Beef.					Pork.				
County.	City or Town.	Steak, sirloin. Per pound.	Steak, round. Per pound.	Corned, round. Per pound.	Corned, brisket. Per pound.	Smoked—per pound.	Fresh—per pound.	Salt—per pound.	Bacon—per pound.	Ham—per pound.	Shoulder—per pound.
Warren,	Allamuchy,	\$0.20	\$0.14	\$0.12	\$0.08	\$0.28	\$0.14	\$0.12	\$0.14	\$0.14	\$0.12
	Beattystown, .....	.20	.18	.16	.14	.30	.16	.14	.16	.13	.11
	Belvidere, .....	.18	.16	.14	.07	.28	.14	.10	.16	.20	.09
	Blairstown, .....	.16	.14	.13	.06	.20	.13	.10	.13	.13	.12
	Hackettstown, .....	.20	.18	.16	.10	.30	.16	.16	.16	.13	.10
	Marksboro, .....	.20	.16	.12	.08	.25	.12	.10	.10	.15	.10
	Oxford, .....	.16	.14	.12	.08	.20	.14	.12	.15	.14	.11
	Phillipsburg, .....	.16	.16	.12	.06	.25	.14	.10	.14	.10	.08
	Fort Colden, .....	.20	.20	.12	.08	.25	.14	.10	.16	.14	.10
	Washington, .....	.20	.18	.15	.08	.25	.14	.13	.20	.13	.09
		.197	.167	.129	.08	.264	.138	.118	.155	.144	.10

SUMMARY TABLE No. 4—(Continued).

Cost of Living—Retail Prices of Groceries and Supplies for the Month of June, 1904.

Mutton.		Mackerel.		Canned Goods.			Rice—per pound.	Prunes.		Seeded raisins—per pound.	Vinegar—per gallon.	Babbitt's laundry soap. Per cake.	Oil, kerosene—per gallon.	Totals.
Leg—per pound.	Breast—per pound.	Salt mackerel, No. 1. Per pound.	Salt mackerel, No. 2. Per pound.	Tomatoes. Per 2-pound can.	Corn—per can.	Succotash—per can.		First quality. Per pound.	Second quality. Per pound.					
\$0.14	\$0.10	\$0.12	\$0.08	\$0.12	\$0.13	\$0.13	\$0.10	\$0.10	\$0.05	\$0.12	\$0.25	\$0.05	\$0.14	\$11.59
.14	.10	.16	.12	.15	.12	.12	.08	.10	.08	.12	.24	.05	.15	12.95
.12	.07	.18	.15	.08	.10	.12	.08	.10	.08	.10	.20	.05	.16	12.47
.14	.06	.12	.08	.11	.11	.12	.08	.10	.06	.10	.24	.05	.14	11.38
.14	.08	.16	.14	.12	.15	.15	.10	.10	.07	.10	.20	.05	.15	12.57
.14	.08	.14	.12	.10	.13	.12	.08	.10	.06	.12	.25	.05	.14	11.56
.14	.08	.15	.12	.08	.14	.15	.10	.10	.08	.10	.20	.05	.13	11.50
.10	.16	.16	.10	.06	.10	.10	.05	.10	.06	.10	.20	.05	.14	11.10
.14	.08	.13	.10	.12	.13	.13	.05	.10	.06	.10	.20	.05	.14	11.60
.22	.20	.15	.12	.10	.13	.12	.10	.10	.05	.12	.20	.04	.14	12.61
.146	.095	.158	.12	.095	.126	.131	.077	.105	.073	.113	.208	.049	.136	11.912

The Company Stores and the Cash Payment of Wages Law of 1899.

Social and Industrial Changes Produced by the Operation of the Act.
A Comparison Showing the Effect it has Had Upon Prices.

The Legislature of New Jersey at its session of 1899 passed an act which provided that thereafter all employes excepting such as may be engaged in agricultural work or as watermen shall be paid their wages in lawful money of the United States at least every two weeks.

This statute, although made general in its application in order to comply with the constitution, which forbids special legislation on any subject, was especially aimed at the abuses long existing in the glass and mining districts of the State, where men engaged in these industries were paid for their labor in goods supplied out of stores owned by their employers and seldom received any part of their wages in money.

The act referred to is generally known as the Stokes Cash Law, and was drawn and introduced in the State Senate at the legislative session of 1899 by Edward C. Stokes, at that time Senator from Cumberland County, where most of the glass works are situated. Its provisions were carefully considered, and in the form in which it was finally passed into law, the act received the approval of representatives of the workmen for whose protection it was designed.

Sufficient time having elapsed since the act went into effect to test its efficiency, this inquiry into its workings has been made to determine as far as possible, how the material and moral circumstances of the class of workmen it was designed to benefit have been affected thereby.

It is unquestionably true that for years before the enactment of the law of 1899, the company stores were conducted in a way highly prejudicial to the welfare of the workmen.

The necessity of patronizing them—for where wages were seldom paid in money there could be no choice—made living more expensive than it should have been under normal circumstances and lead to carelessness and extravagance on the part of the workmen and their families. A condition of dependence utterly repugnant to the true spirit of manhood was sure to result from such conditions of labor.

The company store as a fixed institution seems to have been more particularly associated with the glass and mining industries. The total number in operation throughout the State at this time is eighteen. Of these there are fourteen in the southern counties, twelve of which are owned and operated by glass manufacturers, and two, also located in the glass district, are conducted by firms engaged in the cotton cloth industry. In the upper part of the State, company stores are found at Sayerville, connected with a large brick making plant, and at Oxford, Hibernia and Franklin Furnace, where they are run for the accommodation of the workmen employed in the mines and iron works situated at these places.

Stores are found at several other points in the mining regions that are not owned by the companies, but which still enjoy a practical monopoly of the workmen's trade by reason of special arrangements to that end which exists between the employing firms and the store owners. In a certain sense these also may be counted among the number of company stores; the workmen patronizing them largely because for various reasons, they have no choice in the matter.

So much has been said and written about the company stores and their relation to the industries in which they exist, that there is really little if anything new to be advanced on the subject.

All authorities agree that when first established, this method was the only practicable one by which the necessities of life could be supplied to workmen engaged in either glass making or mining.

The glass factories, and the mines also, were located in places remote from any business center, and in the beginning of these industries the communities which settled about each plant, were composed entirely of the workmen engaged in them and their families. As a matter of course there were no ordinary stores in such places at that time, and but little could be seen in the immediate business outlook to induce private dealers to take the risk of starting them.

Under these circumstances there was nothing the factory owners could do to save the situation but to themselves become the purveyors of supplies to their workmen. It was either adopt that course or give up the attempt to establish the industries in which they were interested where natural conditions were perfectly adapted to success, if only the problem of how to supply material wants without any of the ordinary machinery of exchange could be satisfactorily solved.

The company stores were started; their stock being limited at first to such plain articles of food and clothing as, it had been ascertained, would meet the wants, and be perfectly satisfactory to the workmen and their families. Tenements for housing the operatives were built under pressure of the same necessity, and a condition was thus unavoidably brought about under which the employers housed, fed and clothed their workmen in a manner so complete as to leave little or no occasion for the use of money, of which, accordingly, but little was paid out.

The workman's credit was good at the company store at least to the full amount of his earnings, and even if these had been paid in cash, he would have to be satisfied in spending his money with whatever could be obtained from that source of supply, for there was no other that could be reached without a long journey and much expense.

It therefore became a fixed custom in the glass trade, to which no objection was made in these early days, to balance accounts between the company and the individual workman at the end of the fire, which was once a year. House rent for the twelve months and the amount owing to the store for supplies were deducted from his earnings, and the balance, if anything remained, was paid to him in cash.

These annual settlements became by long-continued custom, the only pay days in the year. Even on the rare occasions when cash was brought within their reach, it was not uncommon for workmen to decline taking it, preferring rather that the money should be left on deposit with the firm where it was regarded as secure, and allowed to accumulate until there was enough laid by to meet some large requirement that had been planned for, such as purchasing a piece of land and building a home for the family, or for making some other investment that would yield a satisfactory return.

Things went along pleasantly and satisfactorily in this way until the little communities, once composed of the workmen who were employed in the plants and their families, had grown into good sized towns with diversified industries and comparatively large populations. Railroad facilities were developed, stores dealing in all kinds of goods made their appearance in due time, and the activity and competition of the modern industrial center soon effaced every feature of the first settlement except the company stores.

These remained, and notwithstanding free competition among private dealers had reduced prices to figures that yielded only reasonable profits, the owners insisted on maintaining the charges exacted in earlier days; to this the workmen could offer no effective resistance because, without cash, advantage could not be taken of the better terms offered elsewhere.

Early in the history of the glass industry the factory owners found that there was money to be made in the stores as well as in the works, and the stock carried, which at first comprised only the absolute necessities of life, was greatly enlarged by the addition of a wider variety of goods of a higher class, which led to larger purchases by their patrons; so that soon after this new departure the workmen found the accounts against them in the store growing steadily greater, and the cash balance due them on settlement day proportionately diminished.

In many instances settlement day found the workman not only without a balance to his credit, but actually confronted with a claim against himself for goods in excess of what his total earnings would pay for.

The interests of the factory owners were not opposed to the workman's running in debt at the stores, so no objections were as a rule offered by them where earnings were overrun by book accounts, particularly when the delinquents were good and efficient workmen, whom it was desirable to retain at the works. Being in debt to the store at the close of the fire, and entirely without money, with the customary two months' idleness confronting them, these men had no choice but to remain where credit for the supplies necessary to support their families could be obtained until work was resumed.

In this way, it was no uncommon thing for glass manufacturing firms to advance from \$15,000 to \$25,000 in store supplies to its workmen during the time the furnaces were shut down, and so, many men began the next fire deeply in debt, and continued in that condition for years.

Large sums of money in the aggregate were lost to some of the firms through thus advancing supplies to employes. The suspense account at one of the factory stores, which was recently examined, showed losses to the amount of \$18,000, which had accumulated in that way.

The men who owed this money had left to take up employment in some distant place, and had never thereafter paid anything toward cancelling the debts left behind.

But on the whole, even with such drawbacks as uncollectable accounts, the company stores were doubtless very profitable, or the owners would not have showed such a tenacious determination to continue them in the face of the bitter opposition shown on all sides to their alleged way of doing business.

In the more or less heated discussion of the subject between the parties chiefly interested, there is no doubt as to many things of a high-handed character having been charged against the company stores in their dealings with the workmen that were very much exaggerated. But apart from all such instances, there can be no question as to the rules of fair trade having often been violated in the methods employed by the firms to make their stores profitable.

It has been charged that men who bought but lightly at them and drew the bulk of their wages in cash on settlement day had

in some instances been notified by the superintendent of the factory that they must patronize the store more liberally if they wished to retain their places in the works, and that in many cases those so cautioned, who failed to act accordingly, were discharged at the close of the fire.

There is said to be several well authenticated instances of glass blowers, who had kept a most careful guard over their family expenditures and turned the money thus saved into the funds of building and loan societies toward paying for homes, having been treated in this way. Being obliged to go elsewhere in search of work, the money invested in the little property they had hoped to one day call their own was either totally or partly lost.

It never was charged that this unjust policy was followed by all employers in the trade who had stores connected with their works; on the contrary, in the quality of goods, prices charged, absence of pressure or constraint of any kind upon employes in the matter of trading, the stores of a number of firms were on a par with the best establishments under private management to be found in the same localities. It seems to be true, however, that in many instances employers resorted to very harsh measures to direct the trade of workmen to their stores, and also to make the enforced connection as profitable to themselves as possible.

With regard to the tenements occupied by the workmen, most of which were owned by the companies employing them, substantially the same state of things existed. The rents charged to occupants of these habitations were always in excess of the amounts asked by private owners of property of the same quality.

All the essential elements of serfdom are thus found in the conditions surrounding the glass workers in those days. Food, clothing and lodging merely, all of such quality as the employer chose to furnish and at prices unaffected by competition, were practically the only returns obtainable for their labor.

Naturally a bitter spirit of revolt against the degradation of their position, and a determination to shake it off by some means had for a long time animated the entire body of glassworking operatives, and led them to act together in devising means to that much desired end.

Efforts were made year after year by substantially all the workmen employed in the glass producing centers to have the stores abolished by law, or to compel the payment of wages at short periods in cash; at the same time making it illegal to put pressure in any form on employes which would interfere with their right to spend their wages where and in what way they pleased; but nothing in the way of legislation that afforded any real relief was secured prior to the passage of the Stokes Act of 1899.

This law appears to offer no opportunity for evasion of any kind, and since the date of its enactment there has been no complaint that the companies concerned have done otherwise than loyally obey its mandate, by paying the wages of their workmen in cash at the prescribed periods.

The advantage derived from the Stokes Act by the population of the glass centers and the mining districts will be made plainer by reverting to an article on the company stores, which formed part of the report of bureau for 1899 (the same year that the Stokes Cash Measure became law).

Tables showing the prices exacted at company stores in comparison with those charged for like articles by private merchants in the same localities were published as part of that report. A feature of these tables was an elaborate calculation showing the quantity by weight or measure of each one of the upwards of fifty distinct articles on the bill of goods that one dollar would pay for at the company stores, and also at an establishment in its immediate vicinity owned by a private merchant.

The difference shown in this respect was very marked in some of the glass producing centers. At the three company stores of Bridgeton the cost of the entire bill of goods was found to be from 23.3 to 25.9 per cent. greater than at private or individually owned stores. At Minatola and Clayton, the difference was from 23.1 to 23.6 per cent; at Glassboro, it was 11.3 per cent; but at the four Millville company stores the prices ranged from only 1.2 to 4.6 per cent. above those prevailing at the best local stores for the same grade of goods. Prices were higher by 6.7 and 7.7 per cent. respectively at the two stores located in Salem.

In the mining districts the company store prices were found to be from 5.8 to 19.6 per cent. above prevalent market rates, the

higher percentage being found at Hibernia and the lower at Franklin Furnace.

Taking all the company stores in the State together, it was found that their prices averaged a trifle less than 14 per cent. in excess of those of their privately owned competitors. This was certainly an evil of a very tangible character, varying in intensity according to locality. In the Millville stores it was scarcely perceptible; in those located at Salem and some parts of the mining districts, the conditions, although bad, were still moderate when compared with Bridgeton and Minatola, where as shown by the excess percentages quoted above, the company store owners appeared to have pushed their advantages in the matter of extracting profits from the trade of their workmen to the fullest possible extent.

The following table will help to a clearer understanding of the company store question from the merely money point of view than can be conveyed in any other form. The figures are from the Bureau's report of 1899 and present the differences in prices at company and private stores for the same bill of goods, just as the investigation of that year showed them to be:

COMPARISON OF COMPANY AND PRIVATE STORE PRICES, 1899.

LOCATION OF STORES.	Number of Articles for which Prices are Quoted.	Cost of Bill of Goods at		Increase (+) or Decrease (—) of Cost at Company Store, as Compared with Private Store.	Percentage of Difference.	
		Company Store.	Private Store.			
Bridgeton,	56	\$44 34	\$35 76	+	\$8 58	23.71
Bridgeton,	55	42 75	33 94	+	8 81	25.96
Bridgeton,	62	45 93	37 23	+	8 70	23.37
Clayton,	57	54 94	44 60	+	10 34	23.18
Franklin Furnace,	47	38 10	34 17	+	3 93	11.50
Glassboro,	49	9 04	8 12	+	92	11.33
Hibernia,	49	54 23	45 31	+	8 92	19.68
Millville,	63	29 41	28 10	+	1 31	4.66
Millville,	58	34 23	33 31	+	92	2.76
Millville,	63	35 01	34 22	+	79	2.31
Millville,	62	37 97	37 51	+	46	1.23
Minatola,	43	35 27	28 60	+	6 67	23.32
Port Oram,	46	33 67	31 80	+	1 87	5.88
Salem,	45	19 89	18 64	+	1 25	6.71
Salem,	45	19 01	17 64	+	1 37	7.76
Averages,	53	\$35 58	\$31 26	+	\$4 32	13.82

The full extent of the financial injury inflicted upon the victims of the company store system as it was operated a few years ago may be seen at a glance by examining the figures of the above table. The averages for all places where the business was carried on shows that the bill of goods, consisting of fifty-three articles of table and family supplies, which were exactly the same in quality in both company and private stores, cost \$35.58 in the first and \$31.26 in the last named establishments.

The company stores prices for the bill of goods are thus shown to have been \$4.32, or 13.8 per cent. greater than those of the private stores. To present the difference in a still clearer light, for every dollar spent by those who traded where they pleased and paid cash the coerced patron of the company stores who bought on credit was obliged to pay for the same articles only a small fraction less than one dollar and fourteen cents. This shows the money loss reduced to an average. Of course, in some places it was much greater, as at Bridgeton, where the ratio was nearly one dollar and twenty-six cents at the company store to one dollar at the private establishments; in others it was less, as at Millville, where the purchasing power of one dollar was only one and two-tenths of a cent less at one of the four company stores of that place than at any privately owned market or store in the town.

It was intended to limit this presentation of the company store question to purely material grounds; the desire being to show the money loss to those who, by reason of the peculiar system under which they worked, were obliged to take their earnings in store goods instead of receiving them in cash. The moral phase of the subject will, therefore, be dismissed with the following extract from the Bureau's report of 1899, which is referred to above:

"The workman who is compelled to accept a pass-book as the equivalent of wages that should be paid in cash feels, very naturally, that he is deprived in an important respect of that liberty which is the birthright of all men. The company store is to him an ever-present evidence of a form of servitude, galling to his sense of self-respect because it is unknown elsewhere among men of other trades as a feature of free labor. With but little or no

money to handle, he and his family are without that sense of consequence which all feel who have money to spend and whose patronage is sought after. His children grow up without that instinct for thrift and economy which is naturally developed from the responsibility of handling money and planning to spend it to the best advantage. The elementary knowledge of business acquired by children in other homes, which forms the basis of that broader understanding of affairs so necessary in facing the duties and responsibilities of life, cannot be learned by his little ones; prices and styles of contemplated purchases are seldom discussed in his home because the family has no control over either. He must take what the company store offers regardless of price, and is expected to, and generally does, take enough to insure there being little left for him on pay day but the cancelled store bills."

The order of things under which such conditions existed has passed away never to return. There is, therefore, neither profit or pleasure in dwelling upon it further. The minds of the glass-workers, who were long the victims of the vicious and oppressive store system, are now turned cheerfully and hopefully to the future; feeling themselves at last freed from the galling yoke which distinguished them from almost all other workmen, they have in a few years obliterated all traces of the past and are now in the enjoyment of every right of which they were formerly deprived.

Since the passage of the act of 1899, a great change has come over the company store business, the influence of which is reflected on the communities in which the glass factories are situated. The workmen now enjoy a consciousness of personal importance to which they were strangers heretofore.

On pay day, which in most factories is every two weeks, the envelopes passed to the men contain the full amount of their earnings without deduction of any kind, and the recipients have the satisfaction of settling their bills with cash which is paid out by themselves. Almost without exception they do this promptly, and the losses to factory owners from unpaid store bills and house rent are now far less than they were under the old conditions.

It is passing strange that a law aimed at a long standing abuse should have so thoroughly accomplished its purpose, and still left the party that was shorn of privileges, equally with those at whose expense they were enjoyed, in a much better position morally and financially than that which they had occupied before. Such, however, is the case, for now, although there is no longer even the slightest vestige of compulsion in the matter, the workmen almost without exception still continue to patronize the stores owned by their employers. This apparent phenomena is explained by the fact that the factory owners wisely perceived that under the new law the only prospect of retaining the trade of their operatives in competition with private dealers lay in reducing prices to the same level as theirs. Accordingly this has been done, and so, with prices of goods on the same level, the company stores appear to have not only retained all the at one time so unwillingly given patronage of their factory workmen, but to have actually secured a large increase in their trade strictly on their merits as competitors for public favor.

And so, with business conducted on strictly voluntary lines as between themselves and their patrons, the company stores are with a few exceptions doing a greater volume of trade and earning therefrom larger profits than ever before. This is shown in the table below, which gives the net profits realized by five company stores under the old order of things and also under the new.

The figures were obtained from the companies controlling these stores, and are for 1898, the year before the passage of the Stokes Cash Payment of Wages Law, and also for 1904, after the same act had been in operation for five years.

	Profit on Sales for the Years		Increase of Profits in 1904.
	1898.	1904.	
Store No. 1,	\$18,000	\$20,000	\$2,000
Store No. 2,	21,000	24,000	3,000
Store No. 3,	15,000	16,000	1,000
Store No. 4,	17,000	15,000	* 2,000
Store No. 5,	14,000	14,500	500

* Decrease.

As is shown by the above table, only one of these four stores failed to show larger profits under the new system of trading; four of them exhibit a very considerable increase which is, doubtless, all the more gratifying to the owners from the fact that it

has been earned through the merits of the business unassisted by illegitimate influence of any kind.

Cash payment has been in every sense and from every point of view, a priceless boon to the workmen of the glass trade. It has removed a stigma that they and their families alone among working people were marked by and suffering under, and has placed them on exactly the same footing with men of other trades and occupations in the communities of which they are a part. Theirs is now the same stimulus to thrift in matters involving the expenditure of money that others of their class have always enjoyed, giving the industrious and thrifty ones among them an equal chance with all in the race for a more independent position in life.

Cash payment of wages has brought them an understanding of just what they have to depend upon to meet expenses and to regularly lay by at the same time a little something toward providing for the inevitable "rainy day." The workman enjoys the same independence as others, and can spend his money just where the greatest inducements are offered. There is now no compulsion in the matter of trading at the company stores.

They exist solely on their merits as business enterprises, and are dependent for patronage entirely on the inducements of a businesslike kind which they offer to the public. The law, backed up by public sentiment, has swept away the old abuses peculiar to them, never, it is hoped, to return again. It may be that in a few instances an employe is told that he "ought to trade at the store of the company that gives him work," but it never goes beyond that, and there is no threat of discharge if he refuses to do so.

From what has been said regarding the rehabilitation of the company stores in popular favor after their having been regarded for so many years in a radically different light, it will of course, be understood that the change in public sentiment toward them has been brought about by a complete submission to the letter and spirit of the Act of 1899, which in a manner compelled their owners to compete thereafter for trade on the basis of reasonable prices or else go out of business. That the first mentioned policy was adopted may be inferred from the fact that the stores are all in existence still and making more money than formerly, not-

withstanding their old time advantages of an assured market, based on compulsory trade and high prices, have been completely swept away.

But the most conclusive proof that such is now the case, and that the new order of things brought about by the Stokes Act has been accepted in good faith, will be found in the following table in which company and private store prices for a certain bill of goods containing sixty-four specified articles of table supplies are compared. The private stores used in making these comparisons are those nearest to the company concerns, and therefore most likely to be their competitors for trade. The figures quoted, which are the aggregate cost of the entire bill, were obtained by a representative of the Bureau, who personally visited each of the stores and obtained the facts directly from the managers.

The table is the same in form as that given in another part of this article to illustrate the contrasts in prices under both systems of trade in 1898. It must be borne in mind that the prices quoted throughout the table are for a bill of goods numbering sixty-four articles which are sold in both classes of stores, and that these goods are of uniform grade and quality. The figures are as follows:

LOCATION OF STORE.	Cost of Bill of Goods at		Increase (+) or Decrease (-) in Cost of Bill at Company Stores, as Compared with Private Stores.
	Company Store.	Private Merchant's Store.	
Millville,	\$31 73	\$31 58	+ \$0 15
Millville,	31 73	31 58	15
Millville,	32 00	31 80	20
Millville,	32 06	31 85	21
Millville (cotton mill store),	31 89	31 73	16
Mays Landing (cotton mill store),	31 22	31 19	03
Bridgeton,	31 29	31 11	18
Bridgeton,	31 37	31 08	29
Bridgeton,	31 32	31 10	22
Salem,	30 84	30 80	04
Salem,	30 89	30 85	04
Clayton,	31 07	31 07	.....
Glassboro,	31 17	31 06	+ 11
Minatola,	31 37	31 11	+ 26
Averages,	\$31 42	\$31 28	+ \$0 14

It will be noticed that the prices here given for both company and private stores are so nearly alike as to leave no practical difference between them. The balance is still in favor of the privately managed concerns, but it is very slight, being less than one per cent. where the difference is greatest, and a fraction below one-half of one per cent. when the average prices charged at all the stores representing both systems are compared.

The excess of company store prices in the glass districts over those of other establishments in the same place is given by percentages for both periods in the following table:

LOCATION OF STORES.	Percent. of Excess of Cost of Bill of Goods at Company Stores over Private Stores.		Percent. of Reduction of Company Store Prices in 1904 as Compared with
	1899.	1904.	1899.
Bridgeton,	23.71	.57	23.14
Bridgeton,	25.96	.96	25.00
Bridgeton,	23.37	.70	22.67
Clayton,	23.18	...	23.18
Glassboro,	11.33	.35	10.98
Millville,	4.66	.47	4.19
Millville,	2.76	.47	2.29
Millville,	2.31	.63	1.68
Millville,	1.23	.66	.57
Minatola,	23.32	.83	22.49
Salem,	6.71	.13	6.58
Salem,	7.76	.13	7.63

The comparison in the above table between the excess charges of company stores at the two indicated periods, brings out the pecuniary benefit which the Cash Payment of Wages Law has conferred upon glassworkers. The percentages of reduction which appear in the last column shows just how much "cash in hand" has done toward bringing present day prices for family supplies below those which prevailed for the long, weary years during which the store book was, for many, the only evidence of wages earned.

The effect which the cash law has had upon the home life of the glassworkers and their families has been markedly elevating. Under the old order of things, the number of them that owned their homes was very small indeed. They lived, mostly, in company tenements which, as a general rule, were constructed as inexpensively as possible, without decoration or ornamentation of any kind. In many instances the general environment of these

houses were absolutely squalid, although the rents charged were largely in excess of the sums for which the same or even a better grade of habitation could be secured from private parties.

But this, like other conditions peculiar to the old system, is now virtually a thing of the past. The free competition that so radically influenced the policy of the stores toward moderation and fair dealing has also wrought a great change in the company tenements, which to find occupants now must be on a par in the matter of rent and accommodations with those held by private owners.

But since the new era has set in, the skilled glassworkers, many of whom earn wages large enough to command all the comforts, and, if inclination points that way, even some of the luxuries of life, have shown a marked disposition to become their own home owners; so that not a few among them who formerly dwelt in the mean and narrow quarters which the company tenements afforded, are now, through the aid of the building and loan societies, in a fair way to soon become the absolute owners of the comfortable and commodious homes which they now occupy. Some of them have already reached that goal even in the comparatively short time that has elapsed since the Stokes Act gave them control of their earnings.

In 1899, the proportion of glassworkers who owned the homes in which they resided was less than ten per cent. At this time (1904) there is reliable authority for the statement that at least 35 per cent. of the total number either now own their homes absolutely or else will do so after a few more years of payments have been made to the building societies that advanced the money for erecting them.

These homes are on a scale of comfort and convenience befitting families enjoying such incomes as are earned by the average skilled glassworker; generally speaking, the houses are very well furnished and represent investments ranging from three to four thousand dollars.

Another direction in which a great change for the better has been gradually taking place in the domestic arrangements of the glassworkers since 1899, is the education of their children. Previous to that time, under the old conditions, the little ones were

sent into the factories as soon after reaching the legal age as places could be found for them, and in many instances the only actual cash which the family handled was the small earnings of these children.

Since the passage of the Cash Law, many boys and girls have been withdrawn from the factories by their parents and either sent to school or else to a line of work which leads to something better in the future than could ever be hoped for through the medium of such factory employment as had heretofore fallen to their lot.

Many young people, sons and daughters of glassworkers, are now filling responsible and lucrative positions in banks, insurance companies, stores and offices or as school teachers, who under the old dispensation could not, with any prospect of success, have aspired to anything higher or more remunerative than the work to be found in the mills or factories of their native towns.

The store book absorbed the great bulk of the family earnings, and nothing could be spared to meet the training required to qualify the children for the lines of work which they are successfully following today.

Since 1899, the number of young people—sons and daughters of glassworkers—who have entered the highest educational institutions of the State is said on good authority to be greater than during the preceding fifty years. Certainly this in itself speaks in eloquent praise of the law that has made it possible.

The cash payment of wages has also brought about a very noticeable change for the better in the relations existing between the workmen and their employers. With the company store book no longer the only substitute for wages that it was formerly, the cause which produced the dissatisfaction that kept them apart in the past is removed, and their intercourse with each other is now of as cordial a character as exists between employers and employes in any other line of industry.

A gentleman thoroughly conversant with every phase of the subject, and who aided in this inquiry, thus summarizes the changes in the glass industry that have followed the practical abolition of the company store system, or at least of all the iniquitous practices which were once peculiar to it.

1. The workman has unrestricted control of his earnings, and is thus free from the stigma which formerly attached to him as one who literally worked for board and clothes as did the Southern negroes in slavery time.

2. His living expenses are reduced to the extent of the reductions that have taken place in company store prices, which in some localities amounted to as much as 25 per cent.

3. His home life is on a higher plane of comfort, and his children have educational advantages which were beyond their reach under the old order of things, and

4. A long standing subject of bitter contention being removed, there is now as near an approach to a condition of peace and harmony as can be found in any other occupation at the present time.

The foregoing completes all that seems necessary to say at this time relating to the company stores in the glass districts of South Jersey. From the manner in which their owners have adjusted the business methods once prevalent in them to the new conditions brought about by the Cash Payment of Wages Law, it seems that they have ceased to be the promoters of friction between employers and workmen that they were during at least a full generation previous to its enactment, and that hereafter there will be nothing in their business practices which will warrant making them the subject of official investigation.

We pass from a consideration of the company stores in the part with which they are mostly identified in the public mind to those that have existed for quite as long a period of time in the mining regions of the upper end of the State. Although comparatively little has ever been heard from the miners in the way of protest against the system, it does not follow that the peculiar abuses which had made it odious in the glass districts and which finally led to its practical overthrow in these places, has not existed to an equally objectionable degree among that class of workmen.

There, as elsewhere, trade at the company stores was practically compulsive; low wages and long intervals between pay days left the miners and their families no choice in the matter of submission to this as to other unavoidable hardships of their lives.

It was the same here as in the glass districts; men worked for merely food and shelter, but with this important difference, that as the miners did not earn one-half as much as the glassworkers, they had therefore to content themselves with much fewer of the necessities of life than were within the reach of the glass men, and those of a comparatively inexpensive quality.

The Bureau's report of 1899, before quoted, shows that on a selected bill of goods, the excess charged at the company stores of these mining towns to be as follows: Port Oram, 23 per cent.; Hibernia, 19 per cent., and Franklin Furnace, 12 per cent. Considering the difference in wages or earnings, these overcharges were far more oppressive than those to which the glass workers were forced to submit. Complaints from the miners have been less frequent mainly because, unlike the glass men, they have had no organization to keep the matter in agitation by frequently calling public attention to that and other objectionable conditions under which they worked.

That there was reason to complain of excessive charges for company store goods, and also of the mean character of the tenements in which the miners and their families lived, was pretty clearly shown in the investigation of 1899. Just how far these conditions have been altered for the better by the cash payment of wages law, which has done so much for the workmen of the glass regions, will be shown in the following pages, in which store prices, tenements, rents and other matters which go to make up the environment of life for the mine workers of the State, are given as learned and observed by a representative of the bureau, who visited each locality mentioned for the purpose of ascertaining the facts.

OXFORD FURNACE.

The total population of the town is about 1,500, of which number 500, all males, are employed by the Emiper Steel and Iron

Company. The workmen are mostly foreigners, Hungarians predominating.

The company owns the greater number of the houses occupied by their employes, for which rents ranging from \$4 to \$7 per month are charged. Many of these dwellings are old, unpainted, and present a very cheerless exterior; within there is little or no evidence of repairs of any kind having been made in years.

A number of houses were found vacant and untenable, without doors or windows; they had reached the extreme condition of dilapidation which precedes collapse, and were utterly unfit for human habitation, as, apparently, they had been for a long time before they were abandoned. One double house, two stories in height with eight rooms, had very recently been deserted as unfit for further use as a dwelling. It had been a boarding house, and at one time sheltered not only the family that rented it, but from thirty to forty boarders as well. Other houses of four to six rooms in varying degrees of bad repair have ten or more occupants. These are the poorest specimens of houses in the neighborhood; on the side of the town nearest the furnace and mines a better class of dwellings are found, the rents of which range upwards from \$5 a month. Many of the men employed here seem to be backward in matters relating to home life, indifferent as to their surroundings and willing to live in the cheapest manner, both as to food and dwellings.

The company keeps a general store that supplies goods to its employes at prices which, it is claimed, quality considered, are as low as those which prevail at any of the privately owned stores of the place. Exact quality in the grade of grocers' goods at one and another store is very seldom found. Articles that were originally the same are often of different selling value because of various circumstances incidental to their handling in the course of trade, and it is, therefore, almost impossible to frame a list of goods the aggregate cost of which will be found the same in any two stores. This was found to be the case in investigating prices at the Oxford Company store and comparing them with those charged by its competitors.

The bill of goods selected contained forty-nine articles of table supplies with some items of personal use, such as muslins and

shoes of standard quality. It was found that at the company store, the entire list would cost \$26.44, and at the private establishment \$24.83; the difference being \$1.61, or 6.5 per cent. in favor of the private store. This slight excess of charges occurs mostly in a few articles of wearing apparel which were included in the bill; the table supplies are dealt out at practically the same prices by the company and the private dealers.

The workmen, as a rule, are paid in cash every two weeks, and settle their own store bills promptly. The exceptions are in cases of men who have recently come to work for the company or others whose conduct does not entitle them to credit. In these instances, store bills and rent are deducted from the wages due.

Workmen are not compelled to trade at the company stores, but are at liberty to buy where they choose. All are given credit from one pay day to another, but new comers and men of shady reputation are not allowed to buy in excess of their earnings.

Furniture and other household goods are sold on credit at the company stores; the vendor's title in the goods being secured by a chattel mortgage, which is the same in all respects as those used by ordinary installment furniture dealers.

No fresh meat is sold at the company store; the workmen's supply is obtained mostly from wagons that come from Belvidere, five miles distant.

No protection is given to dealers with whom the company's employes may trade; that is to say, the payment of bills is not guaranteed, nor will the company compel men to pay their debts; merchants must trust wholly to the honesty of their customers.

The wages of these workmen range between \$1.10 and \$1.75 per day. As a rule, those of them who have families can do very little, if anything, more than keep the store bill down to a point where with rent added, it balances with the wages earned. These accounts must be settled on pay day, so that in general the cash received at the company's office is soon all passed back over the counter of the company store. As before said, in cases of unreliable men or new workmen who are not known, precautions are taken in the settlement of accounts on pay day against their quitting the locality without settling bills due the company for rent and store goods. Sources of information that are regarded as

reliable seem to justify the statement that a large percentage of the workmen employed by the company are in this class.

Foremen and old hands are paid strictly in cash, and being in general better paid and more independent than other employes, their families trade at the stores that are most convenient to their homes. No objection appears to be made by the company to this course, and no instance is known of a workman having been discharged for not patronizing the company store.

Parties not in the company's employ, who trade at the store, speak of the goods sold there as being fair in both quality and prices. Both these propositions are, however, denied by some employes, who assert that cash customers who are independent of the company and its store pay lower prices for goods purchased there than are charged to book traders in the company's employ. Rival grocery dealers speak of the company store as a fair dealing institution, and none were found among them willing to support the assertion that the company has one scale of prices for its own employes and another for the general public.

PORT ORAM (WHARTON).

The Wharton Furnace Company are owners of the blast furnaces and mines at Port Oram, and also at Hibernia. Between four and five hundred men are employed at the first-named place and these constitute a large majority of the working population of the town. The equipment of the plant has been greatly improved during recent years and is now thoroughly modern in every respect. Machinery and improved processes of making pig iron increases the output without materially adding to the force employed.

The ore is shipped direct to the furnace from the mines, and the casting, cooling, and loading on cars is one continuous process carried on by machinery and requiring little or no handling by laborers.

The Wharton Company has no store of its own, but there is a large grocery and general merchandise establishment in the town, the proprietors of which are said to be closely identified in interest with the furnace company. The mine and furnace employes

mostly trade at this store, and their bills are deducted from their wages on pay day and turned over to the proprietors; any balance remaining is paid to the workmen in cash.

This arrangement is for men whose credit is not good and for those who have been but a short time in the company's employ.

Men who for years have resided in the town and worked for the company are given credit and settle their own bills semi-monthly. The furnace company takes the ground that workmen should pay their bills, and having no store of their own, they are willing to assist this particular grocery firm to secure the accounts due by new and doubtful men.

These same dealers sell goods in the house furnishing line on the chattel mortgage and installment plan, holding a lien on the goods sold until the last payment is made. They are also the largest holders of real estate in the town, on which they have built many dwellings and are each year adding to the number. Notwithstanding this annual increase, the supply of houses is not equal to the demand, and consequently rents are somewhat high. They range from \$4 to \$9 per month, the higher figure predominating. The houses are kept in fairly good condition, but the firm's large holdings of land enables it to limit to a great extent the building of dwellings, and in this way its own houses are constantly occupied and rents maintained.

The furnace company own very few tenements, the larger number of the total in the town belong to the grocery firm above referred to and a few to other residents. Having many of the workmen for tenants and the store trade of a still greater number, it follows as a matter of course that about all the earnings of a large proportion of the mine and furnace employes of Port Oram find their way to the coffers of this favored firm.

Cash sales in the store compare favorably in the matter of prices with those in the large town of Dover, which is three miles distant, but by far the largest part of the trade is done on book accounts, and it is the opinion of those who seem to understand the situation that several grades of goods in the staple lines are handled, and that the best are sold to cash customers, while the other grades are sold for almost the same prices to those who buy on credit.

The investigation of 1899 showed that prices at the company store at Port Oram were 6 per cent. in excess of the normal or open market rates. This overcharge, while apparently small compared with the difference shown to have existed elsewhere, really bore much harder on the workmen employed here because of their low wages, than did the greater excess charges taken under the forms of trade from the comparatively well-paid glass-blowers. The glass men could meet the much larger tribute exacted from them under the old time company store practices and would still have left to draw on for the support of their families an amount of credit equal to more than double what the total earnings of the miners amounted to.

It is pleasant to note that here, as in other places where the company store has been and is now a fixed institution, a radical change in these conditions has taken place since the enactment of the Cash Payment of Wages Law.

There may still be some vestiges of compulsion in the trade relations of many of the workmen, but here it seems to exist only under the form with which every community is familiar; that is to say, persons without ready money must buy where they are allowed credit or leave their wants unsupplied, and it also happens not infrequently that the only means by which workmen can secure such favors is to have payment of the debts incurred guaranteed by their employers. There is therefore nothing particularly abnormal from the trade point of view in the fact that store bills of workmen are paid directly by employers, for that is really the only method by which he can effectively guarantee its settlement. It may be said that in extending this form of protection to one dealer only and refusing it to all others, as is reported to be the case at Port Oram, the employing company are giving the favored grocery firm a practical monopoly of this extensive line of trade. Such is really the effect produced, but as their supplies cost no more, it does not appear that the arrangement is in any way detrimental to the material interests of the workmen.

The investigation made by the bureau showed that the aggregate cost of a bill of goods consisting of fifty-eight articles was \$37.25 at the store favored or protected by the company, and \$37.63 at what may be called the independent or private store in

the same locality. The difference, though slight, amounting to only twenty-eight cents, is in favor of the existing trade arrangements.

It seems to be beyond question that the requirements of the law of 1899 are being obeyed at Port Oram. Wages are paid in cash on the regular pay day without deduction of any kind, except in cases above referred to where men can obtain credit for necessary supplies only by agreeing that the cost of the same shall be deducted from their wages on pay day. Otherwise, employes of the company are at liberty to buy where they choose. As a matter of fact, many of the better class of workmen make their purchases in Dover, the fare by railroad being ten cents for the round trip.

LUXEMBURGH.

The Richard Mine, which is situated in a small settlement called Luxemburgh, distant from Port Oram about one and one-half miles, is owned and operated by the Thomas Iron Company of Pennsylvania. At the present time about 300 men are employed.

There is no company store and the employes procure their supplies from two firms that carry on business in the place. Credit is given at these stores, but prices are marked in plain figures and buyers for cash or on book pay the same price. Wages are paid in cash semi-monthly, and the store accounts are deducted only in special cases where contracts permitting it to be done have been made between the company, the workman whose wages are affected and the storekeeper from whom he obtains supplies on credit.

The employing company has no interest whatever in such arrangements, and consents to its own part in them solely because it is only by this means that a considerable proportion of its working force can obtain necessary supplies until, by practicing economy, they become forehanded enough in the matter of money to pay as they go, or else by good conduct to so win the confidence of dealers that credit will be given them unsupported by the employer's guarantee.

These contracts are exceptional and made only where there seems to be no other way by which the workmen or those depend-

ent upon them can be saved from suffering. Several books having accounts of this character were examined while making this investigation. The circumstances out of which one of them grew were as follows: A widow has two unmarried sons employed in the mines and living with her, whose earnings are the main support of herself and younger children. These two young men are good workmen and semi-monthly each received \$22.00 in cash as wages. They habitually squandered their money, and payments to their mother became so small and infrequent that further credit was refused at the store. A contract was then executed between the two men, the company, and the store owners, under the terms of which the company, while the brothers in their employ, agreed to pay to the store a certain proportion of their wages. The amounts thus turned over were from \$40.00 to \$50.00 per month, which payments covered rent, fuel, butcher and store account. The storekeeper receives the money, credits it on his books to the family, pays all bills, and turns over any balance that may be left to the widow.

This plan has been in operation for nearly one year, and so far has produced eminently satisfactory results all around.

Other contract and non contract accounts from the books of the store were shown to verify the owner's statement that prices to all were exactly the same, quality of goods considered. The personal account of the superintendent of the mine showed that he paid the same prices for what he purchased as did the humblest man in his employ.

As stated, the company will give protection to storekeepers only in exceptional cases. Generally when credit is given, the dealer has to take his chances of collecting the bill from the men personally. In the case of men who have been in the company's employ for a long time, accounts as a rule are safe, but with new men or with others given to excessive drinking habits, storekeepers are very cautious. In doubtful cases, credit is limited to \$5.00 per week and even to a lower figure.

In cases where contracts of the kind before referred to exist, there is an established rule of the company that no employe is allowed to run in debt to the full amount of his pay. There must remain at least \$2.00 in free cash to his credit, which is given

to him on pay day unaffected by any lien to which his employers are parties.

House rents in this place range from \$4.50 to \$7.00 per month. Some of the houses are owned by the company. The average condition of these dwellings is very fair; some of them are in comparatively good neighborhoods, and not a few among the best are owned by their occupants, who are employed at the mines.

There is at this time a number of men who belong to the same roving and restless class found in other places at similar work. These are either unmarried or without their families. As a matter of course these men live in boarding houses, and not infrequently go away leaving board bills unpaid. The landlord has no protection from the company and the financial losses incidental to such cases fall entirely upon him.

HIBERNIA.

The mining company, whose property is located at Hibernia, has about 900 men in its employ. The prevailing nationalities in the order named are Hungarians, Slavs and Italians. Wages are from \$1.17 to \$2.20 per day. The hours of labor are for miners, eight, and for laborers and timber men, ten hours per day. Many of the workmen are of a low order of intelligence, given to gross intemperance and very hard to deal with.

A large proportion of their number are either unmarried or have families in their native countries. This class as a rule are of a roving disposition and seldom remain in one place for even a year. The married men with families are, generally speaking, much more steady and reasonable.

The company owns and conducts a store which is called the Hibernia Supply Company. Prior to a time seven years back, the prices of goods furnished at this store were the subject of bitter and persistent complaint on the part of the miners, who asserted that they were induced to buy articles not actually needed by their families, for which they were charged prices much above their market value. No balance remained to them on pay day after store bills were deducted from wages. The policy of the then manager was to direct as much as possible of the workman's

earnings to the store by encouraging them to purchase at fancy prices goods not really needed by them, and that were in fact much above the plane on which they could live with their limited earnings. In this he was entirely successful; very few of the mine employes handled cash or had anything from year to year but receipted store and rent bills to show for their earnings.

At length, the dissatisfaction caused by this policy became so general that a change in the store management and methods of doing business was determined on by the company. A new man was put in charge with authority to institute whatever changes he deemed best for the interests of the workmen and the company. Fancy priced goods were no longer dealt in and staple articles only were supplied. The improvement caused by this change in the policy of the store was soon apparent. The new management endeavored by all possible means to encourage thrift among the families trading there, and to that end refused to allow any workman to trade to the full extent of his wages. On pay day each man must have a cash balance of some amount due him after the store account is settled.

In this way the company and the store managers are doing whatever they can to teach the workmen the importance of living far enough within their incomes to show at least a small saving each month. A very considerable degree of success has attended these efforts from the beginning, and each year has shown an improvement.

The number who are saving a part of their earnings is constantly increasing, and almost all the old time prejudice against the company store has passed away. The families who have thus emancipated themselves from the thralldom of debt are living very much better than formerly, and are furnishing an improving object lesson in the possibilities of domestic elevation to other and less provident workmen about them. In many instances the first savings effected are left on deposit with the store manager to be drawn on in case any future need for doing so should arise.

The Cash Wages Law of 1899 is strictly obeyed here, and on the part of the company there is no desire to evade its provisions or to take advantage of the men in any way. The nearest competitor of the supply company for the trade of the workmen is a

store situated in Dover, seven miles distant from Hibernia, a round trip ticket on the railroad between the two places costing thirty-five cents. As a matter of course, this necessary toll for traveling expenses gives the home establishment a decisive lead in competing for the cash trade of residents of Hibernia. But the investigation made for the purpose of this paper brought to light no instance in which the advantage enjoyed by the company store has been abused. In the course of the inquiry, price lists and wholesale dealers' bills were freely shown and examined as were also samples of the various articles of food supplies to show that all were of standard quality, and were being sold to patrons, whether on a cash or credit basis, at unvarying prices for all.

Only the cheap cuts of meat are sold as a general thing, and these are weighed and charged for less the fat and bone.

The test applied in other districts having company stores, to determine the reasonableness of prices, was also used here, with results shown that are highly creditable to the supply company which conducts the store. A bill of goods was selected comprising fifty-nine articles of table supplies and also such items of wearing apparel as were kept in stock, and prices therefor were obtained at the company store and at the establishment in Dover owned by a private firm. The various articles of food which made up the largest part of the bill were absolutely identical in quality at both stores, and the wearing apparel and other goods for personal use were in all essential respects of the same grade. The sum for which the entire bill could be purchased in the supply company store at Hibernia was \$31.76, and at the privately managed Dover establishment, \$32.26. The economy of purchasing at the company store, as shown by this bill of goods, is fifty cents, or one and one-half per cent. on the entire list.

It is much to be regretted that the investigation has not shown an equally satisfactory state of things regarding the dwellings in which the miners and their families reside. These are nearly all owned by the company, and are almost without exception very old. The greatest number are of only one story, and have a neglected, shanty-like appearance. The dull-brown paint which

once covered them has been worn away by the storms of years, and the exterior wood work shows every indication of decay. Within, the condition of these shelters presents the same dreary and unsightly appearance which makes their outside so forbidding, and it would seem scarcely possible that the most painstaking efforts of the tenants could make any noticeable improvement in them.

None of these houses have cellars, but are all built on the flat surface of rocks, which protrude above the ground without regard to street lines. The greater number have only two rooms, and are built with perpendicular boards, having the joints covered by strips. On the inside the plaster is laid directly against the boards, and at their very best these houses must have been cold and cheerless dwellings.

A few recently built, two stories in height, are in a fair condition.

For years the company employes were allowed to occupy these houses without paying rent, but now they are charged from \$2.00 to \$4.00 per month, according to the number of rooms. These houses, even the ones most recently erected, seem to have been built at the very minimum of cost.

In one of these dwellings, containing two small rooms and a lean-to, the latter not more than six by ten feet, a family was found consisting of a man and wife with three children, and four boarders. Two boarders slept in the lean-to, and the others with the family, occupied the two rooms in the house. It seems not uncommon to find as many, or even more persons crowded into these small dwellings.

There are no houses in the town much, if any, ahead of these just described in the matter of convenience or appearance. None of the mine owners or superior officials reside there, but all go to and from other places daily—in fact the town's population of twelve hundred is made up entirely of the mine workmen and their families.

Although Hibernia is one of the oldest and, it is said, most profitable mining districts in the State, the town is without either public hall, reading room, or library. The poor homes of the

workmen seems to be the only counter attraction to the resorts where liquor is sold. The school is a very good one, with able and earnest teachers. An epidemic of scarlet fever had caused its sessions to be closed at the time this inquiry was made.

The price of coal is \$7.00 per ton delivered. Freight is entirely in the hands of one railroad company, and the charge for delivery at Hibernia is \$2.00 per ton.

The company stores do a business of \$16,000 per month, and the pay roll of the mines is \$25,000 for the same time. The average profit realized on all sales at the stores for 1903 was stated by the manager to be $22\frac{1}{2}$ per cent.

If a new man, who starts to work for the company, is without money, he is allowed credit at the store. On the first pay day thereafter he is given no money, but on the second he is paid in full, less the store account, which is deducted. From that time, and as long as he continues at work, he is paid in cash and settles his own bills.

If a man should overtrade the amount of his pay, which seldom occurs, the rules of the company forbidding, he is placed on a limit of credit of fifty cents or one dollar per day, according to earnings, until the arrears are paid off. Boarding house keepers are given credit at the store proportionate to the number of boarders they keep, and are held responsible for the account. If a boarder defaults in payment, or there is reason to believe he is about to leave the town, the landlord notifies the company prior to pay day and the sum due is deducted from his wages.

FRANKLIN FURNACE.

The New Jersey Zinc Company is the principal employer of labor at Franklin Furnace. About eight hundred men are employed in its zinc mines, a majority of whom occupy houses which are owned by the corporation, paying rents ranging from \$4.00 to \$6.00 a month according to the number of rooms.

The workmen are almost entirely of foreign birth—Hungarians and Slavs predominating. Wages are from \$1.20 to \$2.00 per day.

The company houses are mostly built to accommodate one family each; nearly all are detached and have little gardens front and rear. These dwellings are kept in excellent repair and are painted in light, cheerful colors. Any lack of neatness outside or inside is due to carelessness on the part of the occupants.

Some workmen are owners of more or less pretentious homes of their own, which they have acquired by frugality and abstinence from drink. Sobriety and attention to duty secures promotion here, and those who practise these virtues are sure of advancement; others who pursue a contrary course, end where they began, as common laborers. There seems to be more thrift among these workmen and a greater desire for comfortable homes than is shown by men of the same races elsewhere. A very considerable number of them have been in the employ of the zinc company for years.

The workmen are paid semi-monthly in cash, and on pay day or the day after they are expected to settle accounts at the store.

The company store is a positive necessity in Franklin Furnace, there being no other capable of handling the stock of goods required without going to Newton, which is fourteen miles distant.

A complete stock of the best merchandise is carried, comprising groceries, furniture, carpets, crockery, clothing, shoes, hardware, coal, and many other things. The store is not only for the convenience of the company employes, but is popular among other residents of the town and the surrounding country and largely patronized by them. As an inducement to attract all classes of trade, prices are made as low as possible, and the result is that practically all residents of Franklin Furnace and those living some distance outside of its limits prefer trading there to going to Newton.

There are two other comparatively small stores in the town, one owned by the Franklin Iron Company and the other by a private firm. The workmen are free to purchase at these establishments if they please, but a very large majority buy at the zinc company's store because they prefer doing so. Some objections were heard to the rule which requires the settlement of store bills the day following the payment of wages; but this seems a good measure, for it undoubtedly protects the store against having its

capital impaired by unpaid bills, and the workman himself against the generally ruinous practice of spending his money before it comes into his possession, or even perhaps before it has been earned.

The company seems to take a real interest in the welfare of its employes, and appears willing to assist them in every reasonable way. If a workman wishes to purchase an article of necessity, the cost of which he cannot conveniently meet on the next pay day, it will be carried over to the succeeding one at his request.

When a death occurs in a workman's family, money to meet expenses is loaned by the company if required, which is repaid in semi-monthly or monthly installments. Credit on the same plan is given for clothing, furniture, and other goods which requires a large outlay of money to purchase. These are all sold on easy terms of payment and at very reasonable prices. From the books of the company store it was shown that a suit of clothes, which was sold for \$15.00, had cost at the manufacturer's \$12.00, and that the goods were paid for by the purchaser at the rate of \$2.50 semi-monthly.

Furniture to the value of \$97.00 had been sold to a workman about to be married, on which he paid \$5.00 monthly. Over one hundred sales made during the past year were recorded and the books with bills of sale and purchase were freely shown to verify the statement that goods were sold on easy terms of payment and at figures that yielded only a reasonable margin of profit. The personal account of the General Superintendent was shown to prove that the prices charged to him were the same as are paid by the humblest workman in the company's employ.

It is the desire of the company to deal fairly with its workmen, as is shown in that which has been already said regarding store management, and doubtless these sentiments of kindly interest are understood and appreciated by a large majority of the miners. There are some, however—the number is small—who make trouble at every possible opportunity, and who appear to believe that even in measures taken for their welfare there lurks a purpose on the part of the company to take advantage of them in some way, or to do something hostile to their interests.

As a general thing it may be depended on that the workmen who spend the largest portion of their earnings at the saloons, and provide their families with only the barest necessities, and these in pitifully stinted measure, are all to be found in this fault-finding class. Such men get what credit they can elsewhere and when the limit is reached quit in debt to everyone who trusted them and go away.

A very large proportion of the non-English speaking foreigners at this place and throughout Sussex county generally, have left their families at home in the land of their birth. These men are content to live in the meanest possible manner, partly because of being indifferent to their surroundings in such matters, but it is believed, mostly from a commendable desire to send as much as possible of their monthly earnings to their waiting families at home. Many of these men return permanently to their old homes when the money which they have sent from here has grown to an amount large enough to guarantee themselves and families the means of living thereafter on what they regard as a satisfactory plane of comfort. It is said on good authority that not less than \$40,000 is sent annually from Franklin Furnace to foreign countries in this way.

The loyalty of these men to their families and the altruistic readiness to suffer privations of any kind themselves in order to provide for them is worthy of the highest praise; but it is a matter of regret that these otherwise laudable characteristics are not tempered by a desire to conform a little more nearly than is their habit to the standards of living of the American workman. To many of them no environment seems to be too squalid or mean for living under, if only a little can be added thereby to their savings.

A case in point which illustrates this was observed while making the investigation that forms the subject of this paper. A barn forty by twenty feet was roughly altered into two small one and a half story houses of four rooms each, one family occupying each house. Both families take workmen as boarders and between them had as many as brought the total number of persons sheltered in these two dwellings up to thirty, including, of course, the

members of both families who kept the houses. It may be only fair to the company to add that this building is not its property.

The experiment of interesting the workmen in a reading room has been tried, but the results attained were not at all satisfactory; comparatively few have availed themselves of the facilities which it offered and efforts to maintain it have been practically abandoned. The establishment of a club house for working men in which amusements of a kind yet to be determined on, is now in contemplation; the project originated with a few private persons of benevolent inclinations who have collected from sympathetic sources, the sum of \$3,000 toward carrying out their plans. The mining company is interested and is said to have offered to duplicate any sum that may be raised by others toward establishing the club house.

An excellent public school with competent teachers is open to all children of proper age. The school is well attended, as is shown by the absence of children from the streets during the hours of instruction.

SAYREVILLE.

The Sayre & Fisher Company is the name of the corporation that owns and operates an extensive plant at Sayreville for the manufacture of all grades of brick. The firm employs twelve hundred (1,200) men and pays them wages ranging from \$1.10 to \$2.00 per day. These figures apply to ordinary laborers who, however, form the great majority of the working force; foremen and skilled operatives are paid much higher rates. The works are in operation during about eight months of the year, and closed like all brick manufactories during the months when there is a liability to frost. While at work, the plant is usually run to its uttermost capacity, and many employes earn by overtime, in addition to their regular pay, the equivalent of ten months' wages during the season.

The working force is largely composed of Germans, Poles and Hungarians; probably ninety per cent. of the total number belong to either of these nationalities. Many of these men have been in the company's employ for years, and not a few among them, the

Germans particularly, are owners of their own homes. The company has only a limited number of dwellings which are of course always occupied; but the great body of the workmen who have families rent houses from private parties and pay rents ranging from \$5.00 to \$9.00 a month, according to size, condition and location of the houses. The majority of these dwellings are kept in good repair and are not wanting in the ordinary conveniences of workingmen's homes.

Sayreville and South River, which are near together, have several stores that are dependant, like all other business enterprises in both towns, on the brick industry. The Sayre & Fisher Company are owners of a large store in which a complete stock of groceries, meats, dry goods, shoes, hardware, furniture and carpets, is carried. The store building is 75x200 feet and two stories high. Prices are reasonable, and an extensive trade is carried on with people who are not in the company's employ. Every article is marked in plain figures, and bulletins daily displayed announce bargains in certain lines of goods.

About five hundred of the company's employes, who have families, trade at the store, and four hundred, without families, live in the company's boarding house. In this way, seventy-five per cent. of its workmen have extra close financial relations to the company.

Workmen are not compelled to either deal in the store or live in the company's boarding house; they are at liberty to draw their wages in cash and spend the same where and in what manner they choose—at the company store if cash is paid over the counter, or in any other establishment in town. But every workman, without exception, who has a credit account at the store has the amount which he owes deducted from his wages on pay day. This rule has been in force for a long time and has never been departed from.

The workman is furnished, the company claims, with everything he needs, and that at a price as low, if not lower, than goods of the same quality can be bought for elsewhere, but the company must make sure of receiving promptly the money for which they are sold.

Each workman trading at the store has a pass book and is known by a number as well as his name. The pages of this book on the margin of each leaf has the customer's number printed six times. When a purchase is made by the holder of the book, a carbon pad placed between the two leaves produces a facsimile on the next page. The slip from which the facsimile is made is then torn from the book and posted on a long slip with sales to all credit customers on that day. This slip, at the close of the day's business at the store, is sent to the company's main office. This is repeated each day until pay day, when the total is deducted from the man's wages and the difference given him in cash.

Each night the company book-keepers know just how much every man in its employ is indebted at the store, and a check is put on purchases if these seem likely to exceed his daily earnings. Even if the company desired to compel all its employes to trade at the store, it could not do so because of the independence of many of the workmen, particularly the Germans; this class of workmen insist on having their wages in cash, and while trading at the store invariably pay for their supplies as they are purchased.

The company officials appear to be perfectly sincere in claiming that their book system of trade is really the best for the class of men—Polaks and Hungarians—who deal in that way. The men save more money, are not so apt to frequent the saloons, and their families are better provided for than would be the case if the rules of the company did not make the store bill a first lien on wages.

Other store keepers in the town generally admit that the company store prices are fair, the assortment of goods large, and the quality first-class. Their only complaint is against the credit system, which the company can carry on safely and without risk of loss, because of controlling the workmen's wages; while they, to compete for any part of the trade, must take the chances of the customers being dilatory in paying their bills or even refusing to pay them at all.

The test used in other places referred to in this article to determine the comparative reasonableness of company store prices was applied at Sayreville, and the result showed that here, as in most other places where they exist, there is practically no difference

now between the prices charged at the company store and those of its nearest competitor. A bill of goods numbering sixty-one articles was priced at the company store and also at a large privately owned establishment of equally convenient access to population of the town. The manager of one and the proprietor of the other store furnished the figures and neither of them were allowed to see the entries of the other. The selling prices of the sixty-one articles footed up \$25.95 at the company store and \$26.29 at the private store. The difference of thirty-four cents is in favor of the company store, but the excess is found in a few articles of personal use, and does not extend to groceries or other food supplies, which were found to be almost identical in prices at both stores.

On the grounds of the main plant, the company has three buildings which are used exclusively for boarding and housing the single men in its employ. The conveniences furnished are an almost immeasurable improvement on the quarters and conveniences customarily provided in most other places for brick-yard laborers. The dining room is in a one-story structure with a high-pitched slate roof and measures fifty by one hundred and twenty-five feet; there are windows and doors on three sides, which secures a perfect ventilation of the apartment. The floor is paved with brick and is washed thoroughly twice a day. On one side is the kitchen, which is provided with the most thoroughly modern apparatus for cooking by steam; adjoining the kitchen are two store rooms where provisions are kept and a large ice chamber for the preservation of meats. In a connecting building is the steam laundry and rooms for servants, all of whom are Polish women. Three meals a day are served, at all of which there is meat in abundance and a plentiful supply of vegetables in season, besides other eatables.

The tables are covered with white oil cloth and all the dishes are of plain white material and very heavy. The table and its furniture is given a thorough cleansing after each meal.

The dormitory, about two hundred feet from the dining room, is a two-story brick structure, which contains fifty rooms arranged to contain eight beds to a room. Each man is given a key to the apartment in which his bed is placed. On the first floor is a room arranged with all necessary conveniences for washing.

The walls are lined with enameled brick and the floor is covered with tile. A degree of cleanliness and personal comfort hitherto unknown in the lives of men employed in this species of labor is provided in these improvements.

The halls and rooms are lighted by electricity; there is no heating apparatus, as the place is in use only from April to November. The rooms are about fifteen feet square and are ventilated thoroughly by from four to five windows. Some were found on being visited to be in a very orderly condition, but in others a more or less untidy appearance was presented, although none of them could be truthfully called unclean.

Hallways and stairs are swept daily, and when the season's work closes a thorough cleansing of the entire interior of the building is made.

The married employes, as a class, will compare favorably with the average workman in the manner of decent and orderly living. Many of them, as before said, own their homes, lead sober lives, raise their families respectably, and meet all incidental obligations out of the wages earned in these works; substantially the same may be said of a small number of the single workmen, or those who have no individual home near the works, but board at the company's house. Some among them work steadily, abstain from drink during the busy season and earn enough by regular time and overtime to live during the winter months without resorting to any other occupation, and return to work in the spring still having a balance to their credit in the bank. But the greater number spend their money in the saloons of the neighborhood as fast as it comes to them, and when work is suspended for the winter months, are entirely without means to carry them over, and so must go elsewhere in search of employment without loss of time.

Those who are boarded by the company pay twelve dollars (12.00) a month for their meals and room, and this amount, like the bills of the customers who trade at the store on credit, is invariably deducted from their wages on pay day.

The company's system of store trading has existed a long time, and little or nothing in the way of objections to it is heard from the workmen. Steady work and overtime during the season with

at least as good wages as are paid elsewhere in the same line of business, together with access to all household necessities at the store for fair and reasonable prices, contributes powerfully toward making them contented.

The same reasons for being satisfied applies also to the men in the company's boarding house, where they have an abundance of well cooked food, decently served, good beds in clean and healthful rooms and all at a cost below that at which food and accommodations of a much inferior character can be secured in outside boarding houses.

The Iron Ore Mining and Smelting Industries in New Jersey, 1895-1903.

IRON ORE MINING.

The mining of iron ore and its conversion into mill and foundry pig iron has been one of the important industries of New Jersey from a very early period of her history. Ever since the State was first settled the iron mines in Morris, Warren and Sussex Counties have been worked more or less, the iron produced being used to supply the necessities of the colonists. The production was small in these early days and came mainly from Hibernia.

When the Revolutionary War came on, the mines at this place were worked to supply cannon and cannon balls to the patriot army. Some of these balls, and among them several measuring eight inches in diameter, which were made in 1775, are to be seen at Washington's headquarters at Morristown and also at the offices of the present proprietors of the mine property at Wharton and Hibernia.

The statistics of iron ore production go back to 1790, for which year the quantity mined is recorded as 10,000 tons. A small, quaint brick furnace used for smelting the ore still stands in a little valley of the Pequannock near the Clinton reservoir.

The increase in the production of ore was intermittent and small; in 1855 only 100,000 tons were mined, but during the following eighteen years the industry made much more rapid progress, the quantity reported for 1873 being 665,000 tons.

The financial panic of that year brought ore prices down very low in consequence of the greatly decreased demand. In 1875, the product had fallen to 390,000 tons, and in the Centennial Year (1876) it was only 285,000 tons. The mines were closed

and a large part of the population of the mining districts had to seek a means of making a living elsewhere.

With the gradual revival of business and industry, iron mining increased in New Jersey so far that in 1879 the product was 428,000 tons; in 1880 the quantity reported was 745,000 tons, and two years later (1882) it was 933,000 tons. That was the record year for New Jersey iron ore mining. Each of the years that followed, up to 1896, when only 133,604 tons were mined, showed a steady decrease; the figures last given being the lowest in thirty years.

From 1895 to 1899 a condition of general depression existed all through the iron mining districts, the highest product of any one of these years being that of 1899, when 192,575 tons of ore were mined. During the four years from 1895 to 1898, there were only two mines in steady operation. In 1899 there were five turning out ore; in 1900 there were six; in 1901 seven, and during 1902 and 1903 there were eight mines at work, and for the latter year the product was 415,816 tons.

Previous to 1883 more pig iron was produced in the Lehigh Valley furnaces, including those in the adjacent part of New Jersey, than was turned out by any other section of the country.

Two varieties of ores were used—the rich magnetites of Morris and Warren Counties in New Jersey, and the lean brown hematites from Northampton and Lehigh Counties in Pennsylvania. When the product generally classed as mill iron was desired, New Jersey magnetites were used; when foundry ores were to be made, the larger part of the ore used for its production was the lean but more easily reducible hematites. Some of the furnaces made a specialty of foundry and some of mill irons, and their equipment varied according to the class of product.

Foundry irons were, and of course still are, used for remelting into stoves, machinery, hard castings, and other purposes which involves only a change in the form and not in the nature of the iron. The mill irons were puddled so as to remove the carbon, silicon, phosphorous, and other undesirable elements, after which they were fit to be rolled, drawn and otherwise worked into the various forms produced from wrought iron.

The largest part of the New Jersey ores were taken to the Lehigh furnaces, and while costing more per ton, they were, owing to superior richness in iron, really cheaper than the local hematites.

Several causes have brought about a complete change in the business, the principal one being the discovery of the Bessemer process of making steel, with its many modifications and improvements. The production of steel was so cheapened by the Bessemer formula that the manufacture of wrought iron products has practically disappeared.

Pig iron, from which to make Bessemer steel, requires an ore almost absolutely free from phosphorous and sulphur. Experts hold that a 50 per cent. ore would have to contain less than one-twentieth of 1 per cent. of phosphorous. Unfortunately, there are no such ores in New Jersey in sufficient quantities to pay for working, or rich enough to make them marketable.

In the Lake Superior region the deposits of rich Bessemer ores are practically inexhaustible. There are also immense quantities of rich ores which contain a little too much phosphorous to make steel, but are excellent foundry ores and used extensively in Western Pennsylvania, Ohio and States further west. In the South, also, large deposits of cheap hematite ores are utilized to make very cheap foundry iron of fair quality. None of the Southern ores are Bessemer, and almost all of them are much inferior to the Lake Superior products, but they have the advantage of being close to limitless supplies of cheap coal and limestone.

The bringing into the markets of these Northern and Southern deposits of fine ores and the substitution of steel for wrought iron diminished the business of the New Jersey and Lehigh Valley furnaces and mines to at least one-half of what it had once been. The furnaces making mill irons had to stop or go into competition with those engaged in the already overcrowded line of foundry iron. Even here the local furnaces were at a disadvantage, as the rich foundry ores of the Lake Superior region came to them much higher in cost, by reason of the cost of transportation, than Western furnaces had to pay.

Iron ores are, at the best, commodities so low in value that when carried long distances they cannot compete with a local ore in price. It is always a question of price, and New Jersey ores are and will continue to be cheaper, measured by their product of iron, than any ores that can be brought from elsewhere into their locality to compete with them.

The increased activity shown in New Jersey mines and growth in the quantity of ore produced from 1899 to 1903 proves conclusively the correctness of this proposition. All the New Jersey ores are "hard," and the shafts and slopes have to be carried hundreds of feet below the surface of the ground to get them, while in the Lake Superior region and in northern Minnesota are many beds of soft ores lying near the surface, where the commodity is scooped up in great steam-shovels and loaded on cars run on tracks laid on the ore-beds.

The cost of mining is probably not greater than five cents a ton, and yet these ores, when brought to the Eastern furnaces, are found, by reason of the cost of transportation, to be more expensive per unit of iron than those of New Jersey.

The investigation of the mining industry made by the bureau, the results of which appear in the tables following further on, shows that from 1895 to 1898 (both years inclusive) only two mines were in operation with a full working force throughout the period between those years. The prices at which the ore was sold were probably the lowest known in the history of the industry; in 1895 the highest price per ton was \$2.00; the lowest \$1.50, and the average for all only \$1.79.

In 1896 prices advanced to \$2.50 per ton at the highest, and \$2.00 at the lowest, the average for the year being \$2.10. The quantity of ore mined during these two years was 170,375 tons in 1895, and 133,604 in 1896. In 1897 the production increased to 147,514.03 tons, but prices fell off to \$2.00 and \$1.50 per ton highest and lowest; the average prices brought by the year's product was \$1.84.

In 1899 five mines were in operation, but not all of them were worked during the entire year; the production grew to 192,575 tons, and the prevailing activity in the iron trade caused a jump in prices up to \$3.80 per ton for some of the choicest ores, but the

largest quantity of the year's product was marketed at \$2.00; the average for the year was \$2.26.

The four following years showed a steady and large increase in the quantity of ores mined.

In 1900 six mines were worked, and together produced 241,422.12 tons of ore; in 1901 the number of mines in operation was seven, and the production had risen to 306,280.27 tons. Eight mines during each of the years 1902 and 1903 produced respectively for each year 381,092.16 and 415,816.13 tons of ore.

The highest price obtained during the years from 1900 to 1903 was \$4.00 per ton, which was paid in 1902, and the lowest for these years was uniformly \$2.00 per ton. The highest average price from 1895 to 1903, \$2.76 per ton, is reported for the latter year.

Taking the entire nine years covered by the investigation together, the report shows the total aggregate quantity of ore mined in New Jersey to have been 2,165,563.88 tons, which was disposed of for \$5,140,673.55. The highest price per ton which the ore brought was \$4.00, the lowest \$1.50, and the average \$2.37.

The figures in detail relating to the foregoing phases of the business will be found on Table No. 1.

Table No. 2, continuing the subject, shows for each year covered by the investigation the number of persons employed, the highest, lowest and average yearly earnings per employe, the aggregate amount paid in wages, the aggregate amount paid on account of all other operating expenses, the surplus after wages and operating expenses were paid, and also a calculation showing the distribution of the industry product between the wages of labor, other operating expenses, and profits to the mine owners.

The lowest number of persons employed is shown in 1895, the number being only 482. From that year up to 1900, when the force at work was 936, the number had been slowly but steadily increasing. The largest number employed during the nine years was 1,519 in 1902, and the last year covered by the investigation (1903 showed a falling off to 1,423. In the matter of yearly earnings of workmen the year 1903 was the most productive; at

one mine these averaged \$605.66; at others smaller sums were earned, owing to lost time through making repairs and from other causes, but the lowest recorded at any of the mines was \$375.48, and the general average for all miners that year was \$523.81, the highest shown by any of the nine years covered by the investigation.

Taking the nine years from 1895 to 1903 into consideration, the investigation shows that a yearly average of 868 men were employed, and that their annual average earnings were \$411.22.

The sum paid out in wages at all the mines amounted in the aggregate to \$3,212,486.92. Operating expenses outside of wages are reported at \$1,602,927.47, and the surplus left from the total value of the ore mined, after these two principal items of expenditure were provided for, was only \$313,661.63. Out of this latter sum must be paid all the other minor expenses incidental to running the business not comprehended under the heading "other operating expenses," and from it had to come also the interest on capital invested with profits, if anything be left over, after all other necessary occasions for outlay have been provided for.

The division of the industry product between wages, operating expenses and the profit and minor expense fund is given separately for each of the series of nine years, and also the averages of these items for all together. The figures show the aggregate averages for the entire nine years; in the matter of the distribution of the industry product, to be as follows: 62.5 per cent. was paid to labor in the form of wages; 31.2 per cent. was expended on operating expenses outside of wages, and 6.3 per cent. remained in the hands of the mine owners to pay all other expenses, meet the interest on capital and pay profits on the business.

The capital invested in each of the eight mines reporting is given for the year 1903. These items foot up a total aggregate amount of \$1,236,722.00. The surplus of \$313,661.63, it must be remembered, represents the accumulations of nine years, or, more correctly speaking, of eight years, for the operations of 1902 showed a deficit, as explained in a foot-note to Table No. 2, of \$11,597.53, showing that the ores mined that year were marketed

for just that amount less than the outlay for wages and operating expenses combined.

Assuming that the capital invested was about the same for each of the nine years, the average surplus, if devoted to interest on capital alone, would yield a return of only 2.8 per cent. per annum.

New Jersey ores are all magnetites; neither the brown or red hematites are found anywhere in the State. In 1889 New Jersey mines produced 16.58 per cent. of the total product of magnetic ores in the United States, but only 2.86 per cent. of the total magnetites and hematites taken together. As a producer of magnetic ores, New Jersey was surpassed in 1889 by New York and Pennsylvania only.

The earnings of iron miners in 1880 were \$308.94; in 1889 they had increased to \$409.95; in 1900 they averaged \$435.77, and in 1903 the earnings as reported were \$523.81, a higher point than wages had reached any time during the past thirty-five years.

PIG IRON.

The statistics relating to the blast furnaces engaged in the reduction of iron ores in New Jersey are given on the tables that follow. The figures are for the same years as were covered by the ore mining investigation, viz., from 1895 to 1903.

The number of furnaces that were in blast was only two up to 1899; in that year there were three; in 1900, four, but during 1901 and 1902 one of these remained out of blast, and only three were in operation. In 1903 there were again four furnaces working, apparently to their full capacity, as the product of iron for that year very largely exceeded that of any previous twelve months in the period included in the investigation.

The figures relating to smelting iron ores are, curiously, not given in the census of either 1890 or 1900, and no comparison can, therefore, be made with other States for the purpose of determining the rank of New Jersey in the production of pig iron. It is, however, certain that for reasons set forth in the fore

part of this review the product of New Jersey furnaces are far below that of the Western, Northwestern and some of the Southern States.

In 1895 the quantity of basic and foundry iron produced by the two furnaces then in blast was only 33,758 tons. The product was increased each year up to 1900, when it reached 116,244 tons. For each of the three years following the gain was very great, as is shown by the following figures, which gives the quantities at 127,283 tons for 1901, 155,378 tons for 1902, and 170,082 tons for 1903, the grand total for the nine years being 894,758 tons.

Table No. 1 gives, further, the highest, lowest and average market value per ton of the pig iron, and also the total value of the entire product for each of the nine years ending with 1903. Prices were very low from 1895 to and including the year 1898, the highest figures brought by any part of the product during that time being only \$11.15 a ton; only a small quantity was sold at that price, fully 75 per cent. of the entire output having gone for from \$9.70 to \$10.90 per ton. In 1899 the highest prices had advanced to \$19.65, and in 1900 the highest prices obtained during the period covered by the investigation were reached. That year a large part of the product was marketed for \$21.50 a ton.

As will be seen by the table, the average prices for which pig iron was sold fluctuated very greatly. The lowest point at which sales were made was \$9.58, in 1898, and the highest was \$17.60, in 1900. The average price obtained for all the pig iron produced and marketed during the nine years was \$14.28 per ton, and the total aggregate value of the entire product for the same period of years was \$12,778,953.21.

Table No. 2 gives for each of the nine years separately the number of persons employed, the yearly earnings, highest, lowest and average, the total amounts paid in wages, the amount paid for all other operating expenses, the surplus after these two last-named items are paid, and last the distribution of the industry product between wages, operating expenses and the payment of minor charges and profit.

The smallest number of hands employed occurred in 1895 and the greatest in 1903. In the earlier year the number of em-

ployes is given at 260, but each year thereafter shows a large increase in the working force until, in 1902, 1,204 workmen are reported as being employed in the industry. The average working force for the nine years covered by the investigation was 501 men.

The yearly earnings per employe are lowest for 1895 and the highest for 1902. The lowest average earnings are \$190.33 and the highest \$445.33; the general aggregate average was \$375.39, and the total amount paid in wages during the period covered by the inquiry was \$1,692,236.90.

Under the heading "All other operating expenses" are grouped practically everything necessitating an outlay of money in operating the furnaces, excepting wages. The largest item is, of course, the cost of the ores, which, on the basis of 50 per cent. of iron, meant a consumption of two tons of ore, costing at the average price \$4.94 for each ton of pig iron produced.

Operating expenses, including the cost of ores as stated above, amounted to \$10,003,182.56 and the surplus to \$1,261,676.24. The division of the industry product shows the proportion that has gone to labor to have ranged from 11.9 per cent., in 1900, to 18.1, in 1896; the average for the entire nine years is 13.2 per cent. The percentage that went to operating expenses for each of the nine years shows the changes that had taken place from year to year in the price of ores. As the cost of ores went up the operating expenses of the furnaces for the same year were correspondingly increased. The amount was lowest in 1895, when ores sold at an average of \$1.79 and highest in 1903, when they brought \$2.76 a ton. The aggregate average for the nine years was 78.2 per cent. The two furnaces in blast during the year 1896 were, as shown by the tables, operated at a loss of \$178,133.49, due, no doubt, very largely to extensive and costly work on the plants for the purpose of modernizing them through-out.

The aggregate amount of capital invested in 1903 was found to be \$1,901,987 and the aggregate surplus left over from the value of the product, after paying wages and operating expenses, was \$1,083,182.75. Divided over the entire nine years, this sum would yield annually an amount equal to 8.6 per cent. of the

invested capital, assuming that it has been the same for the entire period. Out of this surplus, as before explained, a large number of charges, such as rents, royalties, commissions, taxes, repairs, etc., has to be met before any part of it can be set aside for interest on capital and dividends to stockholders.

IRON ORE SMELTING INDUSTRY IN NEW JERSEY.

1895-1903.

Number of Furnaces, Quantity and Value of Pig Iron Produced.

TABLE NO. 1.

YEARS.	Number of Furnaces Reporting.	Quantity of Basic and Foundry Pig Iron Produced—Tons.	Market Value of Product Per Ton.			Total Value of Product.
			Highest.	Lowest.	Average.	
1903,	4	170,082	\$17 88	\$14 35	\$17 32	\$2,945,253 66
1902,	3	155,378	18 28	13 65	16 74	2,600,511 70
1901,	3	127,283	15 27	12 86	13 77	1,753,480 91
1900,	4	116,244	21 50	13 78	17 60	2,045,082 44
1899,	4	88,083	19 65	10 00	11 71	1,031,390 11
1898,	3	75,743	9 64	9 50	9 58	724,531 74
1897,	3	72,679	10 12	9 70	9 95	723,155 48
1896,	3	55,593	11 15	10 41	10 71	590,007 47
1895,	3	33,673	10 90	10 59	10 85	365,539 70
Totals,		894,758	\$21 50	\$9 50	\$14 28	\$12,778,953 21

IRON ORE SMELTING INDUSTRY IN NEW JERSEY.

1895-1903.

Number of Employes, Wages and Other Operating Expenses.

TABLE NO. 2.

YEARS.	Total Number of Persons Employed.	Yearly Earnings per Employee.			Total Amount Paid in Wages.	All Other Operating Expenses.	Surplus after Paying All Operating Expenses and Wages.	Percentage of Profit That Has Gone to		
		Highest.	Lowest.	Average.				Wages.	Other Operating Expenses.	Minor Expenses and Profit.
1903, ...	1204	\$452 37	*\$94 74	\$330 00	\$397,320 69	\$2,447,179 27	\$100,753 70	13.5	84.1	2.4
1902, ...	716	493 05	233 36	445 33	311,856 58	1,989,932 11	295,723 01	12.0	76.5	11.5
1901, ...	673	450 82	423 57	429 10	288,789 87	1,289,522 58	175,168 46	16.0	73.5	10.5
1900, ...	455	548 82	438 82	410 63	226,835 39	1,394,051 27	423,295 78	11.9	68.2	19.9
1899, ...	372	444 44	† 42 49	336 90	125,329 11	815,513 42	90,547 58	12.2	79.0	8.8
1898, ...	254	420 12	314 06	364 60	92,619 00	603,727 78	28,184 96	12.8	83.3	3.9
1897, ...	272	400 00	297 06	342 48	93,154 00	587,402 00	42,599 48	12.8	81.2	6.0
1896, ...	302	471 86	281 18	353 79	106,845 26	661,295 70	\$ 178,133 49	18.1	81.9	†
1895, ...	260	268 64	123 21	190 33	49,487 00	213,658 43	102,403 27	13.5	58.4	28.1
Totals,		\$548 52	\$123 21	\$375 39	\$1,602,236 90	\$10,003,182 56	\$1,083,542 75	13.2	78.2	8.6

* This furnace, employing 250 men, was in blast only 10 weeks during the year.

† This furnace, employing 80 men, was in blast only 5 weeks during the year.

‡ Deficit.

THE IRON MINING INDUSTRY IN NEW JERSEY.

1895-1903.

Character, Quantity and Value of Ore Produced.

TABLE NO. 1.

YEARS.	Number of Mines Reporting.	Character of Ore Produced.	Quantity of Ore Produced—Tons.	Market Value per Ton.			Total Aggregate Average Value of All Ore Produced.
				Highest.	Lowest.	Average.	
1903,	8	Magnetic.	* 415,816.13	\$3 15	\$2 00	\$2 76	\$1,147,925 45
1902,	8	Magnetic.	† 381,092.16	4 00	2 00	2 59	986,227 99
1901,	8	Magnetic.	306,280.27	3 25	2 00	2 39	702,881 53
1900,	6	Magnetic.	241,422.12	3 53	2 00	2 66	640,818 52
1899,	6	Magnetic.	192,575.00	3 80	2 00	2 26	434,655 85
1898,	5	Magnetic.	176,885.17	2 25	2 00	2 10	371,254 59
1897,	5	Magnetic.	147,514.03	2 00	1 50	1 84	271,028 06
1896,	5	Magnetic.	133,604.00	2 50	2 00	2 10	281,133 26
1895,	5	Magnetic.	170,375.00	2 00	1 50	1 79	304,748 30
Totals, .....	.....	Magnetic.	2,165,563.88	\$4 00	\$1 50	\$2 37	\$5,140,673 55

* 21,733 tons of manganiferous ore included.

† 8,326 tons of manganiferous ore included.

THE IRON MINING INDUSTRY IN NEW JERSEY.

1895-1903.

Persons Employed, Wages and Operating Expenses.

TABLE NO. 2.

YEARS.	Total Number of Persons Employed.	Yearly Earnings per Employe.			Total Amount Paid in Wages.	All Other Operating Expenses.	Surplus after Paying All Operating Expenses and Wages.	Percentage of Profit That Has Gone to		
		Highest at Any Mine.	Lowest at Any Mine.	Average for All Mines.				Wages.	Other Operating Expenses.	Minor Expenses and Profit.
1903,	1423	\$605 66	\$375 48	\$523 81	\$745,381 07	\$378,634 83	\$23,906 55	64.9	32.9	2.2
1902,	1519	491 77	220 12	423 24	642,906 91	354,918 61	11,597 53	65.1	34.9	1.2
1901,	1110	430 71	105 96	391 86	434,061 40	175,188 17	92,731 96	61.9	24.9	13.2
1900,	936	492 21	350 90	435 77	407,883 21	211,558 52	21,376 79	63.6	33.0	3.4
1899,	781	422 67	132 52	352 01	274,923 11	138,496 62	21,236 12	63.2	31.9	4.9
1898,	574	381 42	297 09	337 32	193,621 51	102,819 99	74,813 03	52.2	27.5	20.3
1897,	497	373 25	332 19	351 09	174,490 13	79,265 90	17,272 03	64.4	29.2	6.4
1896,	490	380 48	246 23	324 04	158,780 88	77,476 74	44,875 64	56.5	27.5	16.0
1895,	482	386 91	360 37	372 49	179,538 64	84,568 09	40,641 57	58.9	27.7	13.4
Totals, .....	.....	\$605 66	\$105 90	\$411 22	\$3,212,486 92	\$1,602,927 47	\$325,259 16	62.5	31.2	6.3

* Deficit.

Labor Legislation.

. CHAPTER 64.

An Act regulating the age, employment, safety, health and work hours of persons, employes and operatives in factories, workshops, mills and all places where the manufacture of goods of any kind is carried on, and to establish a department for the enforcement thereof.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

EMPLOYMENT OF CHILDREN.

1. No child under the age of fourteen years shall be employed, allowed or permitted to work in any factory, workshop, mill or place where the manufacture of goods of any kind is carried on; any corporation, firm, individual, parent, parents or custodian of any child who shall violate any of the provisions of this section, shall be liable to a penalty of fifty dollars for each offense.

2. The word custodian as used in this act shall include any person, organization or society having the legal custody of a child.

3. If at the time of the employment of a child, the proofs of age specified in subdivisions I. and II. of this section, are filed with the corporation, firm or person employing the child, such proofs shall be conclusive evidence of the age of child in a suit against such employer for a violation of section one; *provided, however,* that correct copies of all papers, certificates, passports and affidavits relating to such employment shall be mailed, post-age prepaid, to the department having charge of the enforcement of this act at Trenton, New Jersey, within twenty-four

hours after the same are filed, together with statement of the legal name of the person, firm or corporation employing such child.

I. Native Born Children.

The parent, parents or custodian shall make and swear to an affidavit before some officer authorized by the law of this state to take affidavits, setting forth the following facts: The name of the child in full; his or her residence, giving street and number; place where and year, month and day when born; name of father; maiden name of mother; church attended, if any; school last attended and time when, if any, and where the church and school are situated; if child was baptized, name and location of church or parish in which such baptism took place; there must accompany such affidavit a transcript of the record of the child's birth, duly attested by an officer having by law the authority to keep records of birth in the state, county, town or city in which the child was born; if no such birth record can be obtained and the child was baptized, then a certified copy of the baptismal record of the church or parish in which such baptism took place, duly certified as a true copy, under the hand of the person having the custody of such church or parish records, shall accompany the affidavit, and the affidavit shall set forth the age of child at time of baptism.

II. Foreign Born Children.

An affidavit to be made by the same persons and containing the same statement of facts as in the case of native born children, with an additional statement that the child named in the affidavit is the same mentioned and described in the passport under which the child was admitted to this country; a true copy of said passport must in all cases be attached to the affidavit.

III. Other Children.

The commissioner shall have power to issue permits of employment to children upon the production of evidence of the child's age satisfactory to him; *provided*, that he shall first be satisfied that the child cannot obtain a transcript of birth record, a baptismal certificate or passport, as provided in either subdivision I. or II.

4. In any suit brought to recover a penalty for violation of section one of this act, a copy of the baptismal record, certified to be a true copy under the hand of the person having the custody of such records for the church or parish in which such child was baptized, shall be prima facie evidence of the child's age (provided, that in case the age of the child is not set forth in the baptismal record, that there shall be other proof showing the age of the child at the time he or she was baptized).

5. The commissioner, assistant or any inspector is hereby empowered to demand of any parent, parents or custodian, proof of the age of a child satisfactory to the commissioner, and such parent, parents or custodian shall, within five days after such demand is made, furnish to such officer proofs of such child's age; and in event of the failure to procure and furnish such proof of age, such child shall be discharged by his or her employer upon notice in writing signed by the commissioner, and shall not be re-employed until such proof of age shall have been furnished to the commissioner; any person violating the provisions of this section shall be liable to a penalty of fifty dollars for each offense.

6. Any one who shall swear falsely to any affidavit or present any certificate or passport which he or she knows to be false, and any person or persons who shall aid, assist or advise the making of a false affidavit or the obtaining of a false certificate or passport, shall be liable to a penalty of fifty dollars for each offense.

7. The commissioner, assistant or the inspectors shall have power to demand a certificate of physical fitness from some regular practising physician in the case of minors under the age of sixteen years, who, in the judgment of such officer, shall be physically unable to do the work in which such minor is employed, and shall have the power to prohibit the employment of such minor until he or she shall produce a certificate of physical fitness; and any manufacturer or employer who shall retain in his employ a minor after such certificate shall be demanded, shall be liable to a penalty of twenty-five dollars.

8. A corporation, firm or person, owning or operating a place coming under the provisions of this act and employing, allowing

or permitting minors under the age of sixteen years to work therein, shall keep or cause to be kept in the main office of such place, in the town or city where such place is located, a register in which shall be recorded the names, places of residence and time of employment of all such minors working under certificates, transcripts, passports or affidavits; such registers and certificates, transcripts and affidavits shall be produced for inspection upon demand of the commissioner, assistant or any of the inspectors; truant officers shall have the same right as inspectors to examine such registers and the certificates, transcripts, passports or affidavits, when authorized in writing to do so by the commissioner; any corporation, firm or person failing to keep such register or refusing to permit the persons herein authorized to inspect the same or the certificates, transcripts, passports or affidavits, shall be liable to a penalty of fifty dollars for each offense.

9. No minor under the age of sixteen years shall be employed, permitted or allowed to work in places coming under the provisions of this act, more than ten hours in a day or fifty-five hours in a week; any corporation, firm or person permitting or allowing any violation of the provisions of this section, shall be liable to a penalty of fifty dollars for each offense.

10. Affidavits of the age of children made and filed with the manufacturer before this act takes effect shall have the same force and effect as the proofs required under subdivisions I. and II. of section three of this act.

PROTECTION OF EMPLOYEES.

11. The openings of all hoistways, hatchways, elevators, and well-holes upon every floor of any place coming under the provisions of this act shall be protected by good and sufficient trap-doors or self-closing hatches and safety catches, or strong guard-rails at least three feet high, and shall be kept closed and protected at all times except when in actual use by the occupant of the building having the use and control of the same.

12. All the main doors, both inside and outside of places coming under the provisions of this act, shall open outwardly or

be sliding doors, and shall be kept unbolted and unlocked during the hours of employment.

13. The owner or person in charge of any of the places coming under the provisions of this act, where machinery is used, shall provide, in the discretion of the commissioner, belt shifters or other mechanical contrivances for the purpose of throwing on or off belts or pulleys; whenever practicable, all machinery shall be provided with loose pulleys, all vats, pans, saws, planers, cogs, gearing, belting, shafting, set-screws, drums and machinery of every description shall be properly guarded; no person shall remove or make ineffective any safeguard around or attached to such machinery, vats or pans while the same are in use, unless for the purpose of immediately making repairs thereto, and all such safeguards so removed shall be promptly replaced; if the machinery, or any part thereof, or any vat, pan or vessel containing molten metal or hot liquid is in a dangerous condition or is not properly guarded, the use thereof may be prohibited by the commissioner, and a notice to that effect shall be attached thereto; such notice shall not be removed until the machinery is made safe and the required safeguards are provided; and in the meantime such unsafe or dangerous machinery, vats, pans, or vessels containing molten metal or hot liquid shall not be used; when, in the opinion of the commissioner, it is necessary, the halls leading to work-rooms shall be provided with proper lighting facilities.

14. All corporations, firms or persons conducting a manufacturing business in any of the places coming under the provisions of this act, where emery wheels or emery belts of any description are used, either solid emery, leather, leather covered, felt, canvas, linen, paper, cotton, or wheels, or belts rolled or coated with emery or corundum, or cotton wheels used as buffs, shall provide the same with blowers or similar apparatus, which shall be placed over, beside or under wheels or belts in such a manner as to protect the person or persons using the same from the particles of the dust produced and caused thereby, and to carry away the dust arising from or thrown off by such wheels or belts while in operation directly to the outside of the building, or to some receptacle placed so as to receive and confine such dust;

provided, that grinding machines upon which water is used at the point of grinding contact and small emery wheels that are used temporarily for tool grinding in small shops employing not more than three persons at such work, shall be exempt from the provisions of this section if so ordered by the commissioner.

15. It shall be the duty of any person, firm or corporation conducting such manufacturing business, to provide or construct such appliances, apparatus, machinery or other things necessary to carry out the purpose of this act, as set forth above, as follows: Each and every such wheel shall be fitted with a sheet or cast-iron hood or hopper of such form and so applied to such wheel or wheels that the dust or refuse therefrom will fall from such wheels or will be thrown into such hood or hopper by centrifugal force and be carried off by a current of air into a suction pipe attached to some hood or hopper.

16. Each and every such wheel six inches or less in diameter shall be provided with a round suction pipe three inches in diameter; wheels six inches to twenty-four inches in diameter, with round suction pipe five inches in diameter; and all wheels larger in diameter than those stated above shall be provided each with a round suction pipe not less than six inches in diameter; the suction pipe from each wheel so specified must be full size to the main trunk suction pipe, and the main suction pipe to which smaller pipes are attached shall in its diameter and capacity be equal to the combined area of such smaller pipes attached to the same, and the discharged pipe from the exhaust fan connected with such suction pipe or pipes shall be as large or larger than the suction pipe.

17. It shall be the duty of any person, firm or corporation operating any such place to provide the necessary fans or blowers to be connected with such pipe or pipes, as set forth in this act; which shall be run at the rate of speed such as will produce a pressure of air in such suction or discharge pipes sufficient to raise a column of water not less than five inches in a U-shaped tube; all branch pipes must enter the main trunk pipe at an angle of forty-five degrees or less; the main suction or trunk pipe shall be below the emery or buffing wheels and as close to the same as possible, and shall be either upon or beneath the floor

on which the machines are placed to which such wheels are attached; all bends, turns or elbows in such pipes must be made with easy, smooth surfaces, having a radius in the throat of not less than two diameters of the pipe on which they are connected.

18. It shall be the duty of the commissioner to make orders in writing for the carrying into effect the provisions of sections fourteen, fifteen, sixteen and seventeen.

SIZE OF ROOMS.

19. Not less than two hundred and fifty cubic feet of air space shall be provided for each employe or operative at work in a room in a place within the meaning of this act between the hours of six o'clock in the morning and six o'clock in the evening, and not less than four hundred cubic feet of air space for each employe so employed between the hours of six o'clock in the evening and six o'clock in the morning; *provided*, in all cases where the amount of air space provided does not exceed the amount above fixed, that such room is lighted by electricity during all hours that artificial lights are necessary and persons are employed therein, unless a written permit shall be obtained from the commissioner.

VENTILATION.

20. The owner, agent or lessee of a place coming under the provisions of this act, or employer, shall provide in each work-room thereof proper and sufficient means of ventilation; in case of failure the commissioner shall order such ventilation to be provided; such owner, agent, lessee or employer shall provide such ventilation within twenty days after the service upon him of such order in writing, and in case of failure shall be liable to a fine of ten dollars for each day after the expiration of the time given by such order to make the change.

CLEANING MACHINERY.

21. No minor under sixteen years of age shall be required, allowed or permitted to clean any part of the gearing or

machinery in any place coming under the provisions of this act, while the same is in motion, or to work between the fixed or traversing parts of any machinery while it is in motion by the action of steam, water or other mechanical power.

EXPLOSIVES.

22. Every corporation, firm or person having or keeping in his or its place or manufactory coming under the provisions of this act, any explosive or inflammable compound, shall keep or store such explosive or inflammable compound in such factory, mill, workshop or place in such way as not to obstruct or render hazardous the egress of employes or operatives in case of fire.

SANITARY.

23. Every factory, workshop, or mill shall contain sufficient, suitable, convenient and separate water-closets for each sex, which shall be properly screened, ventilated and kept clean; and also a suitable and convenient wash-room; the water-closets used by women shall have separate approaches; if women or girls are employed, a dressing-room shall be provided for them when ordered by the commissioner.

24. Factories and workshops in which women and children are employed, and where dusty work is carried on, shall be lime-washed or painted at least once in every twelve months.

POSTING LAW.

25. An abstract of this law shall be prepared and furnished upon request by the commissioner to every corporation, firm or person in this state, who is affected thereby, and every manufacturer to whom a copy of such abstract is sent or delivered shall post such abstract of this law and keep it posted in plain view in such place that it can be easily read by the employes or operatives in coming in or going out from said factory, workshop or mill.

OBSTRUCTING OFFICERS.

26. No person shall interfere with, delay, obstruct or hinder by force or otherwise, the commissioner, the assistant commissioner or inspectors, while in the performance of their duties, or refuse to answer in writing or otherwise, questions asked by such officers relating to the matters coming under the provisions of this act; no person shall impersonate an officer of the department or forge his certificate of authority.

FORFEITURE OF WAGES.

27. Any person, firm or corporation engaged in manufacturing which requires from persons in his or its employ, under penalty of forfeiture of a part of the wages earned by them, a notice of intention to leave such employ, shall be liable to the payment of a like forfeiture if he or it discharges without similar notice a person in such employ, unless in case of a general suspension of labor in his or its factory, mill or place where the manufacture of goods of any kind is carried on.

ACCIDENTS.

28. All accidents that prevent the injured person or persons from returning to work within two weeks, or which result in death, shall be reported in writing to the department at Trenton, New Jersey, within twenty-four hours after the expiration of four weeks or after the death of such person injured, as the same may be; such notice may be sent by mail, postage prepaid.

NOTICE OF OCCUPANCY.

29. Every corporation, firm or person shall within one month after he, they or it shall begin to occupy a factory, workshop, mill or place where the manufacture of goods of any kind is

carried on, notify in writing the department at Trenton, New Jersey, of such occupancy, giving the legal title of such corporation and name of agent upon whom service of a summons can be made, and in case of a firm, the individual names of the members of the firm or the legal title of the concern so occupying such factory or workshop.

PENALTIES.

30. For the purpose of carrying into effect the provisions of sections eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, nineteen, twenty-one, twenty-two, twenty-three, twenty-four, twenty-six, twenty-seven and twenty-eight, the commissioner shall be and he is hereby authorized to make such orders in writing for the protection and safety of employes and operatives and the enforcement of this act in places coming under the provisions of this act, as in his judgment shall seem necessary to carry into effect the provisions of such sections; such order shall be in writing, signed by the commissioner, and shall specify what shall be necessary to be done and within what time; any corporation, firm or person violating any of the provisions of sections eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, nineteen, twenty-one, twenty-two, twenty-three, twenty-four, twenty-six, twenty-seven, and twenty-eight, shall, for each offence, be liable to a penalty of fifty dollars.

SWEAT SHOPS.

31. No room or rooms, apartment or apartments, in any tenement or dwelling-house, shall be used for the manufacture of coats, vests, trousers, knee-pants, overalls, cloaks, furs, fur trimmings, fur garments, shirts, purses, feathers, artificial flowers or cigars, except by the immediate members of the family living therein; no person, firm or corporation shall hire or employ any person to work in any room or rooms, apartment or apartments, in any tenement or dwelling-house, at making in whole or in part, any coats, vests, trousers, knee-pants, overalls,

cloaks, furs, artificial flowers or cigars, unless such person, firm or corporation first shall have obtained a written permit from the commissioner; which permit may be revoked by the commissioner at any time that the health of the community or of those employed as aforesaid may, in his judgment, require it, and that such permit shall not be granted until due and satisfactory inspection of the premises affected shall have been made by the said commissioner, assistant, or an inspector; such permit shall be framed and posted in a conspicuous place in the main room of the place to which it relates, shall be duly numbered and shall state the number of persons allowed to be employed therein.

32. Any person, firm or corporation being the owner, lessee or occupant of the place to which the preceding section relates, shall, for the violation of any of the provisions therein, be liable to a penalty of one hundred dollars for each offense.

33. This act shall not apply to a private house or private room used for manufacturing purposes by the family dwelling therein.

FIRE ESCAPES.

34. Every factory, workshop, mill or place where the manufacture of goods of any kind is carried on, now or hereafter erected, which is three or more stories in height and in which twenty-five or more operatives or employes shall be at work on or above the third floor, shall be provided with outside iron fire escapes as hereinafter provided; the fire escapes shall be located at such places on the said buildings as may be best suited for the purpose intended or as the commissioner may designate in writing, and shall take in one or more windows on each floor above the first floor; fire escapes may project into the public highway to a distance not greater than four feet beyond the building line.

35. The fire escapes shall consist of outside iron balconies, and stairways at each floor above the first connecting said balconies to the ground, except in the case of the fire escape being over a public highway, when a drop ladder shall connect the lowest balcony to the ground in a manner hereinafter specified; the

stairways shall be placed at a slope no steeper than a ratio of one horizontal to one and one-quarter vertical; the balcony on the top floor shall be provided with a goose-neck ladder leading from said balcony to and above the roof.

36. Balconies—The balconies shall not be less than three feet in width, taking in at each story above the ground floor at least one window of each part of the building separated by inside walls in which twenty-five or more operatives or employes shall be at work; they shall be below and not more than one foot below the window sills, and extend in front of and not less than nine inches beyond each window; there shall be a landing not less than twenty-four inches square at the head and foot of each stairway; the stairway opening on each platform shall be of a size sufficient to provide clear headway; the windows or openings upon each balcony shall be of easy access and sufficiently large to permit easy passage through them, and shall be kept unobstructed; where the top of window sill is more than two feet above the floor of building, inside steps shall be provided.

37. Floors of Balconies—The floors of balconies shall be of wrought iron or steel slats not less than one and a half inches by three-eighths of an inch, placed not more than one and one-quarter inches apart and well secured and riveted to iron battens not less than one and a half inches by three-eighths of an inch, not over two feet apart, and which battens shall rest on and be riveted to frame of balcony; said frame to consist of angle iron not less than two and one-half inches by two and one-half inches by three-sixteenths of an inch thick, and to extend around the four sides of the balcony floor, to rest upon brackets and be secured to same by rivets or bolts and to be riveted at corners; the openings for stairways in all balconies shall not be less than twenty-one inches wide and forty-two inches long, and such openings shall have no covers of any kind; the platforms of balconies shall be constructed and erected to safely sustain in all their parts a safe load of not less than eighty pounds per square foot, utilizing a ratio of four to one between the safe working load and the ultimate strength of all parts.

38. Railings—The outside top rail shall in no case be less than three feet above the floor of balcony, and shall extend around

the entire platform and in all cases shall go through the wall at each end, be worked out to three-quarter inch bolt size and be properly secured by nuts with washers at least four inches square and three-eighths of an inch thick, and no top rail shall be connected at angles by cast iron; the top rail of balconies shall be one and three-quarters inches by one half inch of wrought iron or one and a half inch angle-iron at least three-sixteenths of an inch thick, or such size and shape as shall be approved by the commissioner; the bottom rails shall in no case be more than eight inches above the floor of balcony and shall be of one and one-half inches by three-eighths of an inch wrought-iron or of one and one-half inch angle-iron at least three-sixteenths of an inch thick; well leaded or cemented into the wall; the standards or filling in bars shall not be less than one-half inch round or square wrought-iron, well riveted to the top and bottom rails and to platform frame immediately where adjacent to brackets and shall be placed not more than six inches apart.

39. Stairways—The stairways shall be constructed and erected to fully sustain in all their parts a safe load of not less than one hundred pounds per step, utilizing a ratio of four to one between the safe working load and the ultimate strength of all parts, with the exception of the tread, which must safely sustain at said ratio a concentrated load of two hundred pounds; the treads shall not be less than seven inches wide and the rise of each step not more than nine inches; the treads shall be flat open treads of cast-iron not less than five-eighths of an inch thick, or of flat bars not over one and one-quarter inches wide or less than three-eighths of an inch thick, with spaces between not more than one inch or less than one-half of an inch; such bars to be riveted to angle-irons of not less than one and one-half inches in size, secured to strings, with double rivets or bolts; the stairs shall be not less than twenty inches wide between inside of strings, and there shall remain a clear passage between stairway and wall of building of not less than fourteen inches; the strings shall be not less than three-inch channels of iron or steel, or other shape equally strong, and shall, at both top and bottom, rest upon and be fastened to a bracket, which shall be fastened through the wall as hereinafter provided; the stairs shall have a hand rail of

not less than three-quarter inch round wrought-iron rod or pipe, on each side not less than thirty inches or more than forty-two inches above steps at any point, and same shall be secured and well braced.

40. Brackets—The brackets shall be placed not more than four feet apart and not less than three-quarters of an inch by one and one-half inches wrought-iron placed edgewise, or one and three-quarter inch angle-iron, one-quarter inch thick, to extend across full width of balcony and be well braced at a point not less than two-thirds of the distance from wall to end of bracket, by means of not less than three-quarters of an inch square wrought-iron or one and three-quarters inch angle-iron; the ends of brackets and braces shall go through the wall and be turned down three inches or be properly secured by nuts and washers four inches square and at least three-eighths of an inch thick; on new buildings the brackets shall be set as the walls are being built; when brackets are put on factories already erected, the part going through the wall shall not be less than one inch in diameter with screw nuts and washers not less than five inches square and one-half an inch thick.

41. Ladders—A proper drop-ladder to reach to a safe landing place below shall be required from the lower balcony of any fire escape over a public highway in place of a stairway, and when the floor of such balcony is more than sixteen feet above the sidewalk or ground, a suitable landing platform shall be provided; such platform shall be located not more than ten feet above the ground and shall be connected with the balcony above by means of a stairway constructed as this act requires for stairways between balconies; such platform shall not be less than three feet in width and four feet long and provided with proper railings; the drop ladder to ground shall be not less than fifteen inches in width with strings not less than one-half inch by two-inch iron, and rungs not less than five-eighths of an inch in diameter, placed not more than twelve inches apart and securely riveted through the strings; strings to be made of one piece and not connected in parts by rivets or bolts; the upper end of each string to be formed into a hook by which the ladder may be secured to

the frame of the balcony when in use; the goose-neck ladder shall be securely fastened to the wall of the building and the strings shall extend at least thirty inches above the roof and return down and be secured to same; there shall be a space of not less than fourteen inches between such ladder and the outer rail of balcony.

42. Painting—All the parts of such fire escape shall receive not less than two coats of paint, one in the shop and one after erection, and shall be painted thereafter whenever the same may be needed.

43. The commissioner shall have the power to make and have served an order in writing upon any owner or owners of any building coming under the provisions of this act, ordering that a fire escape shall be erected either on a new building or on a building already erected, or ordering that a fire escape already erected shall be changed and altered in such manner as he shall in such order designate; such fire escapes must conform to the provisions of this act; any corporation, firm or person failing or neglecting to obey such order within the time therein limited, shall be liable to a penalty of one hundred dollars for such failure, and to a further penalty of ten dollars for each day that shall elapse after the expiration of the time limited in said order, until a fire escape shall be erected on such building in compliance with the terms of such order; provided, that fire towers, when approved by the commissioner, shall be legal protection the same as iron fire escapes as hereinbefore provided.

DEPARTMENT.

45. For the purpose of carrying into effect and enforcing the provisions of this act, there shall be and hereby is established a department to be known as the department of labor; the department shall have its main office in Trenton, and shall consist of a commissioner, an assistant commissioner and eleven inspectors; the governor shall, immediately after the passage of this act, with the advice and consent of the senate, appoint some suitable person who shall be a resident and citizen of this state, as head of the said department at a salary of twenty-five hundred dollars

per year, to be paid monthly, whose term of office shall be three years and until his successor shall be appointed, and whose title shall be commissioner of labor; the commissioner shall, with the approval of the governor, appoint the assistant commissioner, who shall be an experienced machinist; he shall receive a salary of fifteen hundred dollars per year, to be paid monthly; the governor shall appoint eleven suitable persons as inspectors, two of whom shall be women, whose salary shall be one thousand dollars per year each, to be paid monthly; the terms of office of the assistant and the inspectors shall be three years unless sooner removed by the commissioner; the assistant and the inspectors shall each be furnished with certificates of authority by the Secretary of State, and they shall produce the same if so required by any manufacturer; the commissioner shall have the power out of the appropriation made for the purpose of carrying on the work of the department, to purchase badges for the assistant, the inspectors and himself; the commissioner may divide the State into districts, assign inspectors to such districts, and may, in his discretion, transfer them from one district to another; the commissioner, assistant and inspectors may administer oaths and take affidavits in matters relating to the enforcement of this act; the commissioner shall have the right to employ such department clerks for carrying on the work of the department as may, in his judgment, be necessary; such clerks shall receive such salaries as the commissioner, with the approval of the governor, shall fix, to be paid by the treasurer on warrant of the comptroller in equal monthly installments; when the work of the department shall necessitate the employment of additional inspectors, the commissioner shall have the power to employ such inspectors at such compensation and for such length of time as he may deem necessary and such extra inspectors shall have the same rights, powers, and privileges as the inspectors appointed by the governor; all salaries and expenses incurred by the commissioner, assistant and all inspectors, in the discharge of their duties, and all salaries and expenses necessary to carry out the provisions of this act shall be paid from the funds of the state out of the moneys appropriated for that purpose by the treasurer upon warrant of the comptroller, upon presentation of proper

vouchers for the same, approved by the commissioner; it shall be the duty of the commissioner to enforce the provisions of this act and to exercise supervision and control over the assistant and the inspectors, and to cause inspections to be made of the factories, mills, workshops, and places where the manufacture of goods of any kind is carried on, by the assistant and the inspectors, as often as practicable, and to make a report of the work of the department to the governor of the State on or before the thirty-first day of October of each year; to prosecute violations of the provisions of this act in any district court, recorders' courts of cities and before any justice of the peace having due jurisdiction or any other court of competent jurisdiction in this state; the commissioner, the assistant commissioner and the inspectors shall have the right at all reasonable hours to enter and inspect factories, mills, workshops and places where the manufacture of goods of any kind is carried on, and each inspector shall make a report in writing of such inspections to the commissioner at least once in each week; inspectors shall make out a list of minors discharged, with the name of child in full, residence, street and number, name of place from which such minor was discharged and date of discharge; he shall send or deliver within twenty-four hours, such list to the principal of the public school in the district where the minor resides or to the truant officer having such school district in charge; every deputy inspector shall devote at least eight hours of every working day except public holidays, and four hours on Saturdays, to the discharge of his or her duties as such deputy inspector, unless prevented by illness or other disability, and no deputy inspector shall engage in any business, occupation or employment during his or her term of office that will in any way interfere with or prevent the full and faithful performance of such duties.

46. This act shall be a public act and shall take effect on the first day of September, one thousand nine hundred and four.

Approved March 24, 1904.

CHAPTER 195.

An act to amend an act entitled "An act to provide for the payment of wages in lawful money of the United States every two weeks," approved March sixteenth, one thousand eight hundred and ninety-nine.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

1. Amend section three of an act entitled "An act to provide for the payment of wages in lawful money of the United States every two weeks," approved March sixteenth, one thousand eight hundred and ninety-nine, so that the same shall read as follows:

3. The department of labor of this state shall be and hereby is authorized and directed to enforce the provisions of this act and the commissioner of labor shall make complaint against any employer or employers who neglect to comply with the provisions of this act for a period of two weeks after having been notified in writing by said commissioner of labor of the violation of this act; and it is hereby made the duty of county prosecutors of the pleas of the various counties in this State, to appear in behalf of the department of labor in all proceedings brought herein by the commissioner of labor.

2. This act shall take effect September first, one thousand nine hundred and four.

Approved March 29, 1904.

Decisions of Courts.

KING v. ATLANTIC CITY GAS & WATER CO.

Court of Errors and Appeals of N. J., June 20, 1904.

Opinion by GARRETSON, J., *Atlantic Reporter* 58-345.

(Syllabus by the Court.)

Negligence—Evidence—Declarations of Servant.

1. Where a person authorizes another to speak for him he may be confronted by testimony as to what was said by his representative within the scope of his authority; but where the employment is purely mechanical the master is not chargeable with what his employe may choose to say while at work for him.

2. In a suit against a master for damages caused by the furnishing of a defective appliance, testimony that a servant, who, after the accident, had been sent to repair such appliance, or to ascertain and report its condition to his employer, said that something was wrong with the appliance, is irrelevant, hearsay and inadmissible.

WHITE v. KOEHLER.

Supreme Court of New Jersey, February 23, 1904.

Opinion by PITNEY, J., *57 Atlantic Reporter* 124.

(Syllabus by the Court.)

Judgment—Payment by Installments—Income.

1. Under the supplement of March 22, 1901, to the act respecting executions (P. L. 1901, p. 373, Sec. 3) salary paid to the

judgment debtor for his personal service is "income," out of which he may be required to make payments on account of an unsatisfied judgment.

JOHN F. DAUM, Defendant in Error, *v.* THE NORTH JERSEY STREET RAILWAY COMPANY, Plaintiff in Error.

Argued November 11, 1902—Decided February 24, 1903.

Supreme Court of New Jersey.

Opinion by GUMMERE, C. J., 40 *Vroom* 1.

(Syllabus by the Court.)

Plaintiff, an employe of a gas company, was engaged in laying a gas main on a public street, and was kneeling down, with his back to the tracks of the defendant and with one of his feet upon or over the nearest rail, and while handing timber to the men in the trench, was run over by defendant's car. No warning was given of the approach of the car, although it was the custom of those operating the cars to ring a gong when approaching the point where the gas company's servants were at work. Before kneeling plaintiff looked in the direction from which the car approached, and no car was in sight; he did not look again, and a minute later the car came into the avenue, about two hundred and fifty feet from where he was kneeling, and ran over his foot.

Held—(1) Assuming that, as a matter of law, it cannot be said that it is the duty of a street railway company to give notice to persons working on the streets in dangerous proximity to its tracks, of the approach of its cars, it is a question for the jury, when it assumes such duty, whether its failure to give it is not negligence. (2) It having been shown that the plaintiff knew that it was the custom of the street railway company to give warning when a car was approaching the point where the gas company's employes were at work, and that he looked, when he knelt down, for the purpose of ascertaining whether a car was approaching, it was a question for the jury whether it was neg-

ligent for him, under existing circumstances, not to make another observation during the minute which elapsed before the accident occurred.

PETER v. MIDDLESEX AND S. TRACTION CO.

Supreme Court of New Jersey, June 12, 1903.

Opinion by GUMMERE, C. J., 55 *Atlantic Reporter* 35.

Master—Servant's Injuries—Declaration—Sufficiency—General Demurrer—Defects Reached—Motions to Strike.

1. A declaration, for servant's injuries, alleging that it was defendant's duty to use due care in the selection of competent persons to operate its cars, and yet, neglecting its duty, it did not use due care in that behalf, but negligently employed incompetent persons, and so negligently managed a certain car being propelled towards the car upon which plaintiff was, that by reason of said negligence, and by reason of the car being in control of incompetent persons negligently employed by defendant for that purpose, a collision occurred, etc., does not charge defendant as an insurer, but states a good cause of action.

2. A declaration founded on separable demands, some of which are good and some bad, will prevail against a general demurrer, and since the abolition of special demurrers, an objection thereto must be made on motion to strike out.

THOMAS ENRIGHT, Plaintiff in Error, v. OLIVER AND BURR, a Corporation, Defendant in Error.

Argued March 13, 1903—Decided June 15, 1903.

Court of Errors and Appeals.

Opinion by HENDRICKSON, J., 40 *Vroom* 357.

1. As a general rule, employes of a common master, who are engaged in the common employment of erecting a building or

other structure, are all fellow servants; and the rule is not altered because such employes may be engaged in different departments of the common business. In their contract of hiring they assume the risk of each other's negligence, and cannot look to the master for damages for an injury resulting therefrom.

2. This rule extends also to a foreman in charge of such employes, who is a fellow-servant with them, while giving directions with regard to, or assisting them in the performance of, the duties of the common employment. And the master is not liable to the employe for injuries arising out of the negligence of such foreman, except when his acts relate to the personal duties which the master owes to the servant, and from which he cannot escape responsibility by delegating them to another.

3. It is one of the personal duties of the master to exercise reasonable care to furnish safe appliances to the employe for use while engaged in such work; but where the master furnishes proper and sufficient materials, and the employe, as a part of his work, undertakes the construction of such appliances, but the employe, by negligence, in putting the materials together or in selecting them, constructs an unsafe appliance, which results in injury to another, the master is not liable.

4. When an employe seeks to hold the master liable for an injury growing out of the negligence of a fellow-servant and it appears, that such negligence resulted from the incompetent acts of such fellow-servant, for which the master would ordinarily be held responsible, if it further appears that the conditions created by such incompetency, and which would expose the employe to increased danger, and from which the accident arose which caused the injury, were known to such injured employe, or should have been known to him by the exercise of due care, and yet, without giving notice thereof to the master or seeking to remedy such conditions, continues in the employment, and thereby suffers the injury, he will be held to have assumed the risk as an obvious one, and cannot recover.

JAMES CAMPBELL, Defendant in Error, *v.* T. A. GILLESPIE COMPANY, Plaintiff in Error.

Argued March 10, 1903—Decided June 15, 1903.

Court of Errors and Appeals.

Opinion by VAN SYCKEL, *J.*, 40 *Vroom* 279.

1. It is the duty of the master to use reasonable care to furnish proper tools to his workmen.

2. If the master has proper tools within reach of the workmen and they, through negligence or lack of judgment, select the poor ones, the master will not be liable for any resulting injury to them.

3. When the defect in the tool taken by the servant is obvious, the servant who takes it, although it is the only one on the premises, assumes the obvious risk of danger to himself, but he cannot assume an obvious risk in such case for a fellow-servant who does not know of the danger.

4. As to a fellow-servant, it will not be presumed that his co-servant would have selected an obviously imperfect tool where he might have chosen a good one.

5. Where the negligence of the master concurs with that of the servant in producing injury to a fellow-servant, the master is liable, and therefore the burden is on the master to show that he had furnished proper tools which the servant might have used.

SNYDER *v.* J. S. ROGERS Co.

Court of Errors and Appeals of New Jersey, June 15, 1903.

Opinion by GARRETSON, *J.*, 55 *Atlantic Reporter* 303.

(Syllabus by the Court.)

Master and Servant—Appliances—Inspection—Master's Liability—Action for Injuries—Nonsuit.

1. The plaintiff was a painter in the employ of the defendant company, which had a contract for painting the inside of a build-

ing. In order to paint the ceiling of a room, it was necessary to construct a scaffolding below the ceiling, upon which the painters could stand. The plaintiff was assisting in constructing this scaffolding, which was to consist of a ladder supported at either end and a plank laid upon the rungs. After the ladder had been placed in position, but before the plank had been put upon it, the plaintiff stepped upon the ladder to see if it was at a proper height to enable the painters to work upon the ceiling, and as he was stepping back off of the ladder, the ladder broke, and the plaintiff fell and was injured. *Held*, in an action against the master to recover damages for the injury, the plaintiff was properly non-suited for failure to show that the defendant had been guilty of any breach of duty by not causing reasonable inspection of the ladder to be made and for failure to show that reasonable inspection would have discovered any defect in the ladder.

O'BRIEN *v.* TRAYNOR.

Court of Errors and Appeals of New Jersey, June 15, 1903.

Opinion by MAGIE, C., 55 *Atlantic Reporter* 307.

(Syllabus by the Court.)

Injury to Servant—Negligence of Fellow Servant—Right of Action—Harmless Error.

1. When two persons are working together in a common employment, under circumstances which cast upon each a duty to take care that his acts shall not do injury to the other, for a breach of which duty an action will lie, the fact that both are engaged in the common employment of the same master will not prevent the one injured by the negligent act of the other from maintaining an action therefor.

2. Exceptions were allowed to the exclusion of questions put by defendant's counsel on cross-examination of a witness of plaintiff. The bill of exceptions disclosed that the cross-examination was pursued, and the witness afterward substantially ans-

wered the excluded question. *Held*, that whether the questions were erroneously excluded will not be considered on error.

THOMAS McDONALD, Plaintiff in Error, *v.* THE STANDARD OIL COMPANY, Defendant in Error.

Argued March 16 and 17, 1903—Decided June 22, 1903.

Court of Errors and Appeals.

Opinion by GREEN, J., 40 *Vroom* 445.

1. It is accepted law in this state that, under the contract of employment, it becomes the master's duty to take reasonable care to provide a proper and safe place in which the servant may work, to furnish suitable tools and implements with which he may work, to inspect and repair the apparatus at reasonable intervals, and to select and employ competent workmen.

2. It is also accepted law in this state that, under the same contract, the servant, on his part, assumes the risks incident to his employment, including such as arise from the negligence of a fellow-servant, engaged under the same master, in the common employment; also those plain and obvious dangers which are apparent to one of ordinary skill and understanding.

3. Where an adult workman, of ordinary intelligence, who has been engaged for four or five weeks in cutting the heads from the rivets of an old tank, lost an eye by injury from a flying metallic chip—the flying of the chips being frequent and easily observable—*Held*, that the doctrine of assumed obvious risk obtains with full force, and a judgment of nonsuit will not be reversed.

MARTIN *v.* McFALL.

Court of Chancery of New Jersey, July 27, 1903.

Opinion by PITNEY, *V. C.*, 55 *Atlantic Reporter* 465.

Labor Unions—Boycott.

1. Attempts by members of a labor union to compel an employer to accede to the demands of the union as to the mode of

doing his business by persuading or inducing others not to deal with him is unlawful and will be enjoined.

MICHAEL GREEN, Plaintiff and Defendant in Error, *v.* THE
BARNES MANUFACTURING COMPANY, Defendant and
Plaintiff in Error.

Argued February Term, 1903—Decided September 30, 1903.
Supreme Court of New Jersey.

Opinion by the Court, 40 *Vroom* 596.

Where, in an action for injuries received by the flying of a piece of wood thrown by a circular saw, the proof was almost plenary that the servant had been warned of the danger of the saw and forbidden to pass through the room where it was working, another way being expressly provided, and the only evidence to the contrary was the practically uncorroborated evidence of the plaintiff, a verdict finding the plaintiff was not warned was against the clear weight of evidence.

ATKINS et al. *v.* W. & A. FLETCHER Co. et al.

Court of Chancery of New Jersey, October 2, 1903.
Opinion by STEVENSON, *V. C.*, 55 *Atlantic Reporter* 1074.

Employers and Employes—Combinations—Right to Employ—
Right to Strike Injunction.

1. A bill alleged that the complainants, forty-six in number, were machinists, recently employed by defendant company, but were on a strike; that the complainants with other machinists, had formed a voluntary association to better the condition of machinists in general; that defendant company and other indi-

viduals and corporations, had formed a voluntary association for the purpose of dealing with labor troubles affecting the metal trades in New York Harbor; that, in order to carry out the design of the machinists' association, the complainants had endeavored to obtain machinists to join them, and had maintained a system of quiet picketing in the streets near the machine shops of the defendant company; and averred that defendants, in combination, were interfering by intimidation, threats, violence, arrests, etc., with the pickets of complainants. *Held*, that the complainants were before the court as employers, and not as employees, though the bill also averred that defendants had conspired to compel complainants to work for defendant company.

2. Employers have the right to combine to refuse employment to any kind or class of workmen just as fully as employees have the right to combine to refuse to be employed by any employer employing men of whom they disapprove or conducting his business contrary to their views.

3. A bill presenting the complaint of a voluntary association composed of machinists, and organized for various purposes, including benevolent purposes, and alleging that the association had employed persons to perform the service of "picketing," that complainants had been so employed, but that most of the insults, violence, unlawful arrests, etc., to which they were subjected by defendants, could not be deemed as averring grievances of the "pickets" themselves, but merely regarded as grievances of the association itself.

4. The mere fact that defendants, in combination, by means of intimidation or criminal violence, interfere with the free flow of labor to an employer, does not give the employer the right to equitable relief, in the absence of his showing that his remedy at law is inadequate.

5. Equity does not undertake to grant injunction in strike or boycott cases unless complainant has shown substantial pecuniary loss in respect to his property and business for which an action at law was an inadequate remedy, or where he has shown that he had been deprived of his right to make a living.

6. The right of a voluntary association, engaged in supporting a strike, to freedom in the labor market, so that the associa-

tion can readily employ pickets and other agents in carrying on its industrial warfare, is not a proper subject of protection by means of an injunction.

W. & A. FLETCHER CO. *v.* INTERNATIONAL ASSOCIATION OF
MACHINISTS et al.

Court of Chancery of New Jersey, October 2, 1903.

Opinion by STEVENSON, *V. C.*, (orally), *55 Atlantic Reporter*
1077.

Equity—Injunction—Strikes—Picketing.

1. Where the practice of picketing by striking employes is to intimidate and interfere with the liberty of other workmen in seeking employment it is unlawful, and will be prohibited by injunction; but picketing carried on for the mere purpose of obtaining information, or for the purpose of conveying information or bringing orderly and peaceable persuasions to bear on the minds of those seeking employment, the object of which does not include the disruption of any existing contract, will not be restrained.

GILL *v.* NATIONAL STORAGE CO.

Supreme Court of New Jersey, November 19, 1903.

Opinion by PITNEY, *J.*, *56 Atlantic Reporter* 146.

(Syllabus by the Court.)

Injury to Employee—Nonsuit.

1. Plaintiff was a laboring man in the employ of contractors who were doing work upon one of defendant's buildings. In order to reach the building, he walked along a planked way that formed a crossing over several railroad tracks that were main-

tained upon defendant's premises. The crossing was a private way. The tracks were used in the drilling of cars in and about the business of the defendant so that the crossing was sometimes blocked and sometimes left clear, the cars being moved over it frequently. No flagman or gateman was at any time kept at the crossing. No warning was customarily given of the backing of cars over it. Plaintiff had been employed upon the premises for several weeks, had used the crossing daily, and thereby had become familiar with it and with the drilling of cars over it. He attempted to cross on one occasion when cars were close to him on either side as he passed, and in such position that he knew they were liable to be backed over the crossing. As he passed between the cars those upon one side were suddenly and without warning pushed down upon him, so that he was caught between the cars and injured. *Held*, on the authority of *Furey v. N. Y. Central, etc., R. R. Co.*, 51 *Alt.* 505, 67 *N. J. Law*, 270, that the was not entitled to recover for the injuries thus sustained.

CAMPBELL, v. DELAWARE & A. TELEGRAPH & TELEPHONE CO..

Supreme Court of New Jersey, November 24, 1903.

Opinion by the Court, 5 *Atlantic Reporter* 303.

Telephone—Injury—Negligence—Contributory Negligence—
Preponderance of Evidence—Excessive Verdict.

1. The questions of negligence of servants of a telephone company in handling a reel of wire and contributory negligence of the plaintiff in an action for injuries were for the jury, and not for the court.

2. That the witnesses for defendant outnumbered those of plaintiff does not discredit the jury's finding for plaintiff as being against the preponderance of the evidence.

3. A court will not set aside a verdict as excessive unless it is perfectly plain that it is so.

DIEHL *v.* STANDARD OIL CO.

Supreme Court of New Jersey, February 23, 1904.

Opinion by PITNEY, J., 57 *Atlantic Reporter* 131.

(Syllabus by the Court.)

Injury to Employee—Notice of Danger.

1. A master is not bound to warn a minor servant concerning a danger incident to the operation of a machine, where there is nothin in the apparatus or in the method of its operation that would charge an ordinarily prudent employer with notice of such a danger.

DOWD *v.* ERIE R. CO.

Supreme Court of New Jersey, February 23, 1904.

Opinion by SWAYZE, J., 67 *Atlantic Reporter* 248.

(Syllabus by the Court.)

Injury to Employee—Negligence—Question for Jury—Defective Machinery—Promise to Repair.

1. The plaintiff, an experienced bolt cutter, was injured while shifting the belt upon the bolt cutting machine, and by his hand slipping from the shifting lever and coming in contact with the unprotected gearing. He had worked at this identical machine at another shop of defendant, but the gearing was then protected by a cover. Upon his complaint of the danger from the lack of a cover, the foreman had promised to have it attended to as soon as he could. *Held*, that the question whether there was negligence was for the jury.

2. Although the risk is obvious, the master may still be liable for injuries to the servant, if he has promised to amend the defect

or make the place safe, and the servant continues the work in reliance upon the promise.

3. In such a case, if the promise is not performed within a reasonable time for its fulfillment, and the servant continues to incur the danger after the lapse of such reasonable time, the servant assumes the risk of injuries occurring thereafter.

4. Whether the lapse of sixteen days in the present case was a reasonable time for the fulfillment of the promise was a question for the jury.

5. As a promise to have the matter attended to "as soon as he could" is not, under the circumstances of this case, so indefinite that the servant was not justified in relying on it.

6. The danger was not so imminent as to compel the conclusion that the plaintiff was negligent in continuing to work and to require the court to take the case from the jury.

MURPHY *v.* ROCKWELL ENGINEERING CO.

Supreme Court of New Jersey, February 29, 1904.

Opinion by DIXON, J., 57 *Atlantic Reporter* 444.

(Syllabus by the Court.)

Injury to Employe—Failure to Warn.

1. The fact that an employer did not warn an adult employe of a risk which was naturally incident to the employment will not render the former responsible to the workman for an injury received by him because of his ignorance of the risk, in the absence of evidence that his employer had notice of such ignorance.

ALBANESE *v.* CENTRAL R. CO. OF NEW JERSEY.

Court of Errors and Appeals of New Jersey, Feb. 29, 1904.

Opinion by DIXON, J., *57 Atlantic Reporter* 447.

(Syllabus by the Court.)

Injury to Employe—Assumption of Risk.

1. If a workman, who, in the discharge of his duty, has placed himself in a position of probable danger, where he has the right to expect a warning before the danger becomes actual, is injured because the warning was not given, the question whether he assumed the risk, or was guilty of contributory negligence, cannot be decided against him by the court.

LUCKEY *v.* SOFIELD.

Supreme Court of New Jersey, May 9, 1904.

Opinion by the Court, *57 Atlantic Reporter* 870.

Servant's Injuries—Dangerous Place—Instructions of Master—
Servant's Knowledge of Danger.

1. Where an experienced sawyer was injured while attempting to shift a belt upon a resaw, owing to the fact that he stood at the side of the saw, which was obviously a dangerous place, instead of at the end, the fact that his employer told him that the side of the saw was the proper position for him to take did not entitle him to recover.

DUNKERLEY v. WEBENDORFER MACH. CO.

Supreme Court of New Jersey, June 13, 1904.

Opinion by SWAYZE, J., 58 *Atlantic Reporter* 94.

(Syllabus by the Court.)

Injury to Servant—Assumption of Risk.

1. The willingness of a servant to assume the risk of obvious dangers is not shown by the fact that he knew of the danger, in a case where the servant has made complaint, received a promise of repair, and continued work in reliance on the promise.

EVERS v. KROUSE.

Court of Errors and Appeals, June 22, 1904.

Opinion by GUMMERE, C. J., 58 *Atlantic Reporter* 181.

(Syllabus by the Court.)

Tort of Servant—Liability of Master.

1. An act done by a servant while engaged in the work of his master, but entirely disconnected therefrom—done, not as a means or for the purpose of performing that work, but solely for the accomplishment of the independent, malicious, or mischievous purpose of the servant—is not in any sense the act of the master, and for injuries resulting to a third person from such an act the servant alone is responsible.

TOMPKINS *v.* MARINE ENGINE AND MACHINE CO.

Court of Errors and Appeals, June 24, 1904.

Opinion by VROOM, J., 58 *Atlantic Reporter* 393.

(Syllabus by the Court.)

Injury to Servant—Appliances—Duty of Master—Instructions.

1. The duty of a master to a servant is discharged by the providing for the use of the servant tools which are in common and ordinary use, and which are reasonably safe and fit for the purpose to which they are to be applied.

2. The liability or responsibility of a master to instruct a servant as to the danger of employment arises only when the servant is himself ignorant and when the master knows the fact, or ought to know it.

PART III.

Industrial
Betterment Institutions
In New Jersey
Manufacturing Establishments.

INTRODUCTION.

The underlying purpose in the preparation of this work is to show that there is another and a much more inspiring and hopeful side to the great labor problem than that which is, sad to say, too often under the public eye with its usual incidents of strikes, lockouts, boycotts, and other forms of bitter friction between employer and employe.

It is intended to show that notwithstanding these regrettable manifestations, the relations between the two great forces of industry, Capital and Labor, are really on a sounder and more healthy basis than appears to be the case, and that there is no scarcity of instances which go to prove that large numbers of employers and their workmen are, in their business relations, animated by sentiments of genuine friendliness for each other and loyally co-operating together in carrying out plans of mutual advantage, in the management of the various industrial enterprises on the prosperity of which both are equally dependent for success in the struggle of life.

Surface indications would seem to justify the belief that the strongest and most potent movement in industry at the present time, is that which appears to be driving capital and labor further apart; bringing about unfriendliness in the relations of employers and employes, and displacing the community of interest and harmony of action that once did, and always should, unite them.

The reasons for this are obvious; every instance of friction between employers and their operatives which results in strikes or threats to strike, are fully reported and become

widely known, and as it frequently happens that such strife is carried on in utter disregard of the injury that may be inflicted thereby upon others not in any way connected with or responsible for it, every occurrence of the kind is sure to receive a wide measure of public attention. As a natural consequence, the impression that industry generally is in a similar condition of discontent and unrest is very likely to gain ground.

But such a conclusion, although to some extent supported by visible indications, would be far from correct, at least so far as the State of New Jersey is concerned. The immense growth of manufacturing industry here, which in the decade between 1890 and 1900 showed an increase of seventy-two (72) per cent.—almost double that of any other State in the Union—proves conclusively that in New Jersey, such differences as may exist between capital and labor have not as yet, seriously affected the industrial prosperity of the State.

At least some measure of credit for this satisfactory condition of things is due to the constructive work of a practical kind which is being done by liberal, broad-minded employers and intelligent workingmen, many of whom are co-operating together cordially and harmoniously in carrying out plans for making the conditions surrounding industrial life easier, safer, and pleasanter.

But such persons do not, as a rule, seek publicity on account of the work of this kind they have done and are doing; its character and extent are, therefore, as yet comparatively unknown to the general public; although those who are especially interested in industrial problems have long known of these efforts to establish a higher and better order of things, and are looking hopefully for a restoration of the old-time fidelity to each other that once united the employer and his workmen, through the extension and final adoption everywhere of these or similar plans as fixed and permanent features of industrial administration.

In deciding to investigate the subject of betterment work at this time, the bureau was largely influenced by a request

from the Department of Social Economy of the Louisiana Purchase Exposition that it should be done; the purpose being to make the collated results of the inquiry, with other work of the bureau along the lines of social economics, a part of the State's exhibit at St. Louis.

The matter was called to the attention of manufacturers throughout the State by a circular letter, of which the following is a copy:

OFFICE OF THE BUREAU OF STATISTICS OF NEW JERSEY,

TRENTON, March 15th, 1904.

At the urgent request of the managers of the Louisiana Purchase Exposition, this bureau has undertaken to make an exhibit in the Department of Social Economy, which shall consist in part of a display illustrating the character and extent of such institutions designed to benefit employes as are now in operation among the manufacturing establishments of New Jersey.

These include betterment institutions organized by employers for the benefit of employes, such as profit-sharing, hospitals, beds in hospitals, club-rooms, libraries, reading-rooms, educational classes, lectures, recreation halls, gymnasiums, baths, lunch-rooms, rest-rooms, shop committees, sick benefits, burial funds, prizes for useful suggestions relating to business or for superior work, and, in fact, all institutions for improving social and industrial conditions and raising the general standard of life of the working people.

We regard it as being in the highest degree important to the interests of our State that the efforts which are being made by employers toward the establishment of enduring relations of amity with their workmen, based on mutually displayed evidences of good will, should be made known and full credit for the same awarded where it is due.

With this end in view, it is the intention of the bureau to make a special compilation and report embracing such establishments as may have in operation among its employes any of the forms of benefit institutions referred to above, or who have systems of any kind for similar purposes. The compilation, when completed, will be placed in the proper department of the Exposition along with reports on the same subject from other States and foreign nations.

With the coöperation of manufacturers who are in a position to furnish information, we feel certain of being able to make a presentation showing the existence of cordial sentiments of mutual help and interdependence between employers and employes in New Jersey which will give our State a position in the matter of enlightened and progressive management of industry commensurate with her high rank as a manufacturing State.

Will you, therefore, kindly let us know at once, the time for making

the compilation being very short, whether or not any form of betterment institution, on the lines referred to above, is at this time established in your works for the benefit of employes. If there is any such, please send, using enclosed addressed envelope for that purpose, a brief outline of the plan, on receipt of which blanks for the fuller information desired will be at once sent to you from this office.

Trusting you will second our efforts to make known, in this way, the best side of industrial life in New Jersey, we are

Very respectfully yours,

BUREAU OF STATISTICS OF NEW JERSEY,

W. C. GARRISON, *Chief.*

From the two thousand copies of this circular which were mailed to as many firms or corporations controlling manufacturing establishments, five hundred and ten replies were received. Of this number, seventy-five came from firms who were in a position to give interesting and valuable details relating to some one or more of the features for the betterment of factory life, as to the existence of which the inquiry was made. Further correspondence with these firms brought out the information relating to betterment work which forms the subject-matter of this pamphlet.

Each establishment appears by name in alphabetical order, with a full description of the benefit system reported as being in operation there.

A large number of these, it will be found, are associations to guarantee operatives against a total loss of wages through disability, and to provide a burial fund in case of death. In some instances these societies are supported and managed altogether by the workmen themselves; in others, assistance on some well-defined plan is given by the employers, while the expenses of many, and among them those on the most generous and extensive scale, are borne entirely by the latter.

In all these various enterprises, no matter what the particular plan may be on which each one is operated, the practical control and direction of the work they are intended to accomplish, is entirely in the hands of the workingmen. Nowhere does the record show an employer belittling the value of his gifts by assuming a patronizing attitude to

those on whom they are bestowed, and, without exception, all concerned express the highest degree of satisfaction with the results thus far accomplished.

About one hundred of the replies received were limited in contents to a simple statement of the fact that, nothing of the character indicated in the circular letter was then in operation at their respective works.

Among the remaining answers, about three hundred and thirty in number, were many from employers who expressed in most earnest terms a desire to know what others are doing on the lines of betterment evolution, with a view to the adoption of some plan for the benefit of their own employes that has been approved by the experience of others.

A large number of these letters are written in terms of the most cordial approval of the bureau's undertaking in bringing this important subject to the front, and express the belief that, like themselves, many other employers stand ready, when they know the first steps that should be taken, to meet their workmen more than half way in the adoption of measures for harmonizing the interests of capital and labor, and binding together in bonds of mutual interest and good will, the men whose work enriches the State, and the employer who directs their labor and converts its product into wages.

To bring the facts relating to this new departure in the management of industry before the public, and especially to point a promising way to industrial peace for those employers and workmen who may be in danger of drifting apart for want of the encouragement to get together, which, it is hoped, will be found in the experience of those who have had the courage and enterprise to establish the improved relations between capital and labor which are described in these pages, is what was aimed at when the work of investigating and describing these betterment institutions was taken up.

If a perusal of the contents of this pamphlet should lead to that much-desired result in only a few instances—although a much wider influence is hoped for—the labor ex-

pended in bringing the interesting economic experiments herein described to the attention of employers and workmen throughout the State, will have been well repaid.

The Chief of the bureau takes pleasure in acknowledging the value of the assistance rendered by the manufacturers of the State in the prosecution of the work, and avails himself of this opportunity to thank them jointly and severally for the same.

The courteous readiness to help in every possible way, and the interest which they displayed in every detail of the inquiry, very greatly encouraged those who were engaged in the work, and helped materially toward bringing it to a successful conclusion.

WINTON C. GARRISON,

Chief.

Industrial Betterment Work

IN NEW JERSEY



Details of the Various Systems
Now in Operation

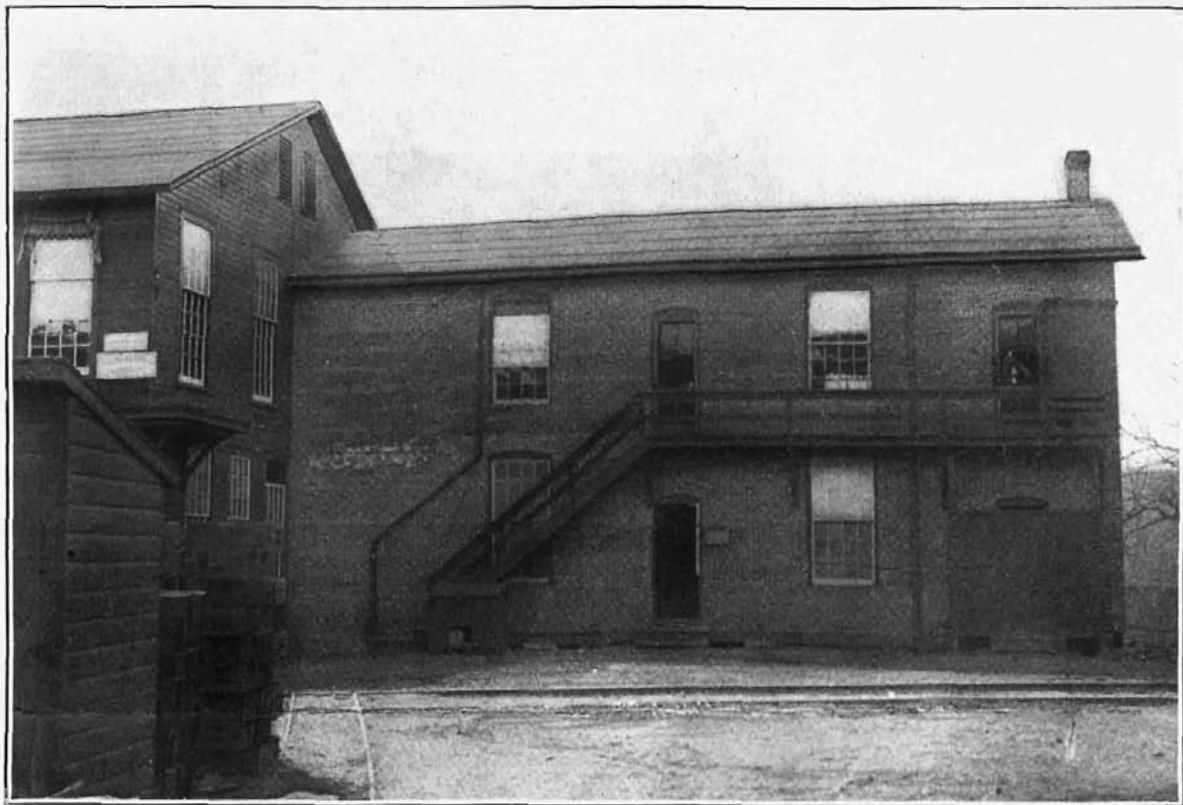
1904

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Industrial Engineering

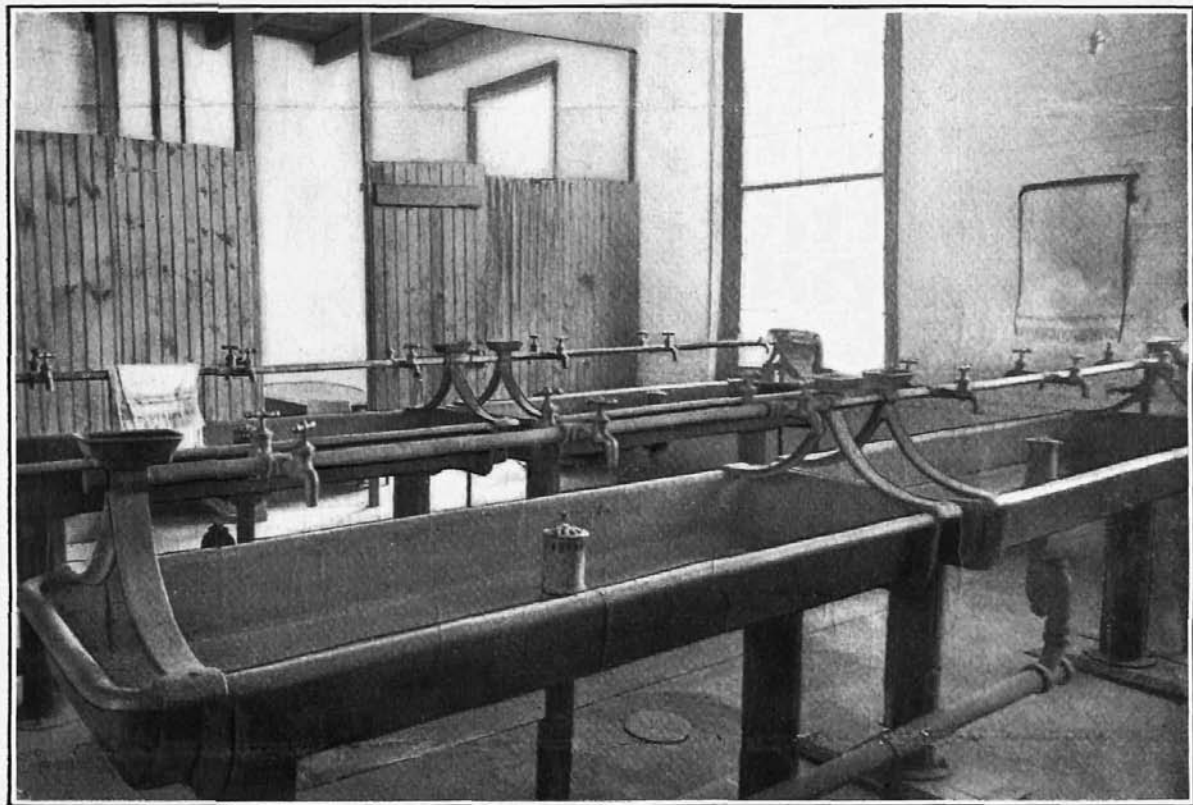
NEW YORK

Principles of the Various Systems
Now in Operation



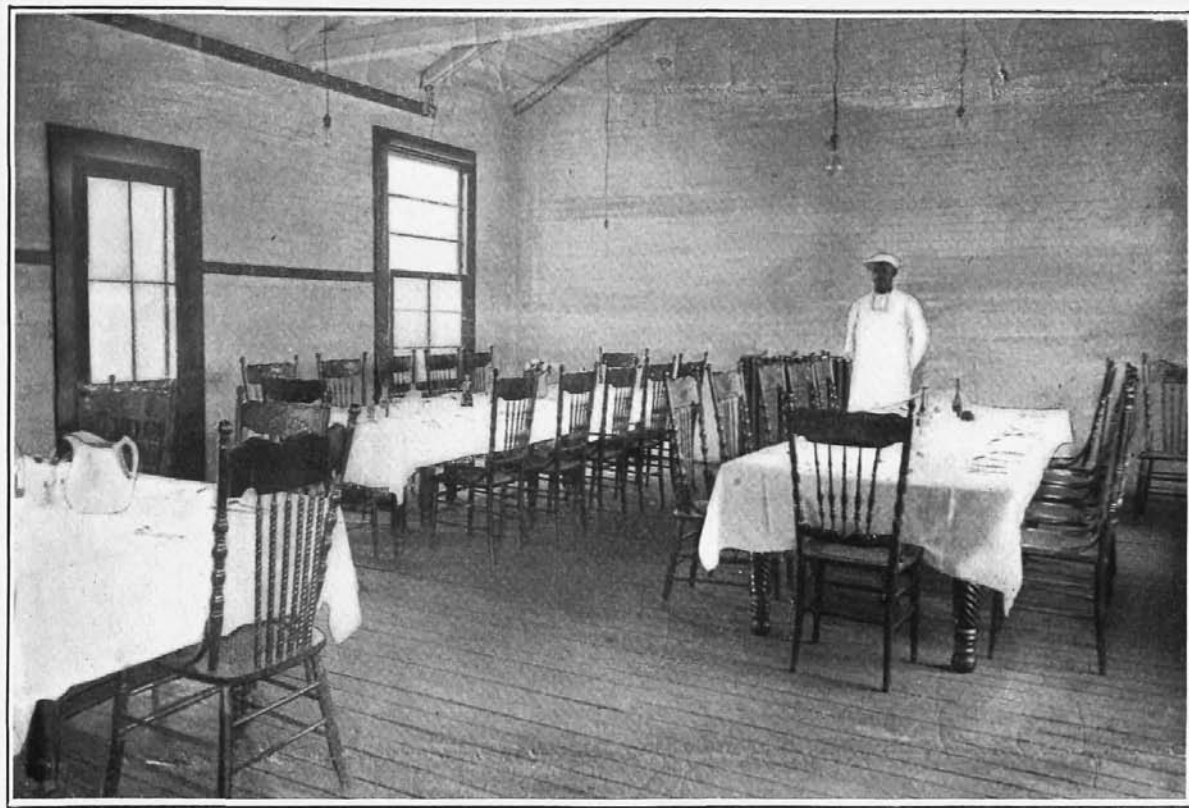
EXTERIOR VIEW OF LUNCH AND BATH ROOMS. AMERICAN BRAKE-SHOE AND FOUNDRY COMPANY.



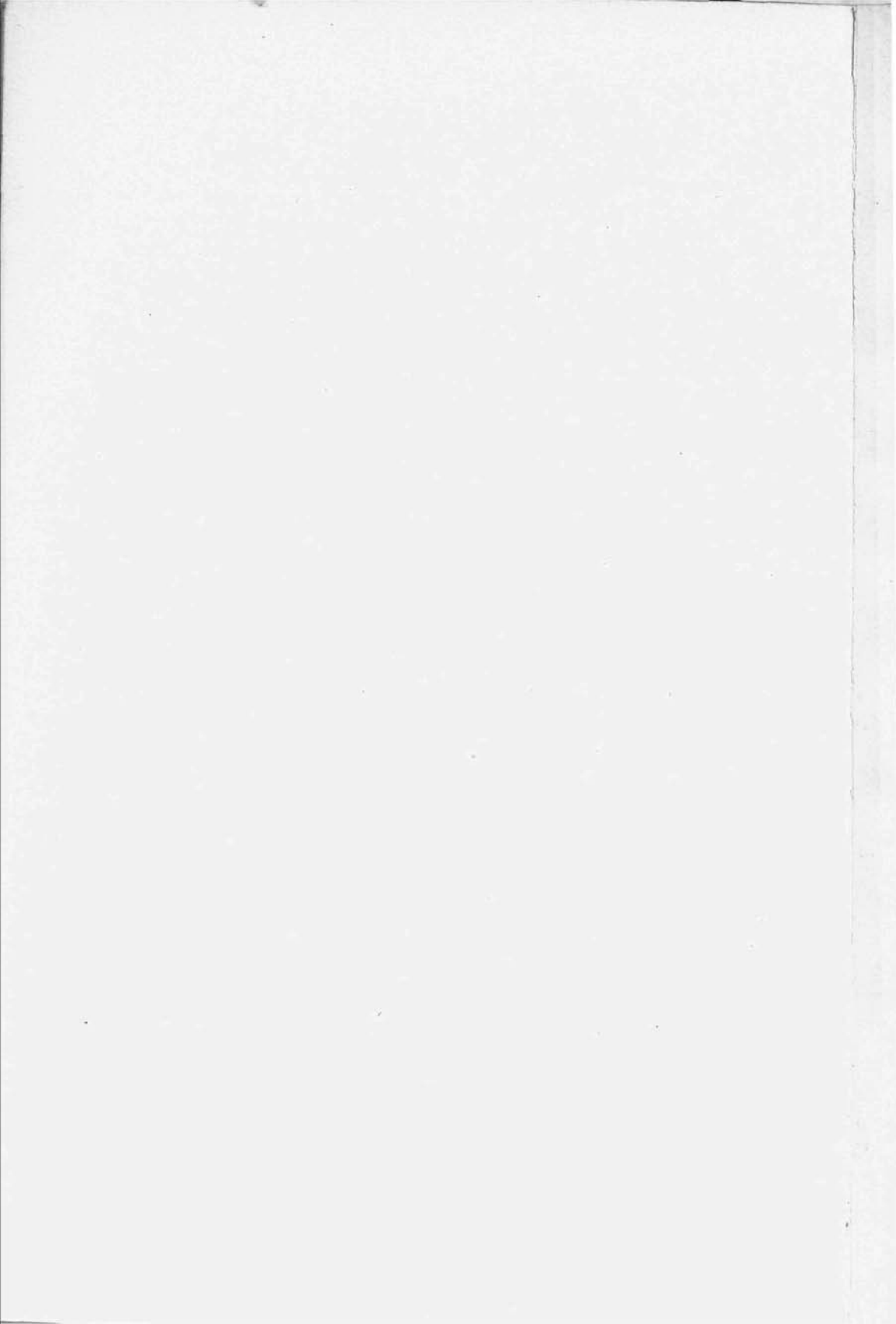


BATH-ROOMS AND LAVATORY. AMERICAN BRAKE-SHOE AND FOUNDRY CO.





LUNCH-ROOM. AMERICAN BRAKE-SHOE AND FOUNDRY COMPANY,



**American Brake-Shoe and Foundry Company,
Mahwah, N. J.**

**Manufacturers of Brake-Shoes, Iron and Steel Castings.
Employs 266 Males.**

This company provides a lunch-room and bath at its works for the benefit of employes. The lunch-room is well lighted, furnished comfortably, and large enough to accommodate those of the workmen who choose to use the facilities which it offers. The bath-room is accessible to all, and may be used during working hours by employes for a reasonable length of time.

A contribution of two hundred and fifty dollars (\$250) per year is paid to the local hospital for a bed, to be occupied by employes who are injured at work or who may become sick during working hours.

Provision is also made for placing stock of the company within reach of worthy and industrious employes who may desire to become possessed of it, and whose records entitle them to that consideration. The allotment of stock to employes is not made on any general or uniform plan, each case being considered and disposed of on its own merits. The prevailing practice, however, is to allow the dividends to be applied in payment of stock.

The influence which these opportunities have on the general conduct of employes in the matter of sobriety and steadiness at work is unqualifiedly good; all appear to appreciate what is sought to be done for them, and in return have, without exception, always shown perfect loyalty to the company's interests.

American Engine Company, Bound Brook, N. J.

**Builders of Steam Engines and Electrical Machinery.
Employs 110 Males.**

This corporation is a comparatively new one, and has only recently gotten upon a paying basis. The means for providing the comforts with which it would like to surround its workmen has not, therefore, been sufficient for that purpose. The best that circumstances has permitted being done up to the present time is the establishment of a premium system in connection with work, which permits the operatives to very materially increase their earnings.

**American Swiss File and Tool Company, Elizabeth, N. J.**

**Manufacturers of Files.
Employs 48 Males and 4 Females.**

Has a limited form of profit-sharing, which consists of allotting company stock to energetic and intelligent employees. The stock is given fully paid up, and a part of the profits of the business are set aside to pay for it.

The company does all in its power to encourage its employees to become members of building and loan associations, and the workmen generally show a disposition to follow the advice given them in this respect. The company also contributes liberally to the maintenance of the local hospitals, to which employees have the right of admission and treatment free of charge.

The families of deserving men are looked after in cases of sickness, and in many instances half the ordinary wages of workmen suffering through a long period of sickness has been paid to their families. In such cases the money paid has been regarded as an advance in anticipation of future earnings, and a small percentage of the wages which accrue after recovery is deducted until the money is returned. This course is followed in accordance with the

known and expressed wishes of employes who have been so assisted. They seem to feel that self-respect requires that they should not be under an obligation which they have the ability to repay.

The company looks sympathetically on the idea of sharing profits, and would adopt it if only a proper system could be devised for carrying out such plans. Pending the time when this may be done, and also as a fixed matter of policy, the firm encourages thrift, steadiness, regular contributions to building loan societies, and all other habits and practices that make men thrifty and prudent. Where the company finds a really valuable man, every endeavor is made to attach him permanently to the business by increasing his salary according to merit.

Satisfactory general rules for profit-sharing the company believes to be impossible without complicating the relations between employers and employes. Dissatisfaction would be quite likely to result from the fact that distribution could not possibly be uniform, but would have to depend entirely on the judgment of the employers, in the justice of which the greater number of employes would probably not concur.



The Arlington Company, Arlington, N. J.

**Manufacturers of Toilet Articles from Pyralin.
Employs 457 Males and 126 Females.**

This factory is situated in one of the finest and most healthful suburbs of the city of Newark, and the employes enjoy all the advantages of having homes outside of the confines of a large city.

The factory buildings are constructed on plans which provide the most nearly perfect sanitation and ventilation.

The company has recently fitted up two large dining-halls at the works, one for male and one for female employes,

where they can eat lunches and procure hot dishes of various kinds, with coffee, tea, etc., at actual cost.

A reading-room for employes has also been provided, which is well stocked with the magazines and other current periodicals. The company takes a deep interest in its employes, both collectively and individually, and stands ready to help them, when necessary, in every practicable way.

The employes appreciate their advantages, are contented with their surroundings, and perform their duties without friction of any kind between themselves and their employers.



Ayers Machine Company, Salem, N. J.

Manufacturers of Presses, Dies, etc.

Employs 42 Males.

This company has provided a wash-room with concrete floor, hot and cold water and other facilities for washing, and have also provided for each employe separate lockers, which are in the wash-room and all arranged conveniently so that they may keep themselves and their belongings clean and in good order.



William C. Baker, Hoboken, N. J.

Manufacturer of Hot-Water, Non-Freezing Car Heaters.

Employs 21 Workmen.

The factory of this firm is not large enough to afford space for such features as library, lunch-room, or bath-room, although these advantages are appreciated by the management and will be installed when the growth of business warrants their adoption.

The employes are, however, treated with all possible fairness and even indulgence. One rather unusual but very

generous custom which prevails in this factory is giving all employes a vacation during the year, with full pay. The workmen are allowed one week, and salaried officers two weeks. All are allowed full pay for the following holidays: Thanksgiving, Christmas, New Year, Washington's Birthday, Fourth of July, and Labor Day.

The very best of feeling exists between these workmen and the firm, and no strike or disturbance of any kind has ever occurred among them.



The Baker Printing Company, Newark, N. J.

**Printers and Bookbinders.
Employs 85 Males and 15 Females.**

The Baker Printing Company occupies a large building which was erected for the business, and in the construction of which light, perfect sanitation and ventilation were aimed at and secured. The business was begun by the proprietor, in the year 1885, in the smallest possible way, and is to-day the largest in its line in the city of Newark.

As a result of the loyalty and energy displayed by some of the employes, the proprietor decided, in 1898, to have the business incorporated with a capital of fifty thousand dollars (\$50,000), and permitted the employes to subscribe for the stock. The plant at the present time contains seventy-four thousand dollars' (\$74,000) worth of machinery, while the subscriptions to stock amount to only twenty-two thousand dollars (\$22,000). The undivided profits on the first of January, 1904, were forty-one thousand six hundred and eighty-two dollars (\$41,682), and the dividend on stock for 1903 was eight (8) per cent. The stock is sold to employes at par.

The ratio of stockholding employes to the total number of persons employed for the six years that have elapsed since the business was incorporated is as follows:

Years.	Total number of employees.	Employees who are stockholders.	
		Number.	Per cent.
1899,	74	10	13.5
1900,	80	13	16.2
1901,	84	13	15.4
1902,	90	17	18.8
1903,	95	25	26.3
1904,	100	27	27.0

As a result of the enlightened and generous policy pursued by the founder, the business of the Baker Printing Company is growing toward a realization of the highest ideal form of co-operative business management, under which the workmen will be their own employers. It will be noticed by examining the above table that the percentage of stock-owning employees in 1904 is just double what it was in 1899, the first year the plan was put in operation.

A congenial condition of affairs exists in all departments, notwithstanding the fact that the composing-room employs men affiliated with a labor union.

The Board of Directors of the Company decided, several years ago, that, as the stockholders were owners of the business, it was not necessary for them to join new unions as they came up. The only union in existence at the works at the time of the incorporation of the company was a local of the National Typographical Union, whose members are still employed in the composing-room.



Julius Brandes Manufacturing Company, Paterson, N. J.

Manufacturers of Silk Ribbons, Bindings, etc.
Employs 310 Males and 172 Females.

Under the encouraging auspices of this company, its employees have created a Benevolent Circle for the relief of those who become sick or disabled while in the firm's employ.

Membership is strictly limited to employees, and the number of those who are connected with the circle is (March, 1904) two hundred and thirty-three (233), or about seventy-five (75) per cent. of the total number of male employees.

Members pay ten (10) cents per week as dues, and the firm makes a contribution annually to the funds of the Circle, the amount of which is based on the number of members.

The sick or disability benefit paid is six dollars (\$6) per week for thirteen consecutive weeks, and longer, if, on medical authority and a knowledge of the financial circumstances of the member, the case seems to warrant and require it. The firm contributes annually two dollars (\$2) per member in good standing, until the aggregate amounts to a fund of one thousand dollars (\$1,000), which must be held as a reserve and used in emergency cases, such as epidemics, etc., only.

No provision has as yet been made for the death of members, but the matter is now under consideration by the Board of Directors.

The firm unqualifiedly expresses the belief that this benevolent society exercises a good, wholesome influence on the general conduct of the employees, in so far that, having an interest at stake, however small it may be, they are more apt to listen to reason themselves and to influence others in the same way. The firm makes no attempt whatever to guide their workmen's actions, except in the matter of the reserve fund.

Bressler Brothers, Bayonne, N. J.

**Manufacturers of Clothing.
Employ 65 Males and 20 Females.**

The employes of this firm have organized among themselves a society which pays five dollars (\$5) per week to sick members for a period of fifteen weeks' illness, and defrays the cost of burial in case of death.

The finances of the society are provided and managed exclusively by the employes.



Brighton Mills, Passaic, N. J.

**Manufacturers of Cotton and Special Fabrics.
Employ 115 Males and 120 Females.**

The management of this company reports that it is now planning to introduce certain improved methods of payment of wages, which will be, in effect, profit-sharing, but in what they regard as a very much improved form. It is also intended to encourage the making of suggestions relating to the work by employes, by offering a liberal bonus for such as may be practical and result in improvement to the business. It is expected that the system will be ready to put in full operation during the spring of 1904.



**The Camden and Philadelphia Soap Company,
Camden, N. J.**

**Manufacturers of Laundry Supplies.
Employs 20 Males and 5 Females.**

No organized form of betterment or benefit institution is maintained by either this firm or its employes. The broad-minded and generous policy pursued by the company in everything relating to the well-being of its employes fills

the place and does the work of such associations very thoroughly, and that without cost to its workmen.

Without ostentation of any kind, but in an entirely modest way, as though there were nothing uncommon in the course pursued by them, it is stated by the company that they "have been in the habit of taking care of employes at all times; during dull seasons and sickness they have never lost financially, being always on the pay-roll, sick or well, work or play."

"The results are, we have never had any trouble between ourselves and our employes, who are and always have been faithful and remain with us. We have employes who have been with us for the past twenty-seven years. Under these circumstances, neither our employes or ourselves have ever felt the need of any form of organization."



Carter, Howe & Company, Newark, N. J.

**Manufacturers of Fine Jewelry.
Employs 149 Males and 78 Females.**

The factory building of Carter, Howe & Company has a thoroughly modern system of ventilation by means of exhaust fans.

It is also supplied with drinking water from a driven well, direct pipes from which, with faucets, are on each floor. The water, which is used for drinking purposes only, has been analyzed, and pronounced wholesome and good. Thus, breathing untainted air and drinking perfectly pure water of even temperature the year round, there is not the former craving for stimulants, and but little trouble has occurred from excessive drinking on the part of employes. By these means the firm has brought about what it regards as a condition of practical temperance.

Because of the value of gold on the work-benches, employes are not allowed to remain in the factory during the noon hour; so, for the convenience of those who cannot go

home for dinner, the first floor of a building which adjoins the factory has been leased and fitted up comfortably for the men's use.

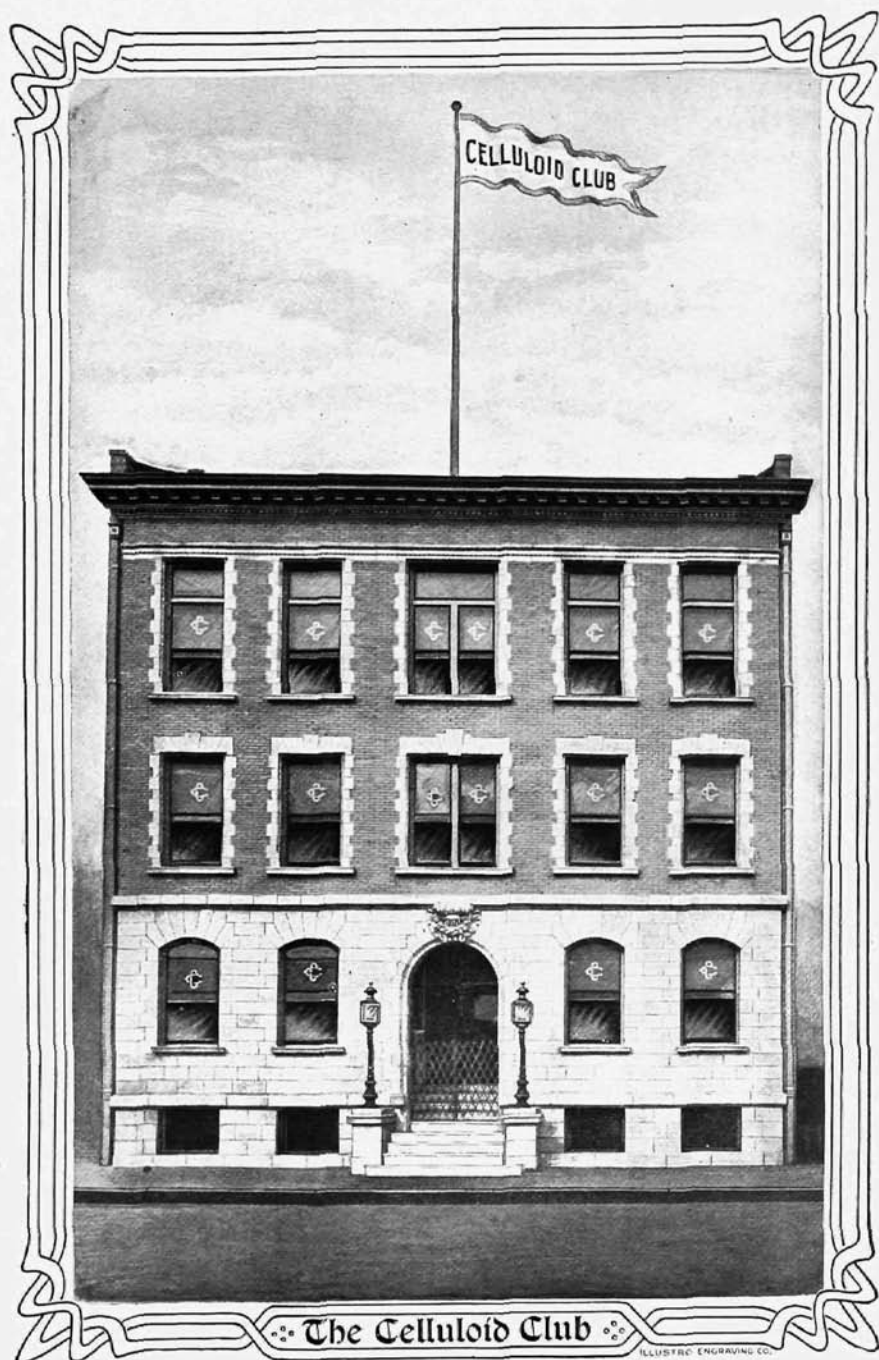
For the women employes there are two rooms, beside the toilet and kitchen, the latter having a cooking-stove with fire and teakettle of hot water ready for them, so that they can make tea or coffee or cook any simple article of food, if they care to do so. The women's lunch-room is provided with shelving, closets and other conveniences for putting away dishes and cooking utensils, and for meeting other requirements of the purposes of its use. All the rooms are heated by steam, and kept clean and comfortable at the expense of the company.



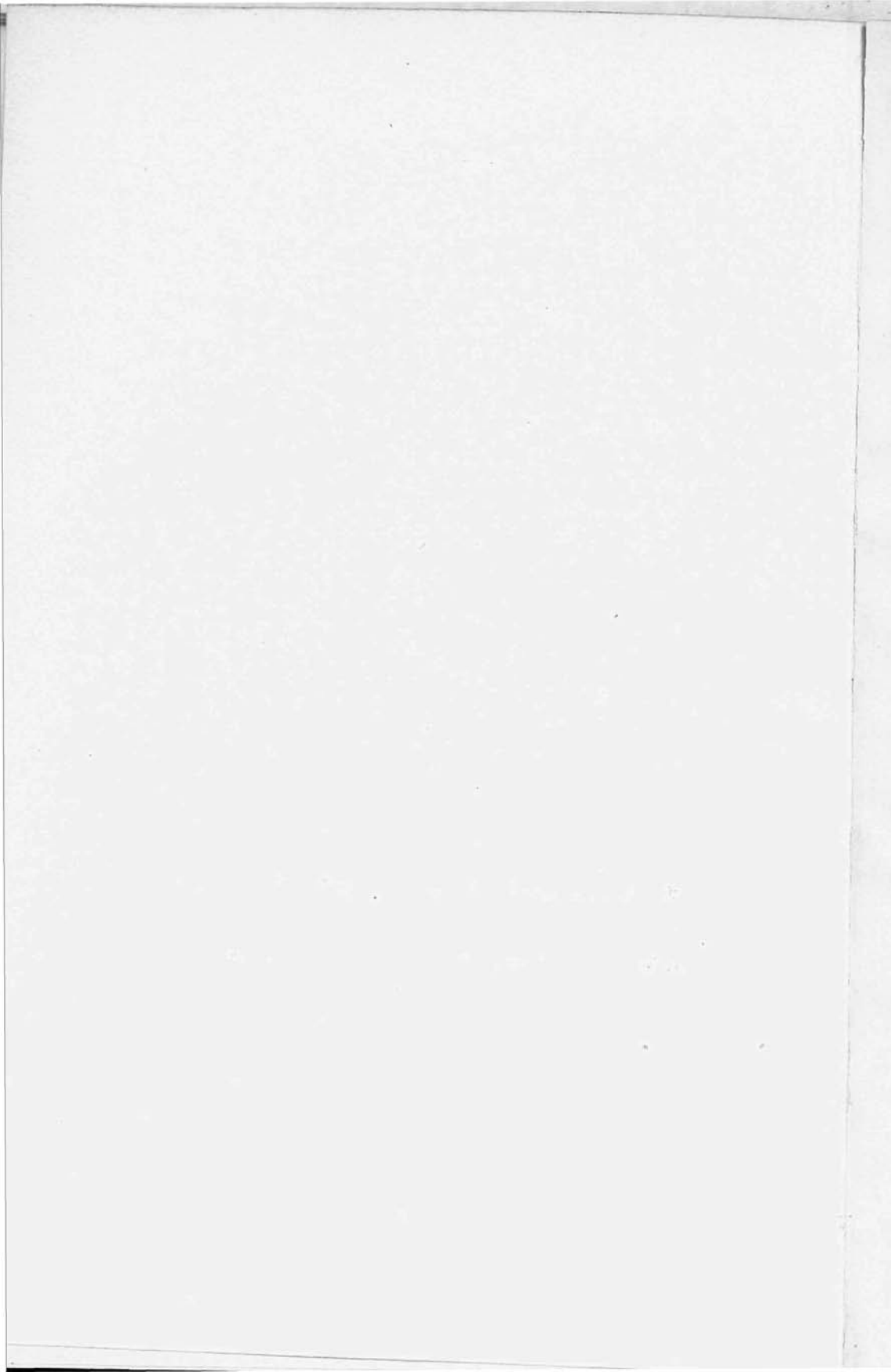
The Celluloid Company, Newark, N. J.

Compounders of Pyroxyline, and Manufacturers of Articles Made Therefrom Under the Trade Name "Celluloid."
Employs 945 Males and 360 Females.

The Celluloid Company, whose works cover a large area in the eastern district of Newark, has laid down and now maintains, in co-operation with its employes, a system of benefit institutions which perfectly meets the material, moral and intellectual requirements of its working force. The beginning of these now firmly established plans for the improvement of factory life are found in the early history of the company, when the comparatively small-sized works were first established on part of the site now occupied by its extensive plant. The plans commenced with the early life of the industry, and grew with its growth; the employes being at all times inspired by a desire to cultivate every means of self-help and mutual improvement. Clubs of various kinds were formed; some for athletic games and exercises, others for intellectual training and mental improvement, and still others for mutual aid in cases of distress through sickness or death.



THE CLUB HOUSE.



These organizations increased in number and in membership also as the Celluloid Company's business increased in magnitude and the force employed became greater.

The clubs were organized largely on departmental lines, and suffered from the incidental disadvantage of such narrow limitations not being favorable to the free extension of acquaintanceship among the company's employees. The mere departments were the centres of interest to those employed in them, instead of the entire works, of which these were but subdivisions.

Things had gone on in this way for some years, the employees organizing and managing their societies as seemed to them best, without any interference whatever on the part of the employers. But the company officials had been watching the movement toward organization among its operatives with sympathetic interest, and observed much to admire and nothing to condemn, both in the purposes for which the societies were formed and the manner in which their affairs were conducted.

Meanwhile the broader-minded members of the various organizations became dissatisfied with the limitations necessarily imposed by the departmental basis on which they were formed, and soon the societies were opened to all employees of the Celluloid Company, without reference to the part or branch of the business in which they might be employed.

This new departure produced a great expansion in the membership and also the activities of the societies; so that the question of meeting-place accommodations soon became a matter of serious difficulty.

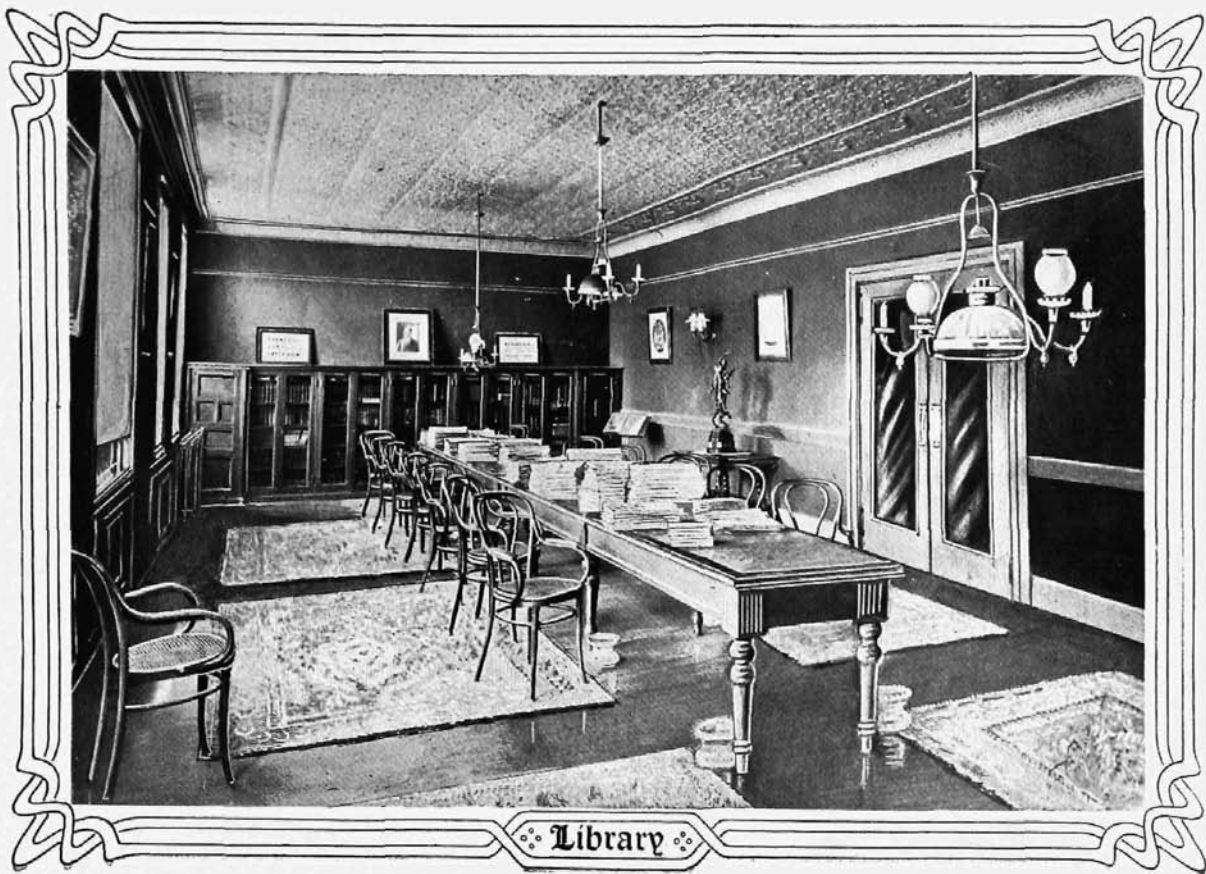
An attempt was made to secure the use of a vacant floor in one of the factory buildings, and the necessities of the situation were explained and a request to that effect preferred to the managers of the company, by a committee acting on behalf of the members of the various clubs connected with the works. This application, which was the first instance in which the firm had been requested by the operatives to in any way assist them in matters relating to

their organizations, was productive of important and far-reaching results. After due consideration had been given to the matter, the Celluloid Company dismissed the suggestion that any part of the factory space should be used for such purposes, as no satisfactory or suitable accommodations for the work of the organizations could be provided in that way. A further discussion of the subject, carried on between the representatives of the company and the officers of the operatives' societies, finally brought about the consolidation of all these bodies into one organization, under the expressive title "The Celluloid Club."

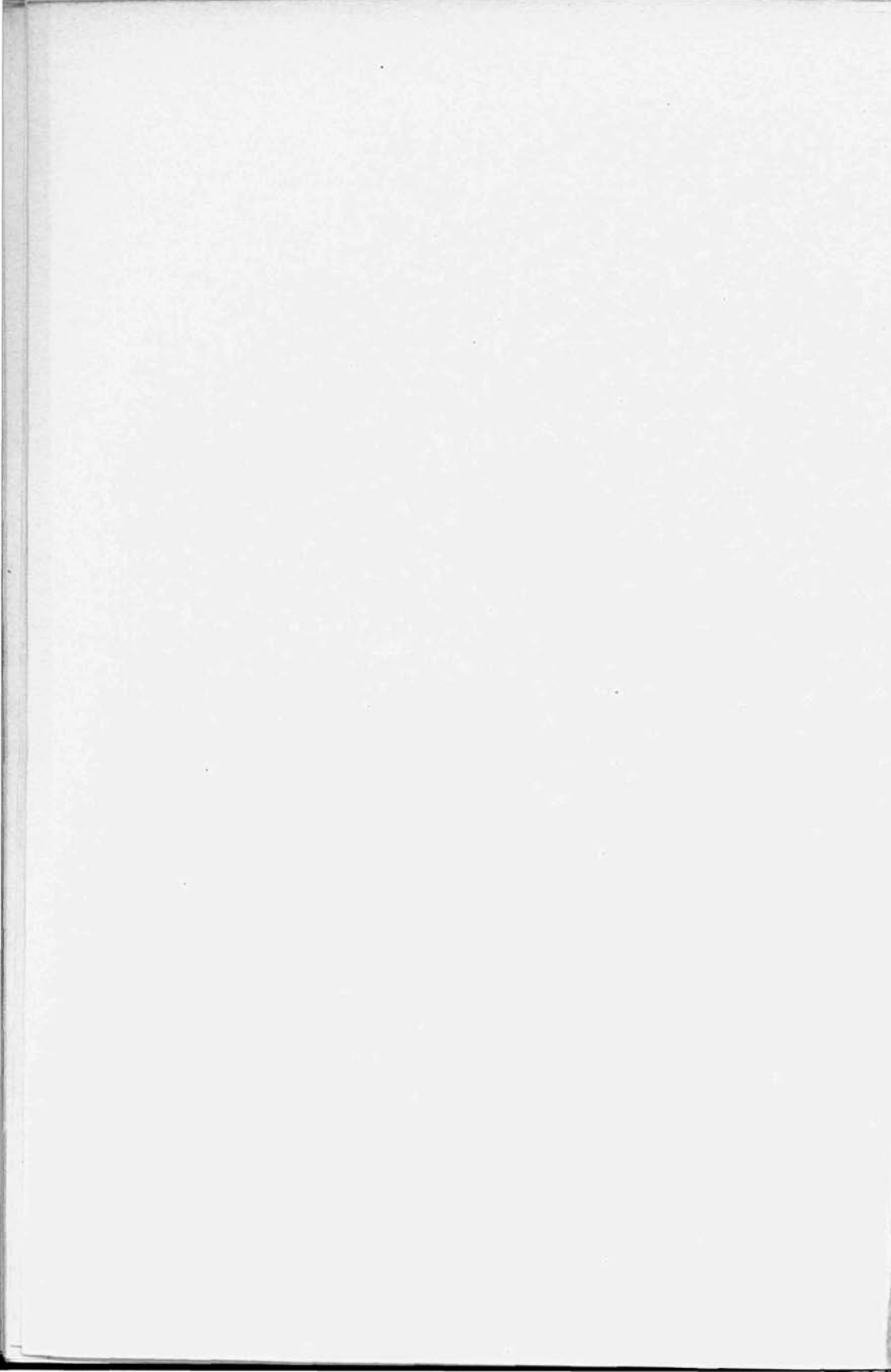
The Celluloid Company solved the meeting-place problem in a manner which displayed at once a superb confidence in its employes and an unparalleled liberality in assisting them to carry out the plans they had formed for mutual improvement. Instead of the privilege of using a spare floor or loft in one of the factory buildings for which they had petitioned, they were given a club house of the most solid construction and impressive dimensions, furnished throughout with everything required for its various uses. The building and furnishings were paid for entirely by the company, the total cost closely approximating forty thousand dollars (\$40,000).

This truly magnificent building, which, it may be safely said, is one of the largest and best appointed club houses provided by employers for the benefit of their workmen to be found in New Jersey, or probably anywhere else in the United States, is dedicated with all its furnishings to the exclusive use of the employes of the Celluloid Company, and managed by them under the organization name of "The Celluloid Club."

Further on, a history of this interesting organization is given in an article on the subject written by Mr. S. T. Simmonds, a gentleman of high intelligence who is an employe of the company, and was the first president of the club. The number and purposes of the various sub-societies which exist within the controlling organization are given



THE CELLULOID CLUB.



and explained by Mr. Simmonds in a most interesting manner.

The club house is situated at the junction of Lafayette and Sanford streets, in the eastern district of Newark, within convenient walking distance of the works and of the homes of at least eighty per cent. of the operatives employed in them. The neighborhood is well built up with comfortable residences, and although conveniently near one of the main thoroughfares on which are trolley lines running to and from all points in the city, the street on which the building stands is far enough away to escape the disturbing noises of traffic.

The location is, therefore, as nearly an ideal one as it is possible to obtain within a reasonable distance of the manufacturing district of a large city.

The club house, the front of which is shown in one of the illustrations, is fifty feet in width, one hundred feet in depth, and contains three floors and a basement.

In the basement are two fine, slate-floored bowling alleys, two shuffle boards, and two tunnels with targets for rifle practice.

The main entrance on the first floor is reached by a short flight of marble steps, and a fine vestibule with mosaic flooring which has the club name inserted across its width.

To the right of the main hallway is a fine, broad stairway leading to the second floor, and beside it, another of equal capacity by which entrance is had to the basement. On the left, at the extreme end of the hallway, is a large open fire-place and an old mantel which occupies the centre, and is flanked on both sides by leaded pane windows and window-seats, the whole presenting an appearance of quiet beauty suggestive of the old colonial style of interior. The administration offices of the club, the café and a large billiard-room are on this floor.

The café furnishes lunches, and, if required, more elaborate meals are served, but only to members and the guests whom they are allowed by the by-laws of the club to introduce. Members of the club who reside a long distance from the works can have lunch served at the noon hour for a

much lower rate than the same food would cost if obtained in a regular restaurant. No strong liquors are allowed in the club house, consequently none are handled in the café, but beers, ales and wines are kept in stock and served, as wanted, in moderation.

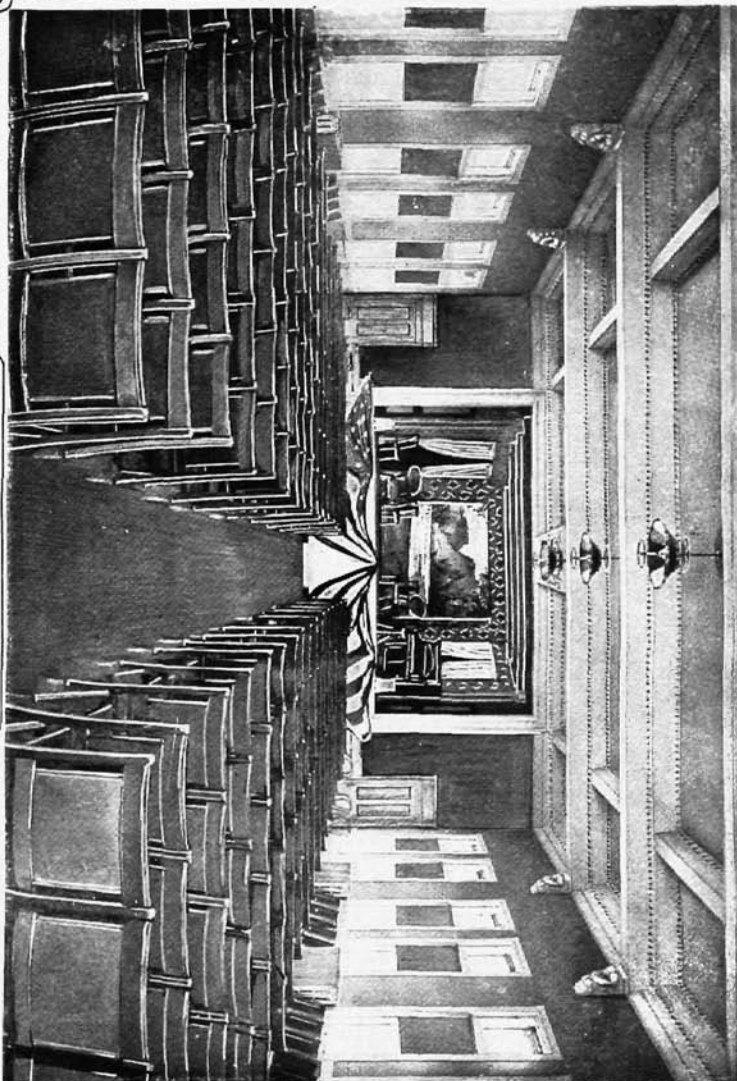
On the second floor is the library and reading-room, which is of generous proportions, the length being equal to the entire width of the building. The decorations are of a very tasteful character, the colors being quiet and harmonizing perfectly with each other, and also with the fittings and furniture, the general effect produced is highly pleasing. Book cases filled with well-selected volumes of good literature and books devoted to scientific and technical subjects line the walls on the three sides of the room, and a long table stacked high with magazines and other periodical publications, the best of their several kinds, occupies the centre. Several beautiful groups in bronze, trophies won in contests by some of the associations connected with the club, are distributed about the room in positions where they contribute most to the general decorative effect. A condition of perfect order and an air of quietness, refinement and repose pervades the library everywhere and is plainly visible in all its appointments.

Besides the library there is, on this floor, a reception-room for ladies, bath-rooms, meeting-rooms for committees, a billiard-room and a large card-room appropriately furnished with tables and chairs.

The ladies' room, which is very tastefully furnished with easy chairs, lounges and handsome rugs, has been fitted up especially for the accommodation of the female employes of the Celluloid Company and friends of the club members to whom a reception and dance is given once a month throughout the year.

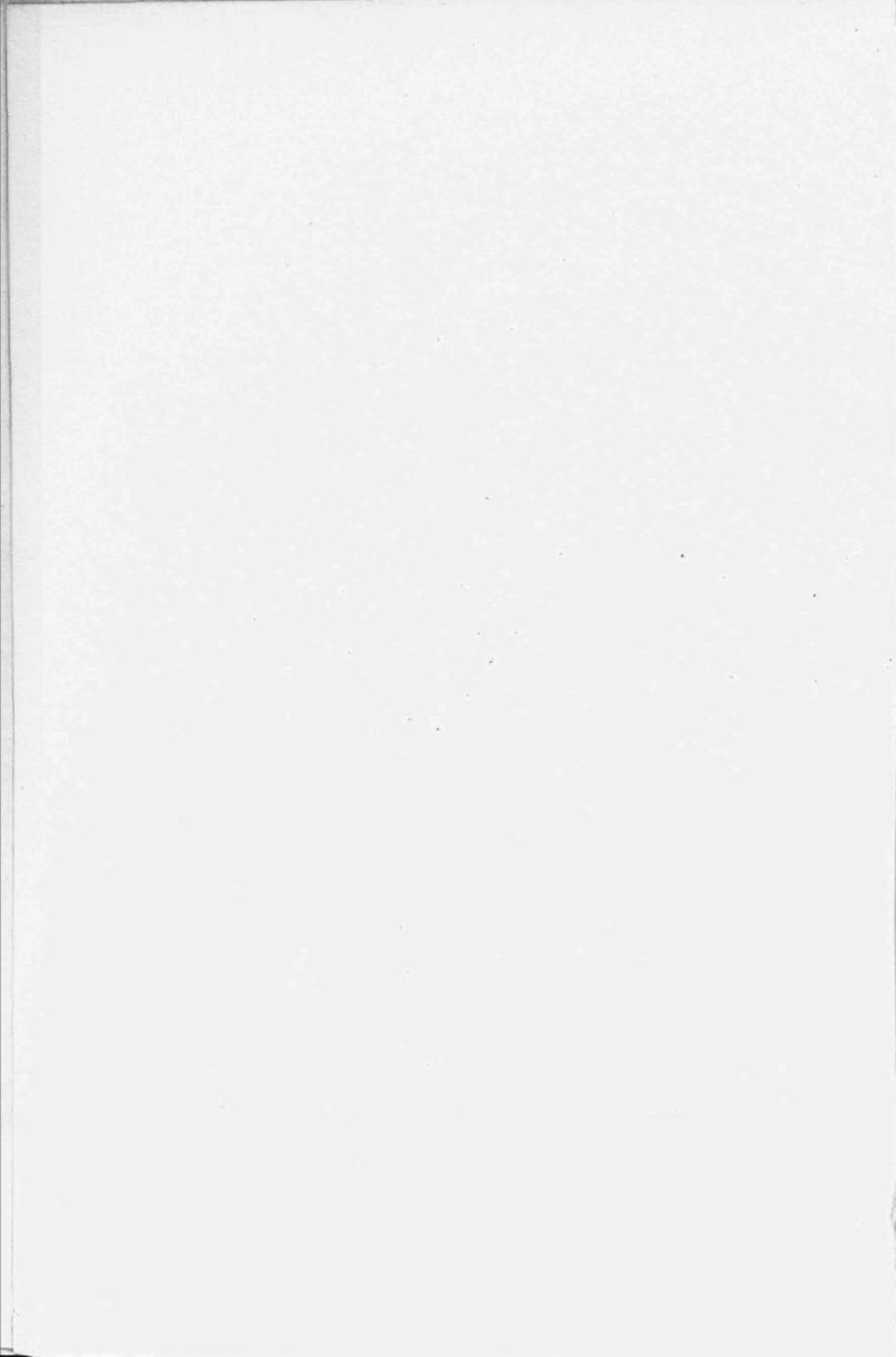
The bath-rooms are provided with the latest types of tubs and sanitary plumbing. Office and committee-rooms are all furnished with roll-top desks, chairs and other appropriate fittings.

The card-room is a commodious apartment containing



❖ Entertainment Hall ❖

THE CELLULOID CLUB.



numerous tables specially designed for the uses to which they are put.

The amusement hall on the third or top floor of the building is, from its size, furnishings and the uses made of it, the most impressive part of this most beautiful club house.

The hall occupies the entire length and breadth of the building outside of the space taken by the broad stairway which leads to it from the floor below. Large windows at the front and on both sides admit abundance of light and secure perfect ventilation.

The rear end of the hall is taken up by a stage which has a front or opening of thirty feet. Scenery and other equipment required for the production of plays are plentifully provided, and are all of a quality equal to the stage equipment of the best theatres in the city of Newark.

The entertainment hall is used by the club members for various purposes. The Dramatic Association, one of the numerous club organizations of the Celluloid Club, gives frequent plays there, particularly during the fall and winter months. On such occasions the floor is covered by rows of chairs as shown in the illustration, which extend from the stage to the front of the hall. When not in use for theatrical purposes or for lectures, the chairs, which are made to fold up, are put away in the open space under the stage.

In all theatrical performances those who take the parts are employes of the Celluloid Company, and, excepting the female performers, are members of the club.

Receptions, with dancing as the main incident, are held once a month, these functions being complimentary to the company's female employes, and particularly designed to enable them to participate in and enjoy some of the advantages of the club. The hall, with its smooth and well-waxed floor, bordered with polished hard-wood settees ranged against the wall on all sides, is a perfectly ideal ball-room, and the evenings devoted to these functions are always greatly enjoyed by all who take part in them.

An Athletic Association, another of the sub-groups into which the membership of the parent organization is divided,

uses the entertainment hall for its exercises, which, except during the warm summer months, are held once a week throughout the year.

The athletic class has a competent professional instructor, who directs and controls all its exercises.

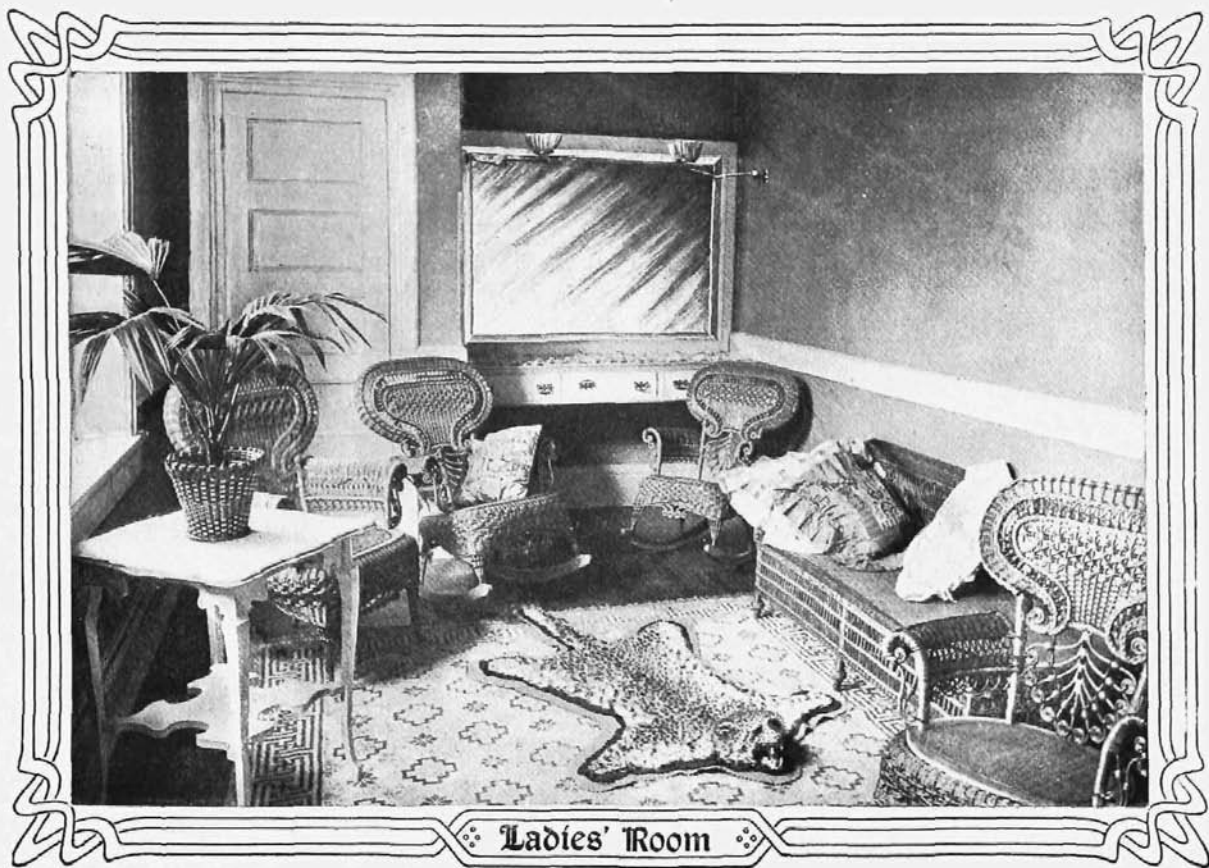
A complete gymnasium outfit is provided for the athletic association; the articles are set up in the hall on athletic class nights, and removed therefrom immediately after use or when necessary to prepare the room for other purposes.

The sub-organizations mentioned here are only a few of the many that flourish within the Celluloid Club and enjoy the facilities of this admirable club house, but these details are fully gone into by Mr. Simmonds, and no further reference need be made to them here.

Those familiar with club life and the facilities for recreation and for the comfort of members which are ordinarily provided in first-class club houses do not hesitate to say that in all these features the quarters of the Celluloid Club—the gift of the broad-minded and liberal members of the firm whose workmen constitute its membership—are equal to any for which the membership dues range up to fifty dollars a year. Indeed there is nothing legitimately related to the purposes of a first-class club that is not found here, and that of a quality equal to the best, although the dues are placed at the nominal amount of twenty-five (25) cents a month.

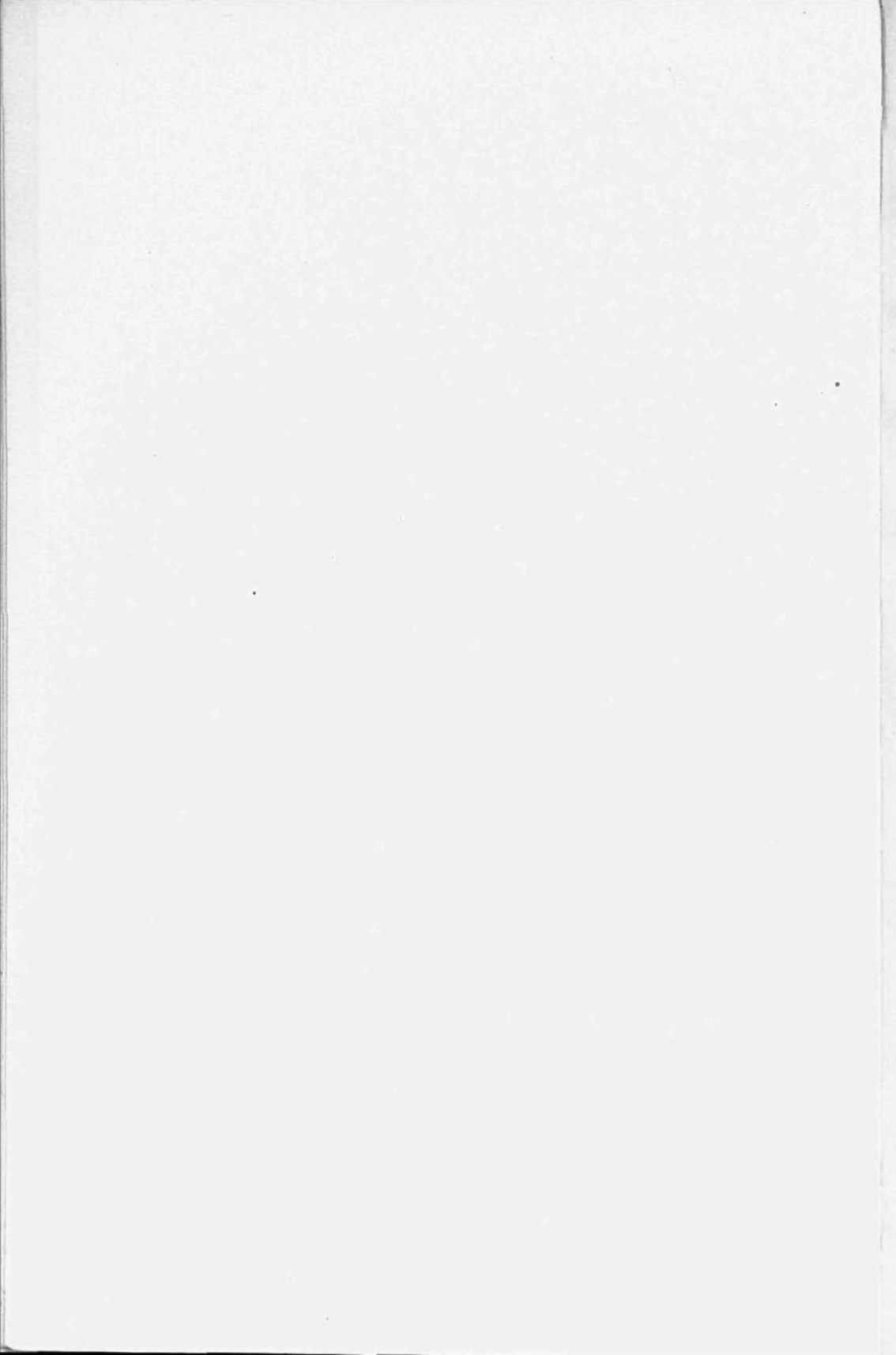
The Celluloid Company pays the taxes, insurance, etc., on the club house, but makes no regular provision towards the club's support; its theory being, to quote the words of President Marshall C. Lefferts, of the Celluloid Company, "that the club would prosper better, and inculcate a feeling of self-reliance and respect in the employes, by letting it be felt by them that it is not a gratuity or charity offered by the company, but a club of themselves, by themselves, and for themselves."

"The company has been called upon and has met several extraordinary expenses which it felt was, perhaps, more than the club could stand, and has, through its officers, con-



Ladies' Room

THE CELLULOID CLUB.



tributed prizes and subscriptions toward various plans suggested by the club."

The cost of maintaining the club is about \$2,225 per year. The dues, based on the present membership of 525, will yield approximately \$1,500; the balance of the running expenses is made up by income derived from the small fees which members pay for participation in the various games and classes.

By-Laws of The Celluloid Club.

A brief review of the by-laws governing this interesting organization will fittingly close what is necessarily a brief description of the beautiful building that is its home.

The club was organized on the 11th of June, 1899, and is, therefore, now five years old. Its official title is "The Celluloid Club of Newark, N. J.," and its object is declared to be, to promote the social, moral and intellectual welfare of the employes of the Celluloid Company.

Any male employe of the Celluloid Company is eligible to membership, and may remain in the club so long as he is an employe of the company and complies with the rules. A member who has been an employe of the Celluloid Company for ten years, and who leaves the company's employ honorably, may continue his membership, but without either the privilege of voting or holding an office.

A male stockholder of the Celluloid Company may become an honorary member of the club and retain such membership so long as he remains a stockholder, with the same privileges as an active member, but without the right to vote or to hold an elective office.

The officers of the club consist of a president, vice-president, secretary, financial secretary and treasurer, and a board of governors consisting of nine members. These officers, with the exception of the governors, whose term is three years, are elected for one year. No more than three members of the board of governors may be elected from one department of the company's works. All officers must be at least twenty-one years of age. Voting is by printed

ballots, which are provided by the Board of Governors, and the polls are open from six to nine o'clock P. M.

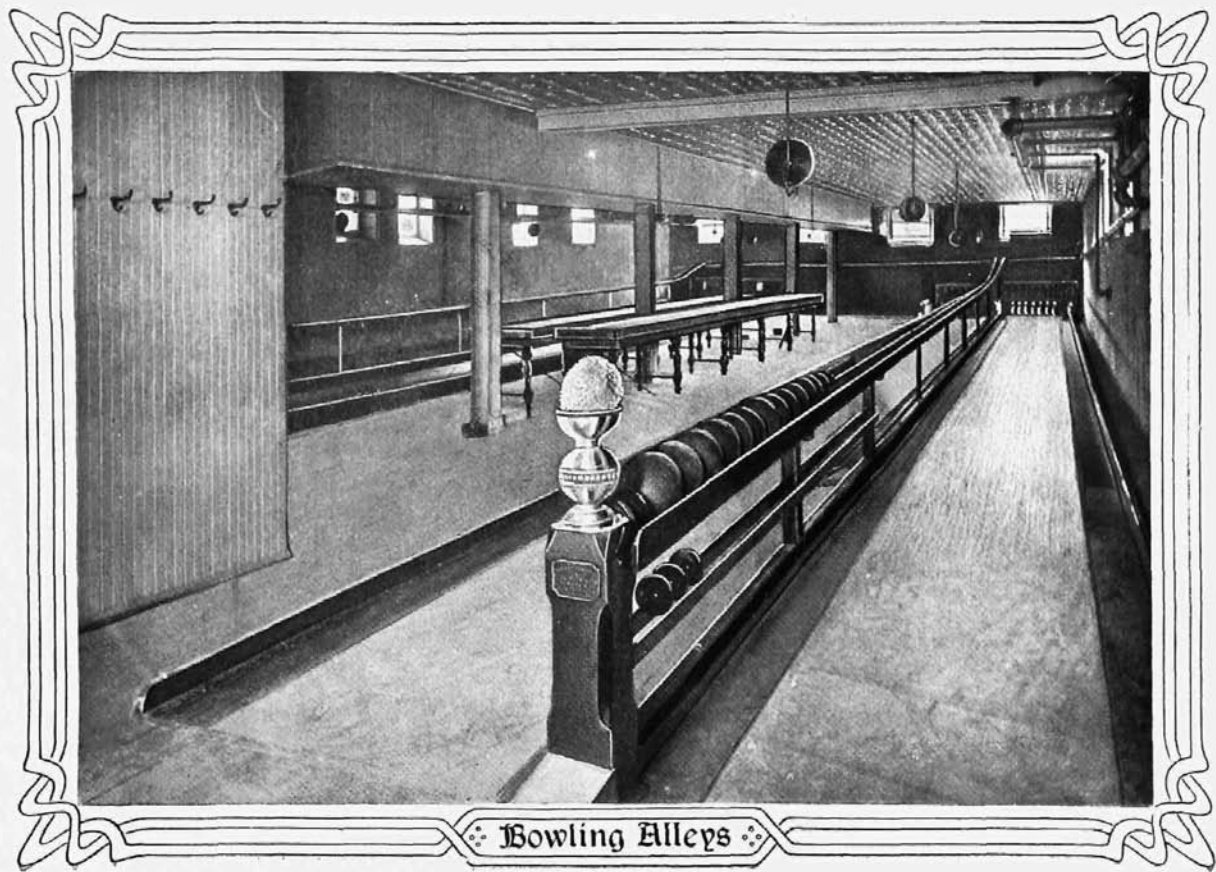
Regular meetings are held once a month, and special meetings whenever called for by twenty-five members in good standing. Notice of special meetings must be posted in the club house and in the factory buildings, at least one week prior to the date on which they are to be held. A quorum for either regular or special meeting purposes is thirty members.

The duties of the president, vice-president, secretary and treasurer are similar to those required to be performed by such officers in all organizations.

The Board of Governors, which consists of nine members is the controlling authority in all things relating to the club and its management. The board has the care of the funds, investments and other property of the club, and exercises general supervision over everything relating to its material welfare. All bills must receive the approval of the governors, and all drafts on the treasurer be signed by them before being paid. Seven of the nine members of the Board of Governors are required to form a quorum. Their power in the management of club affairs during the intervals between club meetings is absolute; all help is employed by them and no employe can be discharged without their sanction.

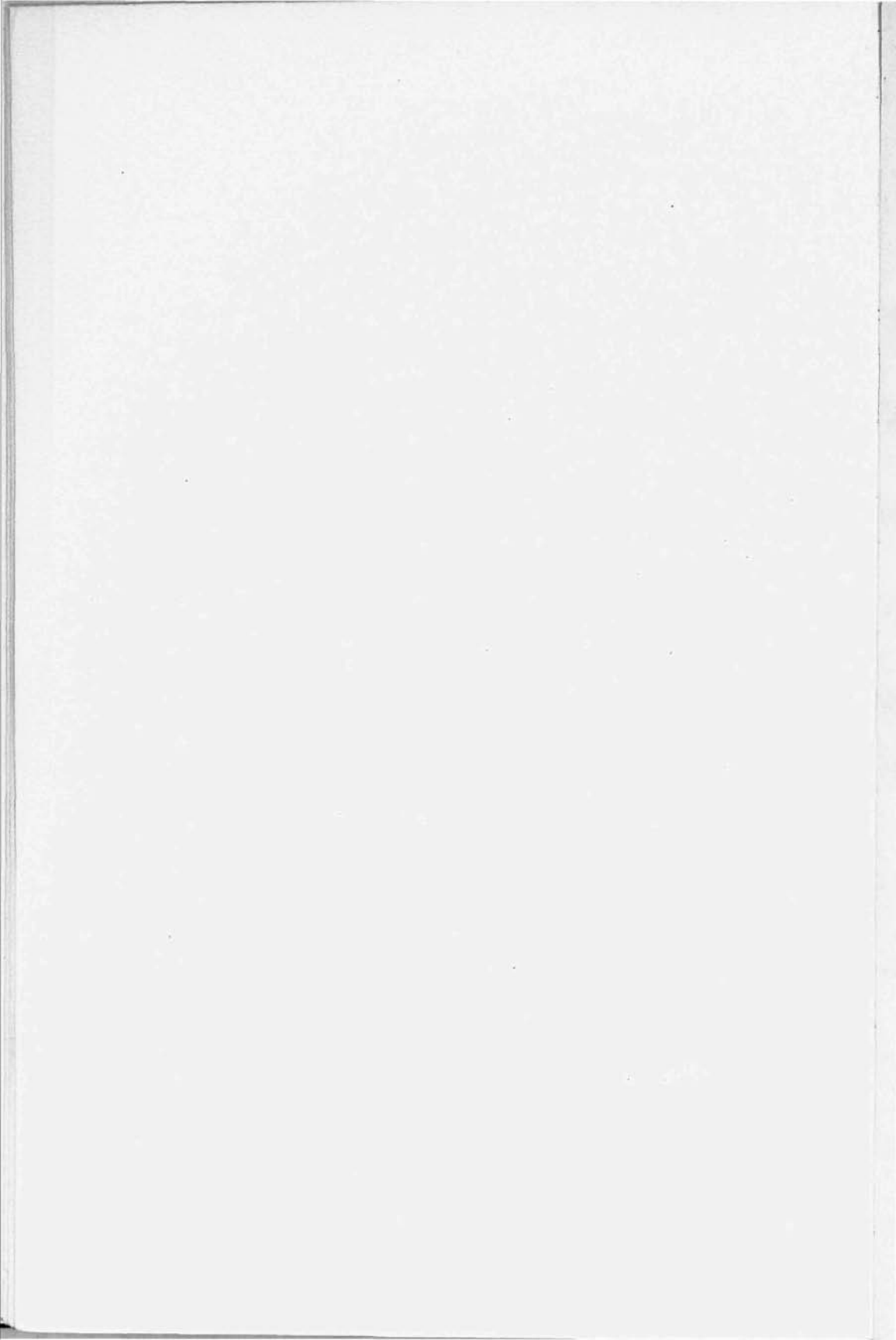
The membership fee is fixed at one dollar (\$1.00), which must accompany the application for membership, and the monthly dues are twenty-five cents (\$0.25). A member who owes two months' dues is suspended from all privileges until he pays the arrearage. If, at the end of the third month, a member's account remains unsettled, his name may be dropped from the roll. To be reinstated, the full amount of arrearage together with a new admittance fee of one dollar (\$1.00) must be paid.

Members have the privilege of entering the club house at any time within the hours fixed by the club regulations, and making use of any of the various features or facilities therein provided.



❖ Bowling Alleys ❖

THE CELLULOID CLUB.



Members have the privilege of introducing two guests each per week who are not eligible to active membership, but these guests cannot be taken into the club house by any other member the same week.

No one under eighteen years is permitted in the club house unless accompanied by parent or guardian.

Members are responsible for the acts of strangers whom they introduce into the club house.

The Board of Governors are required to hear and act on all charges against members for conduct injurious to the peace, good order or reputation of the club, or other conduct unbecoming a member, and may expel, suspend, or censure an accused member who is found guilty.

The club has two standing committees which are appointed annually by the president; these are the Committee on Entertainments and the Committee on Games.

The Committee on Entertainments has the right to regulate the use of the assembly or entertainment hall, and to arrange and have sole charge of all entertainments authorized by the club that are not otherwise provided for.

It is scarcely necessary to say that the rules and regulations relating to the club house and the use of its wide variety of features are as liberal as they can possibly be made, consistently with the preservation of the property and the maintenance of order and decorum at all times. But little effort is required to enforce the rules, and the instances are very rare where members willfully violate them. Theoretically, the club house is open from 9 A. M. until midnight, but in practice, there is but little doing in it until after 6 P. M., all the members being engaged at their regular duties in the company's workshops during the day. In the evening, however, the crowds are always large, and the various facilities provided by the club for amusement, athletic exercises and mental and physical improvement are used with an enthusiasm born of gratitude to their employers who have placed these much-prized advantages within their reach.

The Mutual Benefit Association of The Celluloid Club.

The principal sub-organization which has grown from the Celluloid Club, and one of the greatest value to the members and their families, from the material point of view, is undoubtedly the Mutual Benefit Association.

Membership is restricted to male employes of the Celluloid Company, but to hold an office in the association or be entitled to the privilege of voting, the person must be a member in good standing in the Celluloid Club and an employe of the company for at least one year.

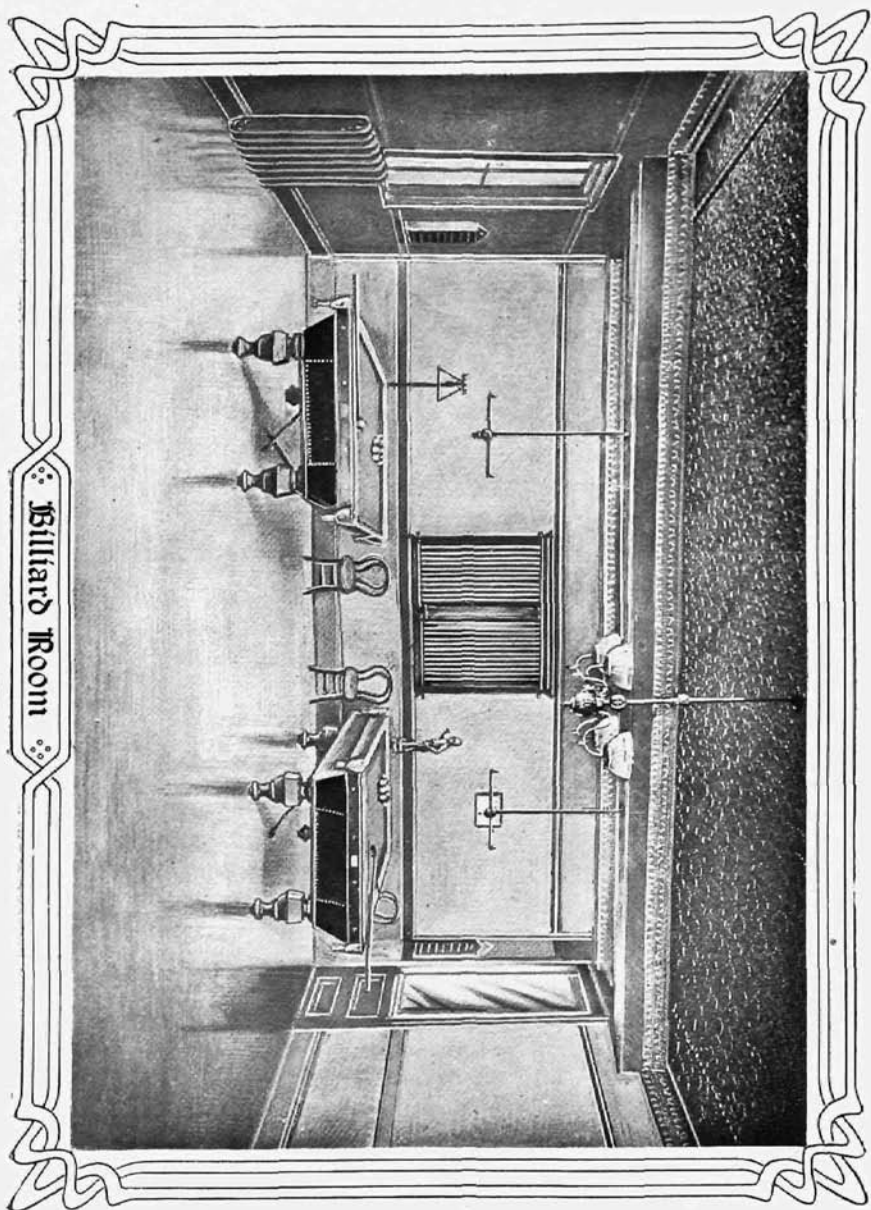
The association has, at the present time, three hundred members and a reserve fund in its treasury amply sufficient to meet all obligations that may accrue against it.

Before the Mutual Benefit Association was organized, difficulties were frequently encountered in determining the real merits of cases wherein applications for help were made by employes, who, from sickness or through accidental injury, were unable to work. The Celluloid Company was very desirous that there should be no suffering among its employes or their families on account of the stoppage of wages through sickness or other form of disability, and in such cases invariably extended the necessary assistance where the facts were brought to the notice of the company's officers, and the circumstances seemed to justify such action.

But the need of some organized method of dealing properly with such matters was soon felt and the necessity of having an organization for that purpose became more and more apparent as the employes of the company increased in numbers.

The situation in this respect and the thought given to the question of how to deal with it so as to take care of deserving cases of want and guard against fraud at the same time, finally resulted in the establishment of the Mutual Benefit Association, which now provides both the machinery for investigating claims and the money to assist those found to be entitled to relief.

The suggestion which led to this action came from the



THE CELLULOID CLUB.

Billiard Room

officers of the company and was eagerly adopted by the employes who saw in the plan a certain means of changing their dependence for help when sick and in need, from a charitable to a business basis. In other words, the insurance principle pure and simple was adopted, and every employe was thereby at once placed in a position to make such provision for his family in the event of his own sickness or disability, as he felt able or disposed to pay for out of his weekly wages.

The officers of the company made a very liberal donation of money to the association at the commencement, which placed it in an independent financial position and fully able to meet all demands.

A full set of officers consisting of a president, vice-president, secretary, financial secretary and treasurer is provided by the constitution of the Mutual Benefit Association for conducting its business. These officers are elected at the regular annual meeting for a term of one year. There is also a Board of Trustees, seven in number, the members of which serve one year and are so elected that the terms of three and four of them respectively terminate alternately every six months.

Any male employe of the Celluloid Company under fifty years of age, of good habits, and moral character, may become a member by passing a medical examination; but to qualify for holding an office, it is necessary to be twenty-one years of age, a member of the association, and also of the Celluloid Club, and to be in good standing in both organizations.

In fact, while any employe of the company under the specified age can become a beneficiary member of the Benefit Association, only those who are members of the club are allowed to vote or attend meetings that are held in the club house.

The Board of Officers and Trustees acting together are required to consider and pass on all applications for membership, and decide on the qualifications of members for holding office, and also all other questions connected with the

regular business of the association, such as auditing the accounts and deciding on applications for benefits.

The Board of Officers and Trustees hold at least one meeting each week to consider applications and to hear reports from the sick visiting committees.

Two classes of insurance are provided; one against sickness, and the other against death. Members are required to insure themselves in both classes.

The maximum amount of insurance against sickness allowed to a member is ten dollars (\$10.00) per week, and the minimum, three dollars (\$3.00) per week. The rate charged is two cents (\$0.02) for each dollar of weekly benefits desired.

The death benefits allowed are fifty dollars (\$50.00), and one hundred dollars (\$100.00); for which amounts the weekly payments are respectively, two cents (\$0.02) and four cents (\$0.04) per week. Members are not allowed to insure themselves against sickness for more than the amount of their weekly wages.

Sick benefits do not begin until a member has been connected with the association for three months, and unable to perform his regular duties at the factory for at least one week. Death benefits are paid only after the deceased member has been in good standing in the association for a period of three months.

Claims on account of sickness or disability originating in intemperance or other vicious or immoral conduct are not allowed.

Before sick benefits are allowed, a doctor's certificate stating the nature and probable cause of the sickness must be sent to the Board of Trustees by the applicant, and the same must be done every two weeks thereafter while benefits are being paid.

The amount of money paid as sick benefits to any one member is graded into four classes according to the duration of the case of sickness or disability. Full benefits, that is to say, the exact weekly sum for which the beneficiary is insured, is paid for only a period of thirteen weeks in any

twelve consecutive months from the date on which the sickness or disability began; if the disability continues beyond that time, benefits are reduced to three-quarters; if it extends past six months, only one-half is paid; if more than nine months, the benefits are reduced to one-quarter of the full amount, which sum is paid until the completion of one full year of disability, when all payments cease.

The greatest possible care is taken in handling applications for disability benefits to protect the association against fraudulent claims. All requests for benefits are made to the president, who turns them over to a visiting committee. This committee is required to visit the applicant at least three times each week for the purpose of satisfying themselves regarding the genuineness of the disability on account of which relief is claimed or is being paid. Their reports are made regularly to the Board of Officers and Trustees, who have power to order that the payment of benefits be discontinued whenever in their judgment the reports of the sick committee would seem to warrant the adoption of such a course. Claimants for benefits are required to furnish a physician's certificate of disability not only with the application in the first instance, but at any time thereafter during the payment of benefits if required to do so by the Board of Officers and Trustees. If a claim is found, on investigation, to be fraudulent, charges are promptly brought against the offending member, which may, if sustained, result in his expulsion from the association, and possibly, also, from the employment of the Celluloid Company.

The constitution provides that when the surplus funds of the association have grown to an amount equal to twelve dollars (\$12.00) for each member in good standing, payment of dues by all members who have been on the rolls for more than one year shall be suspended, and not resumed until the surplus has diminished to a sum equal to ten dollars (\$10.00) per capita of the membership in good standing.

Of the several forms which the movement toward organization among the employes of the Celluloid Company has assumed, the Mutual Benefit Association may, with the

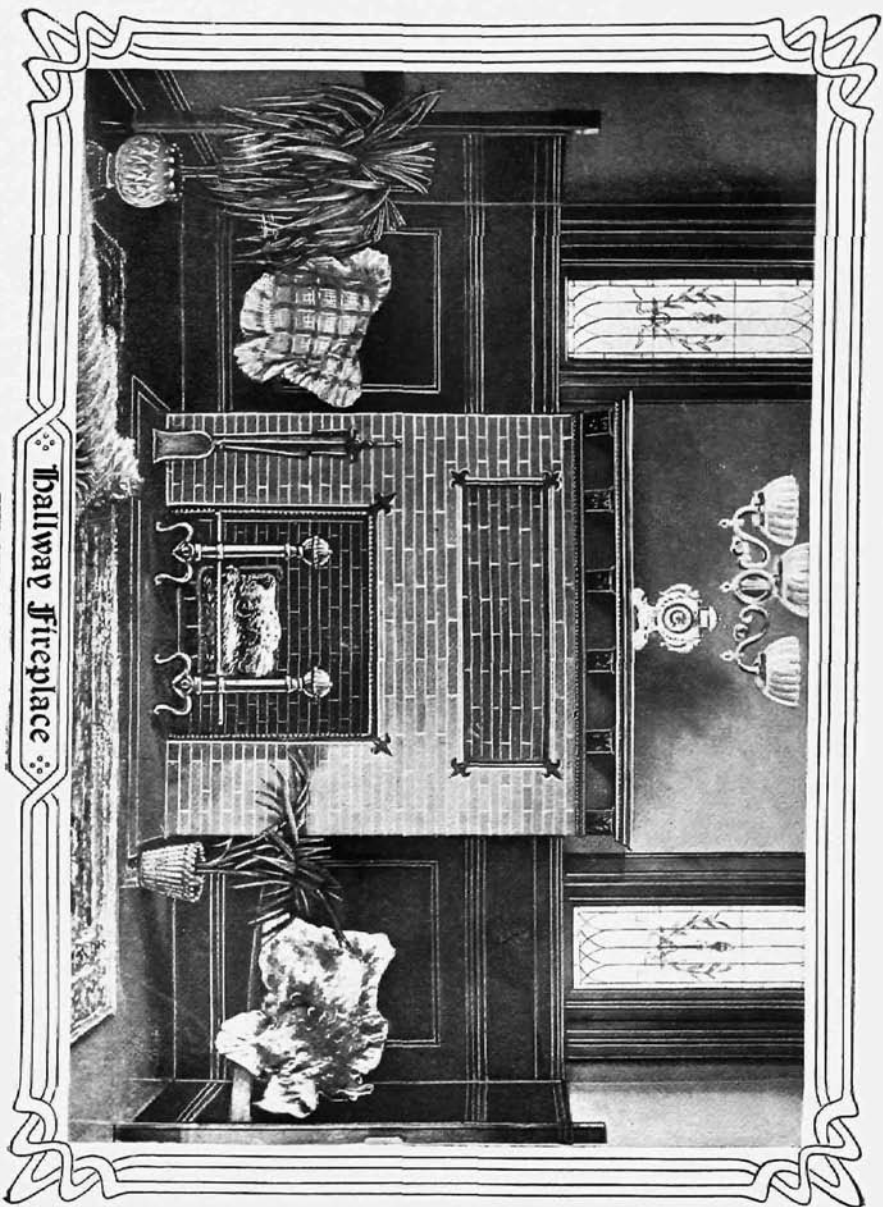
possible exception of the parent organization, the Celluloid Club, be regarded as most beneficial to the company's workmen and their families.

Through its assistance many have been saved from want or from running into debt because of a suspension of income, which, among wage workers, is generally the sure accompaniment of sickness or inability to work.

In this enterprise, as in all others designed for either moral, mental or material improvement in which the Celluloid employers have at any time since the foundation of the business interested themselves, the company and its individual officers have extended every assistance in their power, and always with a cheerful cordiality that has made the aid given doubly valuable.

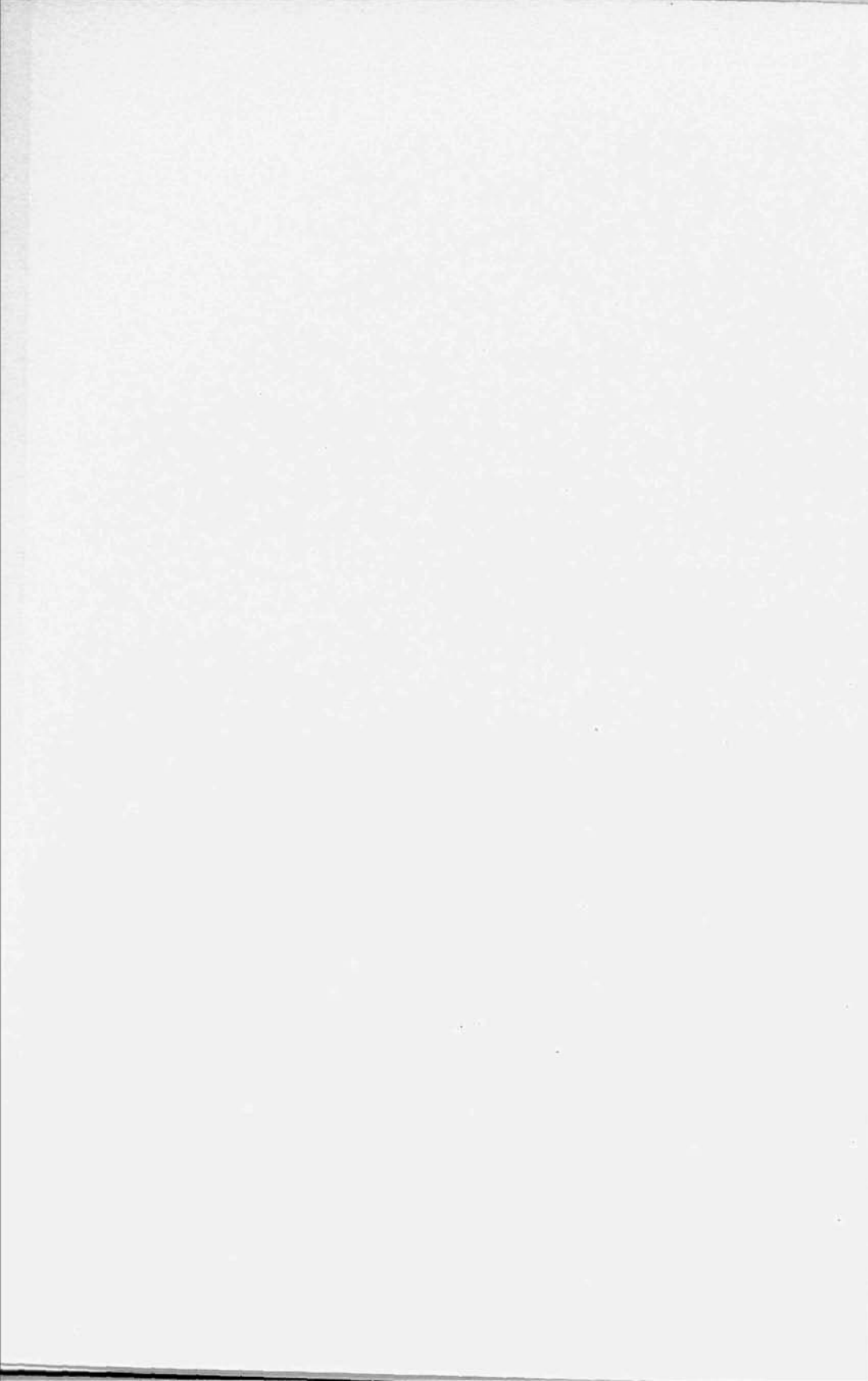
From the very first beginnings of the comprehensive system of betterment institutions, designed to increase the comfort and prosperity of its employes, the many excellent features of which are but barely mentioned here, the initiative has always been taken by the workmen themselves, the company standing ready at all times to second their efforts with advice or financial assistance where plans of theirs were manifestly of too expensive a character to be carried out with their own resources. Only under such circumstances has the Celluloid Company or its individual officers ever taken a part in the projects of the workmen; whenever it became apparent that financial assistance was necessary, the same was forthcoming in measure sufficient to meet every requirement; but that difficulty overcome, the employes' control over that for which the money was expended and their responsibility for the results which followed, became absolute and undivided.

In the main outlines of every large enterprise undertaken by the workmen, they have had the assistance of the company, rendered in such a way as not to be even in the slightest degree suggestive of paternalism or patronage. Substantially all plans for improvement have originated with the workmen, but the company and its individual officers have always stood



❖ Hallway fireplace ❖

THE CELLULOID CLUB.



ready to see that their aspirations were not defeated for want of means to carry them out.

What are the net results of all this to the business enterprise from which these various organizations have grown, and how have the moral qualities of the workmen concerned been influenced by the opportunities thus opened to them, are questions that may very naturally be asked.

Both are in a measure answered by referring to the gratifying fact that from the very start of its business career up to the present time, there has never been either strike, lock-out, or labor trouble of any kind to disturb the harmonious relations which have existed between the company and its workmen. Although the works are situated in a large manufacturing city, in which the many thousands of workmen employed in its widely diversified industries, have always shown a marked tendency toward the formation of labor unions, the Celluloid Company's employes from the time when, thirty years ago, they numbered only thirty-five persons and occupied part of one comparatively small building, until the present day, have steadily kept aloof from organizations for purposes other than those described here, although now, upwards of thirteen hundred operatives, housed in fifty or more buildings covering several city blocks, are employed in the various processes of the industry.

The attitude of the workmen in this respect has not been brought about by pressure of any kind on the company's part, as no attempt has ever been made to control or in any way limit their freedom of action. The operatives have learned from experience that everything necessary for their welfare, moral and material, can be secured by loyal co-operation with their employers and without forming alliances outside of the industry in which they are employed.

The policy pursued by the company in placing upon its employes full responsibility for the successful management of the club and its various allied organizations, is giving them a business training of high value which cannot but improve their qualifications as workmen through the development among them of original thought, which in turn must

surely lead, as it certainly has done in this case, to their becoming more valuable as workmen and more loyal to their employers than if they had not had these improving advantages.

The men work contentedly, knowing that the best is being done for them that business conditions permit, and that the interests of the humblest among them is not a matter of indifference to the highest officers of the great industry in which they are employed.

THE CELLULOID CLUB.

A Model Association of Employees.

(BY S. T. SIMMONDS.)

The story of the Celluloid Club, of Newark, N. J., is written by its first president in response to a request for such information from the Bureau of Statistics of New Jersey.

The following is simply a plain statement of facts in regard to the circumstances leading up to its establishment, and also something of the details and results of club life as experienced by employes of the Celluloid Company. The writer does not feel that it is within his province to go into any elaboration of the larger questions that might easily become involved in an article of this nature, but will rest content with giving the facts, leaving to the reader's judgment for decision, the question as to whether the results accomplished by the Celluloid Company and their employes in this effort to better conditions, were worth while or not.

The idea of furnishing a suitable building to be used as a place for meetings and recreation by the employes originated with Mr. Marshall C. Lefferts, of New York, President of the Celluloid Company, who had observed that the workmen employed by the firm displayed a marked degree of ability in the way of organizing and managing several organizations of more or less importance, but that they were hampered by the difficulty of finding a place which might

be rented, large enough to accommodate the number usually belonging to the various social, beneficial and sporting organizations that were from time to time gotten up among the employes. Such institutions as insurance, which did not require much room for its work, did well enough, but the trouble of finding suitable accommodations, together with the expense, operated to discourage permanent associations on the large scale that was desired.

As the number of employes constantly increased, and the need of a spacious meeting place became more apparent, some of the men conceived the idea that if the matter were properly brought to the attention of the Celluloid Company, some old building or a large unused room on the property of the firm might be set aside and used as a meeting place in which to transact the business of the several organizations connected with the works. At first this seemed rather a large-sized favor to ask, but soon after the desire of the employes was made known, what proved to be a preliminary step in the matter of providing a splendid club house was taken, by the company causing a notice to be posted in the several factories requesting an expression of opinion by the men as to the desirability of having a building erected and furnished for exclusively club purposes. Of the total number of workmen employed, about five hundred signed a statement to the effect that if the Celluloid Company would provide a building such as was outlined in the notice, they, the employes, would do all in their power to make the club a continuous success and a credit alike to the company and its employes.

In the year 1899 the club house was built in a good residential neighborhood, and on a much larger and more elaborate scale than had been promised; the building and furnishings costing about forty thousand dollars (\$40,000). The building, fifty (50) by one hundred (100) feet, is four stories high, built of light colored brick and terra cotta. The house throughout is furnished in a very pleasing and substantial manner.

The basement contains two pairs of slate bowling alleys,

one pair of rifle ranges, two shuffleboard tables, lockers and boiler-room. On the first floor are spacious halls, reception, billiard and pool, cloak and bath-rooms, lavatories, business office, café and kitchen.

The second floor is taken up with a commodious and well supplied reading-room; the literature furnished is of an entertaining, instructive and helpful kind, comprising a library of about five hundred volumes; also a good supply of current publications, the very best of their several kinds, there being some eighteen separate daily, weekly and monthly papers, devoted to literature and news, including several foreign periodicals of a first-class order. On this floor are also a handsomely furnished ladies' dressing-room, card-room, officers' and committee-rooms. The entire upper floor is taken up by an auditorium or assembly-room, with well appointed stage and dressing-rooms. The assembly-room will seat about five hundred people. Here entertainments of various kinds may be held, and the seats being removable, a large floor space is available for dancing.

After its completion, the building was turned over to the club, whose members were given the use of the building free, the only condition attached being that it should assume the expense of taking care of the property. The entire management of the club is vested in the members absolutely, there being practically no restrictions whatever on the part of the company, except an understanding that no form of gambling should be allowed, and no whiskey sold on the premises. All the high officials of the company became members of the club without claiming or seeking to exercise rights or privileges of any kind not also allowed to the workmen.

The cost of club membership is twenty-five cents (\$0.25) per month. Some of the games are free, while a small fee is charged for others, such as bowling, billiards, pool, shooting and shuffleboard. The club house is open to members daily, including Sunday, from nine o'clock in the morning to midnight. Men occupying positions of responsibility in the company's service freely and cheerfully accept offices and committee appointments when asked to do so, allowing no

feeling like pride of rank to interfere with their desire to work unselfishly for the welfare of the club.

In the club house difference of position in the works is practically lost sight of, and it is a common experience to witness men holding important stations engaged in games with some of the youngest employes, and there is no feeling shown when the youngster wins out, as frequently happens.

Good dinners at a very moderate cost are furnished at the club house for members who live at too great a distance to go home at noon, and more pretentious lunches are, from time to time, provided in celebrating anniversaries, etc., of the many associations connected with the club.

While only the male employes of the Celluloid Company are eligible to membership, the management of the club looks after the enjoyment of the female employes by arranging frequent entertainments, dances, etc., one night in each month being regularly known as "ladies' night," when special invitations are extended to all the female employes of the company, who are then free to attend accompanied by their male friends, not necessarily club members.

The club began with four hundred and sixty (460) members. Provision is made allowing members to introduce friends into the club house, for whose conduct the member is held responsible, the only restriction being the number of times a week this privilege may be used. This arrangement is for the purpose of permitting members to have relatives and friends not employed by the company, enjoy the pleasure and privileges of the club house within reasonable limits.

The by-laws provide that members of the club who have been in the service of the Celluloid Company for ten years or more, and who leave honorably, may retain their membership for life by complying with the rules governing the organization. Employes who have not served the company for the length of time stated, and those who are discharged from employment, lose all privileges of the club house.

Should members be temporarily laid off from work, they may retain their membership while waiting to be re-engaged.

The result of club life with the employes of the company

has proved beneficial in every particular. The various departments of the Celluloid Company occupy a large area, with numbers of men working in many separate buildings; before the establishment of the club in very many instances men worked for the company for years without forming acquaintance with or taking any interest in, their fellow-workers in other departments of the company's service. Club life and associations have changed all this, and by working and associating together in effecting the organization and carrying on the work of the club, the employes gradually came to know each other and to realize that their interests were more or less identical, and to learn as well, that there were bright men and thoroughly good fellows in all branches of the company work.

Another result is that a friendly rivalry for supremacy in games has been developed. This feature is encouraged by some of the officers of the Celluloid Company, who donated a handsome trophy for the successful department team; also, gold medals for winners of individual championships. The competitions, while good natured, are of the most spirited kind, and disclose the fact that there are members possessed of more than ordinary skill in the many games played in the club house.

A dramatic association was formed, many of the members of which surprised their shopmates by the aptitude in this line displayed by them before the footlights. All the plays so far attempted have been very creditably performed, some of the club members showing a high degree of talent in rendering the parts assigned to them.

Through the generosity of a gentleman connected with the company a very complete set of gymnastic apparatus was furnished to the club. This exercise is much enjoyed by the younger element, who have a large class which is regularly drilled by a competent instructor.

In music the members find much pleasure, the boys gathering about the piano to sing while one or another of the members play.

Bowling is a very popular pastime in the club house. The

Celluloid Club has teams entered in both the Suburban and the Newark Leagues, the Suburban team winning the bronze trophy representing the championship of that league for 1901-02.

During the summer a base ball team, representing the Celluloid Club, is sent the rounds, and in seasons past has done very creditable playing, considering their necessarily limited opportunities for practice.

One of the most successful departments of the club's work is the Mutual Benefit Insurance. While a part of the club, this branch is considered important enough to have its own officers and board of managers. The insurance feature was started mainly through the expressed desire of the company to have an organized bureau to investigate claims for assistance, and also to help employes who might be unfortunate, and further, to provide a fund that would supply in a measure wages lost by reason of sickness or accident, and a funeral benefit in case of death. The premiums are very low, being two cents for each dollar of weekly insurance desired in case of sickness or other disability, and four cents weekly for a death benefit of one hundred dollars. The Mutual Benefit department of the Celluloid Club is a most decided success, doing a large amount of good by providing assistance at times when money is most needed, and that under such a plan as not to hurt the self-respect of members. The services of a competent physician are furnished free to members in all cases of personal sickness, not necessarily of such a nature as to disable them from work.

Some idea of the good work done by this department of the club is shown by the fact that during the first three months of the present year (1904) upwards of one thousand dollars (\$1,000) were paid out for sick benefits alone.

The officials of the Celluloid Company have shown a marked degree of interest in the working of the Mutual Benefit Association, and the company aided its start with a substantial contribution in order that funds should be available, if needed, before the young association had time to accumulate a sufficient amount of money to meet obliga-

tions from premiums paid by the members. This starting sum has not been drawn upon, but is considered as a sort of reserve fund, and the association has added a considerable amount to the original nest egg. The company also pays the salaries of the secretaries, who are the only officers that receive any compensation.

The experience is that the Celluloid employees' club has proved helpful all around. In the club house the members conduct themselves with proper decorum, and, while feeling perfectly free in the matter of selecting their amusements, are courteous in their intercourse with one another, the influences being wholly of an educating and refining nature.

Club experiences with the employees of the Celluloid Company go far to make life worth the living, and the sacrifice of time made necessary in the management of the various branches of club work finds competent, unselfish and willing members ready to assume any office, no matter how exacting the duties may be.

The families connected with the factory and their friends have learned by experience that the club house is so conducted as to be a perfectly safe and proper place for young women to frequent whether on stated social occasions, or ordinarily, as casual visitors in the company of members.

The club and the Mutual Benefit Association have each separate and complete sets of carefully thought out by-laws, the result of years of actual and successful experience with club and insurance organizations as applied to factory employes; and the officers are at all times willing to place such knowledge as they may have gained at the disposal of bodies of working people who may desire through some such efforts at organization to try the experiment of benefiting themselves and those around them by plans similar to those used to such good purpose by the employes of the Celluloid Company.

The Clifton Silk Mills, Town of Union, N. J.**Manufacturers of Broad Silk Goods.****Employs 297 Males and 345 Females.**

About four years ago the Clifton Silk Mills Company organized a benefit society for the assistance of its employes, which has proved very successful. The company employs about six hundred and fifty (650) persons, and about one-half of them are members of the association. The incidental expenses, outside of doctor's fees, are all provided for by the company, so that practically every cent contributed by the employes is returned to them in the form of benefits. The benefit society meets the purposes for which it was established very well, and has now a substantial fund on hand.

Membership in the association is divided into three classes, the differentiation being on the lines of weekly earnings.

Class A embraces all whose earnings are ten dollars (\$10.00) a week or over; Class B includes those whose earnings range from six dollars and fifty cents (\$6.50) to ten dollars (\$10.00) per week, and Class C embraces all who are earning less than six dollars and fifty cents (\$6.50) per week. The entrance fees charged are regulated according to classes; for Class A it is seventy-five cents (\$0.75); Class B, fifty cents (\$0.50), and Class C, twenty-five cents (\$0.25).

The dues charged and benefits paid the several classes of members are as follows: Class A, fifteen cents (\$0.15), due every two weeks, benefits, seven dollars (\$7.00) per week; Class B, ten cents (\$0.10), due every two weeks, benefits, four dollars and seventy-five cents (\$4.75) per week; Class C, five cents (\$0.05), due every two weeks, benefits two dollars and thirty-five cents (\$2.35). Dues are deducted from wages by the company's paymaster and turned over to the treasurer of the association. A receipt for the amount taken from the wages of members is enclosed in their pay envelope.

To be entitled to sick benefits a member must have been

connected with the society at least one month, and is not to receive anything for disability lasting less than one week, nor more than a total of eight weeks' benefit in any one year.

The society also provides death benefits arranged by classes as follows: Class A, seventy-five dollars (\$75.00); Class B, fifty dollars (\$50.00); Class C, twenty-five dollars (\$25.00).

Members of the society may resign at any time by giving thirty days' notice to the secretary, during which time dues must be paid as usual. A member who leaves the employment of the mills or is discharged forfeits at once all right of membership; but if discharged the two previous payments of dues are restored when the member is finally paid off.

Proper notification blanks to be used in case of sickness or death are supplied to members, and these must be used in bringing claims for either form of benefit before the Board of Directors of the society. A visiting committee investigates all cases, and advises the Directors as to the facts underlying the claim.

The management of the benefit society is vested in a Board of Directors, four of whom are elected by the members, and one appointed by the Board of Directors of the mills. These serve for six months or until their successors are elected or appointed.

The Clifton Silk Mills Company shows a very earnest and intelligent interest in the success of this society, and states that it has in embryo many good plans for the benefit of its employes that have not yet been worked out.

Reference is made in the company's communication to the National Cash Register Company, of Dayton, Ohio, and the belief is expressed that its experience has discouraged many employers who contemplated pursuing a similar policy to an extent that can hardly be credited. "That company did almost everything that human ingenuity could devise for the benefit of its people, but in spite of this, directly some labor agitators came along and organized them, they went on strike for the most unwarranted reasons and treated their employers as if they were their personal enemies.

"There is practically no large employer of labor but who is aware of the circumstances of the case, and many who had laid various plans to establish some of the features that the National Cash Register Company had put in operation gave up the idea entirely on account of that strike in Dayton."



E. V. Connett & Company, Orange Valley, N. J.

**Manufacturers of Fur Hats.
Employs 500 Males and 100 Females.**

This firm has as yet no definite form of benefit or betterment institution, but has the details of very comprehensive plans along these lines now under consideration, some of which will, no doubt, be adopted in the near future.



Crescent Pearl Works, Vineland, N. J.

**Manufacturers of Pearl Buttons and Pearl Novelties.
Employs 26 Males and 2 Females.**

This company encourages its employees to offer suggestions looking to the expediting of work and the improvement of the various processes of production. A liberal bonus is paid those who furnish helpful ideas, and quite a large sum of money has been paid out on that account. Work is divided out on a plan somewhat resembling the task system. An accurate account is kept of each man's product, and additional pay is given him for each gross of buttons turned out in excess of the quantity required for a day's work. Sentiments of self-respect, coupled with a sense of individual importance and responsibility, have transformed the character of the workmen; timidity, lack of interest, and the merely perfunctory performance of duty have given place to manly confidence in themselves, and an

intelligent personal and collective interest in the business that furnishes them employment.

In the discussion of matters relating to their interests, the men are always met a good half-way, and consequently no friction of any kind with the firm is ever permitted to obtain even a starting point. There are neither strikes nor threats of strikes, and the workmen seem a happy and contented lot.



The Crescent Shipyard Company, Elizabethport, N. J.

**Steel and Iron Shipbuilders.
Employs 780 Males.**

This company reports that each of its employes contributes ten (10) cents from his wages each month, which goes to the two hospitals of the city.

The monthly contributions are given alternately to each hospital. In return, the employes receive free treatment when sick or injured.



Crocker-Wheeler Company, Ampere, N. J.

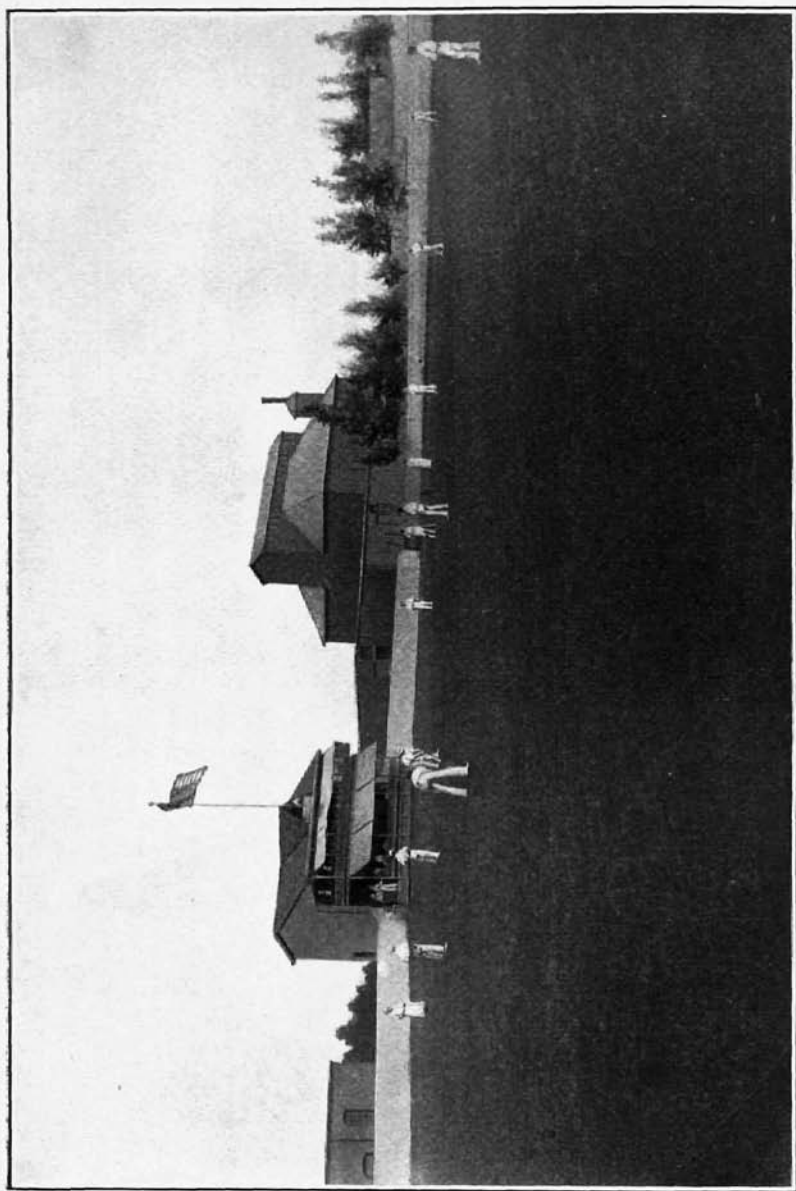
**Manufacturers and Electrical Engineers.
Employs 617 Males and 62 Females.**

No benefit organization has as yet been formed, but the company is now contemplating the establishment of one, and the details of a satisfactory plan are at present being perfected.

The things now being done by the company for the special benefit of employes consist of furnishing facilities for healthful work, in rooms which are, with a few exceptions, well lighted and ventilated.

To insure personal cleanliness, there are numerous toilet-rooms with perfect modern equipments, to which employes have free access at all times.





CLUB HOUSE AND GROUNDS. HOWLAND CROFT'S SONS CO.

For safeguarding their belongings while at work, each employe has an iron screen locker, airy and secure, in which to keep his clothing and other personal property.

To provide for the occurrence of sickness or physical injuries: First—There is a supply of medicines, bandages, etc., kept on hand, in charge of a man competent to handle such sickness or accident cases as may occur until a regular physician or surgeon can be called in. Second—Two beds are maintained at Memorial Hospital, Orange, paid for by the company. Third—There is an arrangement with the Emergency Hospital, in Newark, whereby employes of the company can receive as much treatment as may be necessary, on payment of one dollar (\$1) per year.

To make the surroundings pleasant and agreeable to employes, the company has provided clean, well-ventilated and lighted buildings, with a pleasing and sightly environment of trees, shrubbery, lawns, gardens, and flower-beds.

These benefit features, only an outline of which is here given, were established by the voluntary action of the company, and represents, in part, the policy, uniformly pursued for years, of stimulating the self-respect of its workmen and making their surroundings while at work as pleasant and attractive as possible. The employes, it may be said, are, as a rule, contented and show appreciation of the advantages which they enjoy, and no disturbances of a serious character have ever occurred in the works.



Howland Croft Sons & Company, Camden, N. J.

Manufacturers of Worsted Yarns.
Employs 215 Males and 340 Females.

This company has provided a piece of ground in the immediate vicinity of its plant, which covers one entire city block, 400x225 feet; this has been fixed up for the purpose of cricket playing and for other forms of athletic exercises.

They have also erected a club house thereon, containing baths, reading and recreation rooms, with other features usually found in such buildings.

The club house is two stories in height; the first floor contains dressing-rooms, lockers, baths, reading-rooms, etc. The second floor is fitted up for the purpose of meetings, receptions, etc. The building has an open porch on the first and a balcony on the second floor, for the purpose of viewing the games and contests that take place in the field.

The grounds, club house, and everything they contain are under the absolute control and management of a club composed chiefly of the company's employees.

The accompanying illustration gives a view of the grounds and club house.



**Cumberland Glass Manufacturing Company,
Bridgeton, N. J.**

Manufacturers of Glass Bottles, Fruit Jars, Storage Battery Jars,
Window Glass, etc.

Employs 1,762 Males and 42 Females.

This company has endowed a bed in a local hospital for the benefit of its employees. It has also a gymnasium or club-room and a bath-room for the special benefit of the boys, although it is open to all the workmen employed by the company.

There is a form of profit-sharing in vogue in the works in which, however, none but heads of departments and employees holding responsible positions are allowed to participate.

Day, Clark & Company, Newark, N. J.

**Manufacturers of Fine Jewelry.
Employs 65 Males and 25 Females.**

The employes of this firm have established what is known as an emergency fund. A certain sum of money is deposited weekly by each man, a company official receiving and taking charge of the money; from this the workmen draw, but only when they are strictly in need. This provident fund has accomplished great good, and for employes of the company, answers all the purposes of a savings bank. The custom is to distribute the unused portion of the fund at the end of each year, charging each depositor with whatever amount he may have drawn from it, and then beginning anew.

The fund is divided back to its owners each year to prevent too large an accumulation where it earns no interest. In some instances the shares of individual workmen are re-deposited in savings banks, and in others the money is used to meet some individual or family want which requires a larger expenditure than can be spared from current weekly wages.

All plans for the betterment of the employes are looked on sympathetically by the firm and assisted in every practicable way.

**DeWitt Wire Cloth Company, Belleville, N. J.**

**Manufacturers of Brass, Copper, and Iron Wire Cloth.
Employs 95 Males and 45 Females.**

This firm warmly expresses its interest in any movement having a tendency to improve the social and industrial condition of its employes, and as its own particular contribution to that end, has inaugurated a system of profit-sharing with them.

The plan is to place a certain allotment of the company's stock in the name of such employes as choose to invest in it, allowing them the privilege of paying for the same in in-

stallments. The safety of the investment is guaranteed by an agreement on the part of the company that stock owned by employes who may afterward leave its service shall be purchased back at par with interest, provided two weeks' notice be given of the intention to leave.

The plan was inaugurated on May 1st, 1903, and is now, therefore, in operation about one year. The number of employes who have thus far availed themselves of the privilege offered is eight, and two (2) semi-annual cumulative dividends of three (3) per cent. each have been paid on the stock.

Unqualified satisfaction is expressed by the company with the results thus far shown by the plan for making its workmen stockholders, and thus insuring their being personally interested in everything likely to make the business profitable and permanent.



Driver-Harris Wire Company, Harrison, N. J.

Makers of Resistance Wires.
Employs 20 Males and 6 Females.

This firm reports having had, until a year ago, or up to January 1st, 1904, a system of profit-sharing in operation at its works. The allotment per employe was five (5) per cent. on the wages earned.

The plan was abandoned because some of the employes had gone on strike about one month after the first payment was made.



The Edward Lumber and Coal Company, Long Branch, N. J.

Manufacturers of House Trimmings, Sashes, Blinds, Doors, etc.
Employs 120 Males.

The workmen employed by this company have an organization through which a weekly benefit of four dollars (\$4) is paid to sick or disabled members. The necessary

funds are raised by a pro rata assessment on all employees, and benefits are paid for six (6) weeks' duration of any one case of sickness or disability.



Farr & Bailey Manufacturing Company, Camden, N. J.

Manufacturers of Oil Cloth and Linoleum.

Employs 270 Males.

The employees of the Farr & Bailey Company maintain a benefit association, which is named after the firm, and the membership in which is limited to those at present in its employment; but members who leave the company to work elsewhere are allowed to retain their standing and interest in the benefit association for one year after the severance of their relations with the firm.

An admission fee of fifty (50) cents is charged, and the dues are fifty (50) cents per month, which must be paid in semi-monthly sums of twenty-five (25) cents.

The benefits paid by the association are five dollars (\$5) per week in case of inability to work not caused by immoral conduct. No benefit is paid for less than one week's illness, nor for a longer period than twelve (12) weeks in any one year, the year to begin with date of first week's benefit.

Upon the death of a member, a death benefit of one hundred and fifty dollars (\$150) is paid to the person who has been designated by him to receive it. In case no one is selected as beneficiary by the member, the money is paid to his wife or to his nearest surviving relative.

The Board of Managers of the benefit association has entered into a contract with the employing firm, under which the latter pay all the expenses of maintaining the association except the sick and death benefit. The paymaster of the company, or his representative, deducts assessments due by members from their weekly wages and pays the same over to the treasurer of the benefit association. The company also pays all assessments due from members who are

temporarily laid off but not discharged, and continues to do so until they are reinstated in employment. It also guarantees to make good any deficiency that may be found to exist in the funds of the association at the time of the annual meeting, after twenty-four assessments have been paid during the year, and to advance all moneys necessary to pay benefits at any time the funds in the treasury may be exhausted.

In the case of a member who has been ten or more years in the employ of the company becoming disabled and remaining so for a longer period than twelve (12) months, he is carried for an additional twelve (12) months at the same rate per week, the funds for that purpose being furnished by the company. There is also a provision in the contract which allows an additional twelve (12) weeks benefit to members whose disability is the result of injuries received while on duty in the factory, the total amount of which is paid by the company.

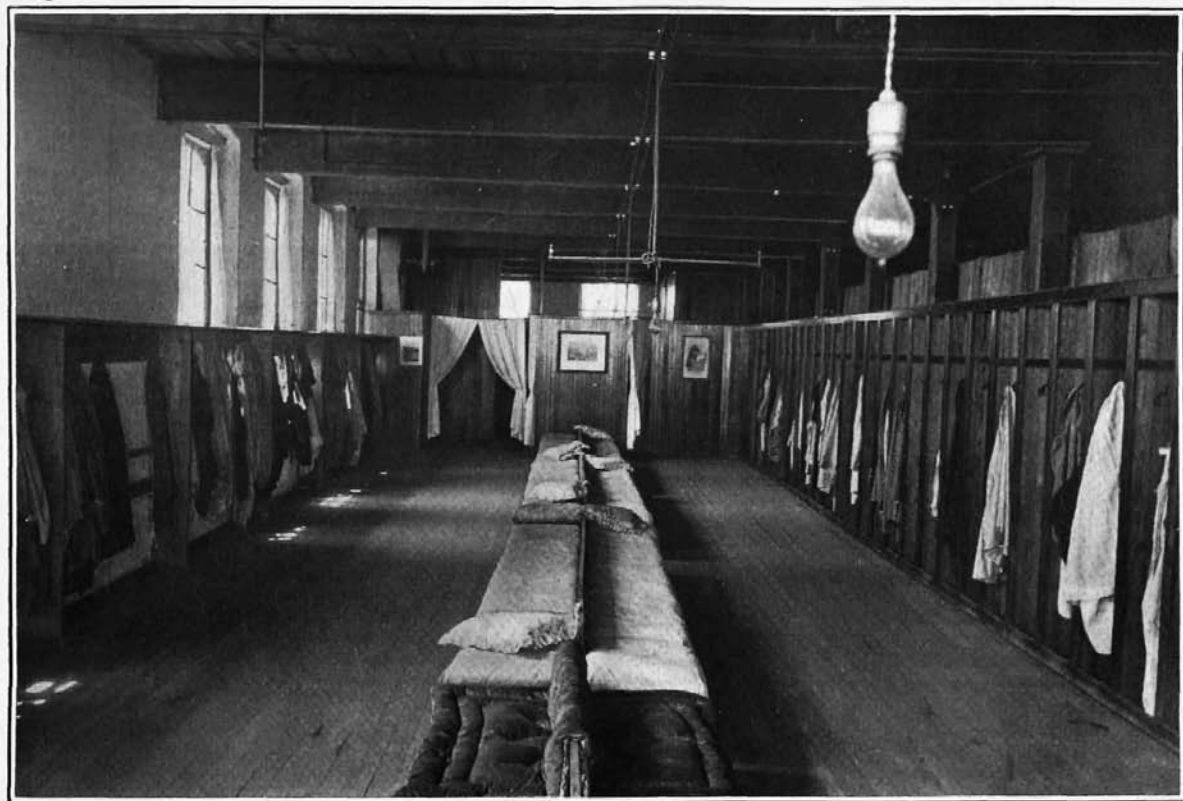
During the year 1903, the association received from assessments one thousand two hundred and forty-five dollars (\$1,245), and twenty-nine dollars (\$29) from proposition or admission fees. The payments during the same period, on account of sickness and disability of members, aggregated eight hundred and thirty-five dollars (\$835), and the total membership of the association in good standing was two hundred and twelve (212).



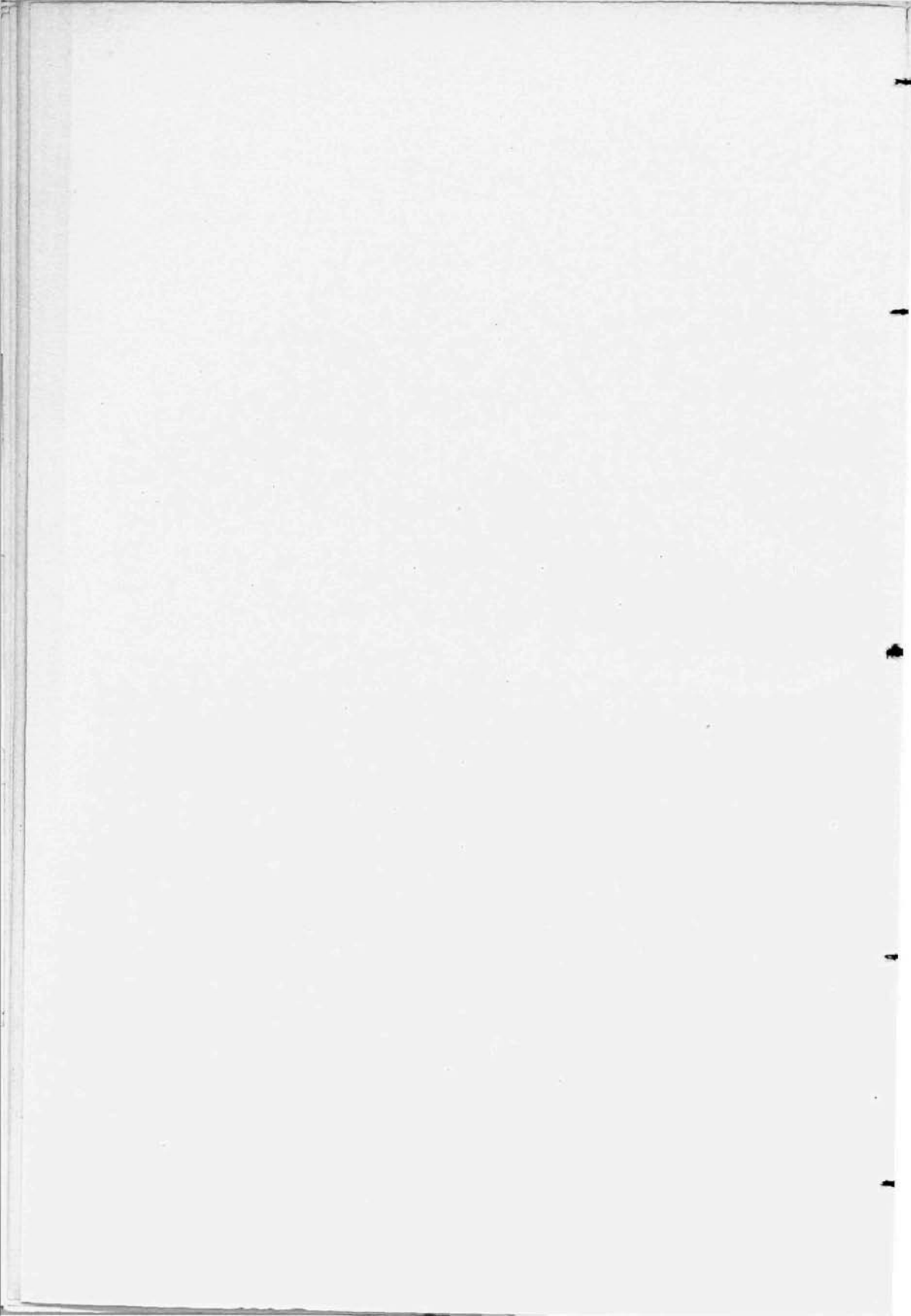
The Ferris Brothers Company, Newark, N. J.

Manufacturers of Ferris Good-Sense Corset Waists, etc.
Employs 30 Males and 325 Females.

The factory of this firm is situated in one of the pleasant residence districts of the city of Newark, and is a commodious, modern structure, in the construction of which every known means of providing the most perfect sanitation and ventilation were used.

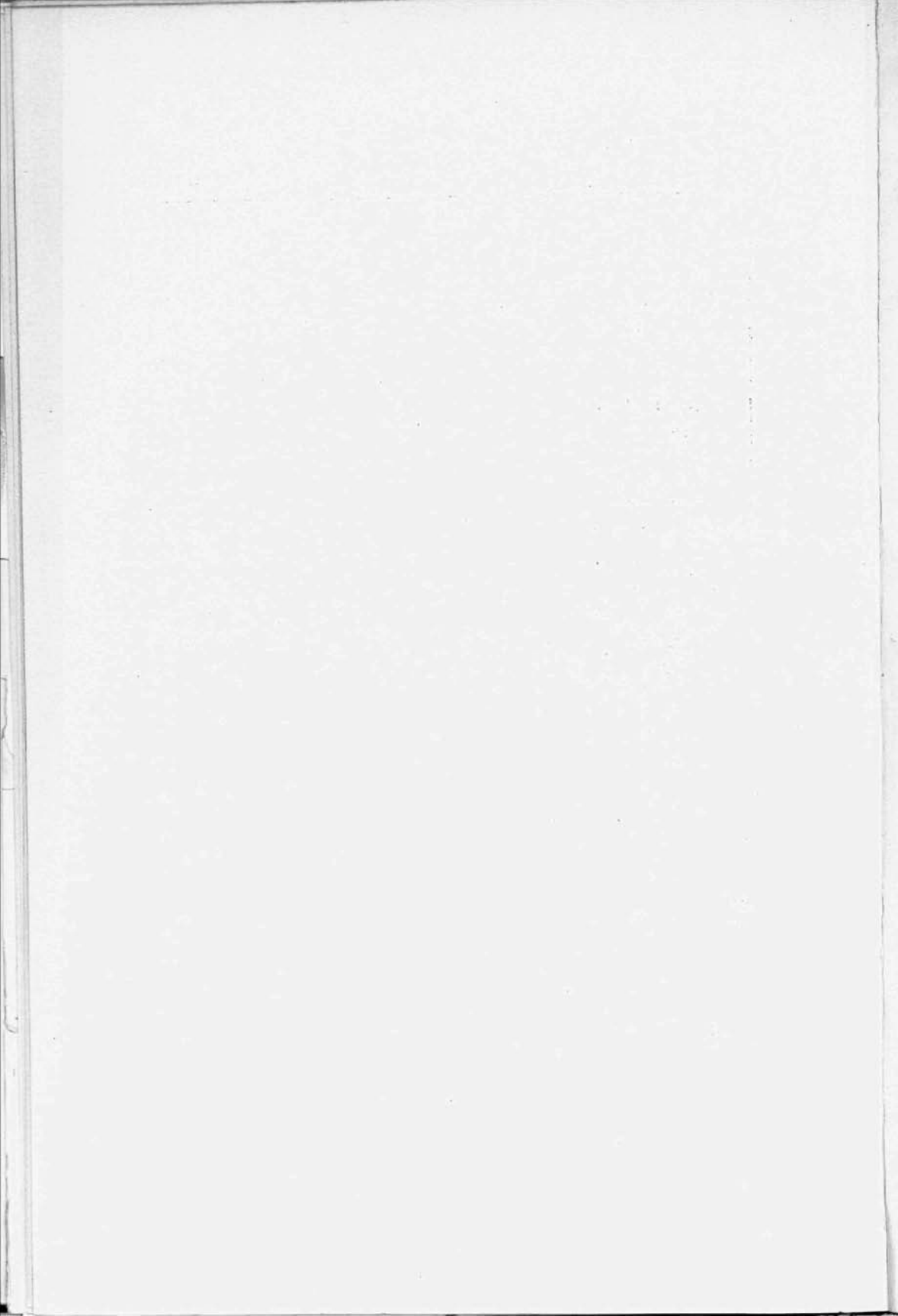


DRESSING-ROOM FOR GIRLS. FERRIS BROTHERS' CO. WORKS.





RECREATION HALL FOR GIRLS. FERRIS BROTHERS' CO. WORKS.



The pleasant and commendable features of administration that distinguish this factory among others are not of recent origin. From the very beginning of business it has been the policy of the firm to deal with its employes in a spirit of friendliness that must inevitably have brought them and their employers together in the bonds of mutual good will which have ever since then existed between them. The institutions that are briefly described in the following pages have been in operation ever since the works were started here, eighteen years ago. They have stood the test of time, and must, therefore, be regarded as having been productive of results of a character highly satisfactory to both employers and employes.

What the firm has done and is now doing for the betterment of its employes is for them solely, and has never been, to even the slightest extent, associated with a desire to obtain the kind of notoriety therefrom which might be regarded as beneficial to its business. The idea from which all proceeds is that kindness and courtesy should be the natural basis of all relations, whether they be of a social or of a business character, and that the efficiency of operatives is not diminished, but rather more certain to be increased by the pursuit of a policy which strengthens their self-respect and removes from their environment while at work, so far as it may be possible to do so, the disagreeable features commonly associated with factory life.

To do these things and much more has been the controlling motive in the course pursued by this firm in the regulation of everything relating to its factory administration.

Of the total number of operatives employed by the Ferris Brothers' Company, fully ninety per cent. are females, which circumstance makes the thoughtfulness displayed in their treatment particularly worthy of commendation.

To make a living for themselves and often also for others dependent upon them, is the unavoidable lot of many thousands of women and young girls. This they must do even if the factory surroundings—for it is to light manufactur-

ing that a majority of women so circumstanced look for employment—are ever so uncongenial.

In the Ferris Brothers' factory it may be truthfully said that everything of a disagreeable nature has been absolutely eliminated. The girls are treated with the uttermost respect, and the little courtesies so dear to every woman in either business or social intercourse, is freely accorded to them here.

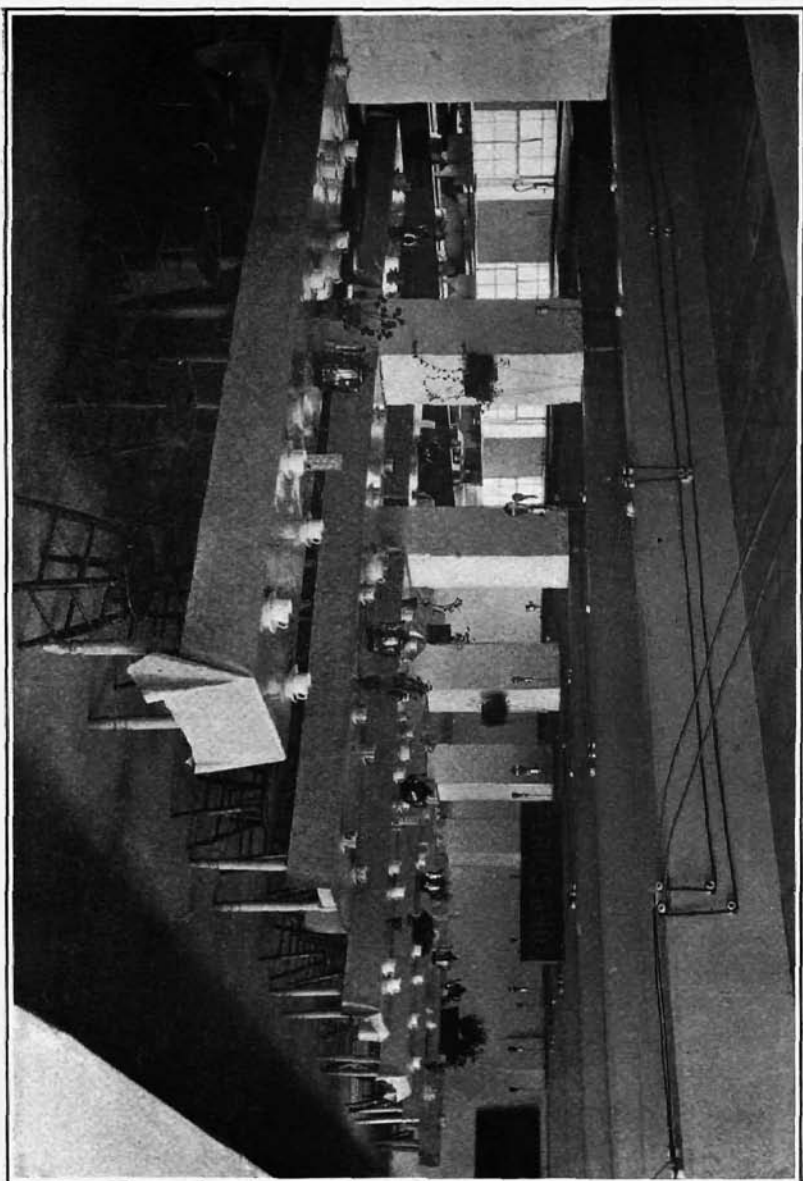
In the factory no girl is ever addressed by name without using the prefix, "Miss," and all with whom they are brought in contact while on duty at the factory, are required to and do regulate their conduct toward them by the same rules of politeness that are observed by well-bred men and women in the ordinary intercourse of life.

The material comforts surrounding these girls in the factory and the privileges of an unusual kind which they enjoy are many. The factory is situated in a pleasant and slightly location, and, as before said, everything possible has been done to secure satisfactory ventilation and sanitation. In winter, the entire building is kept heated at an even temperature, and at other seasons, precautions are taken to secure a free circulation of air through open windows without subjecting the operatives to the dangers resulting from draughts.

The firm keeps for the use of the girls a large stock of umbrellas, water-proof cloaks and rubber shoes. These are loaned them in case a storm should arise at quitting time, and free hosiery is provided in case of coming to the factory with wet feet in the morning.

The girls are not required to report for work promptly when the seven o'clock whistle blows in the morning, but are given a reasonable time of grace without fine or other deduction from their pay.

A large, clean and well-appointed dining-room is provided, and the girls may enjoy their mid-day meal there or go to their homes for that purpose, whichever is most convenient for them. Tea is served free of cost to those who remain, and for the nominal sum of two cents, a plate of soup, either beef, ox-tail, mock turtle or chicken, may be had with an



LUNCH-ROOM. FERRIS BROTHERS' CO. WORKS.

abundant supply of crackers. Everything on the menu is prepared in a kitchen on the premises by a competent cook who is permanently employed. A light lunch is served in the morning between starting time and the noon hour to those who desire it.

There are five bath-rooms in the building for the convenience of the girls, and they are at liberty to use them at any time during working hours without deduction of pay for the time taken. The firm has a woman in constant attendance at the bath-rooms who has charge of them and furnishes clean towels and other requisites. In the dining-room another woman is steadily employed, who takes charge of the table linen and cutlery.

Other important features are a lounging and dressing-room for the girls, and a recreation hall. In the lounging-room are couches and blankets; to this place a girl may retire from work at any time for rest; or, if she is taken ill and finds herself unable to go home, everything necessary for her comfort is provided there.

The recreation hall for the girls is furnished attractively with handsome easy chairs and pretty rugs. At one end are rows of settees and a centre table supplied with all the latest magazines and periodicals. A grand piano is part of the furnishings, and during the hour from twelve to one o'clock, or for as much of the time as remains after lunch, the girls use the room to sing, dance or read as each one may choose, while those who desire rest are at liberty to retire to the comfortable couches of the lounging-room. It is also the custom to permit the free use of this room to the girls for a half hour in the middle of the morning and again for the same length of time in the afternoon. Flowers and plants contributed by the girls are placed in the windows; these lend an air of beauty and refinement to the rooms which adds greatly to their attractiveness.

The goods manufactured in this interesting factory is known as the "Good Sense Waist," and it may be positively said that good sense, giving that term its broadest meaning,

is displayed throughout the works of the Ferris Brothers Company in every department.

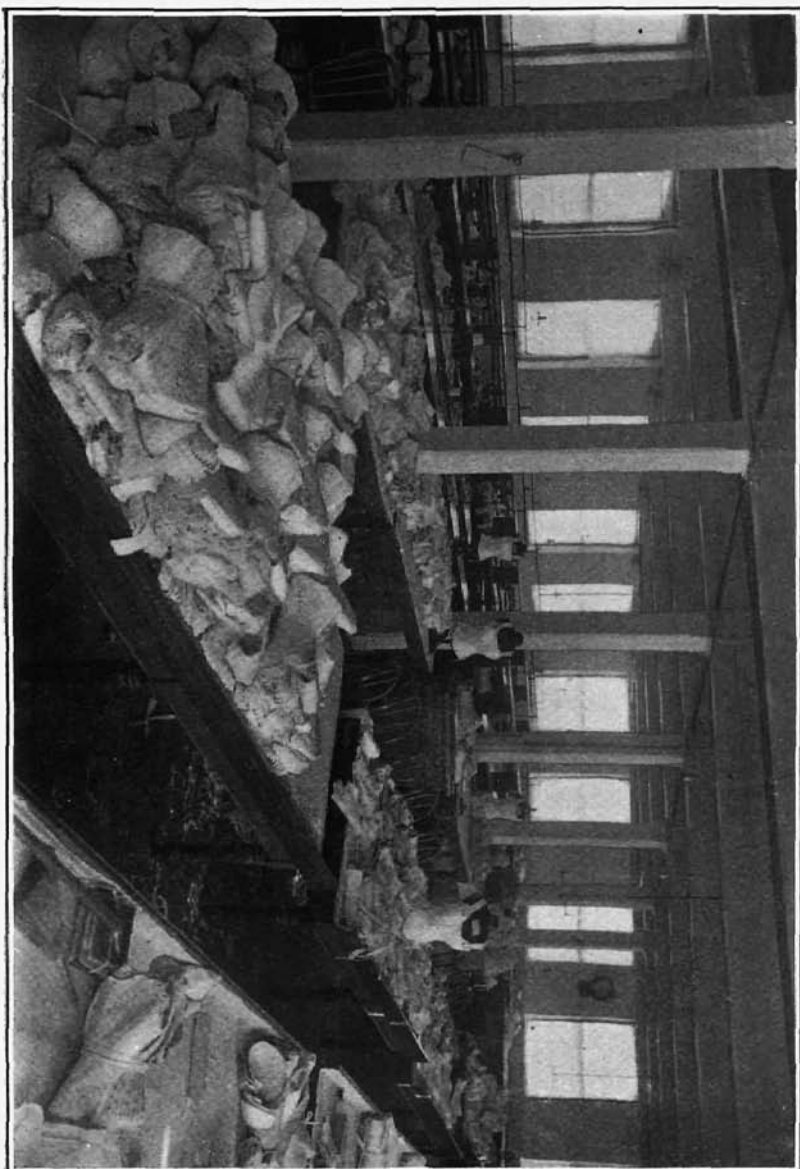
The girls do no hard work which requires muscular exertion. Their daily task is performed on sewing machines which are run by steam power, leaving nothing for the operator to do but to guide the work with her hands.

The work-rooms are large and airy, with high ceilings and many windows, and are always kept in a condition of absolute cleanliness. Employment here is much sought after by girls in Newark who earn their own living, and few who once succeed in getting in ever leave this factory while the necessity of earning their own living continues.

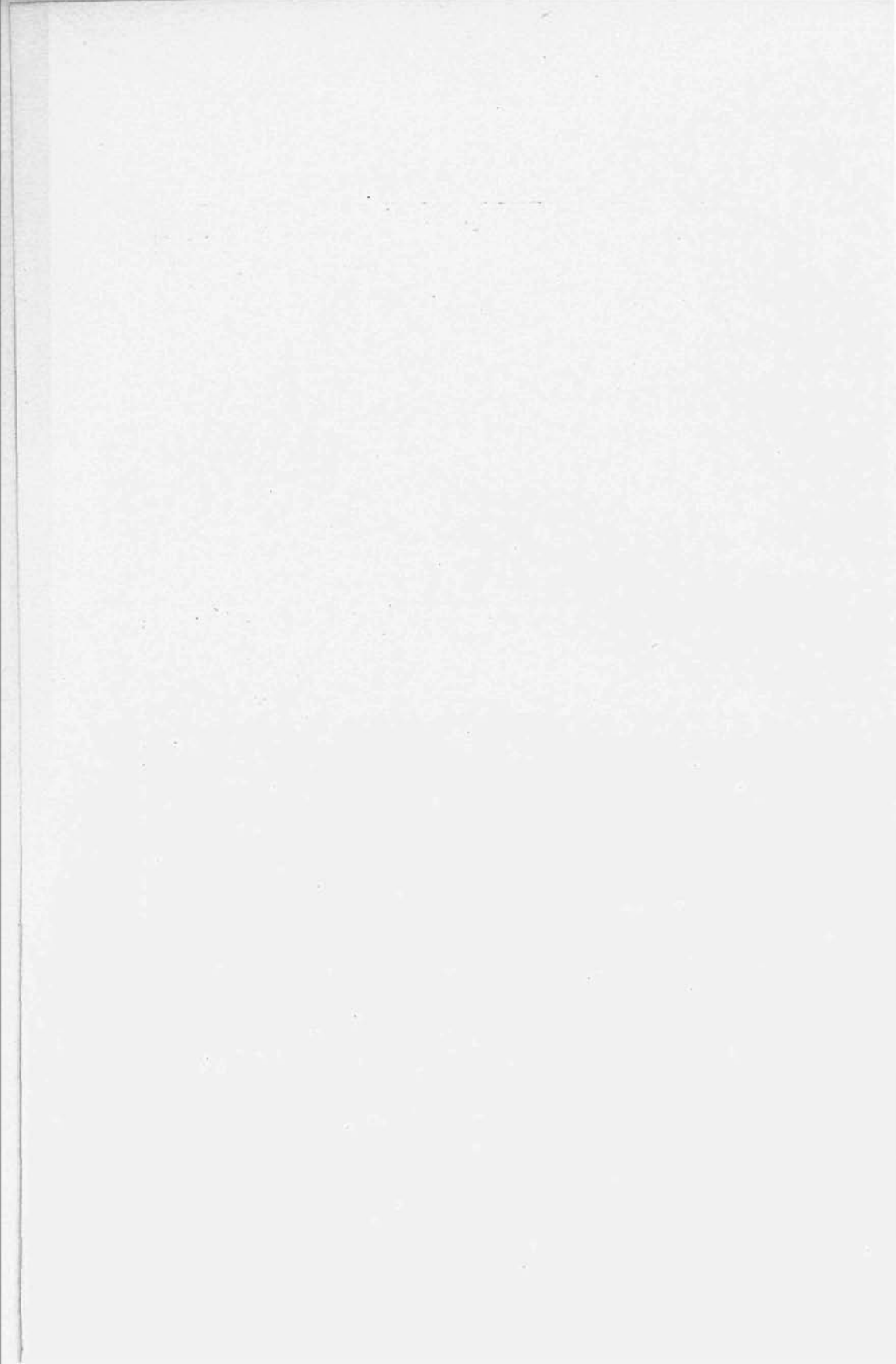
The wages of girls in the employment of the Ferris Brothers Company are at least equal to the highest paid in any factory engaged in the same line of business elsewhere. Indeed, it may be safely asserted that operatives here earn more on the average, because they are, on the whole, by reason of the peculiar advantages which they enjoy, likely to be more efficient and intelligent workers than those who are not so happily situated.

If this were not so, if the earnings were not equal at least to what could be obtained elsewhere, the moral and material advantages enjoyed in this factory would not be sufficient to hold the operatives; much as they might and do appreciate them, they probably would, with a few exceptions, go where the most money could be secured.

The Ferris Brothers Company surrounds its employes with incomparable personal comforts, and also pays them wages at least equal to the best paid in establishments where obtaining the maximum of profits from the labor of employes is the fundamental policy of the management. Neither the Ferris Brothers Company nor its employes maintain any form of benefit association, but should an employe become sick or disabled and therefore unable to work, he or she is taken care of by the firm to the fullest extent that the circumstances of the case require. In fact, such is the spirit of mutual interest and good will pervading the relations of employer and employe in this admirable establishment, that

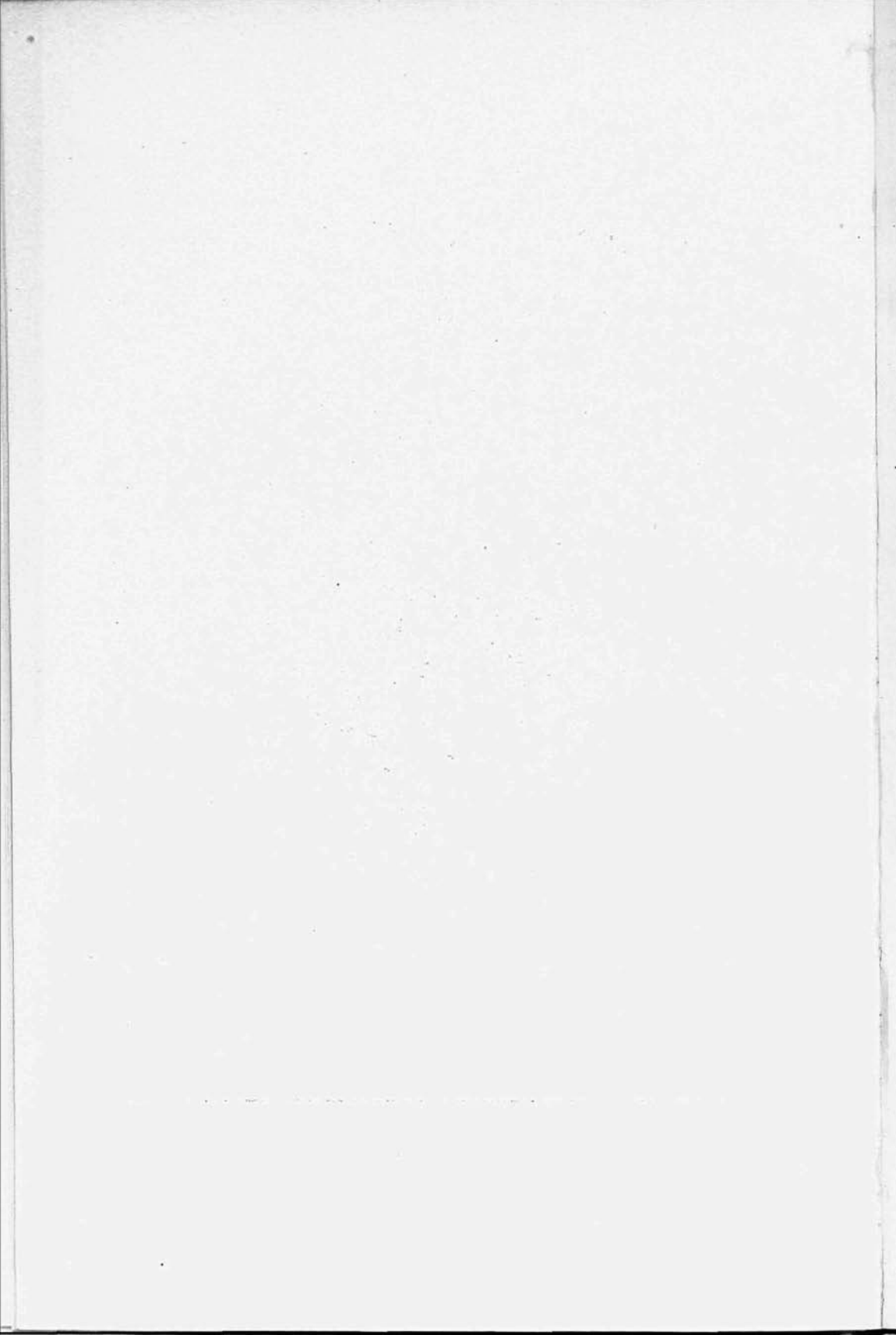


WORK-ROOM. FERRIS BROTHERS' CO. WORKS.





WORK-ROOM. FERRIS BROTHERS' CO. WORKS.



an operative in trouble may always depend on assistance from the firm, no matter what the cause of his or her difficulty may be.

It may be superfluous to refer to the question of whether the policy pursued by the Ferris Brothers Company toward its employes pays in a commercial sense. A sufficient answer to such a query will be that the system has now been in operation for the past eighteen years, and although the course of the founders of the firm in adopting it was not influenced in even the slightest degree by the question of whether or not it would pay, that is to say, in the sense of becoming a distinct element contributory to the profit of the business, still, it has unquestionably paid from even that point of view.

The plan was adopted because the founders of the firm were broad-minded and generous enough to regard the animated human part of the machinery of production as being at least equal in importance to the inanimate and material kind and entitled to as much care.

It is profitable in the merely money sense, because the generous and courteous treatment accorded the employes has earned their sincere gratitude and called forth the best they are capable of doing in the interest of their employers. Discontent in any form is utterly unknown; no strike has ever occurred among the operatives of this firm, and the results which elsewhere are too often sought by treatment bordering on severity and repression, are here realized through co-operation between employer and employe based on lines of kindness and reciprocal loyalty.

Florence Thread Company, Florence, N. J.

**Manufacturers of Glazed Thread and Yarn.
Employs 32 Males and 34 Females.**

Employees of this company have the use of all the facilities and institutions which R. H. Wood & Company (Florence Iron Company), situated in the same village, provides for its employees. For a detailed description of these, see the title R. H. Wood & Company, Florence, N. J.

**W. D. Forbes Company, Hoboken, N. J.**

**Manufacturers of Machinery.
Employs 60 Males.**

This firm and its employees acting together carry on a Mutual Insurance Fund which has given unqualified satisfaction to everyone concerned. The benefit is operated on the following lines: Each workman and apprentice, together with all the employees of the office, contributes twenty-five cents (\$0.25) per week to the fund; the company paid in one hundred dollars (\$100.00) as an emergency fund, which is not to be used except in instances where the treasury does not contain enough money to meet the demands for sick benefits.

Any employee who becomes disabled through accident or illness and is unable to work, is, after the first two weeks of disability, taken care of by the benefit fund, which thereafter pays him four dollars (\$4.00) per week for a period of twelve consecutive weeks. Should the disability continue beyond that period of time, other steps are taken by the employees and the firm jointly to take care of the afflicted workman.

While sick, a member is excused from the payment of dues, and in the event of his death fifty dollars (\$50.00) death benefits is paid to his heirs or to such person as may have been designated by him to receive it.

A rule of the insurance fund requires that the unexpended balance in the treasury, less the emergency fund of one hundred dollars (\$100) above referred to, be distributed back to the subscribers in the form of a dividend at the expiration of each calendar year. This practice is found to be productive of very satisfactory results; the interest of members is increased because the money paid in to the fund comes to be regarded by them as not only an insurance, but also an investment from which the persistent members receive returns that are very good in proportion to the amount paid in.

Twenty-six (26) members participated in the annual dividend for the year 1903, ten months being the longest time of membership. The aggregate number of months for which dues were paid by these twenty-six (26) members in good standing was two hundred and seventy-one (271), the money so paid amounting altogether to two hundred and ninety dollars and twenty-five cents (\$290.25).

The total amount of money paid into the treasury of the fund, with the interest on deposits and including also lapses, was, for the year 1903, three hundred and thirty dollars and sixty-four cents (\$330.64). At the annual division, which took place on December 20th, members in good standing received a dividend which amounted to one dollar and sixty-four cents (\$1.64) more than they had paid in. Immediately after the annual division of the surplus money in the treasury has been made, the payment of weekly dues not having been interrupted, money again begins to accumulate, the company's contribution of one hundred dollars (\$100) being meanwhile available to relieve urgent claims if any such arise before the funds from weekly dues have grown sufficiently large to meet them.

Everything connected with the insurance fund and its management seems to work smoothly and with satisfaction to all concerned. The workmen appreciate its advantages, and in the matter of administration it is taken care of with but little labor or expense. The management is in the hands of officers chosen annually from among the office force and the workmen.

The company has adopted the system of paying every man in its employment his full wages on Friday night, keeping nothing whatever back. This allows the wives of the workmen to go early to market on Saturday morning, when much better goods can be purchased than late in the evening.

The factory is run ten hours every day except Saturday, when work ceases at eleven o'clock; the working time is therefore fifty-four (54) hours per week. This system seems to work most admirably; the workmen go home, change their clothes, and have the full afternoon to themselves.

These things are done by the company without pressure of any kind from any source. They are simply a free-will offering to the good and welfare of its employes, given in recognition of the moral obligation devolving upon employers to consider the reasonable interests and desires of their workmen, so far as the practical rules of business and the efficient operation of industry permits this to be done.

The relations of the firm with its employes are very cordial, and no outside influence of any kind is permitted to disturb the harmony existing between them.



Gibson Iron Works Company, Jersey City, N. J.

Iron Founders and Machinists.
Employs 50 Males.

This company follows an exceptionally liberal policy in the matter of bettering the condition of its employes, which was adopted several years ago.

The plan consists in part of taking out life insurance policies on the tontine principle, for from \$1,000 to \$2,000, for each man who has been in its service for a term of five years and over. The premiums are paid by the company as long as the men remain in its employ. The plan has worked well and gives perfect satisfaction. The workmen employed by the company are exceptionally sober and industrious and of excellent moral character; a large number

have been with their present employers for from five (5) to fifteen (15) years.

Several years after the insurance plan was put into operation, a further and a still more important step was taken by the Gibson Iron Works Company for the benefit of its especially worthy employees. At the beginning of this year (1904) the business was incorporated, and out of a capital of \$60,000, \$5,000 worth of the stock was divided among ten of the leading employees who were thought worthy of receiving it. The recipients of this stock were not asked to pay for it, their long and faithful services as employees entitling them, in the judgment of the company, to receive it without cost.

No stock of the company is sold outside of the corporation, nor would a single share of it be sold at any price. With employees who receive the stock, the company has made the provision, by agreement, that for the consideration of one-half of its face value in spot cash the stock shall revert back to the company at the expiration of active service in its employment, or at the death of the holder; so that under no conditions can the stock go to anyone outside of the present corporation.

The company has also pledged itself that merit and quality in the conduct and work of its employees shall continue to be recognized by further gifts of stock.

Another plan of the company which has been long in practice relates particularly to the neighborhood in which the works are situated. It has always tried to cultivate friendly relations with and endeavored to be on good terms with the people composing the tenement population. The practice has been, on Decoration and Labor days of each year, to collect fifty (50) to one hundred (100) children who live nearest to the works and send them on an outing free of expense to them or their parents. Sometimes they are carried by trolley cars, and at other times they are taken out to the woods in some suburb of the city in the company's wagons. Abundance of refreshments are provided, and all expenses paid. The company is very much pleased

with the results of this plan, as the interest and friendliness of the children of the neighborhood is secured, and property otherwise unprotected is cheerfully taken care of by them.

The company is strongly of the opinion that if manufacturers would pursue the same policy toward the mothers and children of the neighborhoods in which their factories are situated, the results would return them ten-fold the expenditure which such a plan would cost.

It is scarcely necessary to add that the employes of this company are a contented lot of men, and that there has never been a strike among them.



L. Goldsmith & Son, Newark, N. J.

Manufacturers of Trunks.
Employs 50 Males and 5 Females.

Employes of this company have a mutual aid organization, of which all are members. No pressure of any kind is used by either the firm or the organization to induce workmen to join; they do so because of the manifest advantages derived from membership.

Ten (10) cents per week is charged as dues, and the weekly benefit payable in case a member is disabled through sickness or accident is five dollars (\$5). In the event of a member's death, all necessary expenses of the funeral are defrayed by the benefit society, the firm giving whatever assistance may be required.



Gould & Eberhardt, Newark, N. J.

Manufacturers of High-Class Machine Tools.
Employs 350 Males.

This firm states that the only feature of a benefit or betterment kind in operation at its works is an Employes Mutual Benefit Association, which is managed and con-

trolled entirely by the workmen. The firm has nothing to do with it, except acting in an advisory capacity when requested to do so by the men.

The views expressed by the firm regarding the various forms of benefit systems, given with clearness and force, are well worthy of consideration for the philosophic suggestions which they contain. The belief is expressed that such institutions do not pay, either from the business or economic standpoint. Quoting the firm's letter on the subject: "We do not believe that it helps the man to give him something for nothing, nor do we believe that he wants it. We have seen, in a great many instances throughout the country where various plans of this kind have been tried, that the men rather resent it and come to look upon it as a charity which is not desired. We believe in giving a man a chance to earn his recreations, rather than provide them for him gratis, and we feel that all plans worked out on a basis of giving the man something for nothing are bound to fail, for the very reason that it can be nothing other than more or less of a charitable distribution, and that the American workman is above anything of this nature."



C. Howard Hunt Pen Company, Camden, N. J.

Manufacturers of Round-Pointed Pens.
Employs 19 Males and 109 Females.

This company has placed a certain amount of stock in the name of the heads of every department in its works and also its leading salesmen. The stock is to be paid for by dividends earned, the only restriction placed upon it is, if the holder should die the company reserves the privilege of buying the stock at whatever amount has been paid on it plus an equal share of any surplus that shall have accrued to the stock.

The company has also instituted a rule giving to each operative who is regular in attendance to his duties every

day of any calendar month, one day vacation with pay, so that operatives who have been fortunate enough to have worked every working day in the year, have two weeks vacation with full pay for the time. The hours of labor have been reduced from ten to eight per day, and certain machinery formerly in use that had caused considerable injury to operatives, has been replaced by modern types, which causes no further trouble of that kind.

Other reforms and projects for improving the condition of operatives are being planned and will be put in operation when perfected.



**Hygienic Chemical Company of New Jersey,
Elizabethport, N. J.**

**Manufacturers of Chemicals.
Employs 30 Males.**

The company has furnished a bath-room, with hot and cold water, also soap and clean towels, free, and every employe is allowed twenty minutes once a week during working hours for bathing purposes without deduction of wages. The only formality required is application to the foreman for a bath ticket. There is no restriction as to the use of the bath after working hours except the avoidance of conflict.

The employes are contented and seem to appreciate the interest which the company takes in them.



The Ingersoll-Sergeant Drill Company, Phillipsburg, N. J.

**Manufacturers of Air Compressors, Rock Drills, etc.
Employs 775 Males.**

The employes of this company, acting in co-operation with the firm, have established a benefit association on a very comprehensive plan, which has been in operation since 1898.

The results are highly satisfactory and all concerned as

contributors or beneficiaries agree that the system has been productive of much good.

The plan on which the association is organized provides, as shown by the constitution, that the Board of Directors shall consist of five members, three of whom are elected by the employes from among themselves and two appointed by the company.

None but employes of the Ingersoll-Sergeant Drill Company and Haesler-Ingersoll Pneumatic Tool Company, above the age of fifteen (15), and under the age of fifty-five (55) years, are admitted to membership; but persons above the maximum age may become members if they have been in the employment of either of the companies named for a term of two years, on condition that they obtain a physician's certificate of good health.

Persons ceasing to be employes forfeit membership in the benefit association and have no right in it thereafter, except such as may have accrued and been awarded them by the Board of Directors previous to leaving the company's employment.

The membership dues are fixed at twenty-five (25) cents per month, for which the following benefits are paid:

1. Five dollars (\$5.00) per week for disability resulting from accident or sickness.
2. One hundred dollars (\$100.00) burial fee in case of death resulting from disease or accident otherwise than as hereinafter provided for.
3. Five hundred dollars (\$500.00) in case of the loss of a hand or foot resulting from accident while at work, or in going to or returning from same.
4. Two hundred dollars (\$200.00) in case of the loss of an eye through accident while at work.
5. One thousand dollars (\$1,000) in case of total blindness or other total disability resulting from accident while at work, or in case of death resulting from accident while at work, or in going to or returning from the same; provided, however, that such result shall have occurred within one year from the time when the injury was received.

6. Benefits are not cumulative, and the greater benefit shall cover the less, and if the lesser shall have been paid, it shall be deducted from the greater benefit accruing to the same person from the same injury.

7. No claim shall be allowed for loss of life or limb, or any other injury occasioned by the injured party being upon the tracks of any railroad, except at public or necessary and usual crossings of the same.

8. Failure to make payment of dues within the proper time forfeits the right to all benefits.

9. Weekly sick benefits shall not begin until after one week's sickness, and shall date from the beginning of the second week; weekly accident benefits shall begin from the date of the accident; provided, that no benefits shall be paid for the first week on account of an accident or injury that does not show external marks.

10. Weekly payment of benefits shall continue for only four (4) months for any sickness or injury resulting from the same disease or accident; but such payments may be extended for an additional period not exceeding two months, by a vote of the directors.

11. Members are not entitled to and shall not receive benefits for disability or death occasioned by accident or injury received, or disease contracted before becoming a member, or caused by intoxication or the violation of any law, or by willful or gross negligence on his part.

The accident which shall entitle a member to benefits shall be such as he is exposed to in his employment, or in going to or returning from the same.

The Ingersoll-Sergeant Drill Company acts as treasurer of the association and supplies all necessary office room and clerical service without cost to the association. The company also gives to the treasury each year a gratuity equal in amount to the dues contributed by its employees. The Haesler-Ingersoll Pneumatic Tool Company, whose employees are eligible to membership in the benefit association, follows the same policy of duplicating the payments made by their workmen.

The company reserves to itself the right to cancel its agreement and end its connection with the association by giving six months' notice to the Board of Directors of its intention to do so. In such case, provision is made for the dissolution of the association. In the event of this taking place, the constitution provides that the surplus money in the treasury of the association shall be used for securing hospital privileges for employes of the company, or turned over to any mutual benefit association organized to take the place of the one that has been dissolved.

Three thousand dollars (\$3,000) is the maximum amount of money to be retained in the treasury of the association as a guarantee fund. All surplus above three thousand dollars is awarded from time to time in sums not exceeding five hundred dollars (\$500) to one person, to employes of the company who have been in its service for ten years or more, and are permanently disabled because of old age or any of the causes for which benefits are paid. Such awards are wholly at the discretion of the Board of Directors, and are made only in cases that are in every way meritorious and deserving.

This association and the work it has planned to do and is doing shows how thoroughly all the protection afforded by ordinary life and accident insurance can be secured for workmen in large industrial establishments through the intelligent co-operation of employes and employers.

The benefits of such a plan to both the firm and its workmen are very far-reaching, the advantages to the latter being of course in the most concrete form. For them it is a guarantee of immunity from the distressing poverty that often follows illness, and to their families it is a sure protection against at least immediate want in case of the bread-winner's death. The liability of the employer is amply repaid by the closer and warmer personal interest which workmen are sure to take in the business from which they draw a present livelihood, and to which, in the event of their disability or death, the dependent ones may confidently look as a matter of right

for that sympathy and material help which goes so far toward comforting those who are thus afflicted.

It is hardly necessary to say that the best of feeling exists between the company and its employes, and that these pleasant relations have never been interrupted by a misunderstanding of any kind.



The Johnston & Murphy Shoe Company, Newark, N. J.

Manufacturers of Fine Shoes.
Employs 300 Males and 115 Females.

The employes of this company have a benefit society of about sixty members; the dues are ten cents (\$0.10) per week, and the sick or disability benefit five dollars (\$5) per week.

The society also provides a burial fund, from which twenty-five dollars (\$25) is paid toward the funeral expenses of a member.



Keuffel & Esser Company, Hoboken, N. J.

Manufacturers of Mathematical and Surveying Instruments.
Employs 425 Males and 48 Females.

This company's line of manufacture is of a kind that requires a high degree of skill on the part of its workmen. The factory buildings are kept clean and well ordered, and much attention is given to ventilation and sanitation.

The employes have a sick-benefit society which has a membership of one hundred and sixty-six (166). The constitution and by-laws of the society, a copy of which was kindly furnished by the company, provides that its name shall be the Sick-Benefit Association of the Employes of the Keuffel & Esser Company, and its purposes, to aid its members in case of sickness.

Anyone between the ages of eighteen (18) and fifty (50) years of age who is employed in the works of the company and desires to join the association can do so, subject, of course, to a vote of the members. The admission fee charged is two dollars (\$2).

The monthly dues are fixed at forty (40) cents, which must be paid promptly, under penalty of forfeiture of benefit during the month for which payment has not been made. Members are allowed to fall in arrears for three months' dues, after which, having been notified by the secretary, one week is allowed for paying up all arrears; failing to do this, the delinquent member is expelled at the next meeting of the association. An expelled person cannot be again admitted to membership until six months after expulsion.

The association allows its members, in case of sickness, a benefit amounting to the total sum of one hundred and seven dollars (\$107), as follows: Six dollars (\$6) a week for a period of twelve (12) weeks, and three dollars and fifty cents (\$3.50) for a period of ten (10) weeks, no matter what interruption there may be. With the drawing of this sum the membership of the recipient practically ceases. Should he desire to continue his connection with the association, he must be proposed for membership again, and present with his application a physician's certificate of the state of his health. If reported on favorably by the physician, the member may be admitted again, even if not any longer employed in the factory, or if he should have already passed the age limit of fifty (50) years. A new admission fee in such a case is not required.

Members must be in the association for a period of three months before they are entitled to benefits, and no payments are made for sickness or disability that lasts less than three days. Benefits may be withheld from members found engaged in work for which their physical condition unfits them, and benefits are not allowed to a member on account of an incurable sickness or disease, if it can be shown that he had already been suffering with such sickness or complaint

before being admitted to membership without the same having been mentioned in his application.

Besides the weekly relief paid during sickness or disability resulting from accident, the sum of seventy-five dollars (\$75) is paid on the death of a member from the funds of the society, and twenty-five dollars (\$25) additional from the officers of the company.

There is thus assured to the family of a deceased member an amount of money (\$100) sufficient to meet the expenses of a respectable burial, which is the joint offering of his fellow-workmen and his employers. On the death of the wife of a member the sum of fifty dollars (\$50) is allowed by the benefit society.

A visiting committee of three members, who are appointed by the president to serve one month, are required to visit patients once a week, and must sign their names to the call-book left with every member who is on the sick-list.

The president and the visiting committee have power to cause an examination to be made of a patient at any time. Should the physician report the member able to work, no benefit will be allowed.

A member who leaves the employ of the Keuffel & Esser Company may continue his relations with the benefit association if he lives anywhere within a radius of twenty-five (25) miles of the factory.

The social relations existing between the Keuffel & Esser Company and its employes are now and always have been of a most intimate and cordial character. Both appear to appreciate fully the advantages to be mutually derived from a knowledge of each other which extends beyond the limits of factory routine. It has, therefore, been the custom for years back to indulge in an annual picnic in the summer, and a masquerade ball or other affair in the winter, in which all the employes and members of the firm with their families make it a point to participate. Closer acquaintance, mutual respect, and good will between all naturally grow out of these frequent meetings for pleasure, and the possibilities of friction between the employers and employes,

which often springs from the lack of real knowledge of each other, are very largely guarded against.



Keystone Leather Company, Camden, N. J.

Manufacturers of Glazed Kid Leather.

Employs 501 Males.

The employes of this company have a beneficial society which is conducted under the name of "Employes of Keystone Leather Company Yearly Beneficial Association." This association was formed for the purpose of aiding those who are taken sick or who may become disabled by accident, and assisting the families of members in case of death.

At the present time (May, 1904) eighty-two (82) employes are members. The dues amount to fifty (50) cents per month. The benefits paid to sick or disabled members are five dollars (\$5) per week for a period of six weeks, and three dollars (\$3) per week for the further duration of the sickness or disability.

On the death of a member the sum of fifty dollars (\$50) is paid to his family to assist in meeting the expenses of burial.

The company contributes liberally to the funds of the association, and in all possible and necessary ways encourages the efforts of its employes in this and other directions that may lead to their social and industrial improvement.

The belief is expressed by the management that the influence of the beneficial society on the conduct of its employes is good, and that, in an indirect way, at least, the business of the company derives some advantages from it.

S. Klaber & Company, Carlstadt, N. J.

**Workers in Artistic Marbles, Mexican Onyx, and Bronze.
Employs 70 Males.**

This company carries accident policies for all its employes, which important protection is provided without cost to them. This is done notwithstanding the fact that in New Jersey there is no statutory regulation of employer's liability for accidental injuries sustained by employes while in the discharge of their duties, and that at common law, recovery of damages cannot be had if the workman was injured through either his own or a fellow employe's negligence. In fact, what the firm is doing in this respect is an act of pure benevolence to its workmen and their families unmixed with anything akin to selfishness.

In its communication on the subject of betterment institutions the firm states that some time ago it endeavored to institute a system of sickness, accident and death insurance among its shop employes, and offered to contribute as much to the fund as the entire contributions of the men would amount to. The employes showed no disposition, however, to accept the offer, and since that time the firm has not again called the matter to their attention.

The best of relations exist between the firm and its employes, many of whom have been in the service for from ten to eighteen years.

**L. O. Koven & Brothers, Jersey City, N. J.**

**Manufacturers of High-Pressure Galvanized Range Boilers.
Employs 95 Males.**

Although neither baths, reading or club-rooms, or indeed any of the concrete forms of special benefit features are established in the works of this company, yet the uttermost possible care has been and is being exercised by the company in the construction and management of its works to the end that the health and physical well-being of its employes may be protected and improved.

The factory buildings are built of brick, painted white inside throughout, with ceilings fifteen to eighteen feet high. The buildings, which are steam-heated, are provided with exhaust fans. One-half of the wall space in all buildings is taken up with windows or doors, thus giving ample light and fresh air to the interior of all rooms. Each department is provided with wash troughs and all other necessary sanitary arrangements for the use of the men.

The company contributes funds to the maintenance of two hospitals that are situated in the neighborhood of the works, and in which employes can have surgical or medical care when either is needed. Contributions are also made to the funds of the Young Men's Christian Association and the Boys' Club. These institutions have reading-rooms and provide lectures, games, athletic classes, baths, bowling alleys, and many other forms of mental and physical exercise of a high order, to which the firm employes have free and welcome access.

Much thought has been given to the question of incorporating in the business management of the firm, some practical features that would be alike advantageous to employers and employes, and after mature consideration the conclusion was reached that the best that could possibly be done for both interests would be to provide the works with the best types of machinery, and to have spacious halls with perfect light and ventilation. This has been done. A place has been provided for every tool and for all material.

Every part of the factory, as well as the machinery, shelving, closets and floor space is kept free from dust and dirt of all kinds. Proper receptacles are provided for all waste matter, and these are under the care of especially delegated persons, whose duty it is to see that the same is properly disposed of. Sanitary arrangements throughout the factory are plain but ample, and of the very latest and most perfect types.

No attempt is made to provide in the works for the education or recreation of employes. It has been found that the firm's employes do not look on such things with particular

favor. After leaving work they wish to conduct themselves as they please and spend their spare time as seems to them best.

The firm has indirectly done much for its workmen by assisting every project which tends to raise the standards of character and education in the communities in which they reside. Sentiments of the most perfect harmony and good will has long characterized the attitude toward each other of the firm and its employees.



John Lucas & Company, Gibbsboro, N. J.

**Manufacturers of Colors, Paints, Enamels, etc.
Employs 237 Males and 39 Females.**

The employees of this firm have a benefit association which they have named the John Lucas Beneficial Association; they also have a lyceum and a building and loan association.

Membership in these organizations is not confined to employees of the company although these constitute a large majority of the total number enrolled, but outsiders may acquire all privileges on the same terms as those who work for the firm.

The purpose of the benefit association is to provide a fund to be paid to members who by reason of illness or accident shall be unable to pursue their ordinary occupations. The admission fee charged varies according to the age of the applicant. The rates are as follows: Under twenty (20) years, \$1.00; from twenty (20) to thirty (30) years, \$2.00; from thirty (30) to thirty-five (35) years, \$3.00; from thirty-five (35) to forty (40) years, \$4.00; from forty (40) to forty-five (45) years, \$5.00; from forty-five (45) to fifty (50) years, \$6.00.

Membership dues are fixed at ten (10) cents per week, and members become beneficial only after the expiration of one year from date of admission to the association.

The weekly allowance in case of disability through acci-

dent or illness is fixed at five dollars (\$5.00) per week for a period of ten (10) consecutive weeks, and three dollars (\$3.00) per week for the full remaining time of disability; provided, a certificate of the attending physician, approved by three (3) members of the visiting committee, vouching for the disability, be filed with the Board of Directors. The association also pays a funeral benefit of seventy-five dollars (\$75.00) on the death of a member, and fifty dollars (\$50.00) in case of the death of a member's wife.

A rule of the association forbids the payment of funeral benefits directly from the treasury when such payments would reduce the amount in hand below three hundred dollars (\$300.00). Under those circumstances the death funds are collected from members in the form of a special assessment.

Of equal or perhaps even greater value to workmen employed by this company than the association described above, is the building and loan society, the membership of which is composed of employees. Through the medium of this association thrift and prudence is greatly encouraged, and a safe and profitable investment provided for their savings. A large number of the firms' employees have built or purchased homes for themselves through the financial help thus put within their reach, and many others are now steadily progressing toward the same much-desired goal.

The material interests of the employees of this company are amply provided for by these two associations. From one of them—the benefit association—is derived the advantage and security afforded by insurance against total loss of income through accident or sickness, and also the means whereby the immediate expenses of burial may be met in case of the family losing its bread-winner by death; the other—the building and loan society—is a stimulus to saving and a perfectly safe depository in which his surplus earnings may be placed and used for mutual interests of his co-laborers and himself in home building.

The intellectual and social side of life among this intelligent and progressive group of workmen is represented by

an organization known as the "Gibbsboro Lyceum," the membership dues in which is only ten cents (\$0.10) per month. Like the other associations, it is supported almost entirely by employes of the John Lucas Company. The objects of the lyceum are the intellectual improvement of its members and also to provide them with social amusements of an improving character. Lectures and entertainments are given frequently in a hall devoted to that purpose, to which all members are admitted free, and have also the privilege of bringing children under fifteen (15) years of age without charge.

The employes of this firm are devoted to the interests of their employers—perfectly contented—and have never yet had a disagreement of any kind with them.



The Ludlam Steel and Spring Company, Pompton, N. J.

Manufacturers of Crucible Cast Steel, and Railway Car Springs.
Employs 120 Males.

This company provides a reading-room at its works for which dues amounting to five cents (\$0.05) per month are charged.

An annual subscription to the Paterson General Hospital is paid by the firm, for which employes who need treatment through accident or sickness are taken in free of cost. Athletic exercises are encouraged among the workmen, and a base-ball field has been provided for the younger ones among them for the past two years.

The works are situated in the country and employes have the inestimable natural advantage of abundance of fresh air, water to bathe and fish in, and forests and fields to hunt in. These, of course, are benefits derived from nature, with the production of which neither company or workmen have had anything to do, but they are, nevertheless, important factors in producing and maintaining a high standard of physical and moral excellence among the employes.

Maddock Pottery Company, Trenton, N. J.

**Manufacturers of Fine China and Porcelain Ware.
Employs 160 Males and 70 Females.**

This firm reports that a commodious lunch-room is provided at the works for the use of employes. There is also a sick benefit and burial fund association, organized and maintained by the employes. Membership is limited to actual employes of the company, no matter what their line of duties may be.

The purpose of the society is to provide weekly benefits for members who are unable to work through either sickness or accidental injury. To entitle a member to benefits it must be apparent that the disability from which he suffers was not brought on by his own misconduct.

The number of members at present in good standing in the society is one hundred and twenty-five (125). The dues for membership is fifty cents (\$0.50) per month, and the payments to sick or disabled members is five dollars (\$5) per week, which sum is allowed for thirteen (13) consecutive weeks.

In case of a member's death, the rules of the association provide that fifty dollars (\$50) shall be paid to his surviving relations toward defraying the expenses of his burial. The sick and burial funds were established in January, 1902, and are therefore now nearly two and a half years old. During that time the sum of four hundred dollars (\$400) has been paid out in sick benefits; as no deaths have thus far occurred among the membership, nothing has been paid out on account of burials. There are also shop committees, whose business it is to act on behalf of the employes in matters appertaining to their work.

John Maddock & Sons, Trenton, N. J.

**Manufacturers of Steamship, Carbuilders' and Plumbers' Earthenware, and Sanitary Specialties of Every Description.
Employs 125 Males and 20 Females.**

The employes of this firm have a sick and burial club, membership in which is limited to male employes who earn at least seven dollars (\$7) per week.

The dues charged are ten cents (\$0.10) per week, and the amount paid to sick or disabled members is two dollars (\$2) for the first week and five dollars (\$5) per week thereafter up to and including the thirteenth week.

The amount paid to the family of a dead member is absolutely on the assessment plan, the rate being fifty cents (\$0.50) for each member in good standing at the time the death occurred. During the year 1903 the sick and burial club paid out two hundred and thirty dollars (\$230) on account of sickness; there being no death, there was nothing disbursed on that account.

For the first two months in 1904 the payments on account of sickness and deaths were thirty-six dollars (\$36) and twenty-eight dollars (\$28) respectively.

About fifty (50) per cent. of the total number of employes are members of the association.

The firm has encouraged the workmen in every step taken in relation to the benefit society, and has helped financially when occasion required. The moral results of the organization are said by the firm to be very good; the management is entirely in the hands of the workmen themselves, and much interest in its affairs is displayed by every member.

Although in existence for only a comparatively short time, the society has done much good both in a material and moral sense, and the firm and workmen unite in expressing their confident belief that it will, in time, grow up to a higher plane of usefulness.

Marine Engine and Machine Company, Harrison, N. J.

**Manufacturers of Marine Engines and General Machinery.
Employs 243 Males.**

The employes of this company have a mutual benefit association which has been established for several years and is now on a very successful basis.

The constitution of the association limits membership to employes of the firm, but allows workmen who leave its employment to still retain their claims to all benefits by continuing to pay the weekly dues. Should they, however, allow themselves to fall into arrears for four weeks, all rights are forfeited and their names are stricken from the rolls.

Under the rules of the association a minimum amount of one hundred dollars (\$100) must be maintained in the treasury. The dues are fixed at five (5) cents per week, which may be increased to ten (10) cents if necessary, and maintained at that figure until the surplus funds on hand amount to one hundred dollars (\$100), after which the dues are again reduced to five cents. Should the amount in the treasury reach three hundred dollars (\$300), payments by members who have drawn no benefits are suspended until the fund has diminished to the minimum amount of one hundred dollars (\$100), when their contributions of five cents per week are resumed.

The association is managed by a board of twenty members, representing every department of the works; these are chosen annually, the members employed in each department choosing their own representative.

In case of accident or sickness not resulting from intemperance or immoral conduct, members of the association are paid five dollars (\$5) per week, and fifty (50) cents for each day less than one full week. Payment of sick benefits is limited to twenty-six (26) weeks in any one year, the first six of which are at the rate of five dollars (\$5) per week, and the succeeding twenty weeks at the rate of one-half that amount.

The funds of the association are provided and all its affairs managed by employees. The benefits and advantages which are thus brought within reach are highly appreciated by the workmen, a large majority of whom are members.



The Samuel L. Moore & Sons Company, Elizabeth, N. J.

**Manufacturers of Steam Engines and General Machinery.
Employs 295 Males.**

Benefit features in the works of this company are limited to an arrangement with the general hospital, under which employees injured in the actual performance of duty are received into that institution and treated without expense to themselves.

For this privilege each employee contributes ten (10) cents per month. The general hospital will treat any injured person who may apply for admission, but the workmen prefer paying this small monthly sum so as to assist the institution and also that if, through accident or sickness, they become inmates, they may not be regarded as charity patients.



The National Saw Company, Newark, N. J.

**Manufacturers of All Kinds of Saws.
Employs 100 Males.**

The employees of this firm have organized an insurance system which is substantially a benefit association. The total membership reported is one hundred and twenty-five (125), of which number about one-half are employed by the saw company; the others are divided among the other saw works of Newark.

The dues charged are fifty (50) cents, and ten dollars (\$10) per week is paid to members who, through accident or sickness, are unable to work. The sick benefit is paid for ten consecutive weeks.

The association also provides a burial fund of fifty dollars (\$50), which amount is paid on the death of a member to the person that has been designated by him to receive it.

The association has been in existence several years, and has thus far disbursed six thousand dollars (\$6,000) on account of sick benefits and eight hundred and fifty dollars (\$850) for burial of members.

The uttermost possible care is taken by the committee which manages the business of the association to confine the payment of benefits to meritorious cases, and to exclude such as may originate in dissipation or immorality on the part of members seeking relief.

The company contributes to the funds of the benefit association, but not in fixed amounts nor according to any regular plan. Its contributions are given whenever needed, which is, generally speaking, when the treasury is unable to meet claims against it. The company's contributions average about fifty dollars (\$50) a year.



New York Switch and Crossing Company, Hoboken, N. J.

**Manufacturers of Special Track Work of All Descriptions.
Employs 92 Males.**

The management of this company stands ready to pay expenses for any employe who will take a course in any of the well-known correspondence schools in which industrial science is taught. It also subscribes for a full line of industrial and mechanical publications relating to its line of business, which are distributed to all employes who desire to read them.

Liberal contributions are made by the firm to a local hospital, which is a charitable institution, so that employes in case of accident or sickness may have a place to go where they will receive proper medical treatment.

J. & W. Nichols, Nutley, N. J.

**Manufacturers of Soft Fur Hats.
Employs 48 Males and 16 Females.**

This firm provides in its factory a large airy lunch-room and dressing-room for the men, and the same for the women.



Novelty Wood Works, Newark, N. J.

**Makers of Fancy Carvings, Trade Marks, Monograms, Models, etc.
Employs 36 Males.**

This firm declares itself warmly interested in the development of betterment institutions for the benefit of employes, and expresses a hope that it may soon be in a position to enlarge that which it has already done of that character for its own workmen.

This consists of an arrangement whereby employes are permitted to invest some part of their earnings each year in the business, on which they are paid dividends according to the profits made.

On the fifth floor of the factory a gymnasium has been fitted up, which has as parts of its outfit, punching bags, boxing gloves, shower baths, etc. This room is open to and used freely by all employes.

One young man in the service of the firm, who showed a remarkable inclination for study and a capacity for learning, is now taking a course in a business college, the bills for which are being met by the firm.



Patton Paint Company, Newark, N. J.

**Sole Makers of Patton's Sun-Proof Paints.
Employs from 50 to 115 Males and from 5 to 15 Females.**

This firm has large, modern factory buildings situated in the northern district of Newark. The buildings are new and constructed on principles of the most advanced knowledge relating to sanitation, ventilation and illumination.

The interests of the company's employes in the matter of health, recreation and education were planned for and fully provided when the plant was established on its present site about three years ago.

The important relation of cleanliness to health, particularly in the case of men employed in the manufacture of paint, is kept constantly in view, and employes are, therefore, given every possible facility for keeping, not only their persons, but also their clothing absolutely clean. The perfect system of ventilation established in the factory buildings insures pure air and substantial immunity from the danger and annoyance of dust.

A lavatory and toilet-room is found on every floor. In the dressing-rooms the workmen have individual lockers, which protect their clothing without shutting off the free circulation of fresh air. The dressing-rooms are 32x15, and are connected with wash-rooms containing twelve basins, with bright and commodious toilet-rooms attached. All workmen are supplied, without cost to themselves, with freshly laundered overalls each day.

The company has established in the works two large and completely furnished lunch-rooms for the use of its male and female employes, in which absolute individual liberty prevails during the noon hour. The girls play and sing after lunch and the men indulge in a variety of interesting games, for which all necessary facilities are provided. The usual forms of out-door exercises and recreations are also encouraged and supported, as far as need be, by the company. These generally take the form of base-ball, foot-ball, annual outings for the employes in a body, bowling tournaments and games of cards.

The chief features of an educational character are found in the co-operation of the employes with the management through the medium of two councils—one composed of heads of departments and the other of workmen from the various departments of the factory; these are called, respectively, the Office Council and the Factory Council. Here matters concerning the interests of both the firm and

its employees are freely discussed, either by special committees of both councils, or by the full membership of the combined bodies, the conclusions arrived at being as much influenced by the employees' representatives as by those of the employers'.

A library, containing 500 selected volumes of first-class literature, is established in the factory and is well patronized by the employees.

A literary association, under the title "The Query Club," which is composed of employees of the factory, the office and the laboratory, meets in the reading-room once a week. At these gatherings papers bearing on factory interests, prepared by members, are read and discussed; subjects brought up by the chemists and others of the company's scientific staff are debated intelligently by the members, who, in this way, acquire a knowledge of the business in which they are employed that greatly increases their efficiency as workmen.

The effect on employees of what has been done for their welfare is very concisely and forcefully set forth in the concluding paragraph of a letter on the subject addressed by the firm to the Bureau, which is as follows:

"It is very evident, from the general conduct of the employees, from the manner in which they spend their time, from their faithfulness at work and from their dignified and wholesome self-respect, that the "Betterment Methods" established and supported by the company has proven to be, both morally and materially, a paying investment."



Perth Amboy Dry Dock Company, Perth Amboy, N. J.

**Shipbuilders, Machinists, and Boiler Makers.
Employs 190 Males.**

The employees of this company, with the co-operation of the firm have organized an Employees' Accident Benefit Association, which fills a want and is doing good work.

Any employe may become a member on filing his application at the office. The admission fee is fifty cents (\$0.50), upon payment of which a membership card is furnished.

The benefits are five dollars (\$5.00) per week, which is paid to any member who may be incapacitated for work, the payments to end after the sixth week. Physicians' and druggists' bills are paid up to an amount not exceeding twenty-five dollars (\$25.00). Money is paid only in cases of accident to members while at work for the company, and then only when a physician certifies that the injury has prevented the applicant for a longer time than a week from working.

Ten cents (\$0.10) per week is withheld from the pay of each member, which is enough to keep the benefit fund of the association at about one hundred dollars (\$100). No admission fee is required from an employe who may leave the company's employ for a time and return.

Employes who do not join the association are warned not to expect collections to be made for them when hurt.



H. S. Peters, Dover, N. J.

**Manufacturer of Overalls.
Employs 10 Males and 50 Females.**

In response to the circular of inquiry on the subject of betterment institutions, the proprietor of this establishment states that at the present time there is a limited form of profit-sharing in operation in his works. Those admitted to participation in it are all employes who fill responsible positions, and the amount allotted to each is dependent on the importance of the position occupied by them in the business. The plan has not yet been worked out to include all employes because of dubiousness as to the wisdom of such a course. The ordinary employe who has no responsibility beyond doing his regular daily task is not in a position to make such an arrangement mutually advantageous, and therefore,

through lack of interest, such plans almost invariably become ineffective.

But the ordinary employes of this factory are not left without an incentive to conscientious work; a premium of five per cent. is paid on the weekly earnings of all engaged in the actual manufacture of goods, for turning out work which is neat and which does not require any alteration or mending.

A dining-room for the use of operatives, which was an established feature of the factory until recently, has had to be abandoned for that use and taken for manufacturing purposes because of the growth of business. The management expected at the time to soon begin the erection of a new factory building, for which plans were all ready, but the work has been delayed because of the uncertain condition of the cotton goods market.

It was expected when the plans and specifications were made that the factory would be erected and occupied by this time. Work on it will, however, soon be begun, and, when finished, it will be, in the matter of providing for the comfort of employes, the best equipped factory in the line of business followed by this firm.

The dimensions of the dining-room provided for in the plans are 25 x 31 feet. It will be operated on the same plan as that followed heretofore, viz.: The management will furnish the room, stove, fuel and all kitchen utensils, allowing the employes to run the dining-room to suit themselves. They select their own help, arrange for their own supplies of eatables, and pay all expenses except for fuel. In the past, the cost of dinners has been kept down to a surprisingly low figure, considering what was got for the money expended.

The social hall is planned to be 17 x 25 feet. Among the several appropriate features of its equipment will be tables with current reading-matter of interest. The locker-room and wash-room for the girls will be 23 x 25 feet; that for the men will be located in another part of the building. The baths for sanitary reasons are to be all shower baths,

and for the use of the men only; others for the girls will be installed in their department, if a desire on their part to have them should become apparent.

There are no sick or burial funds established in this factory, but the proprietor voluntarily assumes the care of such employes as may be disabled and unfit to work through accident or sickness.



Potter Printing Press Company, Plainfield, N. J.

Manufacturers of Printing Presses.

Employs 300 Males.

The "welfare or betterment work" established in the plant of this corporation consists of first-class sanitary conditions, abundance of light and pure air throughout the works. The factory buildings were constructed strictly with these requirements as the principal ones in view. There is a branch of the Plainfield Public Library established in the works, from which employes are at liberty to draw books at will, subject only to the ordinary library rules.

There is also an association called the "Potter Press Works Mutual Aid Society," to which only employes and members of the firm and the managing officials are eligible.

The dues for membership are fixed at ten cents (\$0.10) per week, and the amount paid per week to members, who through accident or sickness are unable to work, is five dollars (\$5) per week, payments to commence the second week of disability and continue for twenty-five (25) consecutive weeks.

The Mutual Aid Society also provides a burial fund, which amounts to fifty dollars (\$50), and is paid to the legal heirs of deceased members, or to the persons whom they had on joining designated to receive it.

Members of the company contribute weekly dues and otherwise help to support the Mutual Aid Society in the same way as do the workmen. One hundred and eighty (180), or sixty (60) per cent., of the total number of employes are members of the Mutual Aid Society.

J. L. Prescott & Company, Passaic, N. J.

**Manufacturers of Enameline and Blackene.
Employs 95 Males and 90 Females.**

This firm, acting in conjunction with its employes, has established a fund which is intended to provide for the wants of employes who may be in needy circumstances through sickness, accident, or other cause.

The plan requires a contribution of ten cents (\$0.10) per week from each employe, and the payment by the firm of an amount equal to their aggregate contributions. The fund is administered by a committee of three, two members being chosen by the employes and the third by the firm. The distribution of the fund, that is to say, the benefits allowed to the individual, is entirely at the discretion of the committee, no specified weekly allowance being stipulated, but the amount paid is in proportion to the actual needs of the individual. Without at all detracting from the usefulness of the fund or causing employes to be disinclined to avail themselves of its benefits in case of necessity, there is yet a feeling among most of them that no claim against it should be made unless in case of actual need.

The plan, although radically different from that usually employed, is found to work very well, as it insures adequate relief in every case of genuine want. It is very much appreciated by the employes, at whose instance it was adopted after full consideration had been given to this peculiar feature and to other details.

As at present managed, the benefit fund is gradually accumulating in the hands of the committee, while at the same time no real need is allowed to exist among the operatives.

Raudnitz & Pollitz, Hoboken, N. J.**Manufacturers of Fancy Leather Goods.****Employs 148 Males and 200 Females.**

The employes of this firm have a sick benefit association, membership in which is limited to men and women employed at the works. The object of the society is to relieve those of the membership who may be incapable of working through either sickness or accident.

At present the association has forty-five members (all males) and pays a weekly benefit of five dollars (\$5) for a period of twenty-six (26) consecutive weeks, after which payments are optional on the part of the society, but they are always continued in greater or less amounts, according to the necessities of the member as long as disability continues.

The dues per member are ten cents (\$0.10) per week. Much good has thus far been done by the association in relieving distress resulting from sickness among its members.

The firm takes an interest in the beneficial society and helps its work along financially, although the management of its affairs is entirely in the hands of employes.

Strikes or other manifestations of dissatisfaction among the employes of this firm have been unknown up to the present time.

**The Reeves Engine Company, Trenton, N. J.****Manufacturers of High-Class Compound, Simple, and Marine Engines.****Employs 32 Males.**

This firm maintains its works in a condition of high order and efficiency, both with regard to effective and profitable operation and the comfort and welfare of its employes.

Conveniences for washing at the noon hour and at quitting time, which includes warm water, are provided in ample measure for employes. The plant is provided with a system

of heating and ventilating which keeps the buildings in a comfortable and healthful condition at all times. It is the fixed policy of the management to provide the very best conditions possible for its workmen to labor under, because, to quote the firm's own words, "We can get a better grade of men, who are able to do finer work and more of it, by following this course. Our motto is 'Big wages, healthy conditions to work under, and big production.'"

The premium system, which is a form of profit-sharing, is applied to all work done in the plant. The plan on which it is operated is very simple, and may be briefly described as follows: A certain time is determined as fair to be put on each operation in the production of the various parts that enter into the completed engine or machine; for instance, the turning of a crank-shaft. If the man gets it done in less time than is allowed, he is paid so much an hour for the time he actually worked on the job, and in addition is given his regular wage rate for half the time he has saved in its completion. In other words, a premium is put on his efforts, which enables him to very materially increase his earnings by intelligent and diligent work.

The Reeves Engine Company holds membership in an organization known as The Manufacturers and Employers Association of Trenton, N. J. The objects of the association, as set forth in its constitution, are "To uphold the principle of personal liberty, and to assist the duly constituted authorities to enforce the same." "To secure and preserve equitable conditions in the workshops of members, whereby the interests of both employer and employe shall be properly protected." "To investigate and adjust any question arising between members and their employes which may be referred to and come within the jurisdiction of the association."

The apparent purpose of the association is to combine all employers together, with a view to dealing with conditions in factories and workshops of the members that may cause discontent among operatives and lead to strikes. The power of the united body of employers is used to compel the cor-

rection of abuses of which the employes of any of its members may justly complain, and also to protect its members against such attacks on the part of employes as may follow a refusal to comply with unjust and unfair demands on their part.

The association is, in fact, a great arbitration body that hears complaints equally from the operatives employed by its members and from these members against their operatives, decides each case on equitable principles, and uses all its power to enforce on the employer or on the body of workmen involved, as the case may be, a strict and faithful submission to its decision.

The end sought to be accomplished is the preservation of peace between employer and employe, and the protection of industrial interest from the destructive and demoralizing consequences of strikes and lockouts, and the efforts of the association in this direction have thus far been attended with a very gratifying degree of success.

A very interesting and valuable feature of the Manufacturers Association is an employment department, or labor bureau, through which employers who need men and men who need employment are brought together.

The main purpose of the labor bureau is to make it easy for the employer to find men who want work, and for men, when they want work, to find an employer. A plain, simple proposition making it possible for men out of work to learn at one place which employers are in need of men, and, by leaving their applications, make it possible for employers to learn at the same place what men want work. It is understood that in all cases employers give first attention to men sent to them from the office of the bureau.

If an employe complains to the bureau of unjust or unfair treatment, his statement is investigated and, if found to be correct, the matter of which complaint is made will be corrected. The name of the employe is never divulged.

The bureau seeks in every possible way to show both employers and employes that their interests are identical and that the greatest good can be secured for both by uniting their efforts.

**Roessler & Haaslacher Chemical Company,
Perth Amboy, N. J.**

Manufacturers of Chemicals.

Employs 120 Males.

This firm has established a bath-room for its employes, the use of which is open to them at any time. The frequent use of the bath is urged as a means of preventing injury to health from the materials handled in the processes of manufacture.

A lunch-room, spacious in size and kept in a condition of absolute cleanliness, in which are accommodations for passing the noon lunch hour in comfort, is also provided by the company.

In addition to these institutions, which constitute the company's contribution to the material well-being of its workmen, there is a sick-benefit association maintained by the latter with some assistance from their employers.

Practically all of the employes are members of the sick-benefit association, into which they pay dues at the rate of twenty-five (25) cents per month.

Members who are sick or disabled through accident are given six dollars (\$6) per week for a period of twenty-six (26) consecutive weeks, and four dollars (\$4) a week for a further time of twenty-six (26) weeks.

The society also pays a death benefit, which is raised by an assessment on the members, when a death occurs, of one dollar (\$1) per capita. On the present basis of membership, this will yield a burial fund of about one hundred and twenty dollars (\$120), which amount is usually increased by a very liberal donation from the firm.

Sayre & Fisher Company, Sayreville, N. J.

**Manufacturers of Pressed Front Brick, Enameled Brick, etc.
Employs 900 Males and 4 Females.**

Like other brick manufacturers, this company was in the habit of housing its unmarried men in boarding houses with rooms containing from sixty to eighty men. In 1897 the company decided to do something toward bettering their conditions, and erected a large cooking department equipped with every modern appliance necessary to cook by steam. Large dining and storage rooms were erected at the same time, and all these structures were lined with enameled brick and the floors laid in tiles, thus insuring the possibility of perfect cleanliness. In addition to these structures a new and very large dormitory was erected, containing fifty rooms arranged to accommodate eight beds to a room. Each man is given a key to his apartment in the dormitory. On the first floor of this building is a room arranged with all necessary convenience for washing. The walls are lined with enameled brick and floor with tile. A degree of cleanliness and personal comfort hitherto unknown in the lives of men who work at brick making has thus been provided for the employes of this company through the medium of these improvements, and there is every reason to believe that the employes appreciate the change and that the firm is well pleased with the results.

**Sherwin-Williams Company, Newark, N. J.**

**Manufacturers of Paints and Varnish.
Employs 59 Males.**

The Sherwin-Williams Company operate fourteen plants, ten of which are located in the United States, three in Canada and one in England.

The features of industrial betterment here described are, the company states, in operation in substantially the same form at all its plants, no matter where situated. The de-

scription of them that follows is drawn from the company's Cleveland works, which is the oldest plant under its control. The same features of betterment work are now either fully operative in other establishments owned by the company, or are in process of becoming so as rapidly as local circumstances permit their adoption. It will be understood, therefore, that only a part, but still the largest part of the splendid system of betterment work for the benefit of its employes which the Sherwin-Williams Company has instituted, is at the present time in operation in the Newark plant, where business was commenced nearly four years ago. The works are situated on the banks of the Passaic river, the site being as free from objections in the matter of environment as any that can be found in the manufacturing district of a great city.

The buildings are large modern structures of brick, in the construction of which every feature necessary to perfect sanitation and ventilation was incorporated.

Cleanliness.

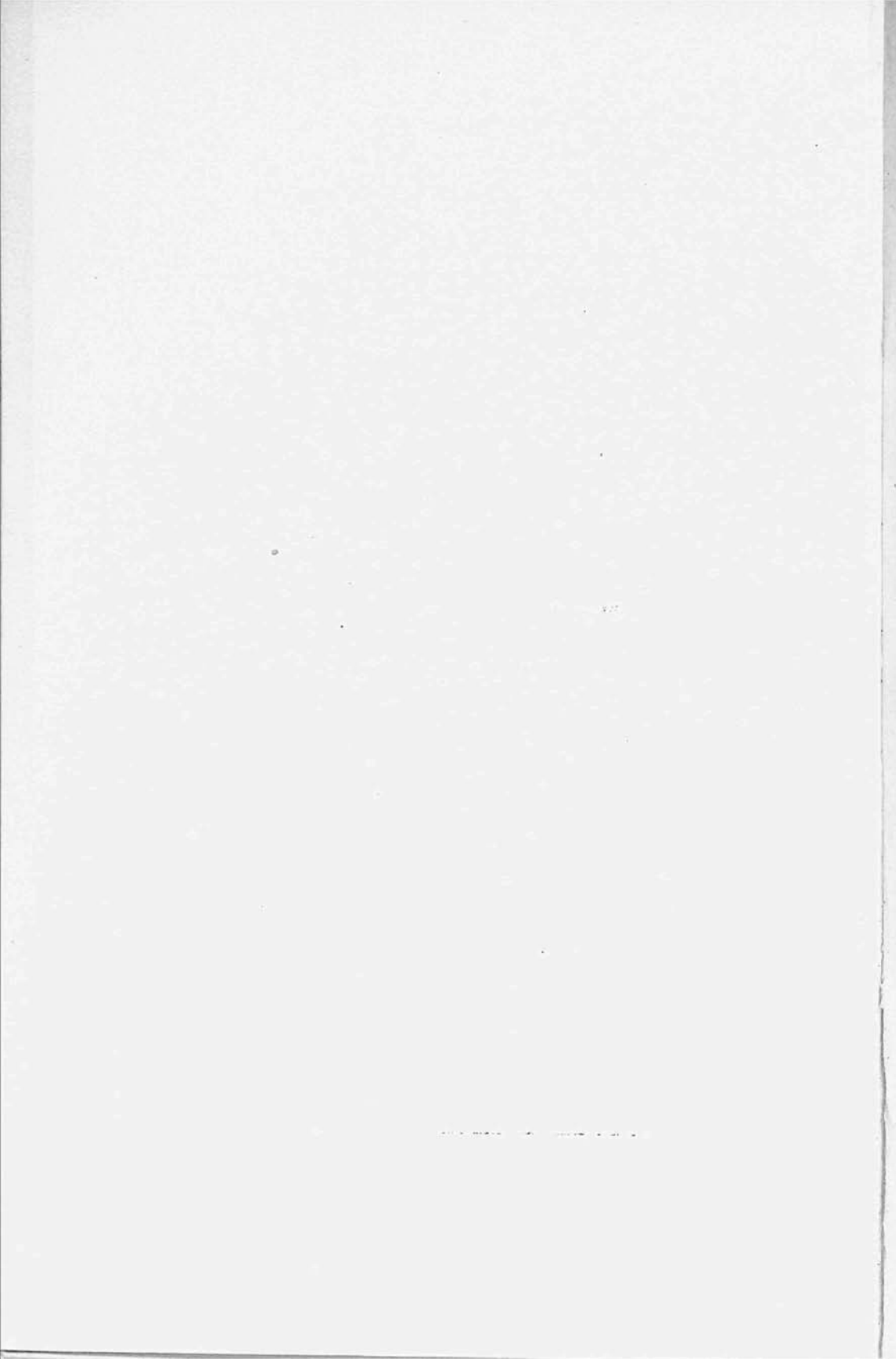
In the company's own statement of its industrial betterment work, it is made apparent that order and cleanliness is regarded as the basis of all its various forms of co-operative work. In putting it first the ground is taken that the first requisite of good health is to take care of it in the proper place; that is to say, wherever it may be most subject to the danger of impairment.

In the works of the Sherwin-Williams Company, cleanliness extends not only to the floors and machinery of the workshops, but to the employes as well, and in order to insure its thorough observance, the factory is provided with a large number of lavatories, shower-baths and lockers, and a plentiful supply of clean towels is furnished from the company's own steam laundry.

Employes are encouraged in every way to use the shower-baths and to do so freely; but in the dry-color department, in order to guard against lead poisoning, the frequent use



NOON-HOUR RECREATION. SHERWIN-WILLIAMS CO.



of the baths is compulsory. As a further safeguard, each man is provided with an entire change of clothing every day. The results of this caution is most strikingly shown in the facts that where previously the average time a man cared to work in the dry-color department, or could do so with safety to his health, was about one month, he now stays as long as he wants to, or is wanted by the management. Where, in the past, at least every other man was affected by the lead, there is now not more than one in twenty injured by it, and then generally only in cases where the man does not make proper use of the system.

Lunch-Rooms.

Two floors in one of the factory buildings are used exclusively as lunch-rooms and kitchen. The factory workmen use one room, the girls, office force and foremen have the other. The same fare is served in both rooms. Either a soup or a stew and tea and coffee are served free every day, while the balance of the well-selected bill of fare is served at practically cost prices.

The employes bring their own lunches and are served with the free hot dishes, or they may order their entire meal—and get a good one—for an average of eight or ten cents.

Whenever night work is necessary during the busy season, special dinners are served in the rooms for all employes at the expense of the company.

Benefit Society.

As far back as 1887 the company organized a sick and death benefit society, to which all employes are eligible. It has always been in a flourishing condition, and the membership at the present time includes over ninety (90) per cent. of the working force. The funds necessary to start and sustain the sick and death benefit society were furnished by the company until, from the growth of membership, it came to be on a paying basis.

Rest-Rooms.

Rest rooms are provided for the girls, where they may lie down at noon or receive attention in case of illness. These rooms are not large, but are attractive and homelike, well furnished, and supplied with all the requisites for comfort.

The Club Room.

A large part of one floor of one building is set aside as a club-room. It is used for meetings of employes and as a place of rest and recreation. The club-room is furnished with a piano, game tables and reading tables, on which the latest magazines and other first-class periodicals are always to be found.

In the club-room is located a library supplied by the company, and also a branch of the public library, both well patronized by the employes.

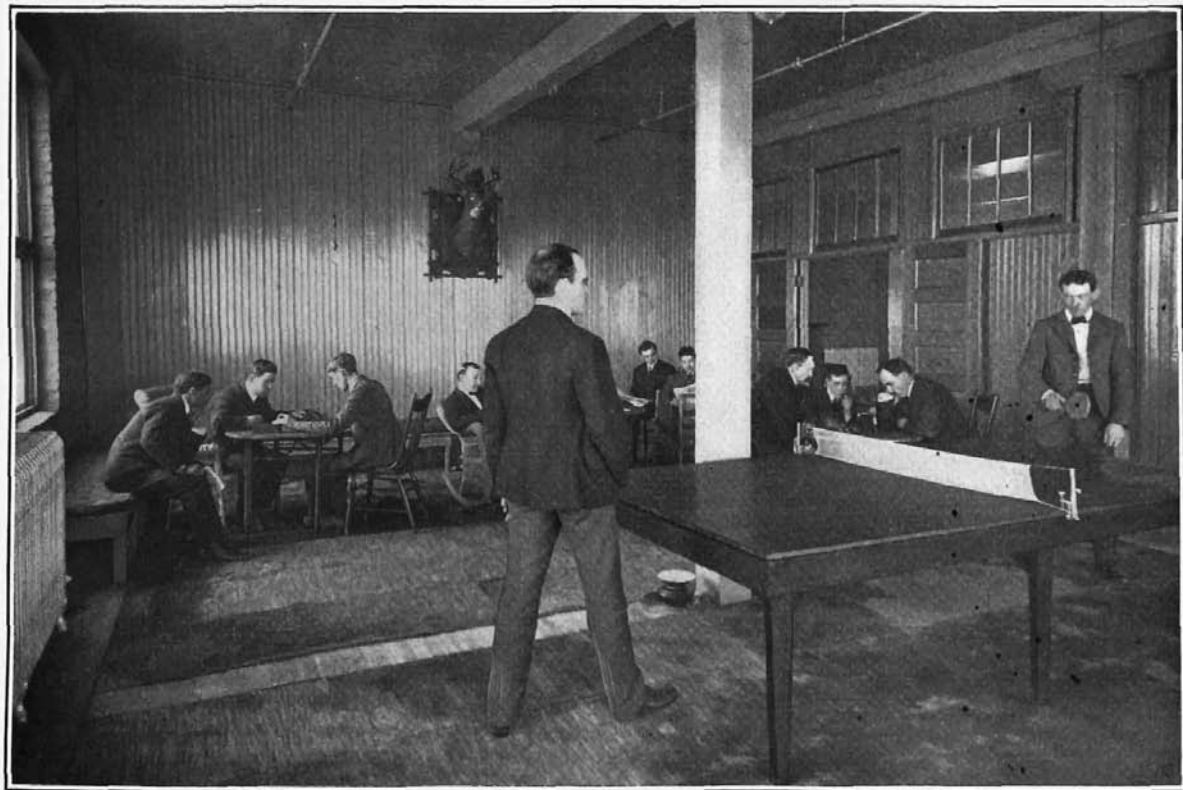
The "Chameleon."

A monthly magazine is published, which is edited and printed in the company's own printing department. It is open to contributions from all employes and contains information, instruction, news and illustrations relating to the business. This publication is regarded as one of the most valuable features in the entire benefit system.

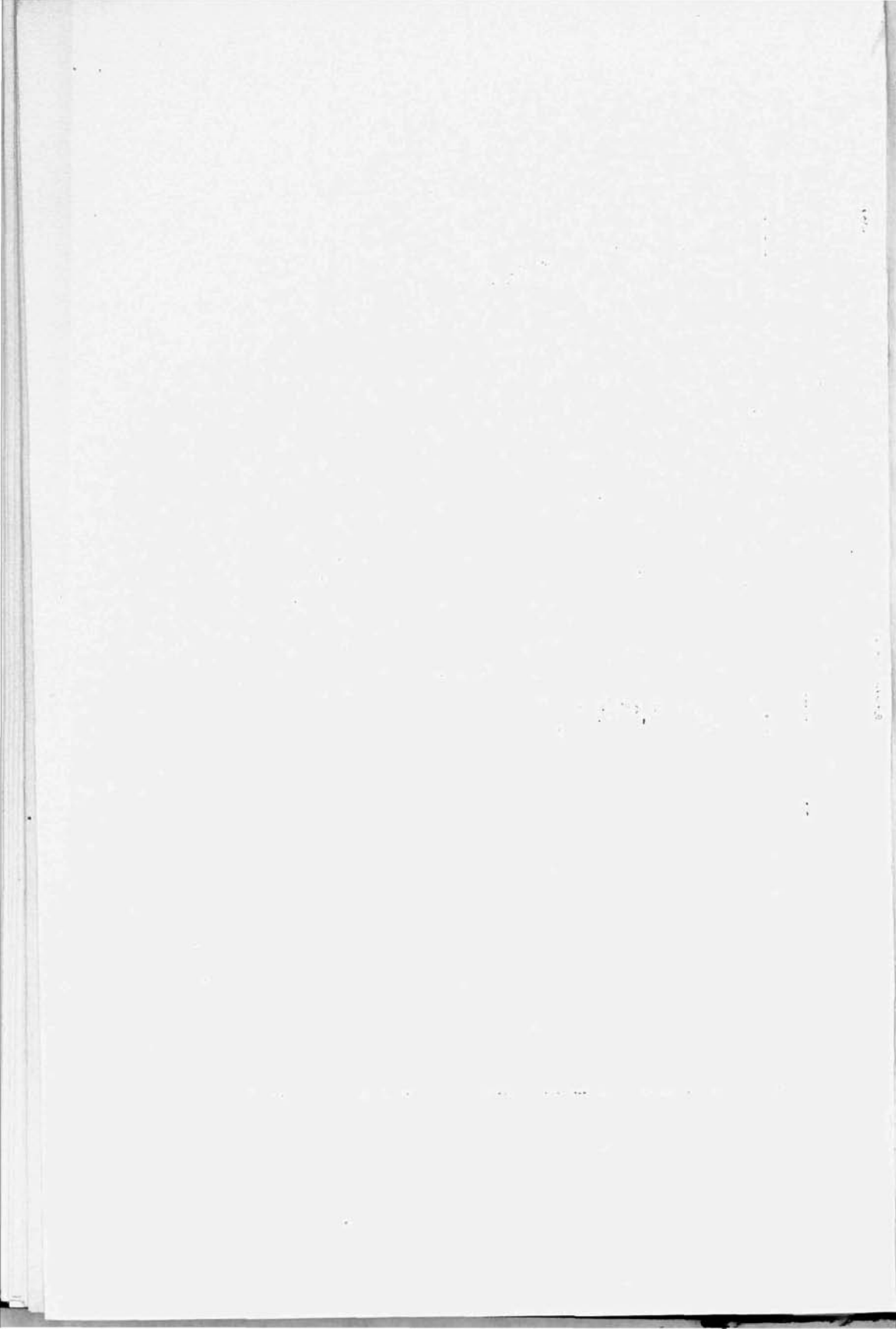
Convention and Banquet.

A convention of salesmen, officers and managers is held for one week each year for the purpose of discussing the company's goods, explaining the new advertising plans and methods, reviewing the work of the past year, and discussing all topics relating to the manufacture and sale of the paints and varnishes which constitute the product of the company's business.

The convention is, of course, primarily for business purposes, but a considerable element of pleasure is judiciously mixed in with its more serious discussions. Not the least



PING-PONG AT NOON. SHERWIN-WILLIAMS CO.



interesting of the forms which this takes is the annual banquet of all the Cleveland employes, in which city the convention is always held because the parent factory is located there. Similar banquets are also given to the Newark employes and to those of all other branches of the company's manufacturing system. A good menu is served, toasts and informal talks are given by both officers and employes, who meet on these special occasions on terms of perfect equality.

Annual Outing.

Regularly once every twelve months for the past twenty-one years a day has been set apart for a general outing of all employes and their families.

Transportation is furnished by the company to some desirable summer resort—the place being chosen by vote of the employes—and a good old-fashioned basket picnic is held, with games and prize contests.

Similar outings are held each year at all branches. On these occasions, as at the annual banquets, all differences of factory rank are for the time being forgotten, and members of the firm, managers, superintendents, foremen and the ordinary employes, with their families, meet on terms of absolute equality, the attention of all being directed toward securing the greatest possible amount of pleasure from the holiday.

Thanksgiving Turkeys.

Thanksgiving Day has been observed for many years by presenting each employe with a basket containing a turkey and a quart of cranberries. In itself this may seem, perhaps, a small thing, but there is no doubt of its helping to commemorate the day in a way that the employes all appreciate. No deduction of pay is ever made on account of this or any other holiday.

Watches at the End of Twenty-five Years' Service.

One of the very best results of the betterment work carried on by the company is the desire of employes to remain

in its service—a point worthy of a much greater elaboration than space can be afforded for here. Among the employes are many in the rank and file who have more than twenty-five years' continuous and unbroken service to their credit, and others who will soon reach that mark.

The company has made it a custom to present everyone who has been with it in any capacity for that length of time with a gold watch and chain. This is not given as a reward for faithful service, but rather as a badge of honor.

Suggestions Encouraged.

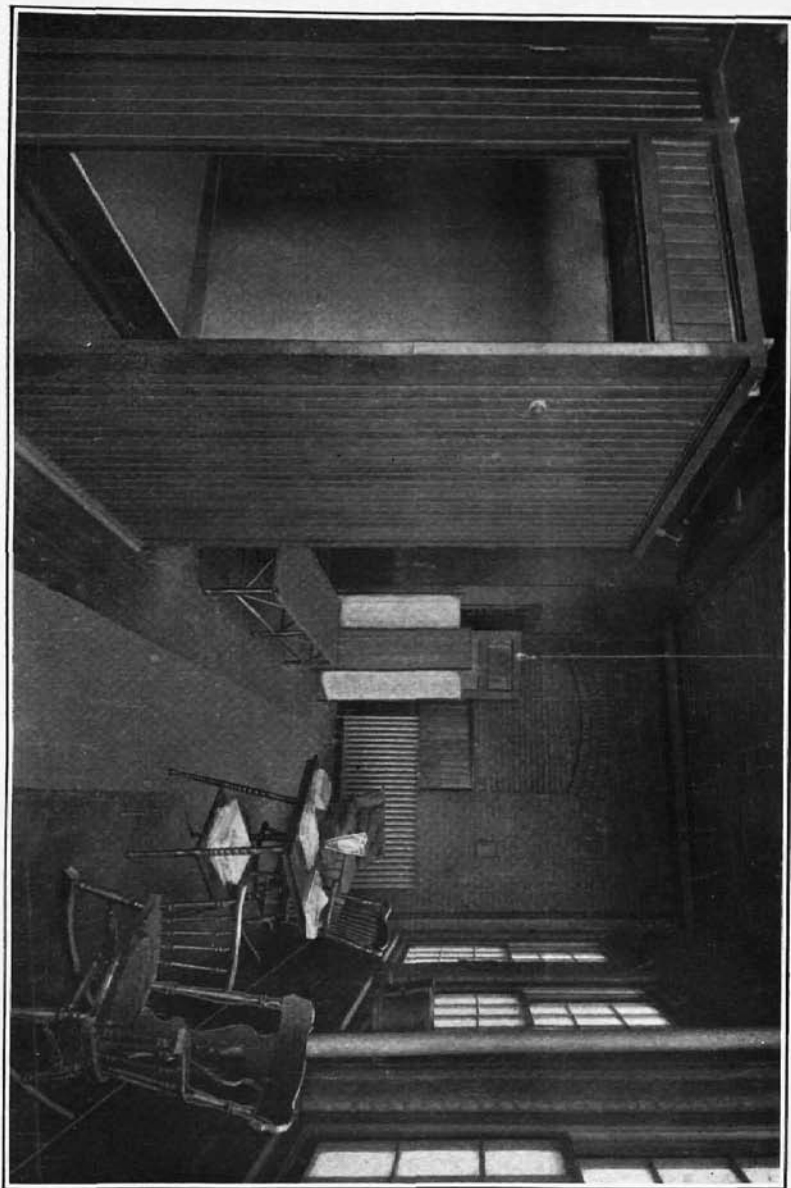
The company has a system by which it solicits criticism of things appertaining to business and suggestions for improvement. Employes of all classes are free to avail themselves of this privilege to express their opinions freely. A record is kept of all suggestions received, and at the end of the year rewards are distributed to those who have made the most useful ones.

"Do It Now" Signs.

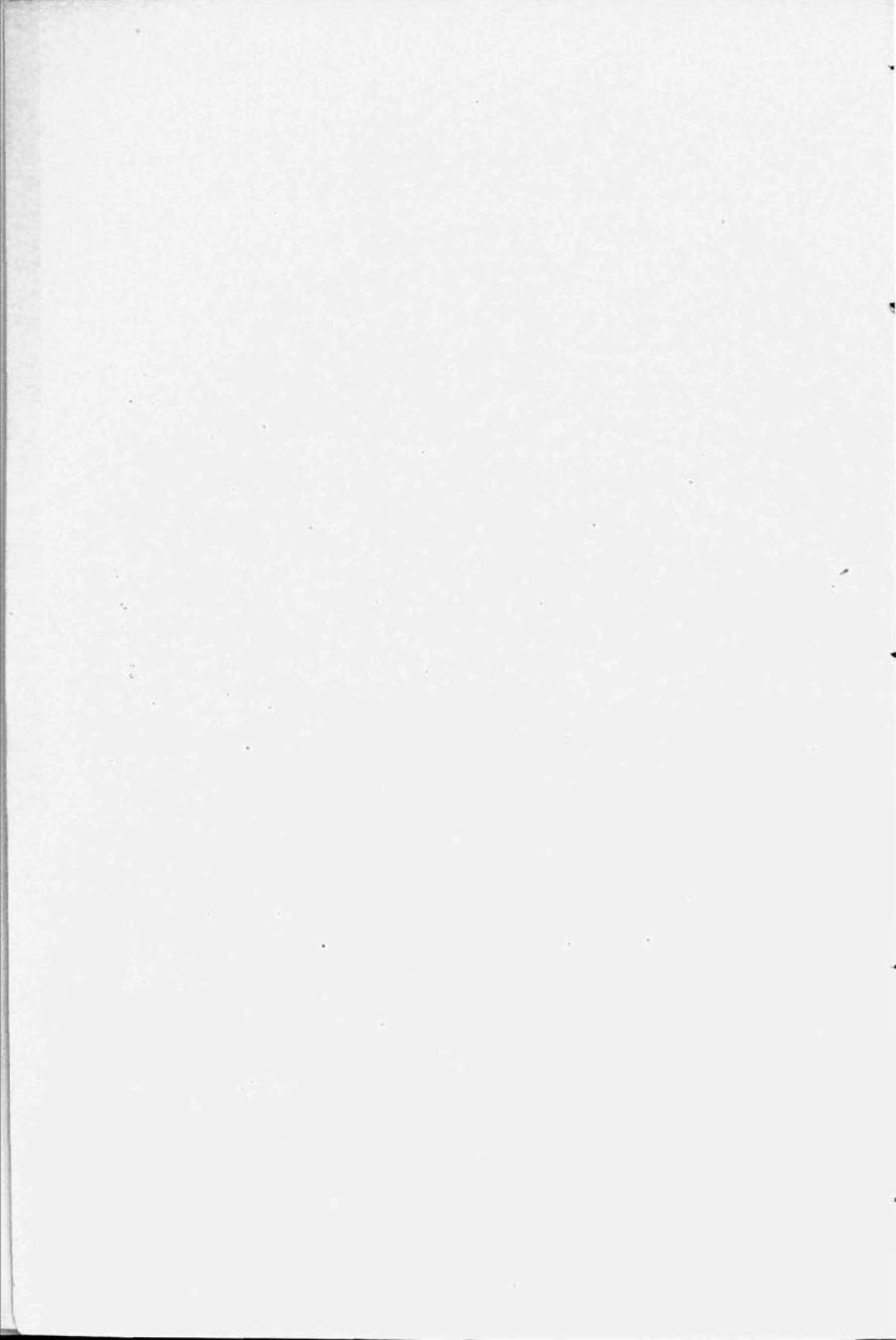
The expressive and suggestive phrase, "do it now," which the company has adopted as its motto, is hung under each clock in the entire plant. It serves to remind the employes that there is no time like the present, and that it is always unwise to defer action in the case of anything that ought to be done.

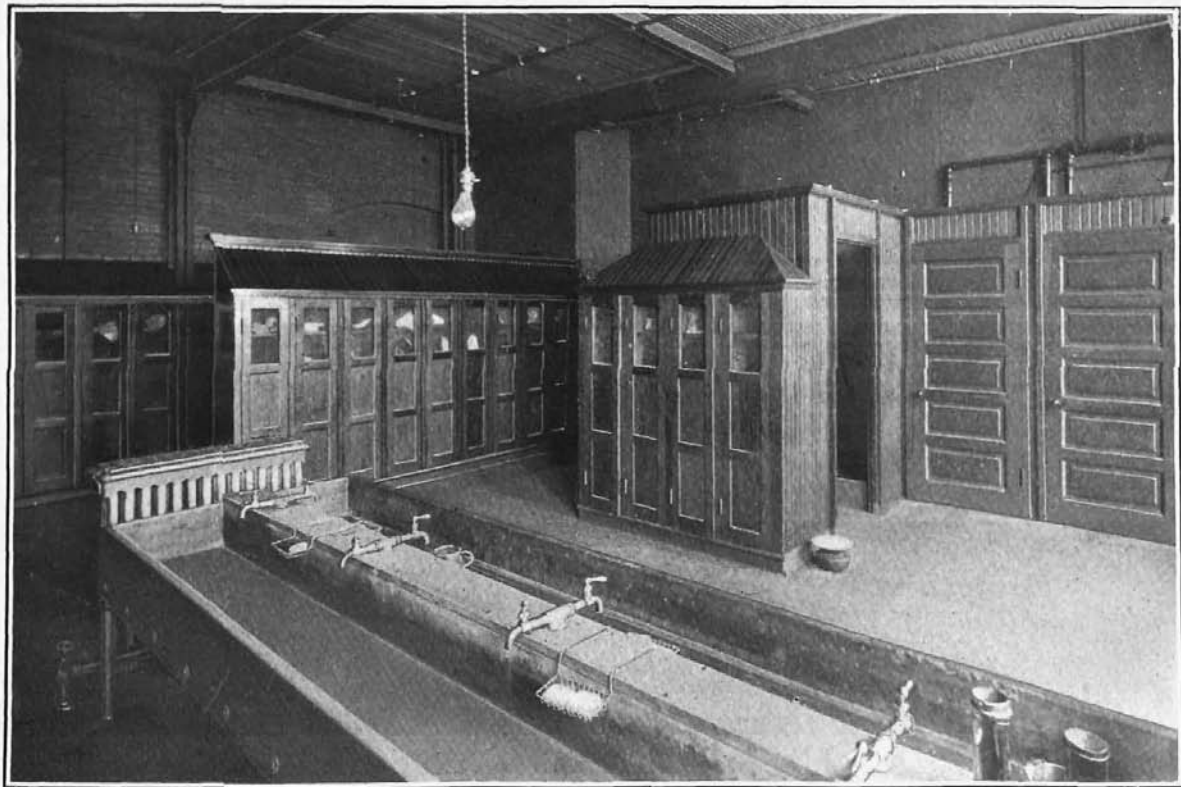
Pure Drinking Water.

All water used for drinking purposes throughout the factory is filtered. A special plant for this purpose was built some time ago, and the wisdom of the step was soon made apparent in many ways. The foregoing is necessarily but an outline of the admirable system of factory administration through which the company has done so much toward brightening the lives of its employes and elevating their labor to the plane of dignity on which it naturally belongs.

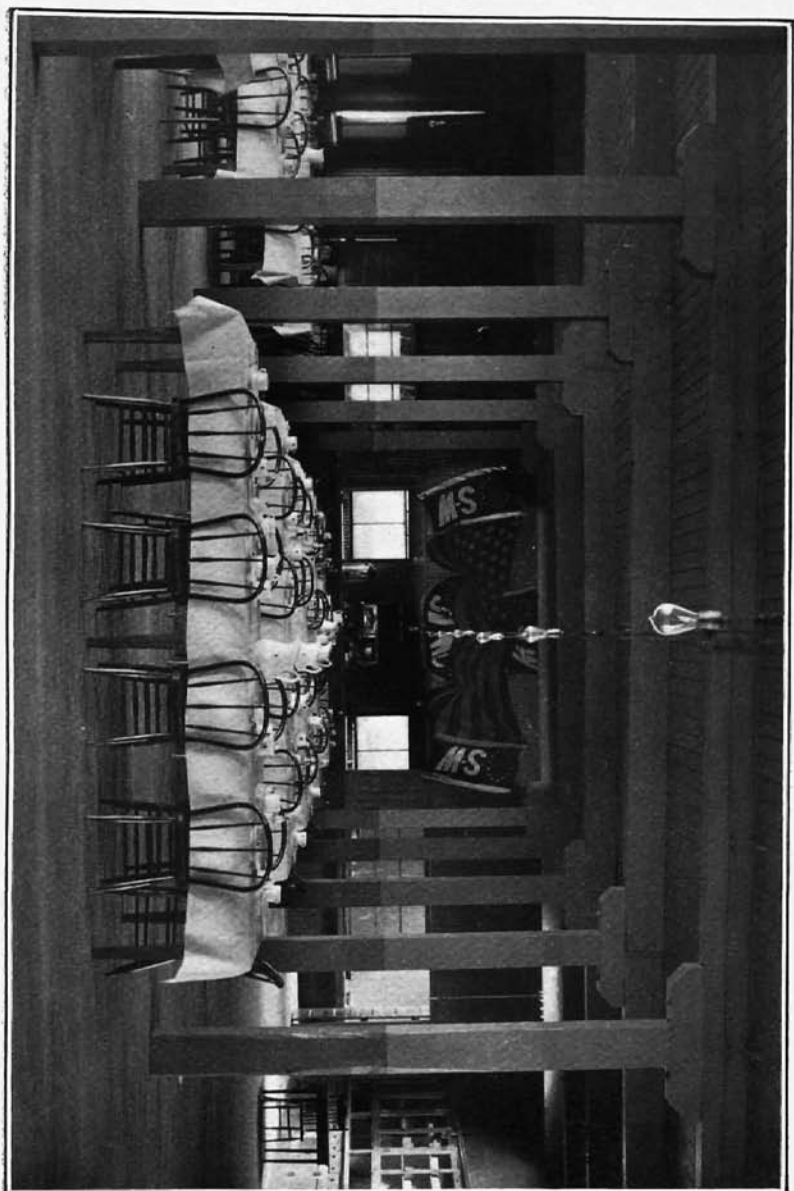


WOMEN'S REST-ROOM AND SHOWER BATH. SHERWIN WILLIAMS CO.

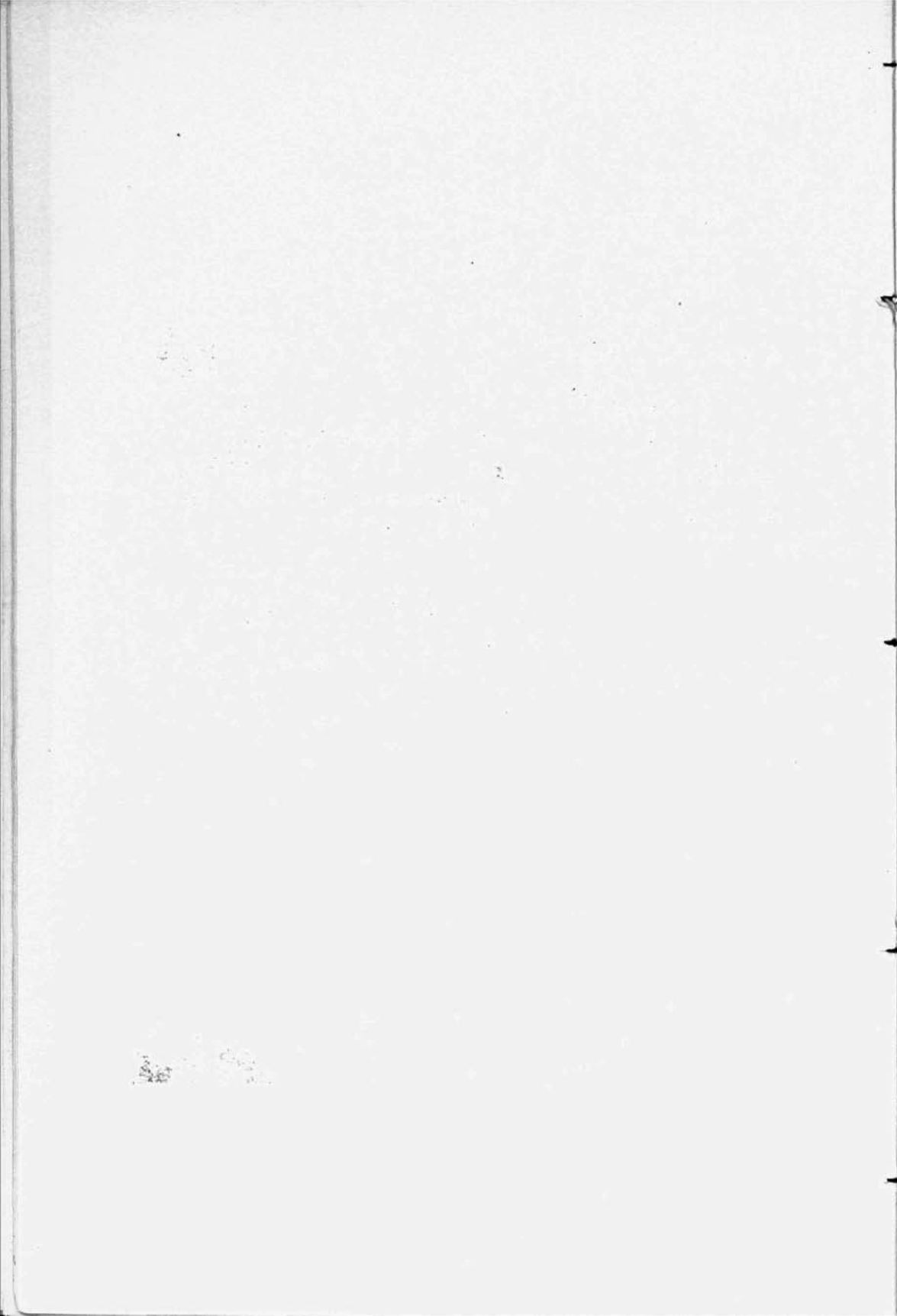




MEN'S LOCKERS AND WASH-ROOM. SHERWIN-WILLIAMS CO.

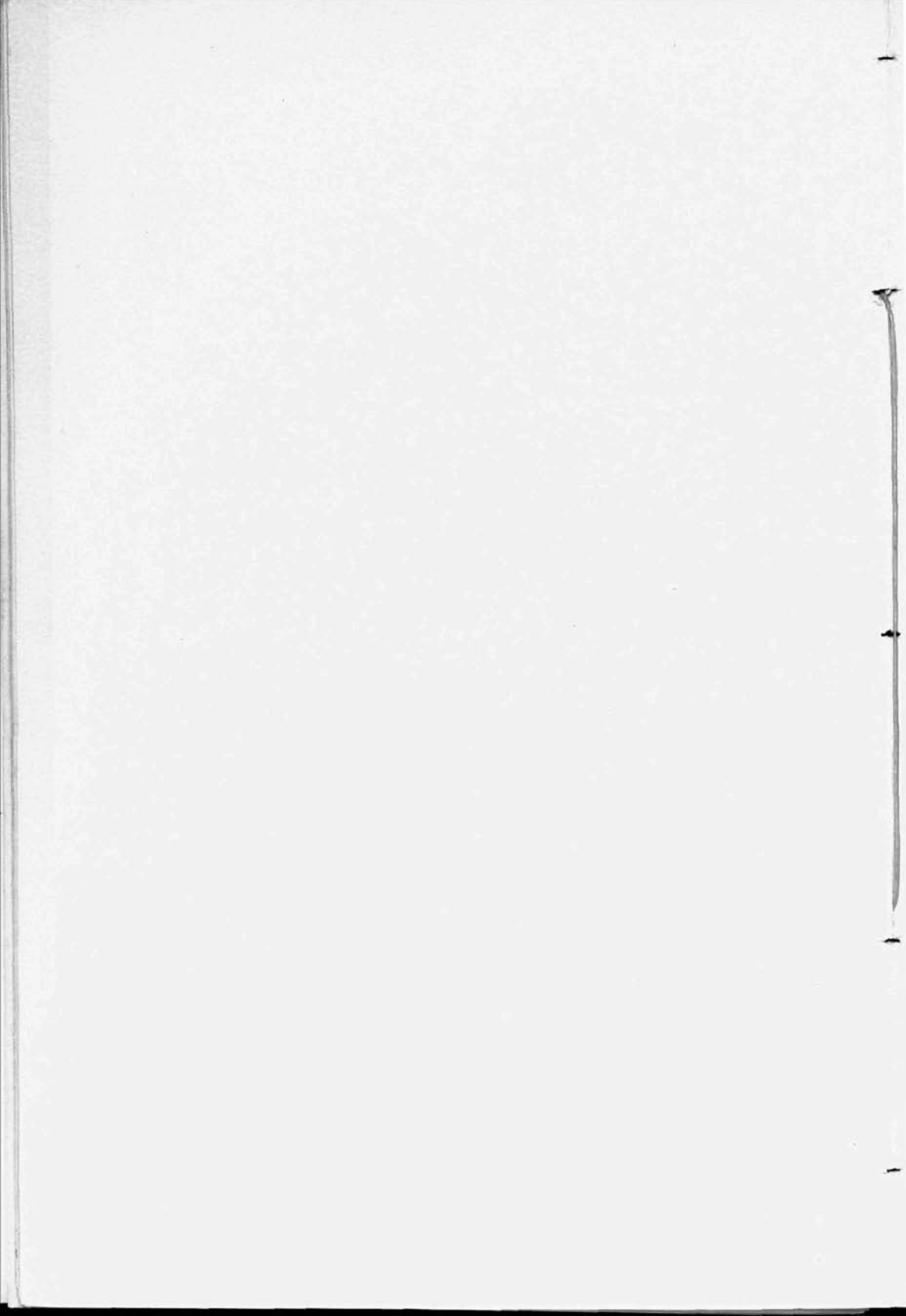


DINING-ROOM. SHERWIN WILLIAMS CO.



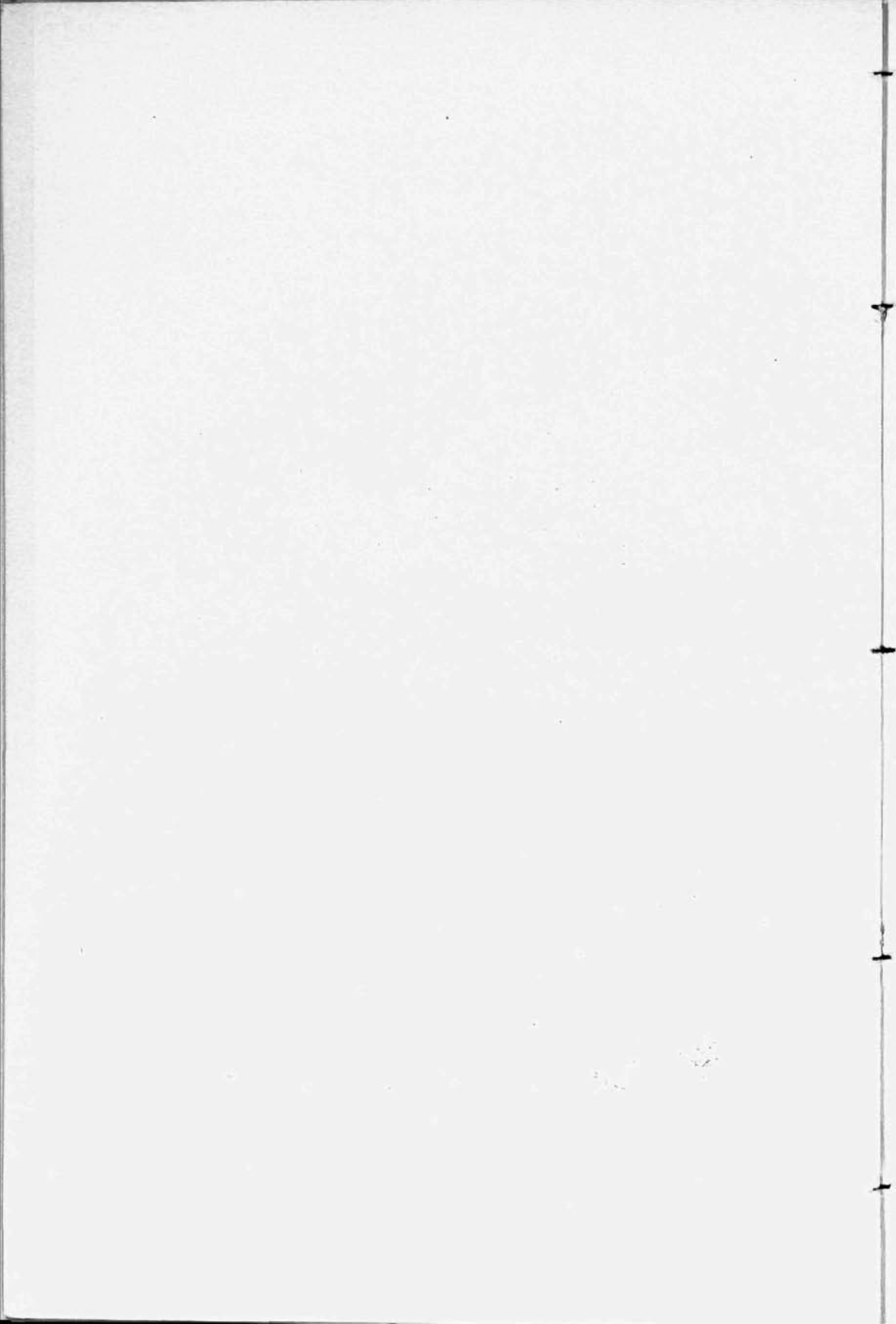


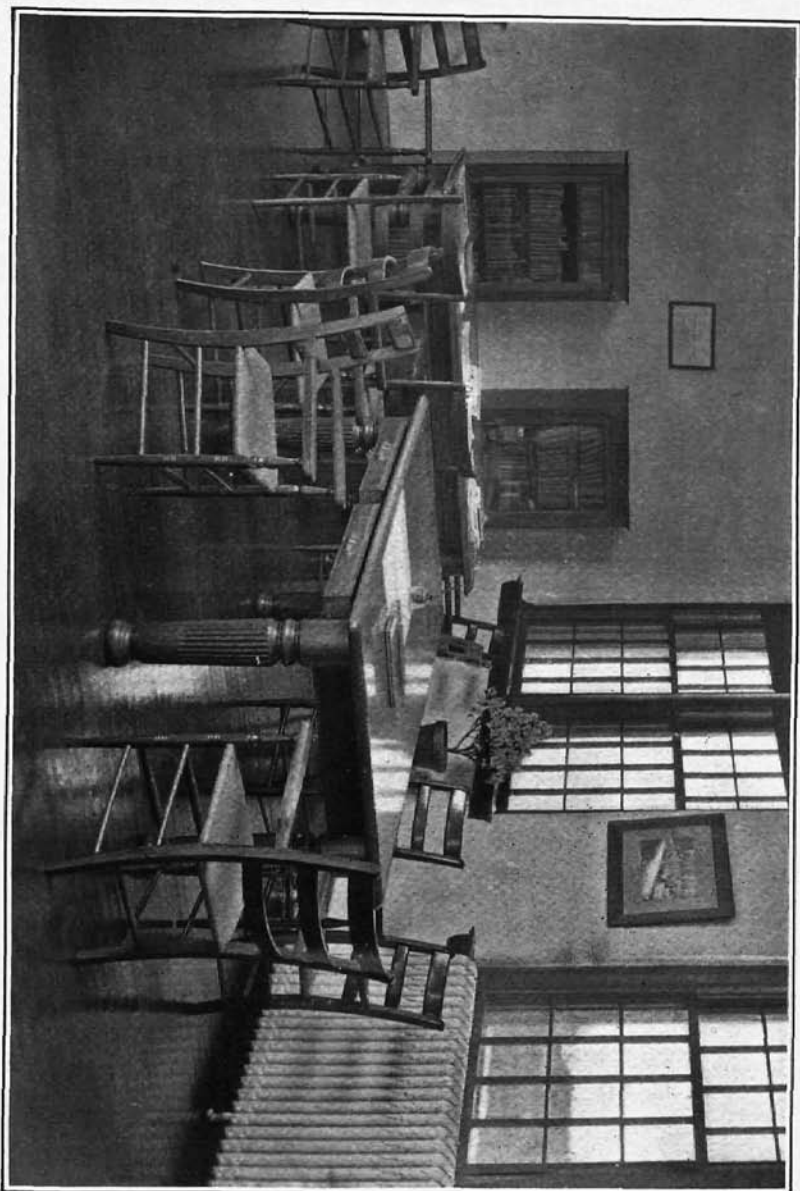
BILL OF FARE. SHERWIN-WILLIAMS CO.



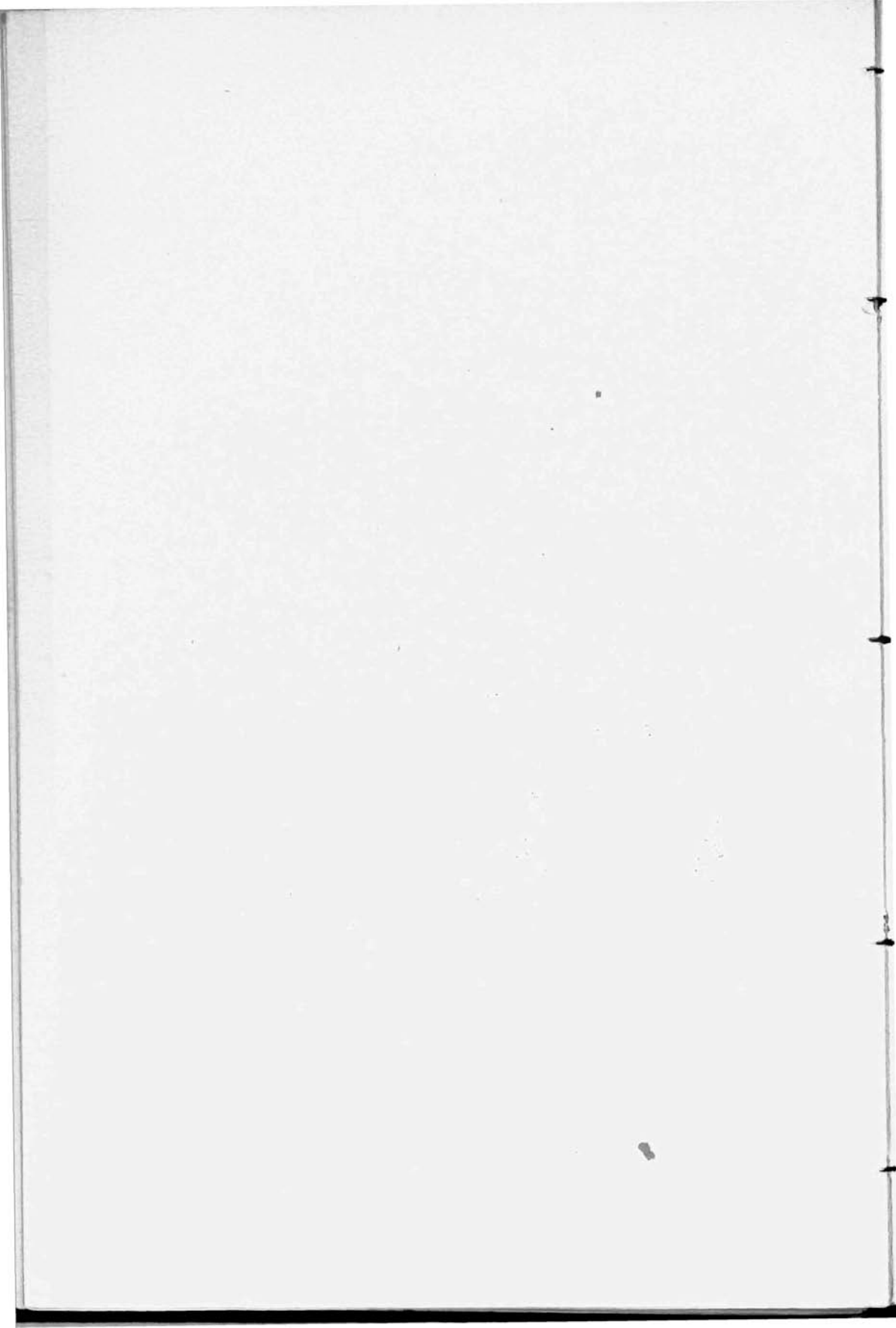


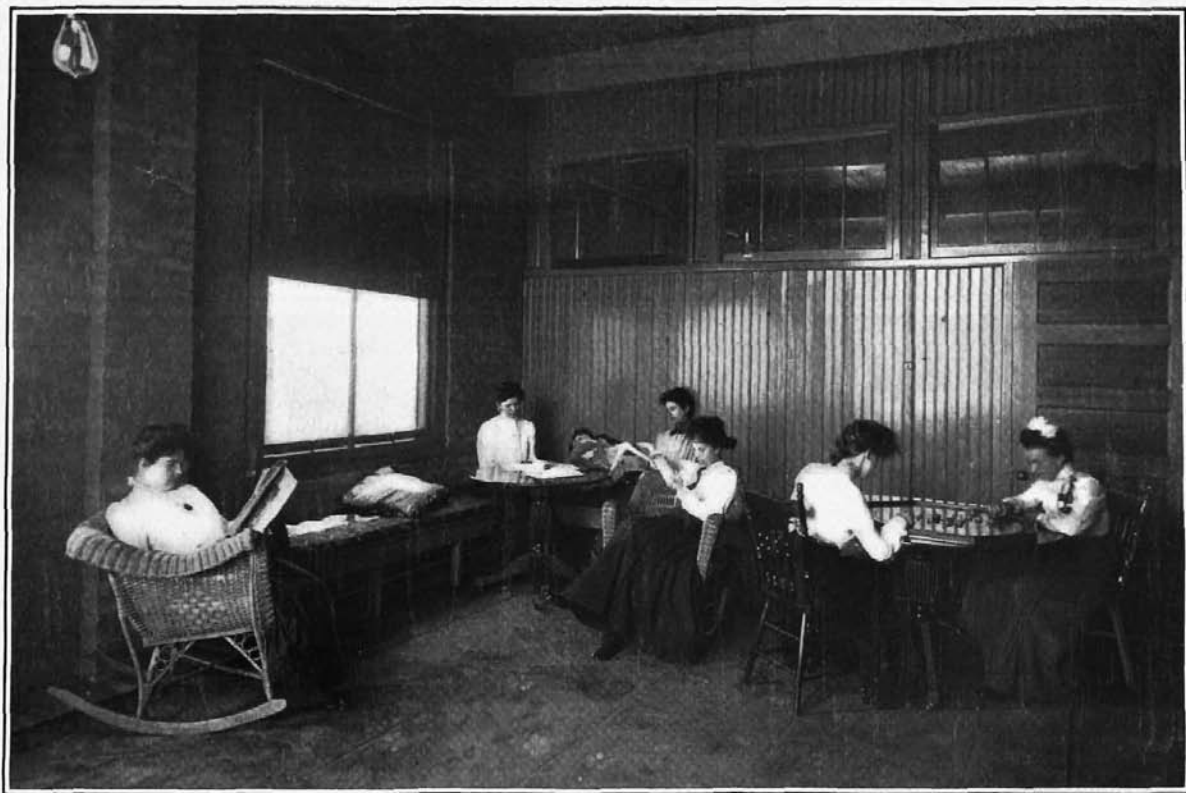
ROUND THE READING TABLE, SHERWIN-WILLIAMS CO.



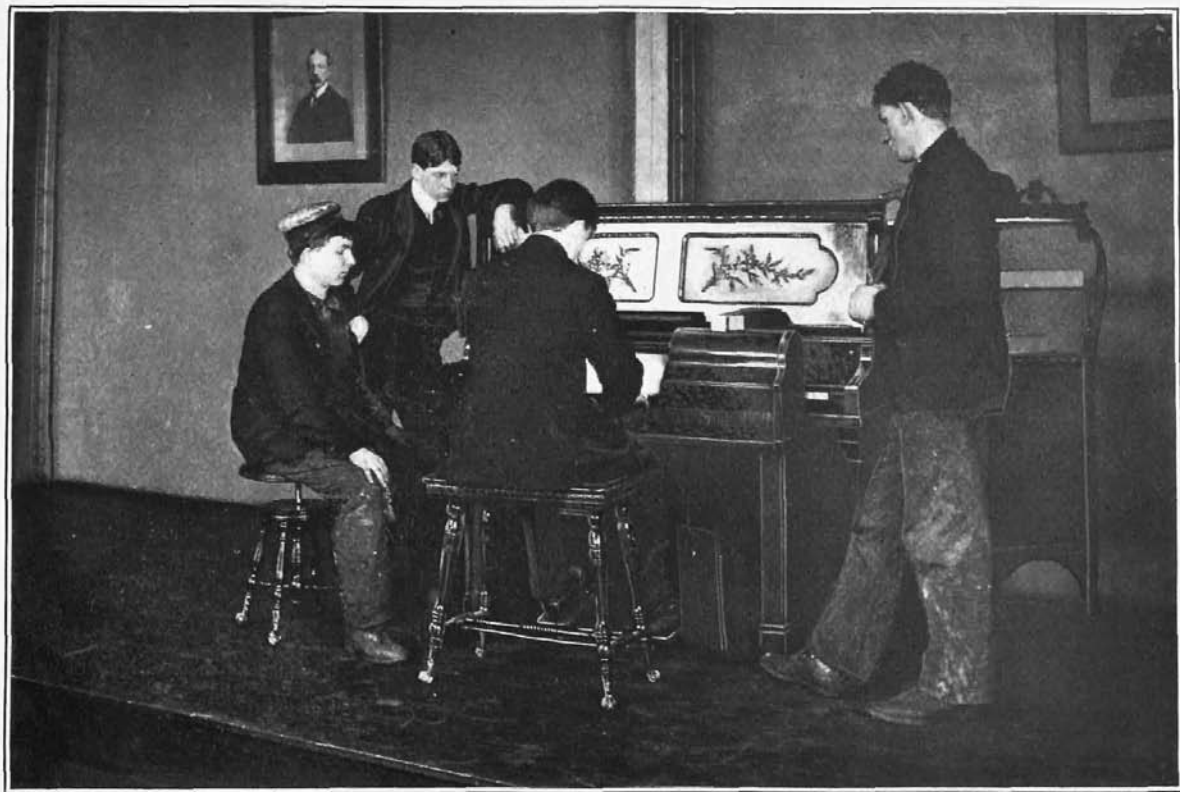


CORNER OF LIBRARY. SHERWIN-WILLIAMS CO.

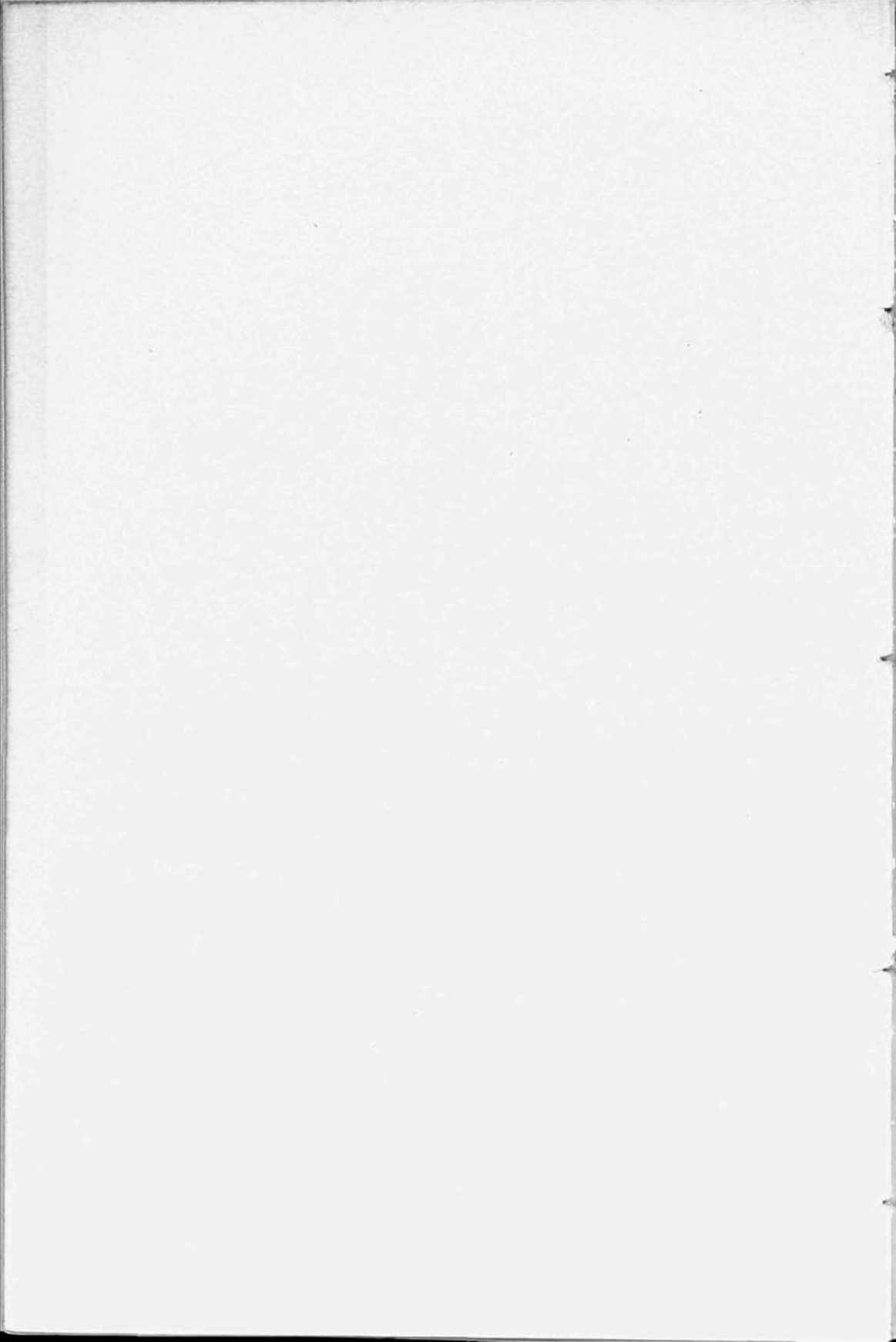




WOMEN'S REST-ROOM. SHERWIN-WILLIAMS CO.



LIGHTENING THE DAY'S WORK. SHERWIN-WILLIAMS CO.



That the plan has now been in successful operation for upwards of twenty years is the best possible proof of its having met with an appreciative and loyal support from the employes, for whose benefit and betterment it was originally adopted. The sentiments of the company regarding the results produced, and the lofty view which it takes of the responsibility devolving upon employers, cannot be better set forth than by quoting the two concluding paragraphs of a letter of theirs on the subject addressed to the bureau and which accompanied the statement from which the facts in the foregoing article were drawn. These are the paragraphs, and it is questionable whether more true kindliness of spirit, together with broad, practical but thoroughly humane business sense, could be infused into the same number of words:

"The care and improvement of the animate machinery is at least as important to the manufacturer as the care and improvement of the immediate or inanimate machinery.

"The three most important matters for attention should be health, morals, and education; because a vigorous employe can do more work, a conscientious employe will do more conscientious work, and a more intelligent employe will do more intelligent work."



J. Findley Smith & Son, Belleville, N. J.

Manufacturers of Brushes.

Employs 60 Males and 15 Females.

This firm gives a present of a valuable kind twice a year to the best operative in each line of work carried on in its factory.

Spratts Patent (America), Limited, Newark, N. J.**Manufacturers of Dog Foods and Medicines.****Employs 50 Males.**

This company has a system of profit-sharing which was put in operation at the beginning of 1903. Under the plan, a percentage of the profits over and above a certain fixed sum is set aside for division among the principal employees at the end of the fiscal year, the number of beneficiaries and the amount of the allotment being at the discretion of the general manager.

At the close of 1903, on the occasion of the first year the plan was in operation, twelve employees participated in the division of profits, the dividends amounting to sums that varied from three (3) to seven (7) per cent. of their annual wages.

There is a probability of the number of participants and the amount of the allotment being increased from year to year, as the policy involved seems to have been permanently adopted by the company.

**Standard Bleachery Company, Carleton Hill, N. J.****Bleachers, Dyers and Finishers of Fine Cotton Goods.****Employs 555 Males and 164 Females.**

The company supports hospital beds and contributes liberally to the support of libraries in surrounding towns for the benefit of its employees, who appear to be satisfied and to appreciate the advantages thus provided for them.

**Staten Island Clay Company, Woodbridge, N. J.****Manufacturers of Fire Brick of All Kinds.****Employs 262 Males.**

This company has no definite or organized benefit plans in operation as yet, but is now trying to arrange the details of something in the nature of a relief system for the special well-being of its employees.

This is found to be just now rather difficult, from the fact that a very large majority of the employes are foreigners of the non-English speaking races, who have as yet a very limited mental development. At present, measures are in operation which insures care being taken of all sick or injured employes. In the case of worthy and faithful workmen who are sick, half or even full time is allowed during sickness or disability until such time as they are able to pursue their regular work. The company is now considering the details of a plan through which with a small assessment upon each workman on pay day, supplemented by contributions from the company, sick and death benefits may be provided for all employes through a regular system.



Tide-Water Oil Company, Bayonne, N. J.

Producers of Illuminating Oil, Naphtha, and other By-products of Petroleum.

Employs 850 Males.

This corporation owns and manages an immense oil refining industry which is located on the water front of Bayonne city. The work is to a large extent of a laborious character, involving considerable liability to accident. The company is, therefore, a very large contributor to the support of the local city hospital. When a workman is injured in the discharge of his duty, the doctor's bills and all other expenses are paid by the company, and half pay is allowed until recovery.

The fixed policy of the company is to promote men from the ranks to the position of foremen and to other posts requiring skill. In making selections to fill places of this kind that become vacant, men who are known to have the drinking habit are not considered eligible. A premium is thus placed on temperance, industry and skill, which has a very happy influence on the conduct of the men. Sobriety is the rule among them, and a large number are regular depositors in savings banks and building loan societies.

One hundred and two (102) workmen, or twelve per cent. of the total number employed, own their homes, and have paid for them out of the savings from their wages.

What is known as a "lunch club" is run in connection with the works. The company furnishes room, utensils, fuel, cook and waiters. The members of the club pay for provisions, wear and tear of linen, etc. The club membership is open to all employes; up to the present time fifty (50) men have availed themselves of the privileges offered.



The Ulster Iron Works, Dover, N. J.

Manufacturers of Steam Boilers.

Employs 67 Males.

The employes of this company have voluntarily organized a benefit association of which all employes are members. The object of the society is to furnish a weekly benefit to those of the members who may be sick, and therefore unable to support themselves or their families. All employes of good moral character are eligible to membership, unless at the time of entering the company's employment they should be in conspicuously ill health. In that case they are not admitted.

The entrance fee is one dollar, and the monthly dues are fifty cents. The sick benefit is five dollars (\$5.00) per week, payment of which does not begin until two weeks after the commencement of the attack of sickness. No benefits are paid if the sickness is the result of intemperance or of immoral conduct. Full benefit is paid for six months if the disability continues that long, after that time the sick benefit is reduced to two and one-half dollars (\$2.50) per week.

The Valentine & Bentley Silk Company, Newton, N. J.

**Manufacturers of Broad Silk Goods.
Employs 136 Males and 144 Females.**

This company established a system of profit-sharing with employes on January 1st, 1902, the heads of departments only being admitted. A year later, on January 1st, 1903, the privilege was given to all employes, to purchase on easy terms, the company's gold bonds, bearing interest at the rate of five per cent. per annum; in addition to the five per cent. interest, a bonus is given to the holders of these bonds from a fund set apart for that purpose from the profits; this is placed to their accounts, and at the end of five years handed to them in cash.

**Victor Talking Machine Company, Camden, N. J.**

**Manufacturers of Phonographs.
Employs 500 Males and 100 Females.**

The workmen of this company have a sick-benefit association organized by themselves and managed entirely by officers of their own selection. In the matter of organizing and other steps necessary to put the society in working condition, the company extended all assistance, financial and otherwise, that was required. The society is known officially as the Victor Employes Relief Association, and its membership (April, 1904) numbered one hundred and eighty-five (185). The dues are thirty-five (35) cents monthly, and a sick benefit of five dollars (\$5) per week is paid for thirteen (13) weeks. A burial fund is a feature of the society, from which the sum of seventy-five dollars (\$75) is paid on the death of a member, and fifty dollars (\$50) on the death of a member's wife.

The sick-benefit association was organized on February 21st, 1903, and is therefore by this time (April, 1904) but little more than thirteen months old, yet during the com-

paratively brief time it has been in existence sick benefits to the aggregate amount of two hundred and fifty dollars (\$250) have been paid out, and also one death benefit of fifty dollars (\$50) on account of the decease of a member's wife. The total disbursement of the benefit society for carrying out the purposes of its organization is, therefore, three hundred dollars (\$300), or an average amount of one dollar and sixty-two cents (\$1.62) per member, for the thirteen months of the relief organization's existence.



Volger Manufacturing Company, Passaic, N. J.

**Manufacturers of Ink Cans and Inking Pads.
Employs 15 Males.**

In cases of idleness caused by accident or sickness, this company makes no deduction of wages, if the sick or injured person has been five years or over in its employment. In all other cases, one-half the regular wages is allowed. Married men are required to carry \$1,000 of life insurance, the company paying in full the first year's premium, and assisting such as may find after-payments a hardship on account of any unusual drain on their earnings.

The company seeks by all possible means to maintain cordial relations with its employes, and endeavors to convince them that their welfare depends on their own individual efforts.



**Weston Electrical Instrument Company,
Waverly Park, N. J.**

**Manufacturers of Standard High-Grade Instruments for Measuring
Electricity.
Employs 270 Males and 70 Females.**

The Weston Electrical Instrument Company kindly responded to the bureau's request for information relating to the admirable social and industrial features of its factory

administration, by furnishing the interesting paper on the subject, the full contents of which is reproduced in the following pages.

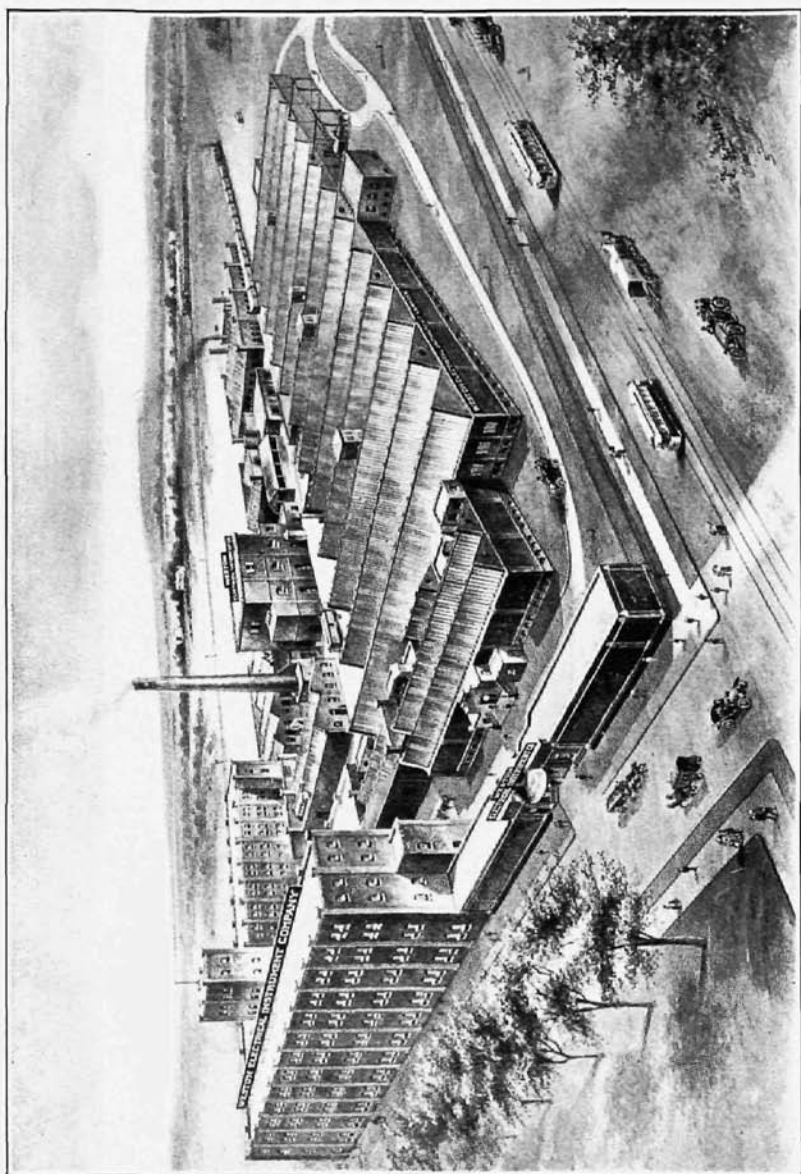
This narrative, which pictures in modest terms a combination of measures, all designed by the company for the protection of its employes and for their material and moral advancement, takes a place in the front rank of the triumphs thus far achieved by progressive and enlightened modern management of industry.

The story is full of interest from beginning to end, and is pre-eminently worthy of the greatest possible prominence because of its value as an object lesson to all who are interested in industrial organization.

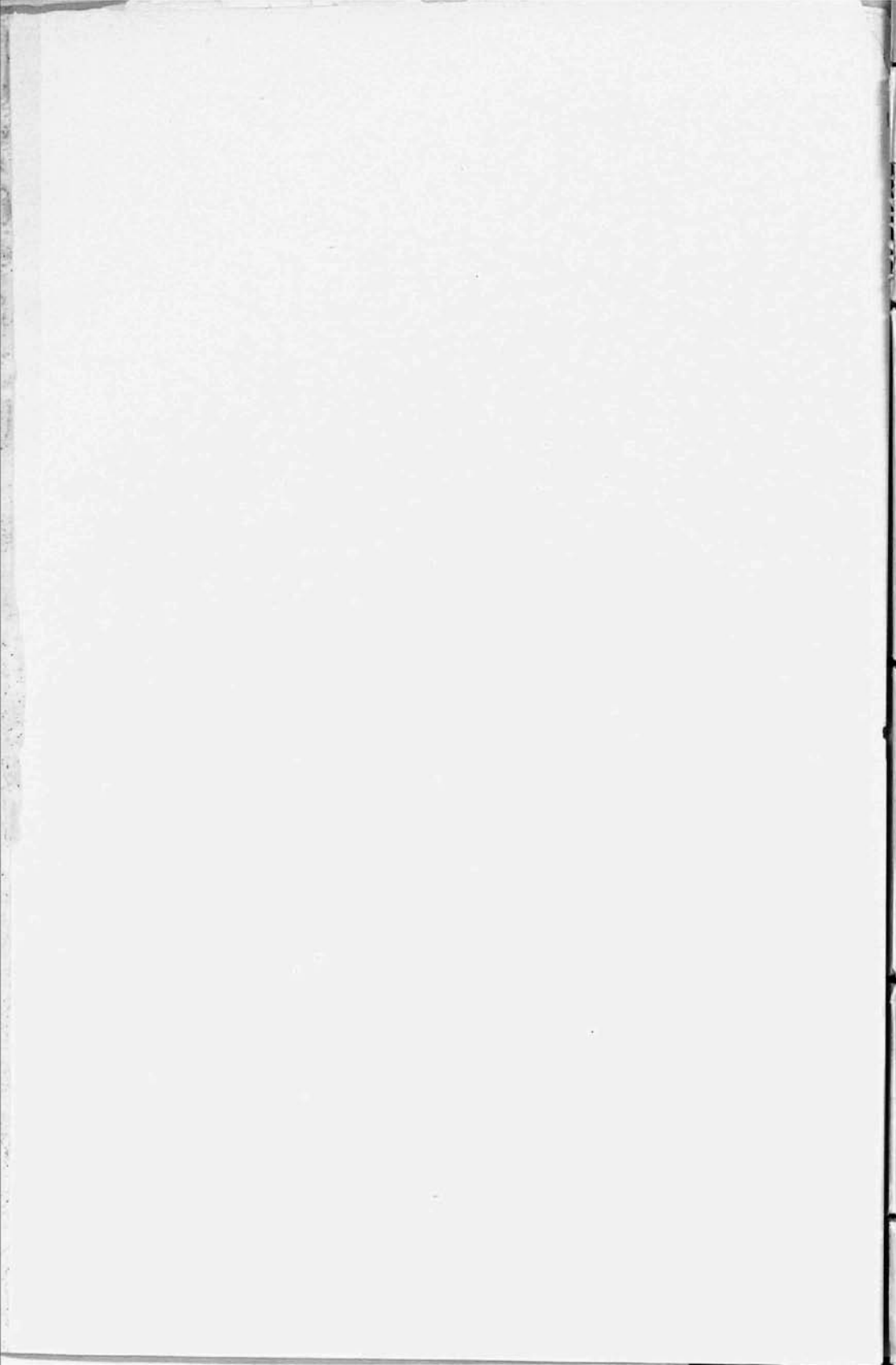
the first of the series, and the second of the series.

The first of the series is the first of the series, and the second of the series is the second of the series.

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WORKS OF THE WESTON ELECTRICAL INSTRUMENT COMPANY, OF NEWARK, N. J.



SOCIAL ECONOMICS
OF THE
Weston Electrical Instrument Co.
OF NEWARK, NEW JERSEY

Prepared at the Request of the Bureau of Statistics of
Labor and Industries of the State of
New Jersey

Social Economics of the Weston Electrical Instrument Company, of Newark, N. J.

In endeavoring to place on paper some of the interesting social features connected with the organization and administration of the Weston Electrical Instrument Company, these are found to be so interwoven with the industrial features that one is frequently puzzled where to draw the dividing line. In the large sense socially, the sanitation, the safety appliances, the length of work day, and the plans for mutual benefit seem to include themselves as naturally as the cuisine or the library or entertainments or sports, and are, perhaps, more important. Hence, in the following sketch, the broader lines have been chosen.

Underlying Principles.

A treble purpose prompted the Weston Company in planning for the safety, the comfort, the health, the recreation, the prosperity of its employes. It might with truth be claimed that the altruistic idea was uppermost, but the company prefers to emphasize the material side of the question. All other things (such as wages, hours, etc.) being equal, the company was convinced that, if it could add thereto a sentiment, wrought into practice, of care for the welfare of the men and women in its employ, it would tend to attract and retain a superior class, who would become more than ordinarily interested in their work and would, also, promote pleasant relations between employer and employed; and that, therefore, such, commonly called altruistic adjuncts would become financially profitable. There was a third underlying principle, more essential, possibly, to the success of the purely social features of the establishment than any other, and this was the determination of the company to exercise no paternal or patronizing control, but to create a club-plant fully equipped in every particular, and turn it over to the employes, on whom should devolve the entire responsibility of organization and administration—of success or failure.

Capital and Labor.

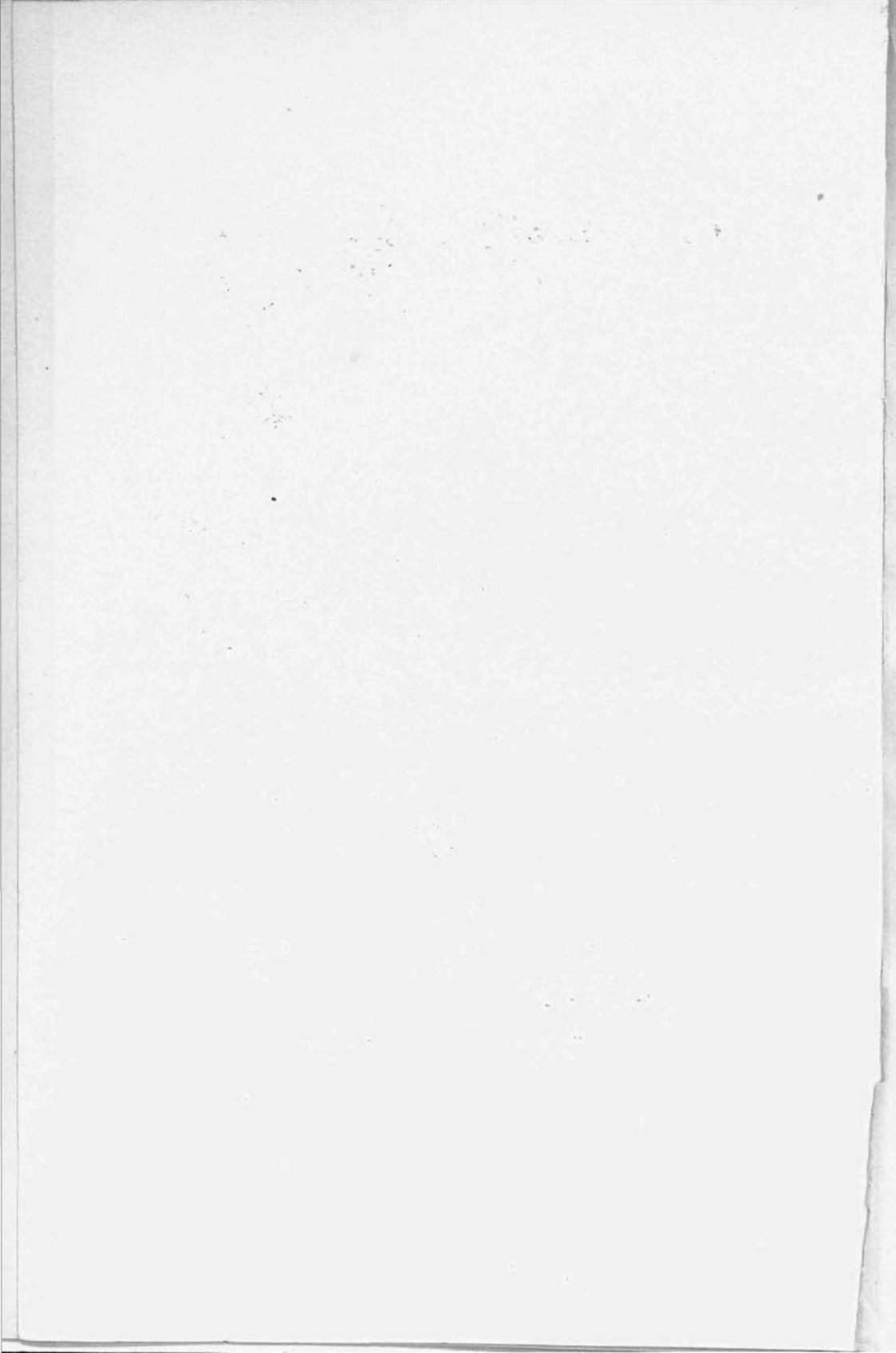
The basic idea of this social experiment, however, was the conviction of the head of the concern that the weightiest question confronting the twentieth century is the relation between capital and labor; that there must be a drawing together, or a still further pulling apart; that harmonious relations, community of interest, must be established; otherwise there must come between employer and employe a conflict more potential of disaster and destruction than any war this world has yet witnessed, and that, therefore, it is the duty of every employer to contribute by all reasonable means to a peaceful and satisfactory solution of the existing differences. It was hoped that the social and other plans of the Weston organization designed for the pleasure and welfare of its employes would not only shed a little sunshine day by day, but would yield their "mite" of illumination on this momentous problem, and indicate other steps along the same road.

Investigation by Experts.

Pursuant to this policy the company, before planning its new works, employed two mechanical and engineering experts to visit the most notable manufacturing establishments in the United States, studying problems of construction, machinery and other physical conditions. Another expert traveled through the country for a year to learn what American employers were doing for their employes outside the mere question of wages, and when the present plant was erected the company reserved the most desirable portions of the premises, several commodious halls, furnished them as recreation-room, library, kitchen, dining-room, gymnasium, natatorium, bicycle depot, hospital, etc., and, at an inauguration reception, held on the evening of May 22d, 1903, the entire club outfit, with a working capital of \$1,000 contributed by a director, was formally transferred to the employes, who, electing their own Committee on Plan and Scope, soon completed the formation and incorporation of the "Weston Employes' Club of Newark, New Jersey."



CLUB INAUGURATION RECEPTION COMMITTEE. WESTON ELECTRICAL INSTRUMENT CO,



Opening of Clubrooms.

Extracts from the Newark papers of May 23d will give the best idea of the opening ceremonies:

"Expression of the cordial relations that exist between the Weston Electrical Instrument Company and its employes was much in evidence at the concern's plant at Wee-qua-hic Park last night. The occasion was an inauguration reception tendered to the Weston Employes' Club by the Company to mark the formal opening of the new clubrooms at the factory.

"In an address by Professor Edward Weston, President of the concern and founder of the business, the use of the rooms and other conveniences for the workers was turned over to a committee of employes. In his address Mr. Weston mentioned that industrial conditions in this country are beginning to show a closer contact between employe and manufacturer, and that this should be encouraged. Very often, the speaker said, the employer and the employe are at odds because no effort is made by either to understand the other. The speaker then explained that, in his opinion, it is not wise, however, for the employer to go outside of his business to take up matters belonging to the worker. This fact, he went on, led to the inception of a plan whereby the administration of the affairs of the Weston Club would be entirely in the hands of the members—the firm retaining only its building rights.

"Appreciation of Mr. Weston's interest in those who are employed by him was shown in the presentation on their behalf of a silver loving-cup. In accepting the gift Mr. Weston assured his hearers that coöperation was the secret of the highest industrial success, and that much of the prosperity attained in building up his business was due to coöperation. The gift, he concluded, was an assurance that his employes were interested in the firm's welfare.

"Nearly one thousand persons attended the reception. The greater part of the attendance was made up of the men and women employed in this model establishment and the friends and relatives they invited, but there was also a number of public officials, city and State.

"The formalities were followed by music, recitation and singing, rendered entirely by shop talent of unusually fine quality supplemented by an orchestra.

"Some idea of the vast size of the dining hall, handsomely decorated with bunting, flags, flowers, etc., may be had from the fact that nearly eight hundred guests were seated at once for supper.

"A large number remained for the dance, which did not break up till the wee sma' hours; the Company having designated the next day as a holiday."

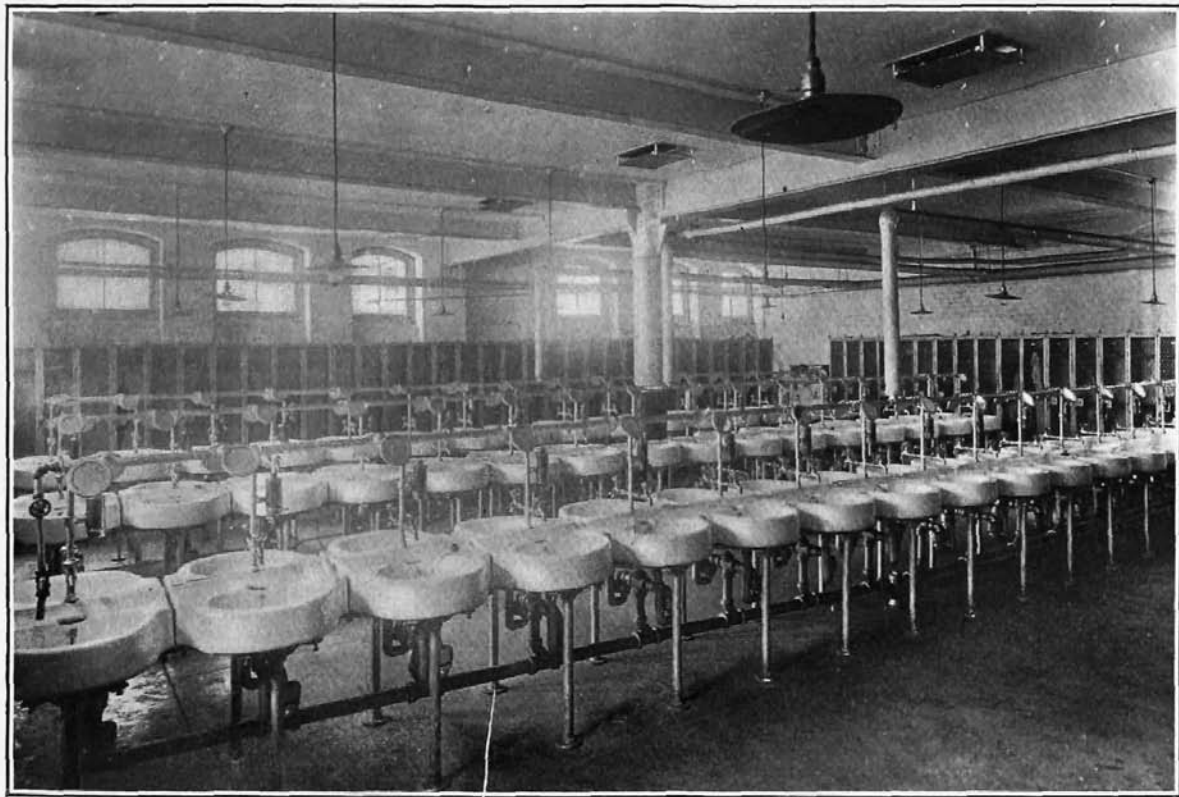
Constitution and By-Laws.

The club is conducted in all respects along precisely the same lines as any and every well-ordered social club.

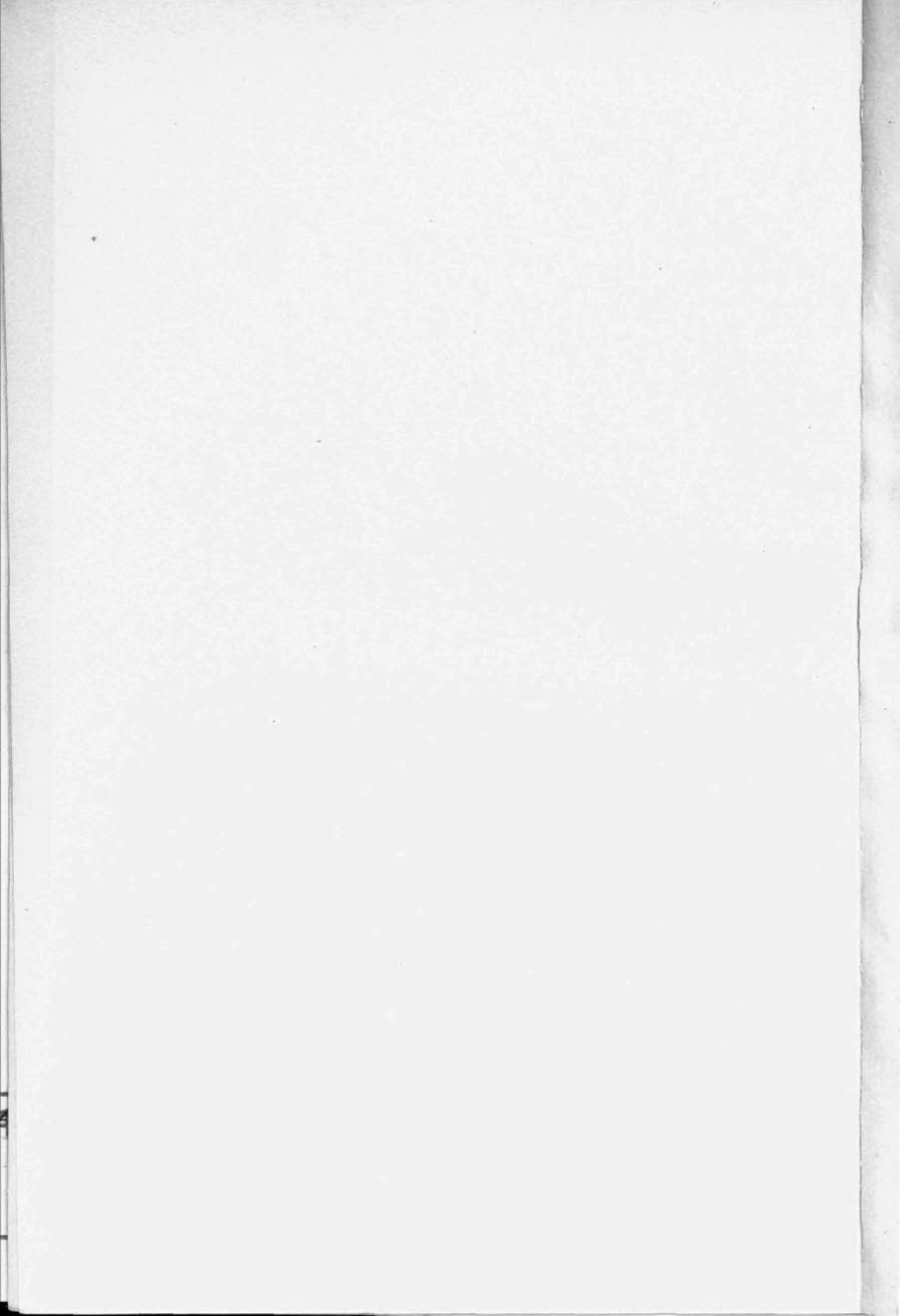
The following extracts from the constitution and by-laws, drafted by the employes without suggestion from the company, indicate that the philosophy animating the corporation was equally the sentiment inspiring the club. The object of the club is stated to be "to promote the social, moral, intellectual and physical welfare of the employes of the Weston Electrical Instrument Company, and to cultivate harmonious relations between them and the company." Any employe is eligible to active membership during the term of his or her employment, and any person who leaves "honorably" after being in the employ of the company for five or more years may continue a member, but without a vote or eligibility for elective office; any stockholder of record may become an honorary member under the same conditions and entitled to the same privileges as active members, except that he may not vote or hold elective office; when he ceases to be a stockholder, he ceases to be a member.

The initiation fee is twenty-five cents, and the monthly dues twenty-five cents, payable monthly in advance.

The officers are a president, vice-president, secretary and treasurer, who, with seven associates, constitute the board of governors. Of this board three are women, and of the eight men four must be heads of departments, and four general employes; not more than two governors shall be from the same department; male officers must be at least twenty-one and female officers at least eighteen years of age. The governors are divided into three classes, elected for terms of three years. Ex-presidents are advisory-governors without a vote. The officers are elected by the governors from their own number. "The Board of Governors shall exercise control over all the property of the Club * * * shall have sole charge of the management of the club in the intervals between regular meetings in all matters of actual necessity not otherwise provided for * * * shall create and appoint such committees as they may deem wise, the Chairman of which shall be a member of the Board of Governors * * * they shall have power to determine the jurisdiction, duties and powers of the various com-



THE LAVATORY (INDIVIDUAL WASH-BASINS). WESTON ELECTRICAL INSTRUMENT CO.



mittees * * * shall enforce the preservation of order and obedience to the By-Laws, and make such rules and regulations for the comfort and success of the club as they shall deem proper * * * shall elect and suspend members by ballot * * * shall not spend more than fifty dollars a month for new appliances without referring the same to the club."

Voting is secret, by printed ballot. The treasurer is required to give a bond.

The secretary and the treasurer "shall receive such salary as shall be fixed by the Board of Governors." Last year (1903-04) each was paid twenty-five dollars; for this year their compensation is fixed at thirty-six dollars.

An interesting duty imposed on the secretary is that "He shall keep a copy of every obtainable printed reference to the club in a scrap-book furnished for that purpose."

Regular nominations are made by a nominating committee of five active members appointed by the board of governors, of whom not more than two may be governors. Independent nominations are made on the written notification of any five or more active members.

There are five standing committees, all appointed by the board of governors: finance, house, entertainment, games and library. The house committee "shall have charge of the club house and all furniture and attendants therein," shall enforce the rules, order supplies and make repairs. This committee of nine is appointed for terms of three months in such manner that only one-third shall retire at one time.

Members have the privilege of entertaining two guests a week.

Location.

The Weston plant is situated in the Waverly district of Newark, at the extreme southwestern corner of the city, on healthful grounds separated from beautiful Wee-quahic Park by the broad tree-lined Elizabeth boulevard. Facing the works is a wooded triangle of considerable extent, the property of the company, which is a favorite summer resting

place for the employes; while along the west side and back of the buildings is a handsome lawn of several acres. The remainder of the property is rented for farms, but the question of cultivating it by, and for the benefit of, the club is under consideration, and here it is proposed to set aside grounds for out-door games. At present the municipal park, just across the avenue, is available for that purpose.

The buildings are of plain, unornamented brick. The main impression produced on the visitor approaching the works is that of spaciousness, airiness and neatness.

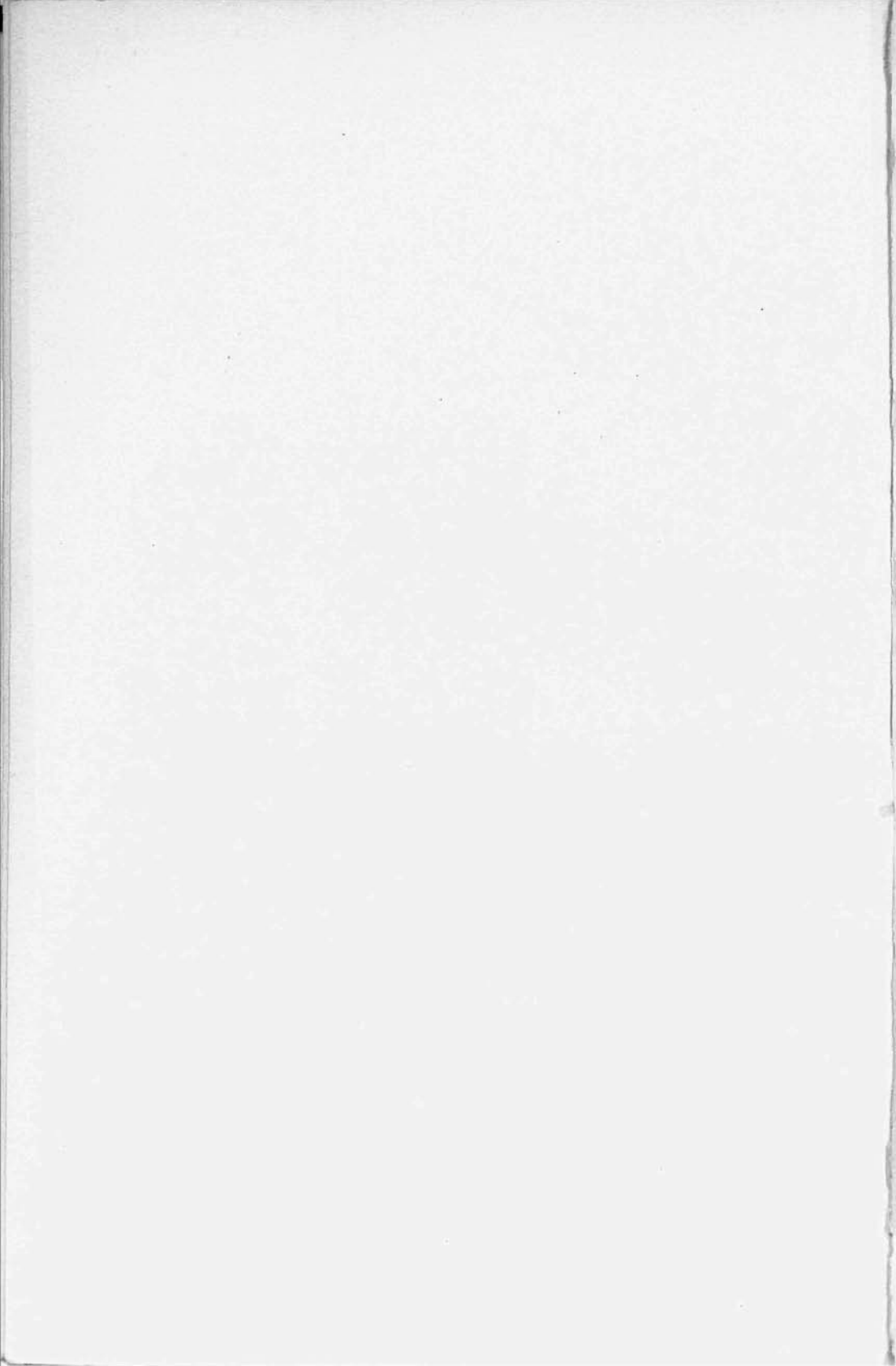
The Interior.

Let us enter with the men. Connecting with the dressing-room is the lavatory (75 by 40, with a ceiling 16 feet high) lighted and ventilated by many windows, and with an individual porcelain wash-basin, individual soap, individual mirror and individual locker for each man. The plumbing and all appurtenances of this department are of the highest quality and best style, at least twice as much money having been spent on it as would ordinarily be deemed necessary; the prevailing idea being to create perfect sanitary conditions. It is quite safe to say that twenty years ago no hotel in America was equipped with a lavatory so commodious, so cheerful and so complete.

The toilets are in every respect of equal grade with the lavatories—marble stalls, tiled floors and walls, and hardwood doors and seats; in all particulars of as high quality as are to be found in any hotel in the land. The closets are ample in number, and so distributed as to be convenient of access from any part of the works; connected with each group is a lavatory. In answer to the frequent question, "Do the employes appreciate such care for their comfort and health?" it may be stated that there has not been a single instance of mutilation or defacing in any part of the establishment—not even a trace of the almost universal practice of scribbling and drawing on the walls of closets. When the works were being planned some of the directors doubted the wisdom of so expensive a toilet system. They



AUTOMATIC JET DRINKING FOUNTAIN. WESTON ELECTRICAL INSTRUMENT CO.



feared the motive might not be appreciated or the property respected, and cited the fact that the toilets in the old works had met the customary fate. Mr. Weston replied that in the old establishment there had been nothing to appeal to the men—nothing to appeal to their personal self-respect or to respect for the property, and that he believed the proposed new departure would be received with favor by the employes. "Anyway," said he, "I am going to investigate this question myself," and he did. He went into all sections of New York City, from Carnegie Hill to the slums, and his report was that wherever he found superior toilet accommodations he found them respected—they were not whittled or scribbled upon. Consequently the Weston Company proceeded along the lines recommended, and the result is entirely satisfactory to everyone concerned.

All lavatory and toilet arrangements are duplicated for the women, who constitute a third of the force.

Main Factory.

Up a short stairway and we enter the main factory, where one is almost startled by the flood of perfect north light that illuminates every part of the great room (250 by 200 feet, with an 18-foot ceiling)—not a shadow or a dark corner to be found. To increase the effect of light and cheerfulness, the columns, machinery, shafting, railings, etc., everywhere possible, are painted in aluminum.

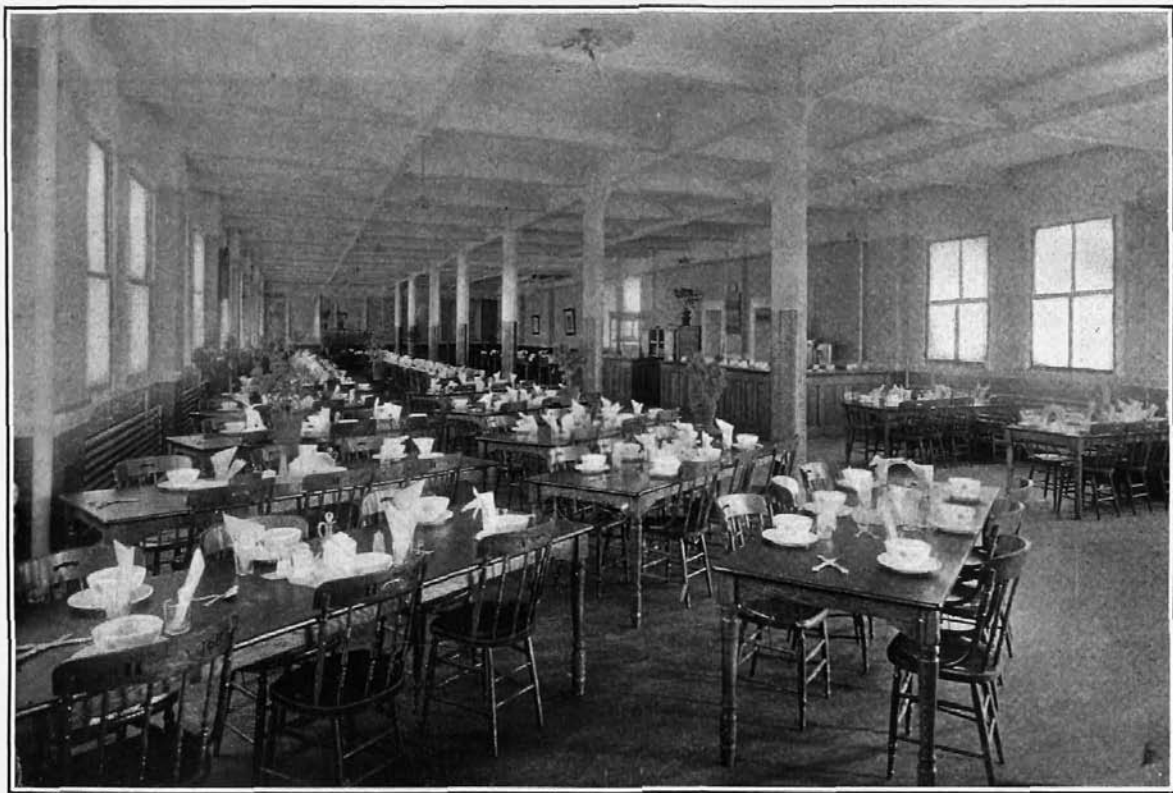
One's attention is challenged also by the immaculate cleanliness that prevails, and here it may be stated that the fine work done by the Weston Company demands an atmosphere not only free from dirt and grit, but as near dust-proof as the ingenuity of man can attain. It is interesting to note how frequently the health of employes and the requirements of business are best served by identical conditions.

Unique Construction.

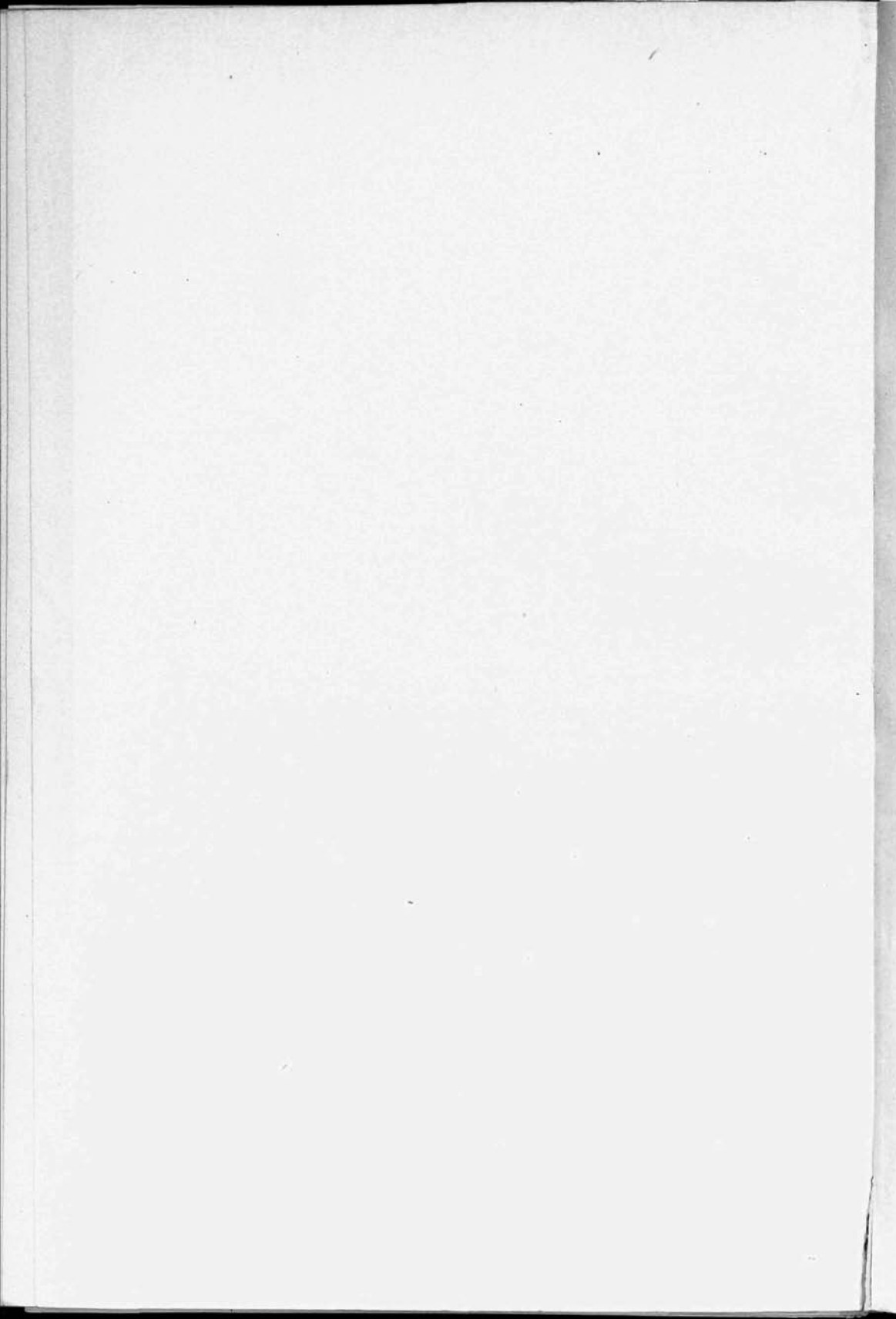
The most unique feature of the main factory is that it is of the weave-shed, saw-tooth type of construction long used in textile factories, but of which there are in America

perhaps not more than two examples of its adaptation to machine shops. The Weston Company, however, has greatly elaborated and improved this style of building. There are fourteen of these sheds, or teeth, or "bays," as the Weston people call them, each 200 feet by 20, and 18 feet high, the north or glass face of the tooth being sloped at an angle of 72 degrees (that being in this latitude the maximum angle of the sun's elevation), with the result that no sun can come into the room until very late in the afternoon, when it has lost most of its power. It is this arrangement, never clouded by snow or frost, that affords the wonderful light and permits double work-benches with the operatives facing each other; and which, combined with an ingenious method of shafting and machinery, it is estimated, effects such economy of space that one square foot of the Weston floor is equal to two and one-half feet in the ordinary scheme of factory building.

The chief objection to the saw-tooth form of construction for machine shops was that hitherto it had seemed impossible to drain the roofs without introducing more or less moisture into the works from drip and condensation. The ordinary method of disposing of the drip from the roof-drainage gutters had been to run under the gutter a steam-pipe which caught and evaporated the drip. In textile factories or heavy machine shops this does no harm—in fact, in some manufactures it is advantages—but moisture would be fatal in an establishment working metals to the exquisitely fine degree to which it is carried in the Weston works. To overcome this apparently insuperable difficulty, Mr. Weston devised a double-gutter system draining every sixteen feet through the main supporting columns. In practice it has worked perfectly. Not only is there no suggestion of moisture from the roofs, but the heat rising from the rooms below keeps both the gutters and the saw-tooth windows free of ice and snow, no matter how cold the weather or how heavy the snow-fall. The same gutters drain the condensation from the inner face of the roof windows.



THE DINING-HALL, WESTON ELECTRICAL INSTRUMENT CO.



Arrangement of Machinery.

The machinery in each bay is run by an independent motor located in its center on a platform near the ceiling, and for each department there is an independent switch-board controlling the power and light, which are on different circuits. This permits the computation of the power necessary to operate any department or any machine. By a novel plan of auxiliary shafting, main belting is done away with; *i. e.*, the only beltings are the vertical connections between each machine and its department shaft. This minimum use of belts conduces to the safety of employes, and to light and cleanliness as well.

High-backed stools are provided for the women at work, and where one woman supervises several pieces of machinery a gentle push slides the stool back and forth along the floor on a miniature railroad, saving a lot of steps and strength. Where intense, concentrated light is necessary, as in handling some of the microscopically minute parts of the instruments, the operator is provided with a conveniently adjustable and properly shaded incandescent lamp.

Sanitation.

In designing the plant, aside from the general adaptation of the buildings to their specific work, the prime purposes of the company were to create an attractive environment, and the best possible sanitary conditions.

Drinking Water.

Drinking water of excellent quality and temperature is supplied by the company's artesian well, and is distributed throughout the departments by automatic jet fountains, thus doing away with cups or glasses.

Ventilation.

The air space allowed each employe is about seven times that required by the most progressive modern hospital practice; or to state this fact in a different form, it is esti-

mated that if the work-rooms were to be sealed hermetically the employes could exist without injurious effects seven times as long as under the atmospheric conditions prescribed by the most eminent hospital authorities. These ratios are based on the work-rooms being manned to their fullest capacity.

Ventilation is secured by sliding shutters in the roof of each bay, by a series of towers which may be opened in full, or in part, or closed, and by a large power-blower.

By referring to the illustration showing the entire works, it will be observed that the buildings are either detached or semi-detached—the dividing lanes and alleys insuring a constant circulation of air.

Drainage.

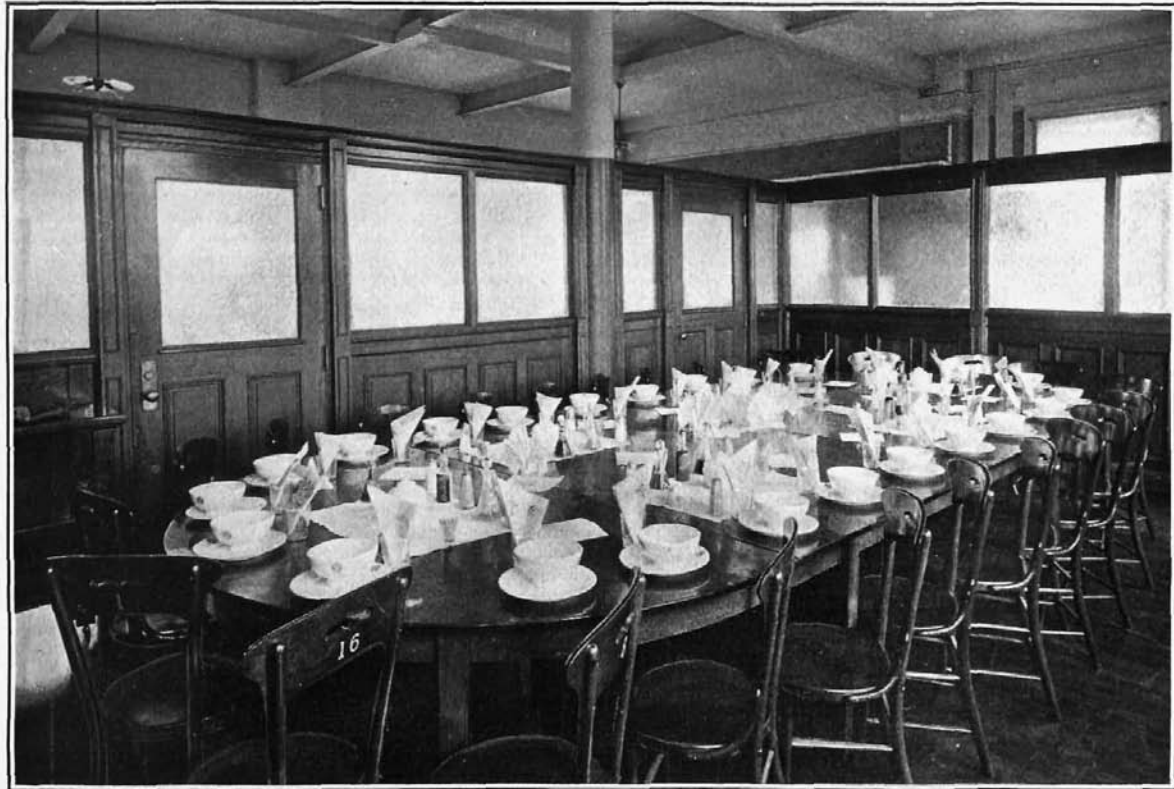
No drain-pipes come into any of the main buildings or workrooms. All closets and lavatories are in wings independently ventilated, and so divided from the main buildings that gases and odors are excluded.

Three distinct systems of drainage are employed: (1) The roof-drainage, before noted, which is carried through the main columns to independent pipes; (2) the wash-water (lavatory) drainage, which is also a separate system joining the roof-drainage about a quarter of a mile from the works, and (3) the toilet-drainage, which nowhere connects with the others, but discharges on the level some hundreds of yards away from the factory—the constituents being absorbed by nature.

Heating System.

The works are equipped with a steam heating plant embracing a number of original ideas and controlled by centrifugal pumps, designed to permit easy and certain government of temperature. Automatic recording thermometers are placed in various parts of the factory, and the engineers are directed to maintain in the colder months a temperature of 70 to 72 degrees.

The Weston heating system, however, is still in the experimental stage, having passed the test of but one winter, and is not yet entirely satisfactory; but it is believed that



LUNCH-ROOM FOR HEADS OF DEPARTMENTS—THE "CABINET." WESTON ELECTRICAL INSTRUMENT CO.



the soundness of the principle has been demonstrated and that ere another cold season arrives the difficulties will be removed.

The economic value of sufficient heat in winter is considerable, and is interesting entirely aside from the question of comfort. A few degrees lower temperature make little difference where people are engaged in heavy work—the exercise quickly develops sufficient warmth—but in handling the infinitesimal pieces which constitute so large a part of the Weston operations, a chilly atmosphere reduces speed and accuracy in a noticeable degree; so here is another point at which the comfort of the employe and the interest of the employer coincide.

To exclude heat in summer and retain it in winter, the double roof is packed with mineral wool.

Resulting Conditions.

Sanitary principles carried out so thoroughly have resulted in work-rooms not only flooded with light, perfectly ventilated and notably clean, but in every respect untainted; so it is probably safe to say that in no shops in the world do men and women work under conditions more healthful or more cheerful.

General Plan of Buildings.

The Weston establishment, as will be seen by referring to the frontispiece, consists (first) of two four-story wings at a right angle; (second) projecting to the west are low buildings containing the porter's lodge, bicycle depot, etc.; (third) projecting to the south are other buildings devoted to engine and boiler-rooms, electric power plant, automobile house, wood-working, japanning and plating departments, forges, storehouses, etc., the whole enclosing (fourth) on the south and west the shops. The plant now built covers about seven acres, but the property comprises some twenty-seven acres, affording ample space for extension.

Tunnel System.

All the buildings are connected by a system of tunnels radiating from the power-house. They have cement floors, brick and cement walls, with roofs of flagging laid in cement, the whole waterproofed with asphalt. These tunnels, which are large enough for a man to walk in comfortably, carry the electric wires and the pipes for hot and cold water, gas, etc. None of the drainage, however, passes through them.

Club Rooms.

The whole of the first and second floors of the north wing, and the second floor of the east wing are devoted to the club. In the second story of the north wing, superbly lighted and ventilated on both sides, in a room one hundred and seventy-five feet long by thirty-five feet wide and sixteen feet high, are located the two chief features of every well-ordered club—the culinary and administrative departments, the kitchen being in an extension on the south. This hall embraces (first) the main dining-room; (second) two cabinets, enclosed about half way to the ceiling, (a) a lunch-room for the executive staff (the heads of departments), and (b) a directors' lunch-room; (third) a "cosy corner," and (fourth), the great size of the room permitting it, the library.

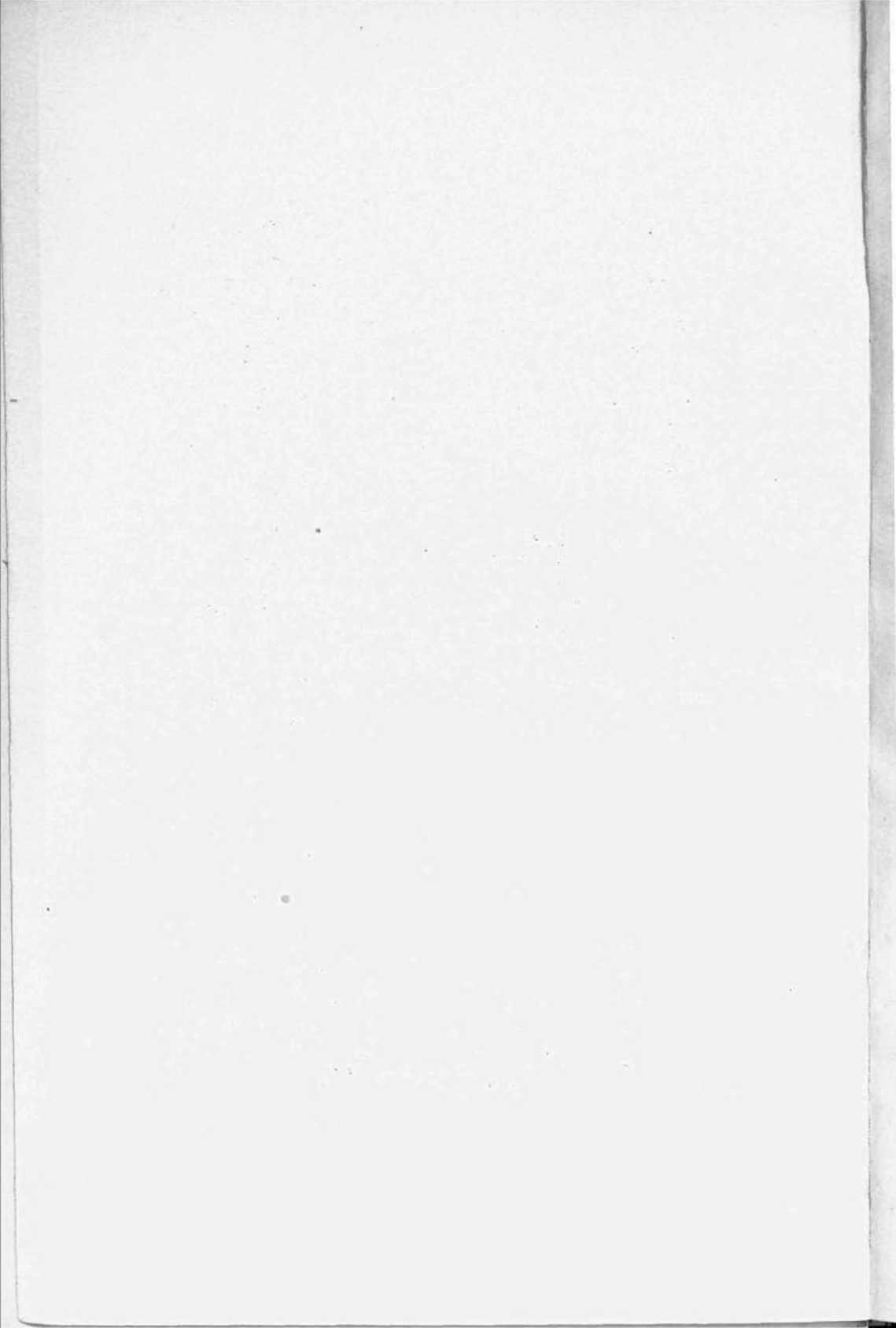
Dining Hall.

In the dining-hall, as in every department of the establishment, the visitor's attention is promptly arrested by the spaciousness, light and cheerfulness; but a new feature attracts the eye, for in every one of the sixteen south windows is a box of flowering plants, vigorous and flourishing, which give the place a particularly homelike and refined character.

The hall is handsomely furnished; the color scheme is pleasing—white walls, buff shades, furniture of a cherry effect, and many pictures. The crockery is a good quality of porcelain, tastefully decorated and bearing the company's monogram, as does the silver and cutlery. Paper napkins are provided. When the room is set for luncheon its ap-



DIRECTORS' LUNCH-ROOM. WESTON ELECTRICAL INSTRUMENT CO.



pearance compares favorably with a high-class hotel or restaurant.

Bill of Fare.

Lunch is either table d' hote or a la carte. The table d' hote costs twenty cents, and the patron is entitled to as much of any or all the dishes as he may desire. Following are daily menus for a recent week:

MONDAY

		Green Pea Soup		
		Roast Ribs of Beef, Dish Gravy		
		Veal Pot-Pie		
	String Beans		Mashed Potatoes	
Apple Pie		Cocoanut Pie		Mince Pie
	Tea	Coffee	Cocoa	Milk

TUESDAY

		English Beef Soup		
	Roast Lamb		Beef-steak Pie	
Green Peas			Hashed-browned Potatoes	
		Tapioca Pudding		
	Tea	Coffee	Cocoa	Milk

WEDNESDAY

		Cream of Tomato Soup		
		Beef a-la-Mode		
		Curry of Lamb with Rice		
	Lima Beans		Baked Potatoes	
Lemon Pie		Apple Pie		Mince Pie
	Tea	Coffee	Cocoa	Milk

THURSDAY

		German Noodle Soup		
		Roast Veal with Dressing		
		Beef Croquettes		
	Stewed Tomatoes		Boiled Potatoes	
		Macaroni		
		La Marche Pudding, Vanilla Sauce		
	Tea	Coffee	Cocoa	Milk

FRIDAY

Clam Chowder			
Broiled Shad			
Boiled Beef with Horse Radish Sauce			
Succotash		Creamed Potatoes	
Cocoanut Pie	Peach Pie		Apple Pie
Tea	Coffee	Cocoa	Milk

SATURDAY

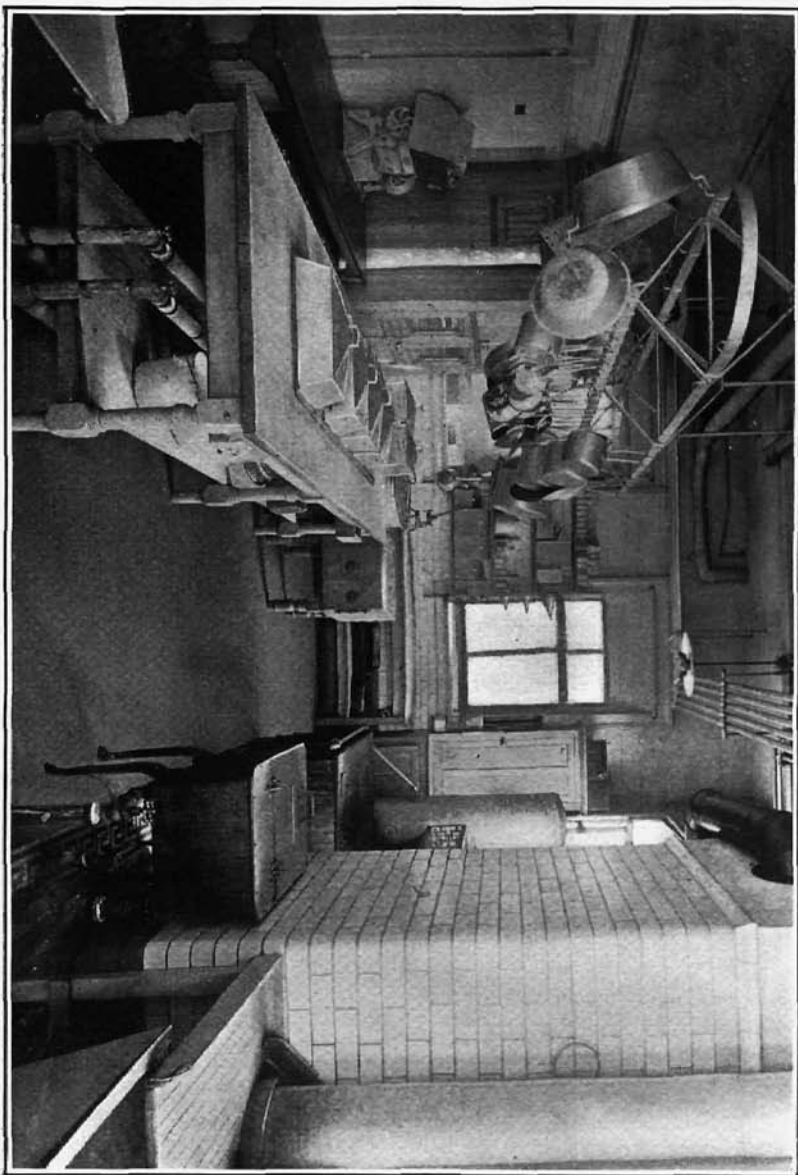
Vegetable Soup			
Roast Lamb		Minced Roast Beef	
Peas		Boiled Potatoes	
Chocolate Pudding			
Tea	Coffee	Cocoa	Milk

The table d'hôte lunch is served by volunteers from among the force, who are compensated by being permitted to lunch at the expense of the club, and to whom the company allows enough extra time at noon to insure their having the full forty minutes recess. They usually serve a month at a time.

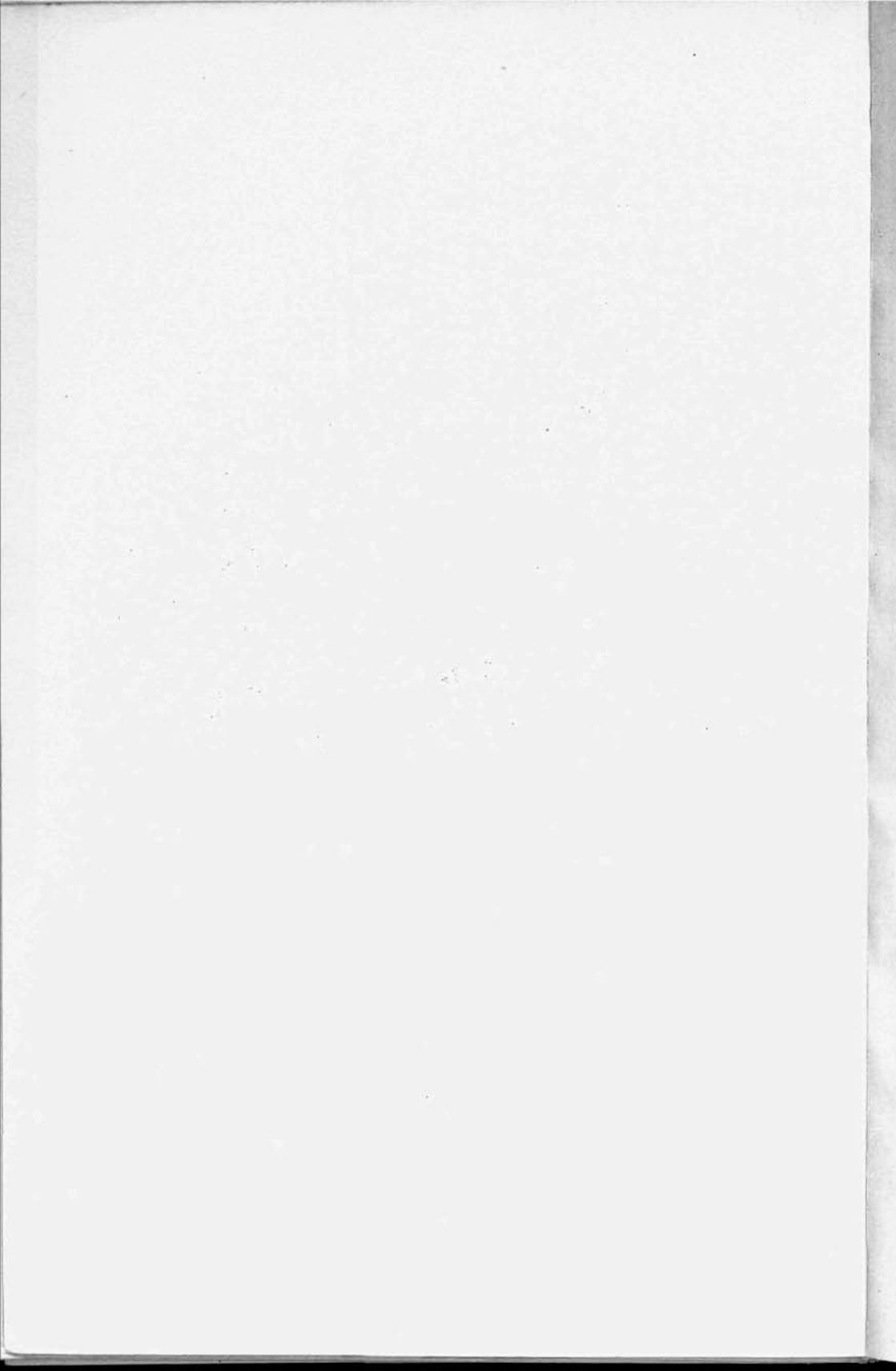
Lunch Counter.

For the convenience of those who do not care to take the table d'hôte, there is a lunch counter where members may buy what they choose, and wait on themselves. Following is the bill of fare:

Cup of Tea, Coffee or Cocoa, .....	.03
Glass of Milk, .....	.03
Pie .....	.05
Pudding, .....	.03
Bowl of Soup with Bread and Butter, .....	.05
Veal Pot-Pie, .....	.08
Beef-steak Pie, .....	.08
Baked Beans, .....	.08
Roast Beef, Lamb, or Veal, or Beef a-la-Mode, or Broiled or Baked Fish, with two kinds of Vege- tables, and Bread and Butter, .....	.12
Ice Cream, .....	.05
Beer—bottle, .....	.05
Soft Drinks, .....	.05
Ham, Cheese or Corned-Beef Sandwiches, .....	.05



THE KITCHEN. WESTON ELECTRICAL INSTRUMENT CO.



The writer of these lines has had the pleasure of lunching several times with the Weston Employes' Club, and can affirm that few business men in New York City who pay from fifty to seventy-five cents are as well served in either quality or quantity as are the employes of the Weston establishment.

When the club was started there was considerable hesitancy about permitting the sale of beer. The members who had been in the habit of having beer with their luncheon protested that it would be unfair to impose such a restriction, whereupon the club decided to make this concession, *but*, it was clearly understood, *only as an experiment*. Beer is sold whenever the club is open—at luncheon and on entertainment evenings. The experiment is now a year old and there has not been a solitary instance of the slightest abuse of the privilege.

To the lodge-keeper has been given the right to sell tobacco.

The "Cabinet."

The Executive Staff (the heads of departments) are required by the company to take their noon-day meal on the premises, it being thought that this arrangement would result in a daily conference of the company's advisers—its "Cabinet." Therefore a room for this purpose was built in the dining hall, and here the chiefs of staff lunch as the guests of the company which contracts with the club for this service, and, although the bill of fare differs in no respect from the general card, the club receives twenty-five cents per head, as against the twenty cents paid by all other patrons; the extra compensation being to pay for the services of a waiter provided by the club and for the privacy essential to the object of this daily meeting.

Here some twenty-five men gather around a large, elliptical oak table and discuss coincidentally their luncheon and all phases of the business. Every part of the work is covered, from the fundamental scientific principles to the packing and shipping of the finished instruments. Thereby the daily operation of every department is more perfectly

collaborated, and the work as a whole greatly facilitated. If there are obstacles in one department and delays in another, the movement of the whole establishment is hampered, for the entire works run as one machine—into one department comes the raw material, and it passes through regular and continuous processes until the shipping clerk delivers the completed product to the transportation agent.

Here is the place to find fault, to criticise, to suggest, to recommend, to bring to executive notice the delays and difficulties encountered in any part of the work.

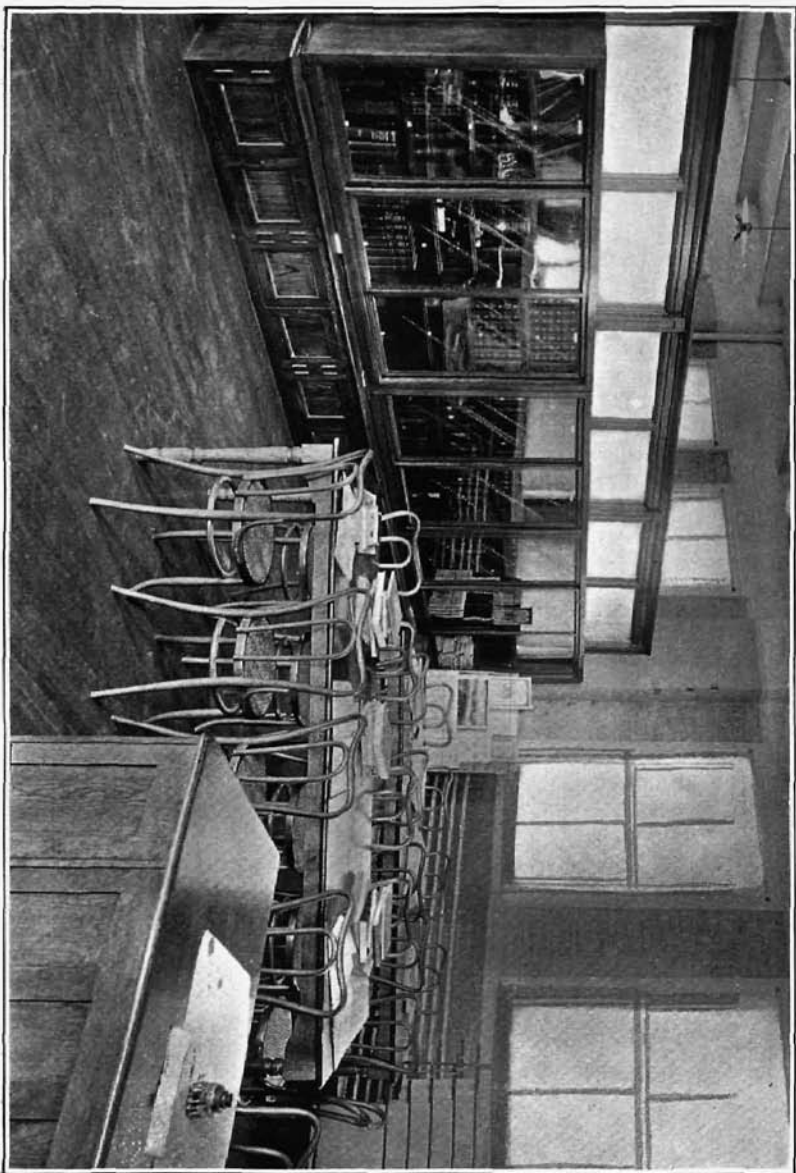
Here is obtained a clear understanding as to the operation of the entire plant—here a survey of the whole organization may be effected daily, and here is generated the enthusiasm, inspiration and co-operation so necessary to the highest success of any aggregation of workers in any and every field of human effort. With the executive staff at luncheon are frequently the president and some of the directors. Here is the soul of this little universe.

In considering any part of this enterprise it must be remembered that the social experiment, the social economics, the more progressive methods of management, were inaugurated less than a year ago, after the new factory was opened, and that all these features are, as yet, in the experimental stage; but both the company and the employees express the opinion that this institution, this daily conference of department chiefs, is developing steadily along the lines of the expectations of its founders. If this be true, and of its truth the writer is convinced, it is due above all else to the fine temper of both employer and employed—to the mutual respect and confidence in each other entertained by both the parties to the arrangement.

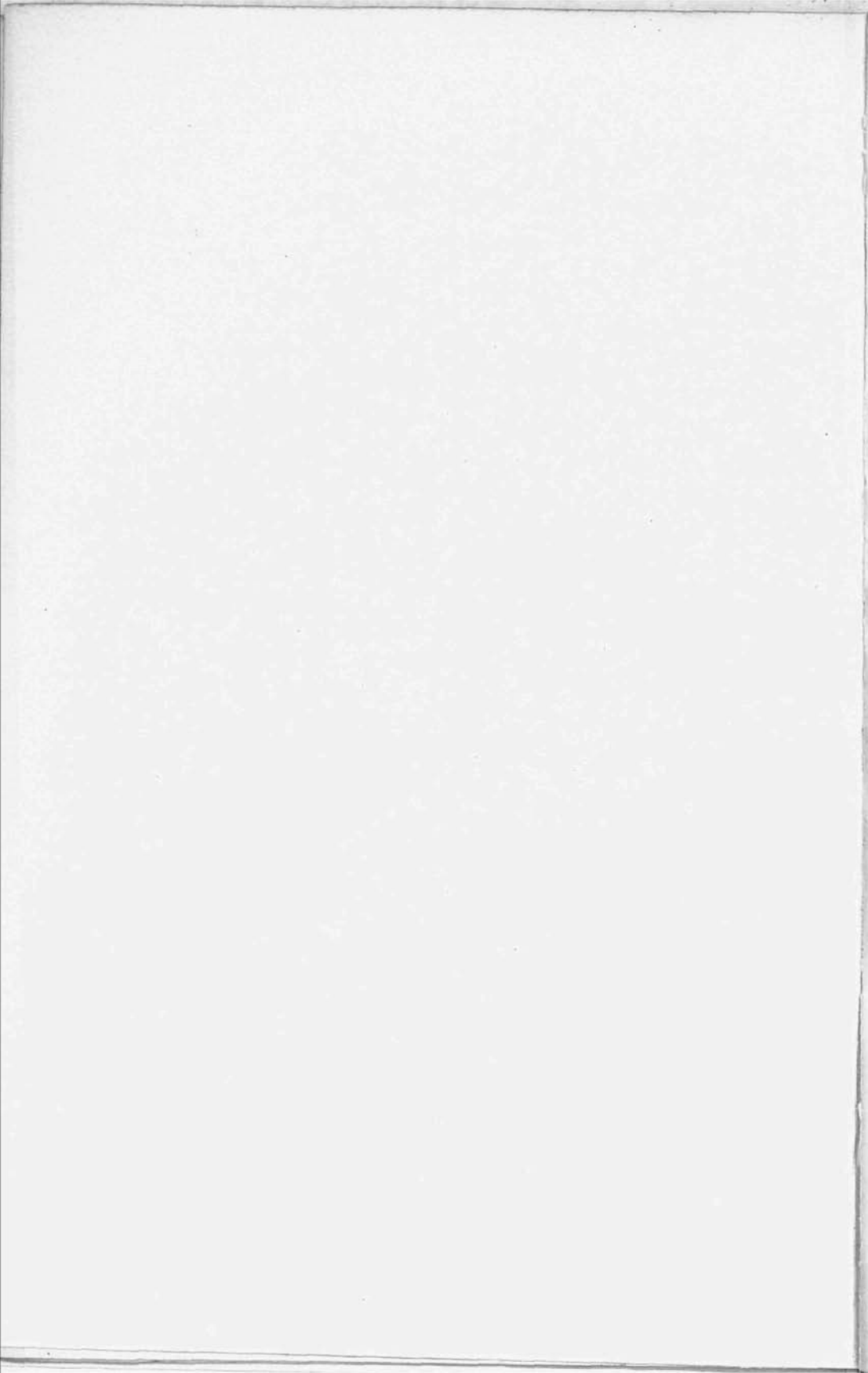
Next to the "Cabinet," on the west, is the directors' lunch-room, upholstered in green leather, but seldom used, the directors preferring to join the department managers.

Library.

On the east is the library, divided from the main restaurant by a low railing. It is, as yet, in its beginning, but



A CORNER IN THE LIBRARY. WESTON ELECTRICAL INSTRUMENT CO.



the company has provided a large number of standard reference works, literary and scientific, to which are added (by the company) many periodicals, the chief portion being scientific publications and those relating to machinery, engineering and electricity. The Weston Club Library, in charge of a library committee, has been made a branch of Newark's excellent Public Library and is permitted to draw therefrom five hundred volumes at a time, which are distributed on precisely the same conditions as at the Public Library. One of the results of thus bringing to the attention of the employes the industrial progress of the age is that a number of them are taking scientific, engineering or mechanical courses in the Newark Technical School or in correspondence schools.

Cosy Corner.

In an otherwise useless space, across the stairway from the two small luncheon-rooms, is a "cosy corner," furnished with wicker rockers, tables, and other attractions, which is a favorite after-lunch rest and chat rendezvous for the feminine members of the club.

The little art gallery which brightens the "cosy corner" is the contribution of members, several of the excellent, large photographs being the production of the camera section.

Kitchen.

The kitchen, 35 x 25 x 16, is an extension off the dining-hall at the south, directly over the refrigerators and ice-making plant, and connected therewith by a stairway. It is furnished with ranges, grills, great copper-jacketed kettles for soups and stews, a steam-heated serving table, dish-washing machinery, and all the various utensils—in fact, it is a complete hotel or restaurant kitchen, spotless enough to delight the heart of the most exacting Dutch housewife, and presided over by a "chef" until recently in one of New York's most noted hotels. The kitchen help is employed by the club, and has no connection with the regular force.

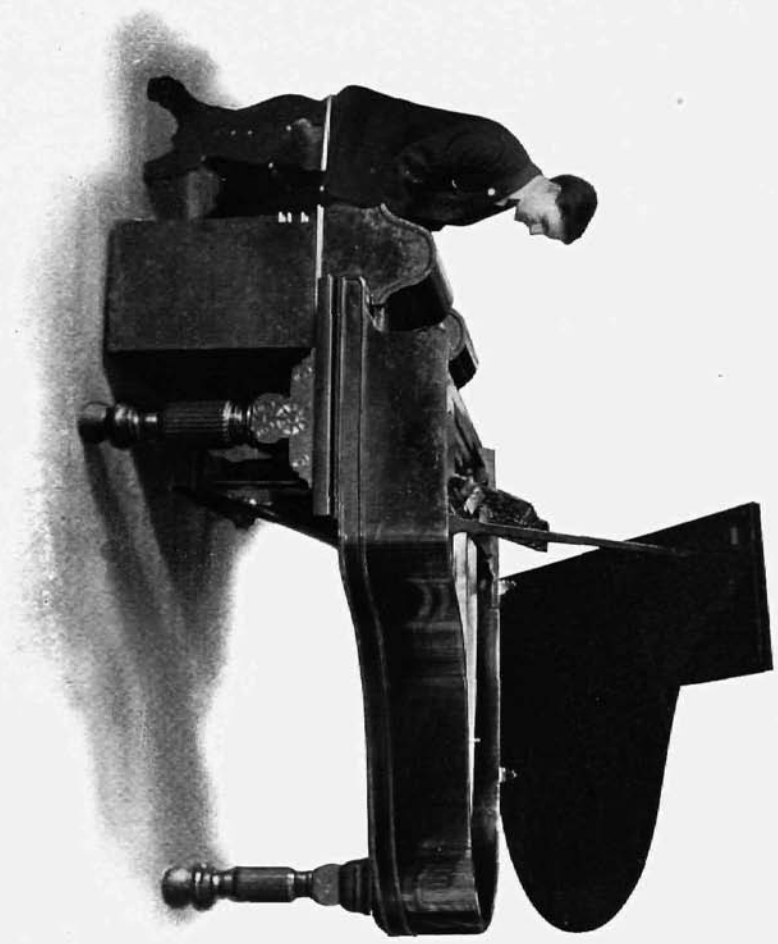
The ice-making plant and the ample refrigerators—one for meats and one for vegetables, etc.—form a prime element in the financial success of the restaurant. Meats, vegetables, butter, groceries and other supplies are bought in quantities. Not only does this effect a considerable saving in cost, but it permits many otherwise impossible economies.

Restaurant Finances.

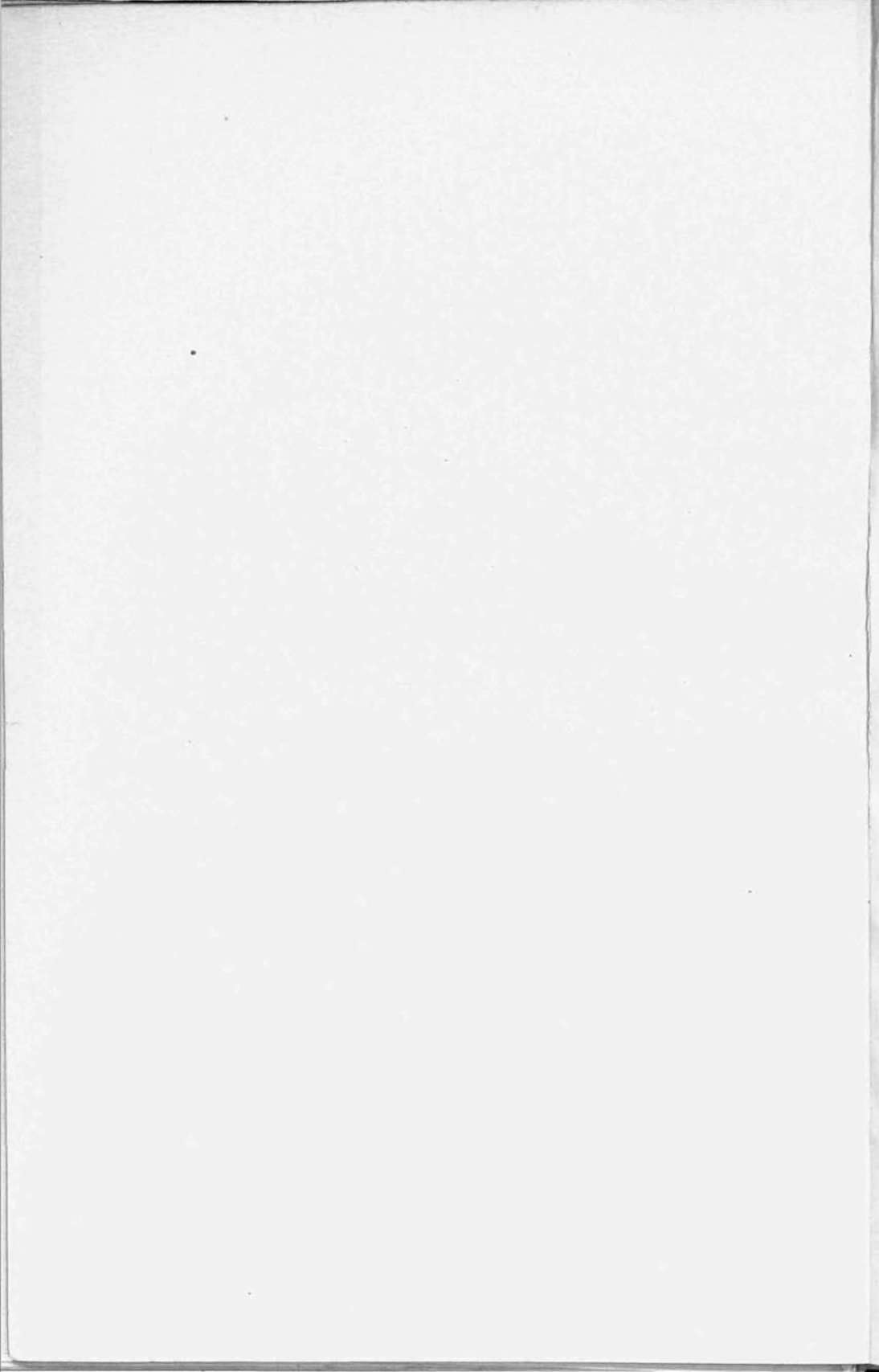
Every clubman the world over knows that the kitchen and restaurant are apt to spell success or failure, both social and financial. How is it with the Weston Employees' Club of Newark, New Jersey? The initiation fee is but twenty-five cents, and the monthly dues the same—about a cent per workday. A lunch of six courses, excellent in quality and unlimited in quantity, is served for twenty cents, while for fifteen cents the frugal man or woman may fare sumptuously on a roast or an entree or fish, with two kinds of vegetables, bread and butter, and coffee, tea, cocoa or milk; or, descending the expense scale another notch, for eleven cents one may have meat pie or an entree, and tea, coffee, cocoa or milk. The more economical may bring their lunch from home and eat in the restaurant, supplementing from the lunch-counter bill of fare, or not, as they choose.

In view of these facts, it is gratifying to be able to report that the club has arrived at a point where, after all expenses, including renewals and repairs, have been met, a little surplus is earned. Of course, the club pays no rent; this, and the original plant and working capital, being the company's contribution.

Had these lines been written a few months earlier, a different story would have been told. The Board of Governors and House Committee were not experts in club management, and, naturally, mistakes were made. This will surprise no experienced clubman; for what on earth is more difficult to organize and conduct successfully than a social club which includes a restaurant? At the beginning a contract for lunch service was made with a caterer. Result—poor lunch, financial failure. Another caterer was tried.



PIANO AND PIANOLA IN RECREATION HALL. WESTON ELECTRICAL INSTRUMENT CO.



Result—ditto. Then the club resolved to be its own caterer.
Result—excellent food, good service, financial prosperity.

Recreation Hall.

In the east wing, at a right angle to the dining-hall and connecting therewith, is the recreation hall, 182 x 26 x 16 feet, furnished with a baby-grand piano and pianola, billiard and pool tables, chess, checkers, cribbage, dominoes and other games, fencing and boxing outfits, and the commencement of a gymnasium. Here entertainments are given fortnightly, care being taken that the regular monthly club meeting shall coincide with an entertainment.

Frequently at noon there is an impromptu dance, the "baby-grand" and the pianola furnishing the music.

Home Talent.

The entertainments are music, vaudeville, legerdemain, stereopticon shows, etc., and, aside from the educational features, the performers are confined strictly to the employees. The writer asked a club member why outside players, singers, musicians, magicians, etc., were not invited. His reply was the condensed essence of the spirit of this whole social success. He said: "Yes, we could have many brilliant and famous men in our little theatre, and we would enjoy them, but we think it better for the club, better for ourselves, that we develop and utilize home talent; and among our four hundred members we find talent a plenty. You should have been at our musicale last Friday evening. *Such* singing! I assure you that you have many times paid a high price for music not a quarter as good. Yes, we believe in developing home talent in every department of the club—in its organization and administration, and in the literary and educational departments, as well as in our amusements, our games, our base-ball and foot-ball, our camera section, etc. It is this that interests everyone, develops everyone, gives each individual a chance to contribute to the success of the whole, places responsibility on all.

Valuable Training.

"This policy is training men and women to be more useful to themselves in their daily vocation, and, therefore, more valuable to their employers; it is making them more self-reliant and capable as citizens; it is educating them somewhat in administrative and executive work, and one thing we have learned from all our mistakes and failures, as well as our successes, in running this club is that the organizing, administrative chief of a great industrial organization is entitled to large reward. Yes, this club is a good school."

The Natatorium.

Directly under the dining hall is the natatorium, 160 feet by 35, with a 20-foot ceiling—light, bright and cheerful. The writer of this sketch labors under difficulties. He has been directed to say nothing laudatory of the company, nor to refer to its head, who is the moving spirit scientifically, mechanically and altruistically, nor is he permitted to indulge his bent in the use of adjectives; but he is compelled to say that his bath (or rather these baths) is a splendid affair. The tank, cement and enamelled brick, is 150 feet long, 18 feet wide, and from $4\frac{1}{2}$ to 9 feet deep. The flooring is a handsome white mosaic tiling tastefully bordered in green, with a couple of two-colored marble steps, about 75 feet long, leading up to the batteries of shower and needle and tub baths—six of each. A filtering plant is being installed.

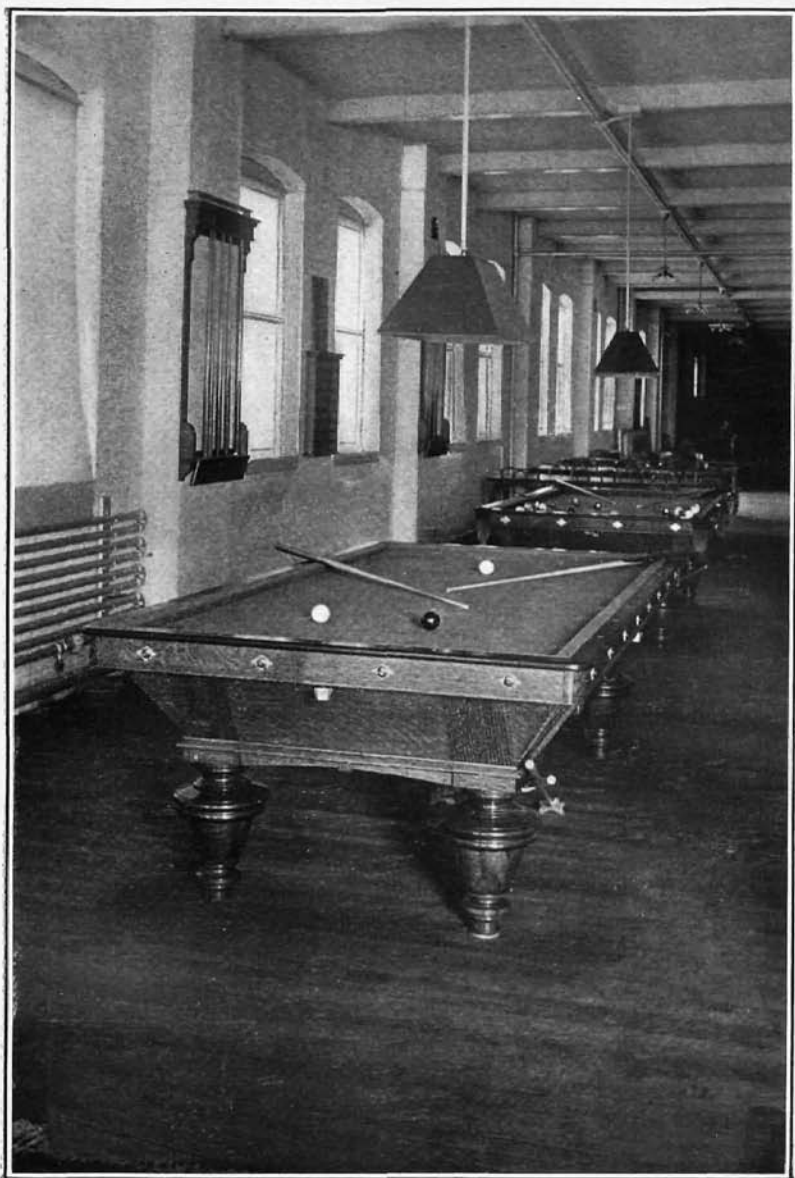
Certainly in New York city there is no bath, public, private, or club, so roomy or so finely housed and equipped as this bath of the Weston Employes' Club. Here, as in the lavatories, the plumbing is fine in quality and pleasing in style.

Connecting on the north is a large room now being fitted as a dressing-room, and the arrangements are such that the men may go directly to or from bath and work.

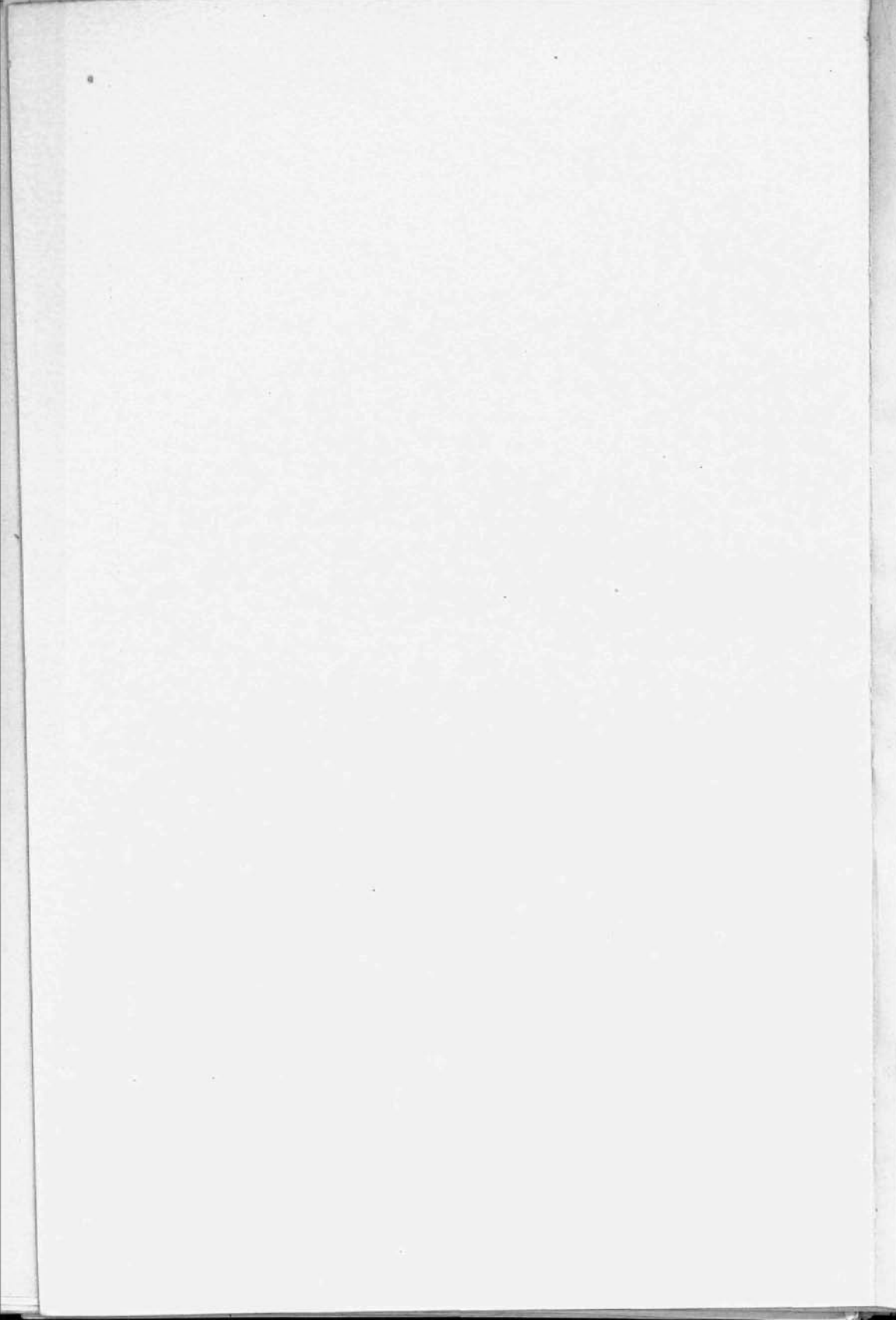
Bathers are required to take the shower before the plunge.

Certain days and hours are set apart for the women.

The club is considering the organization of water sports—polo, swimming matches, carnival, etc.



BILLIARD-ROOM IN RECREATION HALL. WESTON ELECTRICAL INSTRUMENT CO.



Bicycle Depot.

At the entrance to the works is a spacious room especially designed and furnished as a bicycle station. If anyone doubts the permanence of the bicycle as an institution of both pleasure and utility, he will be converted by a glance into this well-filled "wheel-room."

The bicycle, in connection with such an establishment, is most suggestive. Along the side of the plant runs a trunk trolley line which, by the transfer system, will carry one almost anywhere within Newark's extensive limits for five cents; and this and the bicycle bring one face to face with an exceedingly interesting development of modern life. Not many years ago the wealthiest merchants of Paris lived in the upper stories of the buildings that were their factories, their storehouses, their salesrooms. In fact, many such instances still survive in European cities. The lack of transportation facilities and the insecurity of life and property made obligatory this manner of life. For the same reasons factory employes were, and very largely are still, compelled to live in the immediate neighborhood of their employment; the long hours (10, 11 and 12) exacted being another chain binding them close to their place of labor. How different with the American workman at the beginning of the twentieth century! He (or she) may live in the actual country. A few minutes' delightful exercise on the wheel lands the passenger at workshop or at home, while those who prefer the trolleys are almost equally independent.

Outdoor Sports.

Outdoor sports are popular, and becoming more so. The baseball and football teams are enthusiasts, and match games are played weekly during the season.

The camera section makes frequent Saturday afternoon excursions to the country. These are combined exploring, botanical and photographic picnics, and are hugely enjoyed by young and old. Many of the fine photographs that adorn the club are a result of these holidays.

Hospital.

A little hospital, furnished with a cot and the necessary simple appliances and remedies, is under the supervision of a man who has served an apprenticeship as a trained nurse. Owing, however, to the peculiarly favorable sanitary conditions under which the Weston employes work, combined with the safeguards thrown around the machinery, the hospital is very seldom in demand.

Nine-Hour Work Day.

The factory originally ran on a sixty-hour basis, which averaged ten hours per work day. A short while ago it occurred to the company, in view of the fact that the plant was somewhat distant from the homes of the employes, to shorten the hours to fifty-four a week, and give an average nine-hour work day.

Saturday Half-Holiday.

Knowing by experience that a full half-day on Saturday was preferred by the employes, even to the extent of making up for it on the other days of the week, the company decided to close the works at 11.50 A. M. on Saturdays, thus giving ample time to make preparations for enjoying the remainder of the day.

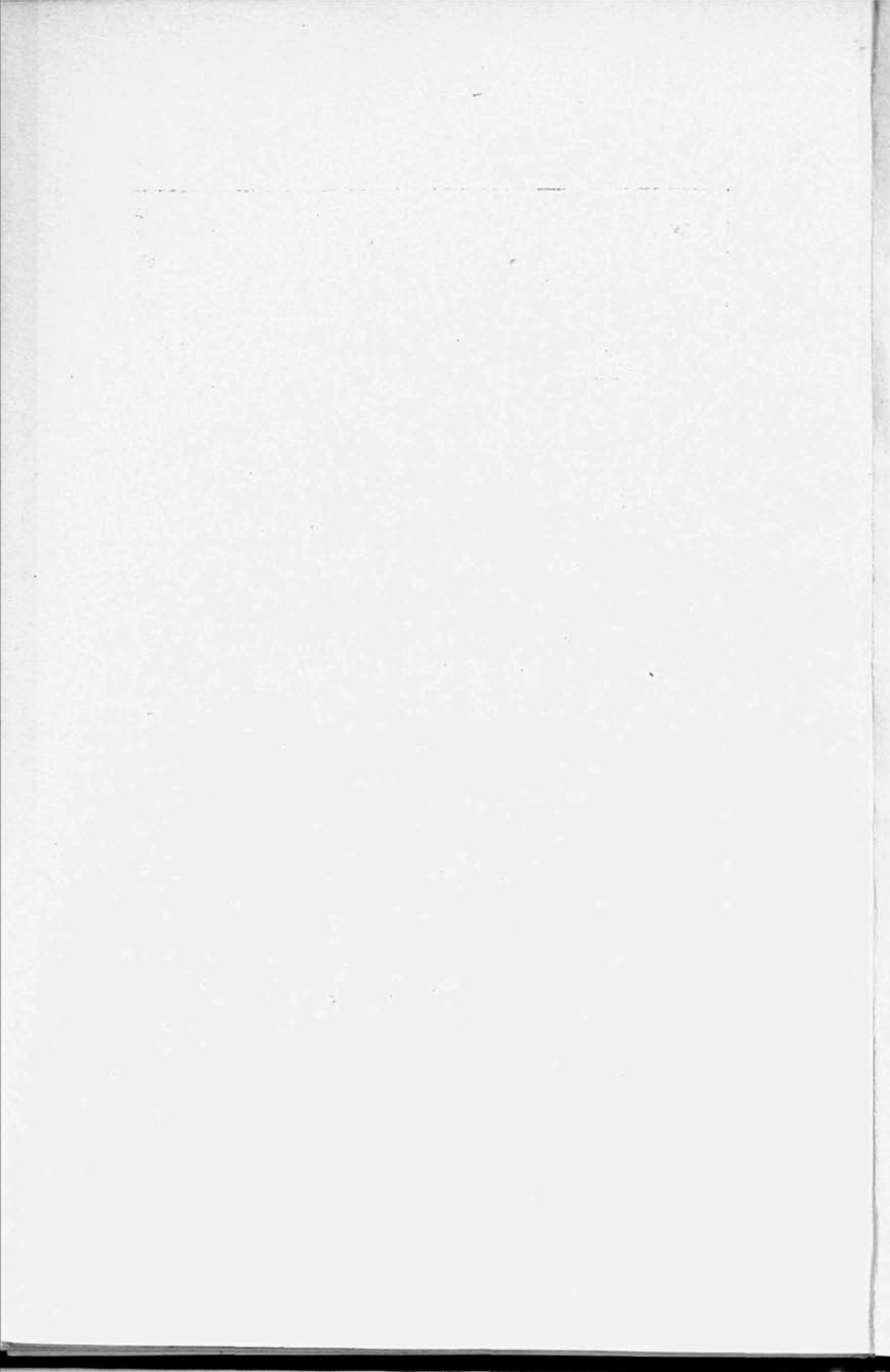
Formerly the day began at 7, had an intermission from 12 to 12.30, and ended at 6. The company lengthened the lunch period from 30 to 40 minutes, and gave the employes their choice of curtailing the day either in the morning or evening. The question was put to vote, and it was determined to shorten the latter part of the day. The employes express the highest satisfaction with the present arrangement, and the company states that the weekly product has not diminished.

Fraternal Feeling.

As an indication of the fraternal feeling that exists, it may be mentioned that as these lines are being written



SWIMMING-POOL AND BATHS. WESTON ELECTRICAL INSTRUMENT CO.



arrangements are under way by the employes of one of the departments to give a farewell reception and supper to a woman who has been in the Weston employ for many years, but who is about to retire from business.

Economy of Highest-Grade Equipment.

Although the company spent money lavishly on the club-rooms and furnishings, as well as in the factory, this was done in accordance with its theory that the best equipment is, eventually, the most economical. Thereby the cost of maintenance is reduced to a minimum, and no appreciable deterioration of its property is experienced by the company or the club. An especial advantage of this policy, so far as the factory is concerned, is that the costliest, highest grade machinery, tools and appliances are not so likely to break down as a less expensive, lower quality outfit, and, therefore, the Weston Company has thus insured itself, as far as possible, against interruption in its operations.

The Verdict.

One of the oldest employes of the company, in reply to a question by the writer, said: "There is no doubt that the social experiment here made by the Weston Company is already a success. There is no doubt that the employes, as a whole, for there are fault-finders everywhere, appreciate all that the company has done and is doing to make their employment safe, healthful and comfortable."

Why has this venture attained so large a measure of success, when so many similar attempts are failures? was asked.

"Because, in my opinion (first) the employes believed from the start that the company was actuated by a sincere desire for their welfare, and (second) because the club has not been 'fathered' by the company. It is ours in fact as well as in name. If we make it a success, the credit is ours; if a failure, on us must rest the blame. If we want advice, we go to the company. If we are in trouble, we go to the

company; but, beyond giving counsel when consulted, the company never interferes.

"We realize, however, and the company realizes, that only a start has been made; but the success already gained fills us with hope for the future.

"The buildings in which the club is now housed are a part of the general industrial plant, but in moving from the old site to this greatly enlarged one the company could spare these rooms for a time, and here we are studying the problem of what social and educational features may advantageously be added to a great manufacturing plant—the 'what?' the 'why?' the 'how?'

"Already the company is so much encouraged that it is contemplating the erection, in the triangle facing the works, of a combined office and club building, constructed with reference to all the varied needs of business administration and club life. Of course, this will not be done until the requirements of the manufacturing department drive the club and the offices out of the existing structures.

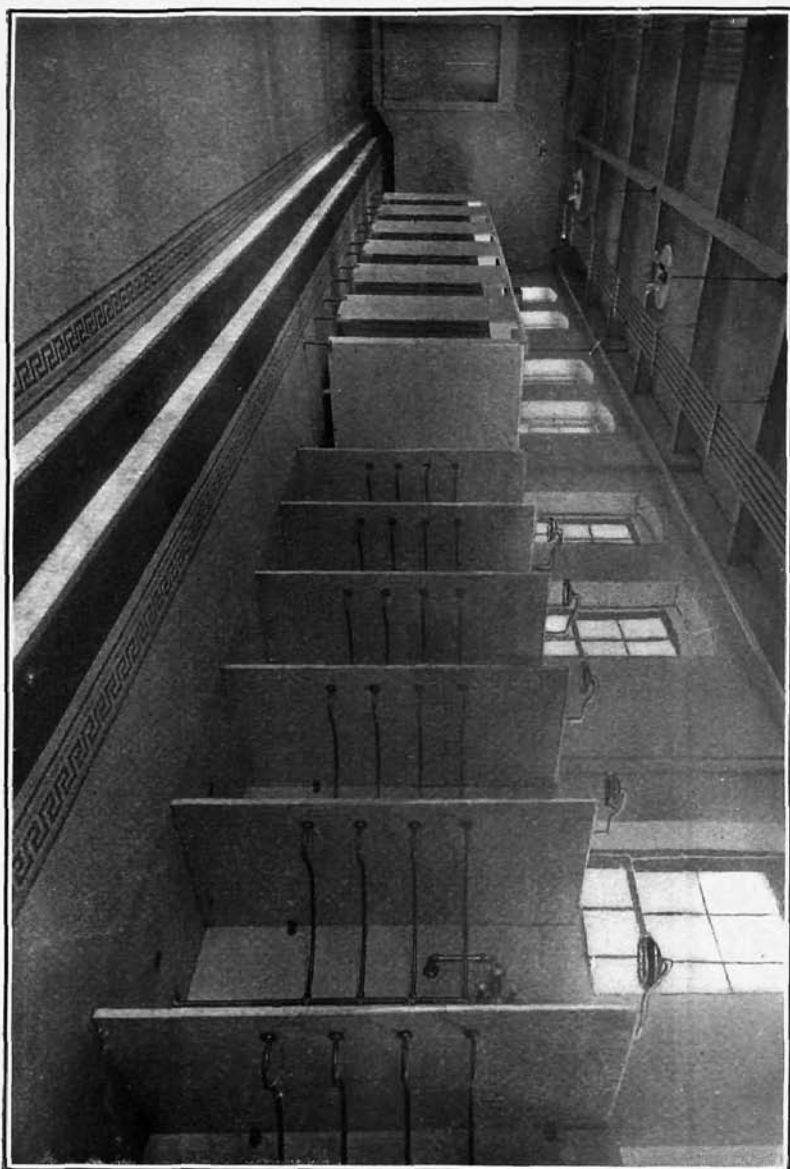
"I have alluded to the proposed administration and club building, but there are other things under consideration—some of them in sight. For instance, a mutual benefit association and a building and loan association are immediate possibilities.

"Thus we believe that in all departments—industrial, social, educational, altruistic—the Weston Company and the Weston employes are working along sane lines; lines that cannot fail to benefit both employer and employe—lines that must benefit the community at large, by setting an example of how labor and capital may contentedly work together, side by side, each sharing the burdens, the pleasures and the profits of the other."

Opinion of a Woman.

On one of his visits to the works, the writer was accompanied by a woman of broad culture, wide travel and acute observation—an educator of national reputation, and largely experienced in public life. After spending several hours in

TUB, SHOWER, AND NEEDLE BATHS. WESTON ELECTRICAL INSTRUMENT CO.





the establishment, examining its every department, industrial and social, and lunching with the "Cabinet," she said, "Had I not had this practical demonstration, nothing could have made me believe that any manufacturing concern on earth was so interested in the health, the comfort, the pleasure and the general welfare of its employees."

Mr. Weston's Comment.

This was repeated to Mr. Weston, whose simple comment was, "We have done nothing, as yet, save to make a few rough beginnings."

A Glimpse at the Manufacturing Departments.

A TRIP THROUGH THE WORKS.

Having glanced at the social side of the Weston organization, the reader may be interested in a brief survey of the mechanical and manufacturing side. Perhaps one ought, first, to have some idea of the character of the business carried on. It should be said, however, that these lines are intended chiefly for the lay reader, not for the electrical expert; therefore technical terms are avoided as far as possible.

Electricity having become a staple manufacture, an article of commerce, produced, bought and sold precisely as any other commodity, methods of weighing or measuring the goods, so to speak, became a necessity. It also became necessary to gauge this power, as steam is gauged by the dial-indicator to be seen in every engine-room.

Standards of Electrical Measurement.

Further, just as Congress has authorized systems of weights and measures, and has at great expense and with infinite care established units or standards of these—the standard of lineal measure, for instance, being a metal yard composed of an alloy that heat or cold expands or contracts

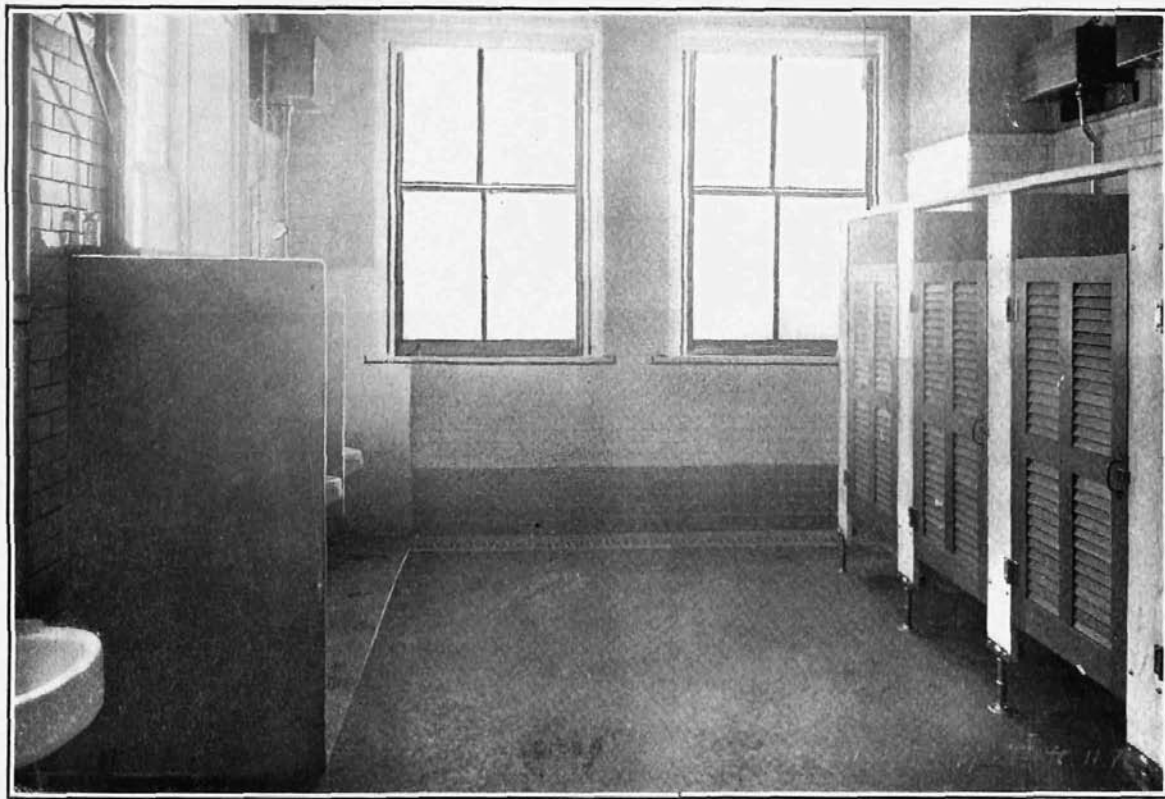
very slightly, and which is preserved and guarded in Washington as sacredly as are the millions of Treasury gold—so has Congress enacted units or standards for the measurement of electricity; the standard units being: the volt, for pressure; the ampere, for current, or volume; the ohm, for resistance; and others for capacity, induction, etc.

The Weston Specialty.

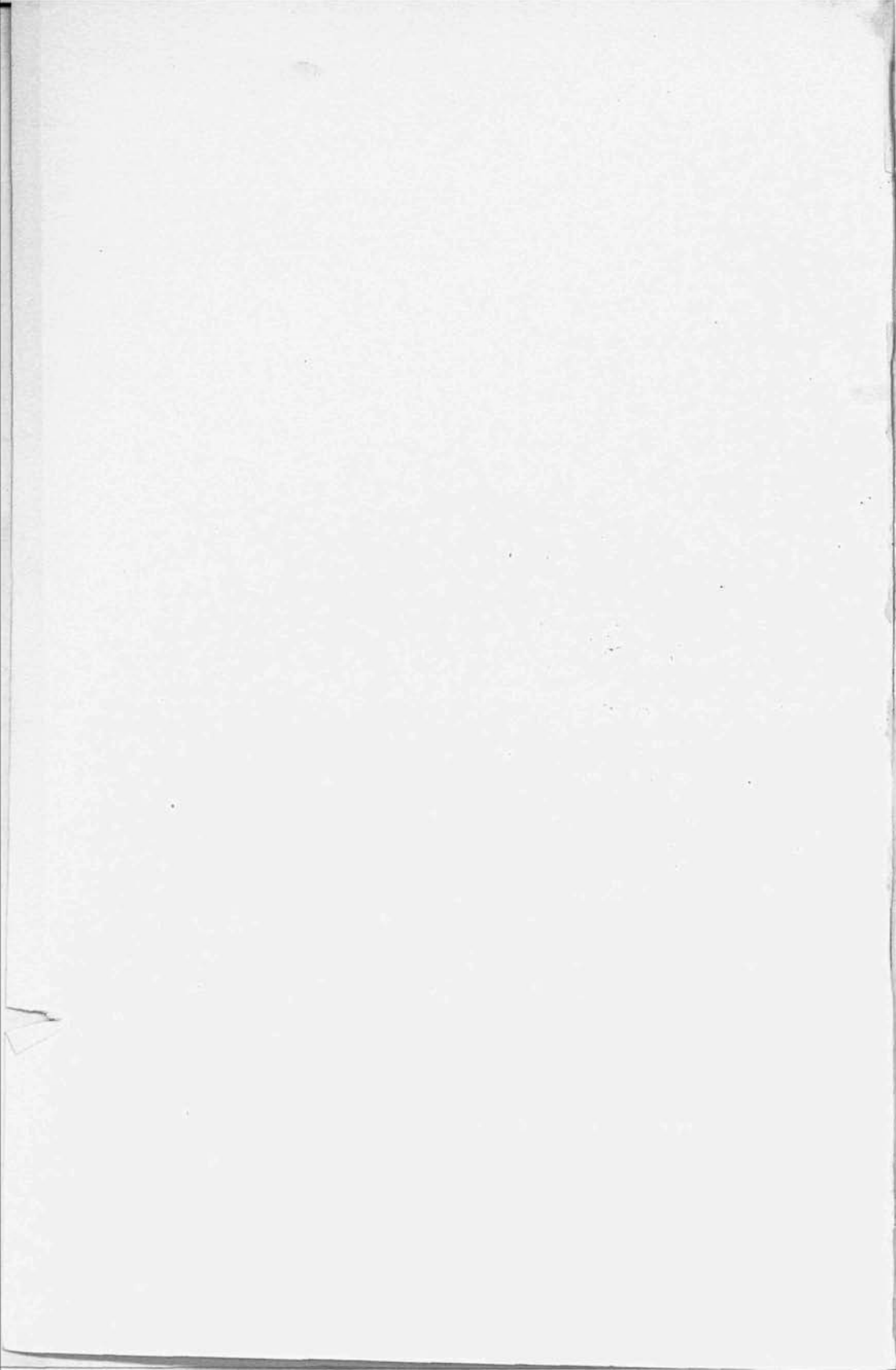
The business of the Weston concern, then, is the manufacture of instruments for measuring electricity—instruments capable of indicating within extremely close limits the electrical quantities with which we have to deal in the laboratories and in all the various forms in which electricity is used to produce power, light or heat. In other words, we must be able to accurately measure any electrical force.

Important Branch of Electrical Art.

When the multiplicity of uses to which electricity is put to-day as a factor in the various arts is considered, the importance of this branch of electrical science will be realized. As an example, take the incandescent lamp industry and bear in mind that the energy required to bring any lamp to a standard candle-power must be known exactly and kept exceedingly uniform. If this is not done, and the necessary regular voltage is not given, the results are irregular light and a tremendous waste of the life of the lamp, for an increment of one volt will diminish the life far out of proportion to the ratio between one volt and the one hundred and ten volts, say, for which the lamp is designed. Not only, therefore, is a saving in lamps effected, but a large saving in coal bills, due to the fact that we have accurate means of telling how our dynamos are run, or knowing the volume of current or power being generated. As the dynamos are run by steam engines, the direct relation between fuel expense and electric power produced will be comprehended.



A CORNER IN ONE TOILET-ROOM. WESTON ELECTRICAL INSTRUMENT CO.



Pioneer in the Field.

The Weston Company has revolutionized this department of the electrical art. Its inception was due to the fact that sixteen years ago no meters were obtainable which could be depended on. The most extravagant tests were required for the most elementary measurements. Being engaged in the manufacture of dynamos, Mr. Weston had no reliable facilities for measuring the forces with which he dealt, so the old adage held true and "necessity became the mother of invention." Now his instruments are world standards. They are adaptable for the most delicate galvanometer measurements where the deflections of the instrument are obtained with a current of the strength of one five-billionth of an ampere, and are applicable, as well, for any range up to the highest capacity generated by Niagara or the power plant that drives a metropolitan system of railways. To appreciate the infinite delicacy of the first-named measurement, it may be said that a current of the strength of half an ampere illuminates the standard sixteen candle-power incandescent lamp; yet the galvanometer will distinctly indicate a change of power so incredibly small as to be beyond any possible human comprehension.

Tour of the Factory.

Shall we now take a walk through the works? A view of what may be seen in the various buildings will prove interesting.

Fire Proof.

Before we proceed, it may be remarked that the whole establishment is practically fireproof. Extinguishers are placed at convenient distances, and a fire plant with hydrants distributed throughout the factory is capable of throwing 1,000 gallons per minute. So convinced is the company of the efficacy of these precautions that no insurance is carried.

Dust and Dirt Proof.

Another important feature is that the buildings are designed to be as nearly dustproof and dirtproof as possible,

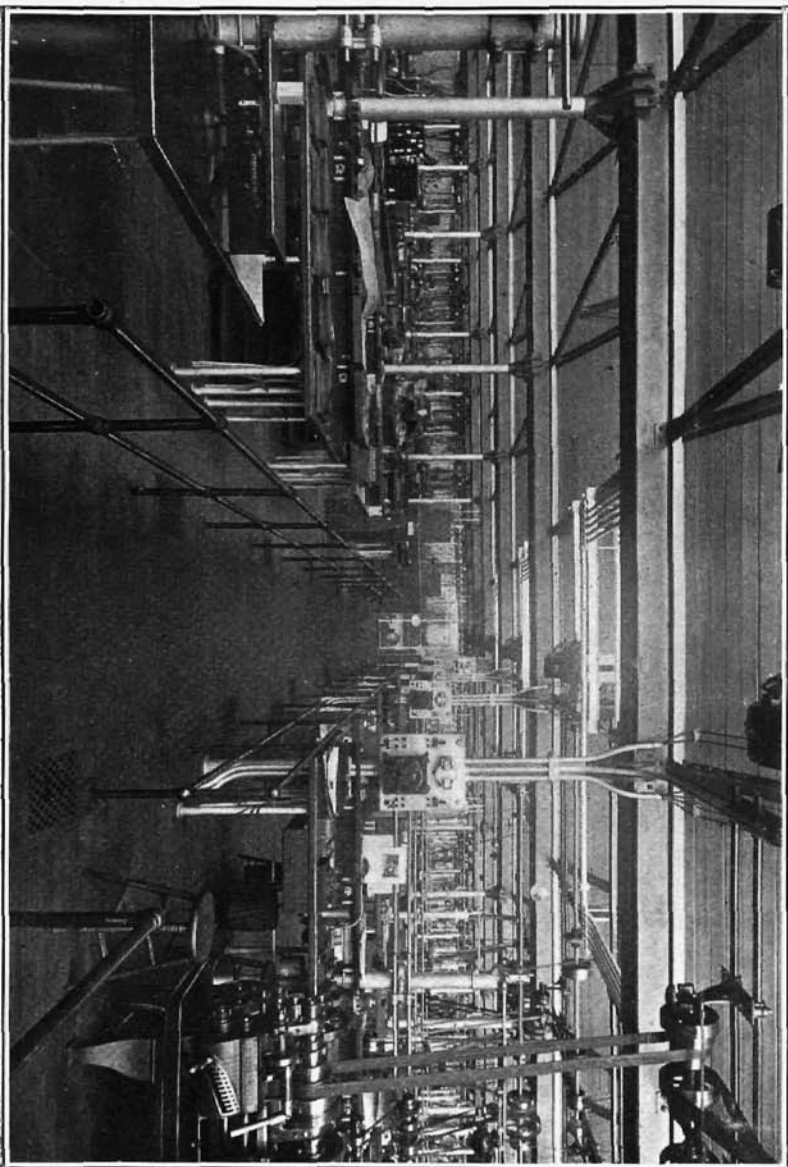
for the reason that with such delicate operations (probably the highest-class mechanical work done in the world) even dust may become an important factor in retarding the manufacture of the instruments and in interfering with their performance after completion.

Exacting Character of Operations.

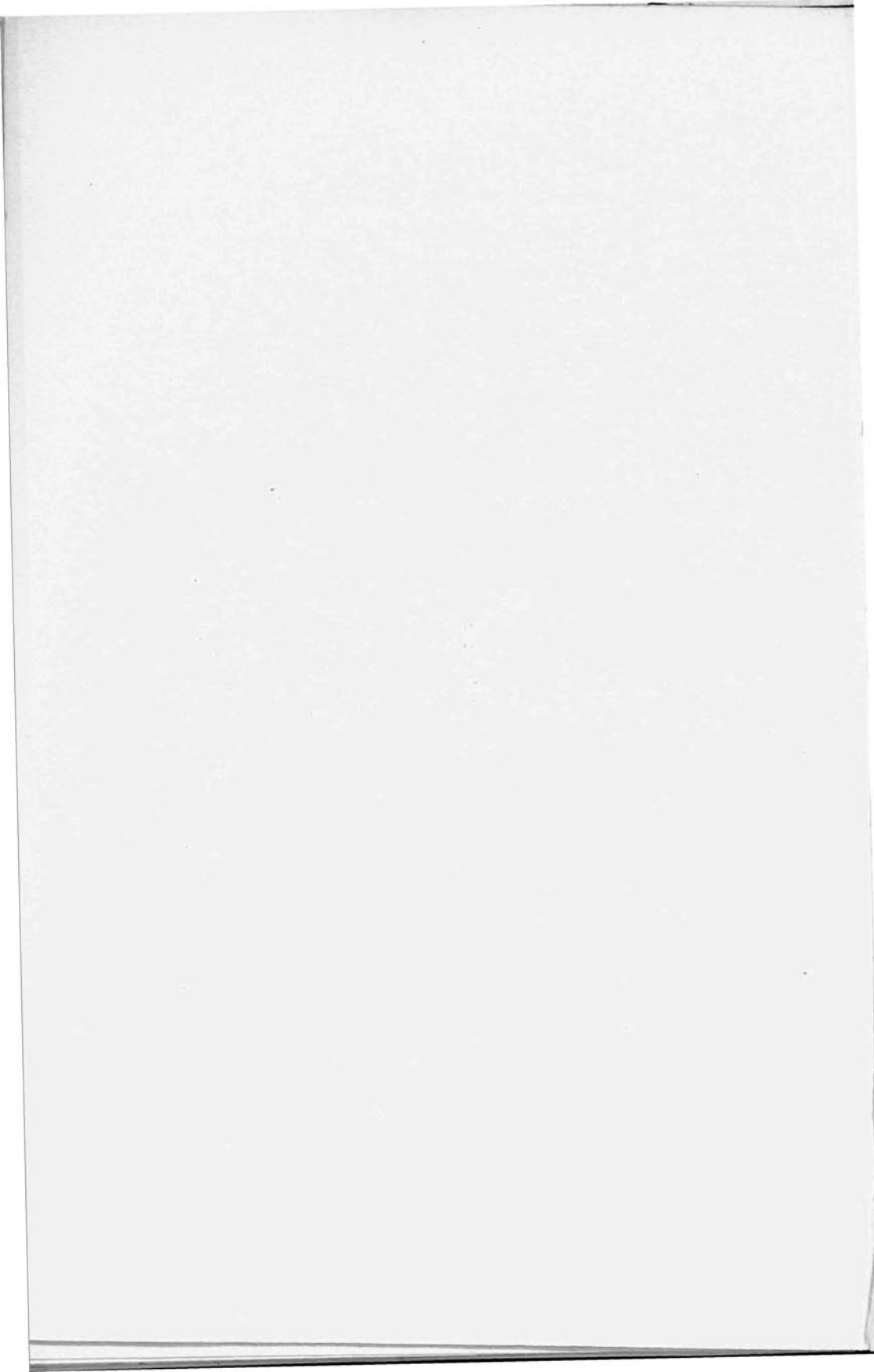
By the following illustrations one will comprehend something of the extraordinarily difficult character of the work the Weston Company is obliged to do in its everyday routine: The minuteness of some of the parts used in certain instruments may be realized when it is known that 9,500 of a certain type of springs weigh only one ounce. Wire is "drawn" and constantly employed which has a diameter of from one-half to one-third that of the average human hair. Jewels are sized and ground. Nuts are made of dimensions so small that their shape, perfect hexagons, can scarcely be distinguished except by the strongest eye; these are drilled and threaded the same as any large nut, and for them are made screws to correspond. Certain parts of the instruments require a degree of accuracy to the limit of one fifty-thousandth of an inch, and work is frequently done which must be correct within one one-hundred-thousandth of an inch. Aluminum tubing, the smallest that can be made by any outside concern, is here so reduced in diameter that the human eye can barely perceive that it is hollow. This tubing, when utilized for galvanometer pointers, hands, or indicators, has a wall three-quarters of one-thousandth of an inch thick.

Special Alloys.

For many electrical and mechanical purposes here required, no known metals were suitable; and it became necessary to discover special alloys containing several component metals of proportions exquisitely exact. In the Weston research laboratory a number of alloys have been discovered having electrical and mechanical properties hitherto entirely



VIEW LOOKING DOWN MAIN SHOP. WESTON ELECTRICAL INSTRUMENT CO.



unsuspected, and many startling and revolutionary characteristics have been revealed. For example, one alloy was found with a negative or decreasing temperature co-efficient. This was directly contrary to the existing dictum of science which held this to be the dividing line between metals and non-metals, as only non-metals were supposed to possess negative temperature co-efficients. Another alloy shows no variation of resistance for temperature changes.

High-Grade Employees.

These, and many other illustrations that might be given, demonstrate the necessity of having high-grade employes, and explain why the company cultivates this class of labor to the exclusion of all others.

Our examination of organization and operations must necessarily be hasty, and confined to the more important features, for we have but little time at our disposal—while a moderately careful inspection of the manifold processes would require days.

Receiving Department.

The most logical entrance to the works is, perhaps, with the raw material, and, naturally, then, we should start at the receiving-room where all material comes into the establishment and whence it is distributed to the various manufacturing departments. We shall not attempt to follow the various stages of development accorded to any one piece of raw stock, but rather to generalize; for when it is borne in mind that some 20,000 separate parts enter into the manufacture of the Weston instruments, it will be readily understood that a description of the treatment of one individual part would not necessarily be descriptive of any of the others.

The receiving-room, to the door of which the Pennsylvania railroad runs a spur, is a small extension on the eastern side of, and on a level with, the main workshop—material, therefore, does not have to be handled from one level to another in any stage of its progress to the shipping department.

Factory.

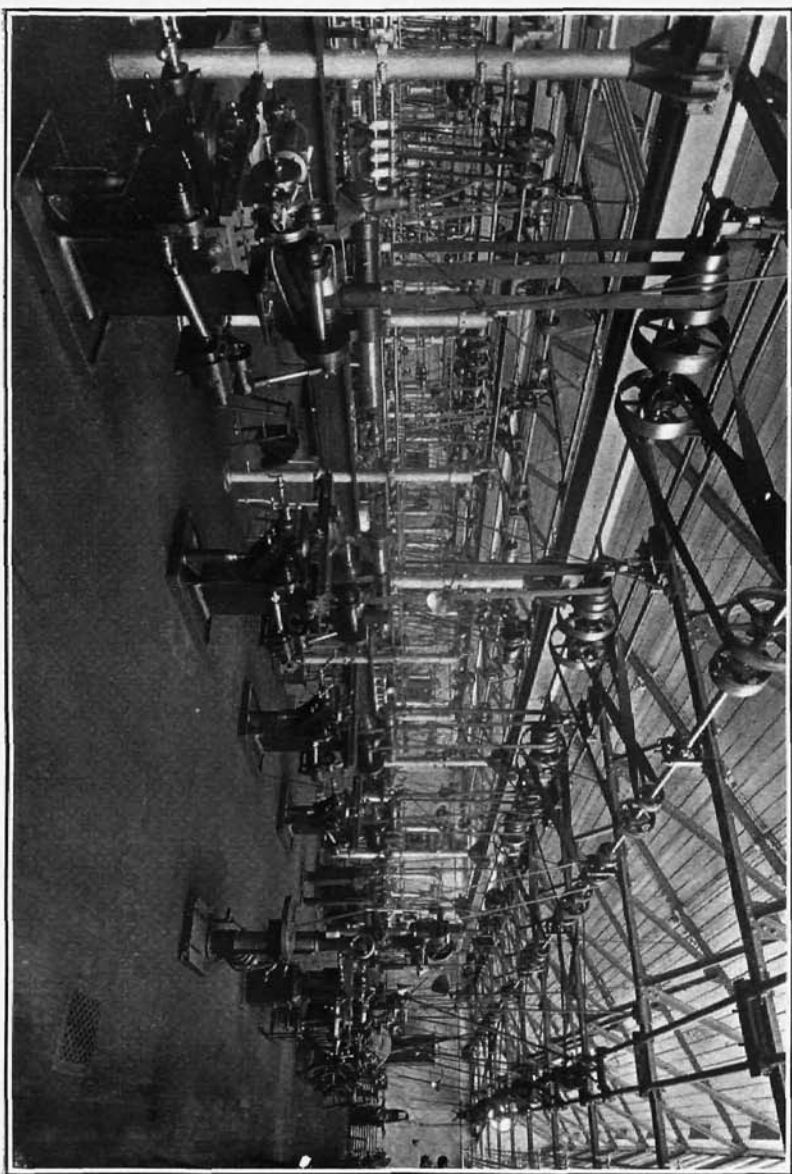
From the receiving-room, we come immediately to the main shop which contains more than 50,000 square feet of floor space, and where are located the machinery, milling and drilling and tapping departments; the tool departments for general tool work, for special tool and die work, and the "arsenal" which delivers the various tools required by the employes in the performance of their work; the automatic, buffing, winding, inspection, finished parts, and assembling departments; and, lastly, the laboratories; all being so arranged that work progresses systematically from one to the other, insuring easy handling, and avoiding, as far as possible, any retracing of steps.

Machinery and Tool Departments.

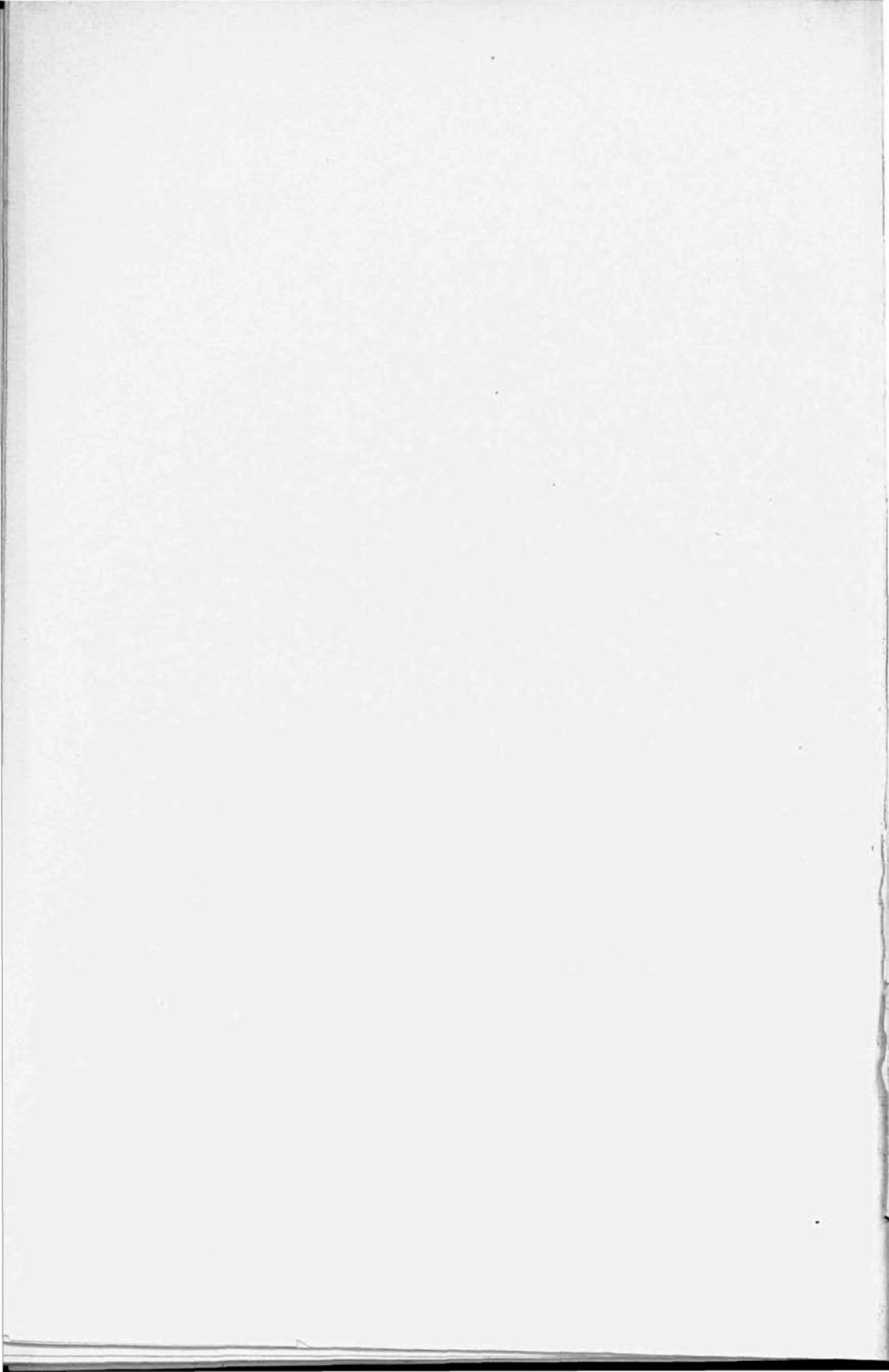
At the foundation of such an establishment are the tools and machinery—the tools for making tools, and the tools for making machinery and the parts of instruments.

The machinery department does the general heavy work necessary to keep in repair the tools and machines required to operate a plant of this size, and, as the work on the various instruments is most exacting, the appliances, many of which are original, must be kept in perfect condition—therefore this section is a very busy one.

Time forbids more than a glance into this important department in which several hundred thousand dollars is invested—there being duplicates of everything in the shape of tools and parts of machinery, so that no man or machine may be delayed a moment because of such lack. The tools are stored in a protected vault, and are given out on metal checks bearing the employe's locker number. The exigencies of manufacture caused by the development of a new art create a constant demand for new and singular tools. Among the novel examples to be found here is a die and press which, with one movement of the controlling lever, is capable of imparting successively seven distinct punching, cutting and bending operations. The ingenuity of this tool will be better



DEPARTMENT IN MAIN SHOP. WESTON ELECTRICAL INSTRUMENT CO.



understood when it is known that these seven operations are performed on a bit of very thin metal plate with a surface of about one-half by one-sixteenth of an inch. Not so long ago these were separate operations by separate machines, and a little earlier all such operations were performed by hand.

Milling, and Drilling and Tapping Departments.

The milling department does both light and heavy work, although the amount of heavy work is comparatively small in connection with the manufacture of instruments.

As nearly every part used has to be fitted together by screws or pins or studs, the demand on the drilling and tapping department will be realized.

Automatic Department.

Possibly the most interesting department in the entire establishment is that in which are located the automatic machines into which raw stock is fed, and from which, produced solely by its own operations, the finished product is delivered. Without human intervention these exquisitely designed and readily adjustable machines produce the finest degree of workmanship, and some are capable of making as many as one hundred and forty-two distinct operations on a piece of material before discarding it. Of course, it must be understood that automatic machinery is not intended to handle heavy materials, and in this respect the Weston Company is particularly fortunate, as nearly all of the parts used in its instruments are extremely small, with rigid requirements as to dimensions, therefore the necessary degree of accuracy can be attained only by the aid of machines of precision. For example, the pivots used on the moving coils must correspond in diameter to within a ten-thousandth of an inch, and these pivots are used in every instrument the company manufactures. The raw stock is a wire varying between six-hundredths and fifteen-thousandths of an inch in diameter—the smallest size being about five times the thickness of an average human hair. By a special process

the wire is tempered to extreme hardness, and is then fed through the automatic machinery. Complete screws, milled and threaded, are made of a diameter only a fraction of that of these pivots.

Almost human in their operations are automatic machines, many types of which are in use here. Only one, however, a screw-making machine, comparatively simple and easily described, will we examine; for one example will illustrate the principle of automatic machinery. The raw stock is a brass rod shoved into a tube and connected with the machine which proceeds to bite off a screw-length; another hand turns it into a screw-form, a third cuts in the thread, and a fourth mills in the slit on the top for the screw-driver, when the finished screw is delivered into its receptacle. This operation continues until the rod is nearly used up, when the machine, with an intelligence almost uncanny, rings a bell announcing that it is about out of stock and needs a new supply. It must be remembered that the overseer, after adjusting the machine, pays no attention whatever to it save to see that it is kept supplied with raw material.

During the process of automatic manufacture, the piece of metal under operation is worked in an automatic oil bath—*i. e.*, it is constantly under a stream of oil, while the machine, itself, is automatically lubricated.

The infallibility of automatic machines is marvelous. A human hand may drop one of these infinitesimal bits of metal, not larger than the tiniest watch screw, or make a false move with a tool. Not so with the automaton—so long as the machine itself is in perfect order so long will it turn out perfect work with unfailing regularity. The microscopically minute nuts and screws before mentioned are the product of automatic machines, as are the pivots, pivot bases, dowels and stud-pins, bezels, cores for the magnetic system of the instruments, brass bodies of binding posts, etc.

By such ingenious processes, whereby an American workman is enabled to do the work of many men, tremendously increasing per capita production, the United States is beginning to dominate the world's manufactures, and the

American artisan has become the most highly paid workman on earth.

Making the Wire.

Wire is an important factor in the manufacture of Weston instruments, and some is required of such fineness and such peculiar conductive and non-magnetic qualities that the company has been compelled to evolve new alloys of metal and original methods of making wire. The alloy is cast into ingots, which are first "rolled" into square rods, and then "drawn" into round rods through steel dies stage by stage till reduced to a diameter of six-hundredths of an inch.

"But how is the wire brought to the exquisite delicacy of this skein, as fine and bright as raw silk?" Look through this disk. You will see a small diamond, and if you look very sharp and your eyesight is very keen you will notice a hole so tiny that you would hardly believe it was there unless assured of the fact. The aperture in this disk is a little larger, and in this one a little larger still. As the wire, drawn by a swift-running motor, leaves the steel dies it passes through a series of diamonds till it finally emerges, mile upon mile, sometimes one-half of one-thousandth of an inch in diameter, two hundred and fifty miles to a pound—almost as fine as the filament spun by a spider.

For some purposes metal "strips" are used, instead of wire. These follow the wire process down to the last stage, when they are "drawn" between, instead of through, jewels which reduce them to the desired diameter—some being as thin as one-fifth of a human hair.

Winding Department.

In the winding department the resistance spools are wound with hundreds of layers of wire for carrying the current. The wire is insulated by being wound with silk of a fineness impossible to describe, and between each layer of wire there is a further insulation of oiled paper. To prevent induction, these hundreds of layers of current-conveying wires are wound half one way and half the other. For the exceedingly

sensitive galvanometers, it was found that no silk in the market was suitable, as it contained enough iron to affect the operation of the instruments, therefore it became necessary to manufacture a special silk. It is a fact almost incredible but intensely interesting that there often is enough iron in the human touch to affect the magnetic qualities of these delicate wires and silks.

Basement.

The basement, of equal size with the main floor and excellently lighted and ventilated, is particularly dry, and is used chiefly for storage purposes, but has also a large amount of space devoted to two laboratories, and still more space is allotted to soldering and polishing departments.

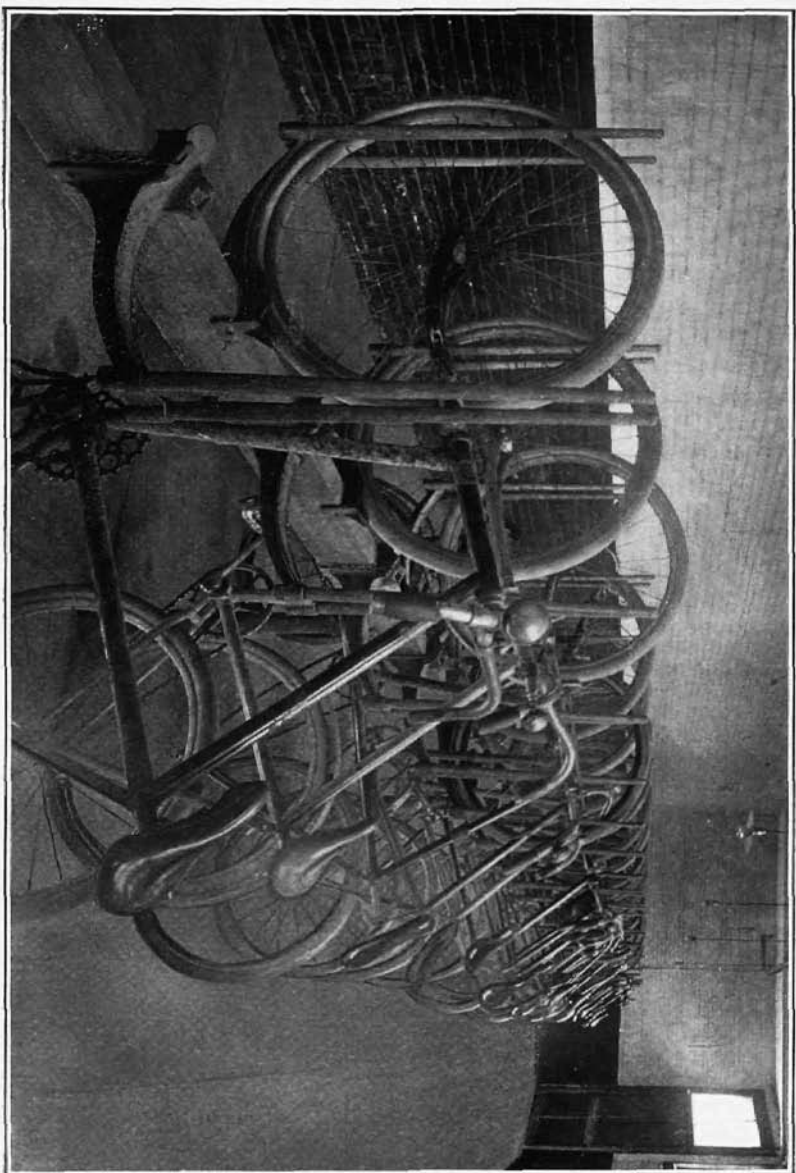
Outlying Departments.

Following the progression of manufacture we must now for a time leave the main shops, and visit those departments which are, owing to their nature, producers of dirt. These are situated in separate buildings east of the main shops and may be enumerated as follows: Cabinet making, forging, grinding, plating, japanning, automobile house, storage for dangerous oils, and, lastly, the gas and power plants. The building devoted to the storage of dangerous oils is separated from all other buildings, and is divided into four distinct fire-proof magazines.

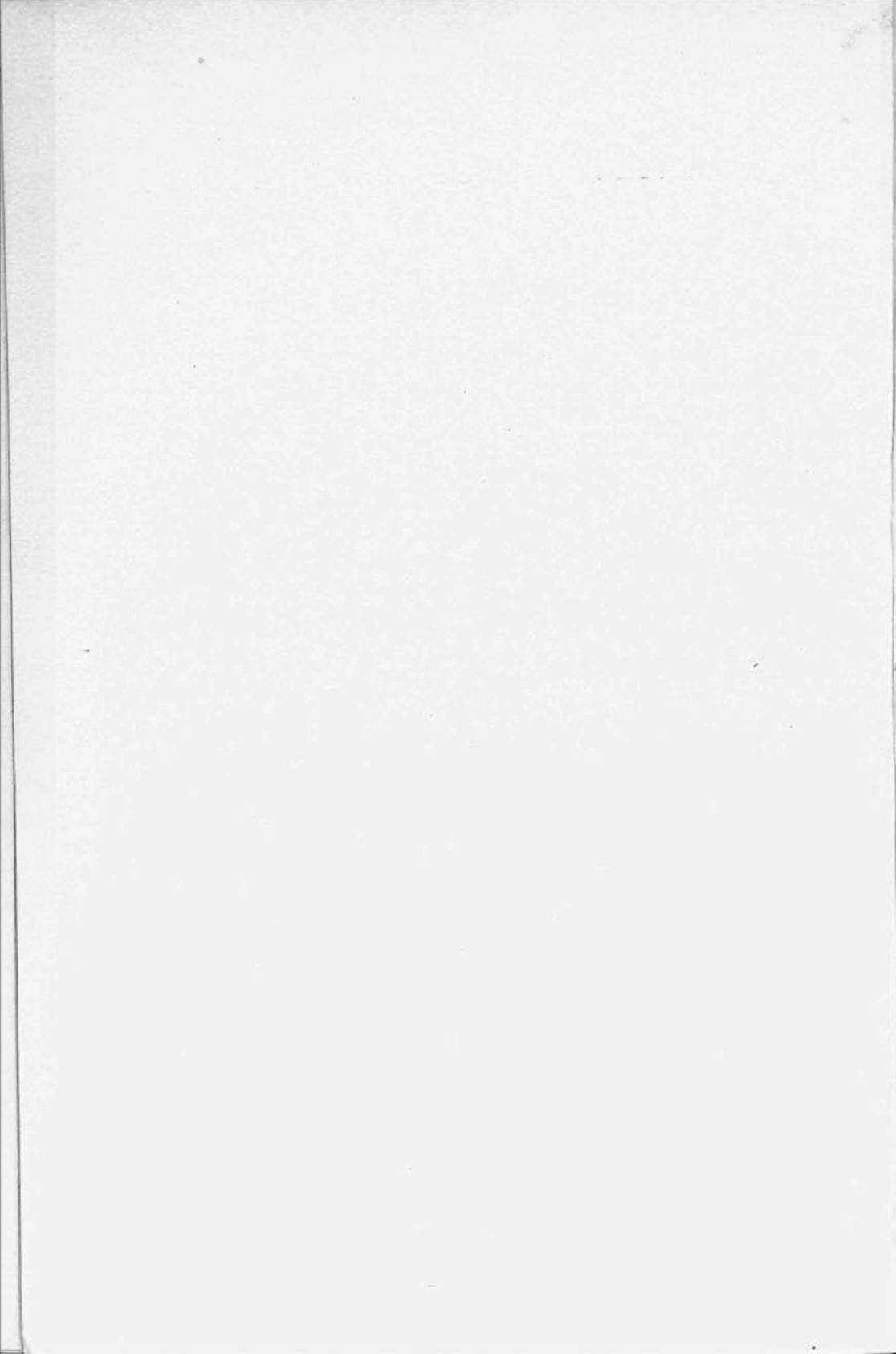
Power and Gas Plants.

The power plant is equipped with a duplicate battery of boilers, also a duplicate set of engines, generators, blowers, pumps, etc., so that if trouble arises no serious delay will follow—besides, this double outfit permits the generating apparatus to be kept in excellent condition.

The company runs its own gas plant with a capacity of 5,000 cubic feet an hour, and with reservoirs for the surplus. As another link in the chain of safety precautions for life and property, the gasoline tank is underground.



BICYCLE DEPOT. WESTON ELECTRICAL INSTRUMENT CO.



Making a Magnet.

In the forge shop a variety of work is done, but the most important and interesting is that of making the magnets which create the magnetic field for all direct current instruments. Cast iron, soft iron or soft steel will not retain magnetism for any considerable length of time, whereas properly hardened steel, employed under the conditions that obtain in the Weston instruments, will hold the power indefinitely. The finest obtainable magnet steel is bent into the various magnet forms which are placed on an automatically moving rack in a heating chamber, or retort, about twenty feet long, so laid that the magnet blanks are carried slowly over gas jets of uniformly intense temperature for a precise period of time, when they are delivered into cold water, which completes the hardening process.

The blanks are charged by being brought into contact with a large electro-magnet (a bar of soft iron wound with a conducting wire) which, being connected with a dynamo or with batteries, makes a magnet of the soft iron, that, in turn, imparts its magnetism to the hardened steel form, where the magnetic power is stored permanently.

Polishing.

As most of the Weston work is as delicate as that of a watch, polishing becomes a factor of prime importance. To this process three departments are devoted: (1) the grinding, where the rough surface is made smooth; (2) the polishing, where a high degree of smoothness is secured, and (3) the buffing, where the final polish is given by disks of walrus hide revolving with inconceivable rapidity against the surface to be treated. The grinding is done in one of the outlying buildings, the polishing in the basement of the main building, and the buffing on the first floor of the same.

In these operations dangerous to health, particularly the first, because of the grit and impalpable metal dust, employes are surrounded with every possible safeguard; powerful exhaust fans, constantly in operation, extract practically all

the noxious substances, and the highest degree of cleanliness is maintained.

Plating and Japanning.

After being polished the heavier pieces, such as the frames and cases, are either plated or japanned. Having discovered that no plating procurable could endure the chemical conditions to which electrical measuring instruments are frequently subjected by their peculiar surroundings, the Weston Company established its own plant, and here is done plating of all kinds—copper, brass, nickel, etc.

For the finishing of various parts the japanning process is employed—the lacquerlike method imported from that clever people in the farthest East. This is a fine and difficult operation, and, like the grinding, dangerous to health, but from a different cause—noxious fumes, instead of dust. In this occupation men frequently go insane, but not in the Weston works, where the studios are kept scrupulously clean at all times, the floors oiled, and every possible precaution observed—particularly in the baking-room, which is so constructed that not a whiff of fumes or gas escapes except by the tall chimney.

In about the same manner that varnish is applied, the lacquer is painted on the metal, and, as dust is the worst enemy of first-class work, it is, perhaps, needless to say that the coal handling and burning must be carried on in a room without connection with that in which the japan is applied. To be more precise, there are four divisions: (1) where the metal is painted, (2) the rubbing department, where the lacquer is brought to a mirror-like smoothness, (3) the baking-room, and (4) the furnaces.

After being lacquered and polished, the pieces are transferred to the ovens beneath which are clay crucibles, with grate bottoms to permit draught, filled with precisely the amount of fuel necessary to insure a perfect baking. These crucibles, resting on rollers which run on tracks, are lighted and shoved under the ovens—when they are burned out, a perfect baking has been accomplished.

Destructive explosions frequently occur in japanning establishments because they are so arranged that it is possible for the highly inflammable gases generated in the lacquering-room to come into contact with the burning gases from the ovens. In the Weston plant this cannot occur. Not only are the fires far removed from the workrooms, but there is no possible connection between them. The furnace gases are carried off by a tall chimney, and the workroom gases by an independent system.

In all these outlying departments, although the work is coarser than that of the main shop, the same rigid requirements are enforced with regard to the finished product. Many of the methods employed are the result of special investigation made by competent men who visited various plants throughout the country, but it will usually be found that these methods are considerably and advantageously elaborated.

To the main shops we must now retrace our steps. The general processes in the manufacture of the various parts are completed, although we have observed but a very few of them.

Inspection.

With work of the character described, it will readily be understood that a rigid system of inspection is imperative. In the first place all raw material, on arrival at the factory, is rigorously tested for electrical, magnetic and mechanical requirements, and is examined again on receipt by the department where the process of manufacture begins.

Every Employe an Inspector.

At the time he is engaged, every employe is made to understand by his foreman that he is expected to become an inspector of all work that passes through his hands—in other words, he is given the most positive instructions not to accept or pass any piece which does not come up to the standard of his gauges. If a discrepancy is found, it must be reported to the foreman, who will cause the imperfect

part to be cast aside. Before leaving the department the piece is carefully examined by the foreman, who passes it to the department of inspection, which receipts for, inspects and sends it along to the next department. After each operation throughout the entire process of manufacture, the part is made to conform to gauge. In this way the work goes through the various departments until it reaches the inspection department for the final examination of the finished part, which means that up to this point each piece has passed the inspection of possibly five or six foremen, two or three score of workmen, and has gone a number of times through the inspection department, which thus becomes an "inspection clearing-house."

Inspection Department.

Having survived all these examinations, the parts arrive for the last time at the inspection department, where each is subjected to the severest scrutiny and tests. Here the examination *must* be absolute, for the piece is now finished and goes hence to the stock department (a room on the main floor, with a protected vault in the basement), where it lies till called out by the assembling department to be combined with other parts into the completed instrument. The inspectors, about twenty in number, many of them women, are supplied with scales, rules, micrometers, magnifying glasses, gauges, methods of electrical testing, and every conceivable device applicable to this purpose, in order that any work which does not come up to the fullest requirements may be thrown out. The majority of the parts of the latest instruments are so small that they can be examined only by the microscope, and assembled only by machinery, the unassisted human eye and hand being too gross a tool.

This, however, is not the last inspection. If in the assembling of the instrument an imperfect piece is found, it is rejected; and the completed instrument is finally examined before being packed and shipped.

Electrical Inspection.

We have dealt almost entirely with the mechanical inspection, but the electrical examination is even more necessary and more severe. This is perfected in the adjustment and calibration laboratory to which the mechanically completed instruments are now delivered.

Adjustment and Calibration.

This vitally important department is equipped with the most perfect fundamental standards for electrical measurement, and also the most perfect methods for reproducing those standards. In fact, the most accurate means of establishing the standard volt is a product of the head of this establishment. We refer to the Weston cell. Heretofore a zinc cell, invented by Clark, has been utilized; but this possesses three fundamental objections: (1) it has an appreciable temperature error; (2) its chief electrode, zinc, is exceedingly difficult to obtain free from impurities, thus giving rise to local electrical action, and (3) the temperature error is uncertain, because the electro-motor force lags behind the changes in temperature. Through wide ranges of heat and cold the cadmium or Weston cell has no temperature error worth considering, and cadmium is easily purified in any quarter of the globe. These two all-important characteristics establish this as the most superior means we have for determining the value of the volt.

If, as is usually the case, it is desired to determine the value of the ohm by other means than by mathematical computation from the values of the Weston cell, and the silver voltameter—a method of measuring current by weighing the silver electrically deposited in a given time in a solution of known constituency, which is the most accurate if most time-consuming method of determining the ampere—the company has a large equipment of resistances certified by the Reichsanstalt (the German Government Bureau of Standards). That this bureau will certify no standards not made of Weston alloys, is a gratifying tribute

to the advanced state of the electrical and metallurgical arts in America. The company has also various certified resistances which it manufactures itself, and which are as accurate as the German standards. There is also the usual complement of bridges, galvanometers, etc., in which are included the best foreign and American products.

It might be mentioned that the reference-standard instruments, in comparison with which the various commercial instruments are checked up, are so delicate that, for example, a change of one part in seventy-five thousand of the electrical quantity to be measured is easily indicated.

In these laboratories, then, the instruments are adjusted and calibrated.

Adjustment.

Although, as has been seen, the most scrupulous care has been exercised in the manufacture of the instrument, it must not be forgotten that electricity is a force, a substance, a quantity so ethereal that it can be standardized or measured only by itself. Therefore variations in thickness of wire, components of alloy, quality of insulation, etc., so refined that men cannot determine them, are found in every instrument. It is said that no two human beings were ever created exactly alike—hence individuality; so, no two electrical measuring instruments are the same in every quality—each possesses its own individuality. All, however, must perform the same work, conform to the same standards—therefore each must be regulated by the master instruments. This is “adjustment.”

Calibration.

After the instrument has been adjusted, it must be calibrated: *i. e.*, the dial (to use an illustrative term), which here is an arc instead of a circle, must be adjusted to the instrument. With a watch or a clock this is unnecessary, for there we deal only with mechanical forces—the works are made, fitted into the case, the dial is set according to

rule, the movement is regulated, and the instrument is perfect.

Not so with an instrument for measuring electricity. Here the works are made as perfect mechanically as possible, then the movement (to again illustrate by an everyday term) is adjusted to the master instruments, the reference standards, and, finally, it is calibrated, *i. e.*, the dial is adjusted to the movement, no two dials being exactly the same. It is first discovered at what point on the dial the hand, or pointer, or finger of the instrument indicates a certain electrical force, and this becomes the basis for marking off on the dial, by an automatic dividing engine, the various measuring points, analogous to the time-measuring points on the face of a watch.

This is "calibration," and the instrument is now ready to begin active life.

If it may be permitted to once more refer to the wonderful delicacy of these instruments, it can be said that the movement for the power-house instrument, the heaviest made by the Weston Company, contains a moving coil, mounted to permit free revolution in the magnetic field, composed of an aluminum frame wound with four layers of wire insulated in silk, two pivot bases, two hardened steel pivots, two spiral springs, and one aluminum pointer, with cross-arm on which are mounted brass nuts for balancing purposes, the weight of the whole movement being $23\frac{1}{2}$ grains, less than one-twentieth of an ounce; while the galvanometer movement, containing all the above except the pointer, weighs but $2\frac{1}{2}$ grains, or $\frac{1}{10}$ of an ounce. It is the latter instrument that will show a change in electrical current down to one five-billionth of an ampere.

Packing and Shipping.

The instruments are now ready to be packed and shipped. The packing is done in the most careful manner, and the goods are shipped by express, it being deemed inadvisable to subject the instruments to the rough handling encountered in freight transportation.

Repair Department.

Although the goods are shipped, our tour is not quite ended. We must visit the repair department, where the "pedigree" of every instrument is kept—*i. e.*, where is recorded the date of its original completion, and to whom it was sold and when. If it comes back for repairs, the record is continued. Not infrequently is received an instrument that the company has been notified, years before, perhaps, as stolen. The records make it easy to find the rightful owner, and occasionally the thief is bagged.

This is an important department, for not only are these instruments often injured by unintelligent usage, but fires in Baltimore, or floods in Kansas, or violent thunder storms will send scores of them back to be fixed up. As every item entering into their manufacture is standardized and finished parts are always in stock, repairs are made in short order.

Offices.

Now we will go to the general offices, which are immediately opposite the gate-house, and contained in the first two "bays" of the main building. Furniture, fixtures and partitions are of steel or fireproofed ash. Here are located the following offices: President, secretary, auditor, purchasing agent, the accounting and general sales departments, large rooms for stenographers and draftsmen, and fireproof chambers for the books and archives.

Research Department.

To close our visit to the works of the Weston Electrical Instrument Company, we have reserved the most important, the most fundamental department of the organization—the department of research, of discovery, of invention, which includes four laboratories—electrical, chemical, metallurgical and mechanical. The finest talent procurable, and the best apparatus and appliances are employed. Here is engaged a staff of experts whose business is to inspect, examine,

study, dig into everything mechanical, metallurgical or chemical connected with electricity.

Consequently, here are born new ideas, new methods, new instruments. "Onward and upward!" is the Weston motto. Without this department of creation the Weston organization could not progress.

This completes the tour of the works of the Weston Company, which, it is hoped, has not been without interest to the reader, from the standpoint of sociological and mechanical science.

R. D. Wood Company. Works at Millville, Camden and
Florence, N. J.

Iron Founders, Producers of Cast-Iron Pipe, Gate Valves, Lamp
Posts, etc.

Employs 558 Males.

This firm takes the position that in dealing with employees the best results are to be obtained by indicating to them the lines that should be followed to advance their interests, rather than being itself an active and aggressive force in directing them to that much-desired end.

This course of action is based upon the firm conviction that the average American workman is fully able to take care of himself, having at his command wages which affords a margin above the bare means of existence as well as possessing by nature and training a very independent tone of mind.

The company has, therefore, simply aimed at surrounding their workmen with certain advantages of which they may avail themselves freely, if so disposed.

"First, and we believe, most important," to quote the company's own words, "we have aimed at keeping our works going steadily through good and bad times alike, so that for the desirable and serious men there should be as nearly continuous employment as possible.

"To go into more details, we have always maintained a store in the village in which our works are situated for the sale of goods to our operatives, leaving entirely to their option the question of purchasing goods there. Our store has never been really profitable, owing to the prices being placed on the lowest possible basis consistent with insuring merely that it shall pay the cost of running. We have, however, continued to run it, so that the cost of living in the village should not be influenced by those who might otherwise charge unfairly high prices for goods.

"We have aimed also to have a sufficient supply of houses, the property of the firm, the use of which is given to employees for a moderate sum per month, so that the average scale of rents throughout the town is not excessive.

"We keep in our office a deposit ledger, which affords our employes the same facilities as a savings bank. As the sums to their credit accumulate to comparatively large amounts, we desire and urge our workmen to withdraw their deposits and invest the money as may seem to them best.

"In addition to this general plan, we have furnished a hall for our men to use as they may wish for lodge purposes, etc., in which also a cooking school for the instruction of the wives and daughters of employes is conducted under competent management. Sewing lessons are given; the science of housekeeping is also taught, and the building is so maintained as to be available for the many uses which the convenience of the village population may require from time to time.

"As before said, our workmen are left absolutely free to use or not to use these facilities, as may seem to them best; there being not the slightest pressure placed upon them in favor of either course. We believe that any other course would tend to bring about strained and unnatural relations between people who must work together.

"As a rule, we find that they are more or less availed of. It might be better if the opportunities were more generally appreciated, yet we consider it unwise to force the advantages into undue prominence, feeling that to those who desire to use them, they will become apparent in a natural and unconstrained way."

The relations between this firm and its employes are perfectly cordial, and independent of the extent to which the latter avail themselves of facilities placed within their reach, there is abundant reason for believing that the kindly spirit displayed by the employers is fully appreciated and returned by their workmen.

Woodhouse Chain Works, Trenton, N. J.

**Manufacturers of Welded Chains.
Employs 70 Males.**

The employes of this firm have a sick and burial society, which has a membership of forty-one (41) persons, all of whom are employed in the works. The established dues are ten cents (\$0.10) per week, and the sick benefits, two dollars and fifty cents (\$2.50) for the first week of illness and five dollars (\$5.00) per week for a further period of five (5) weeks. No more than six (6) weeks' sick benefit is paid to any one person in six months.

The sum allowed for the burial of a dead member is fifty dollars (\$50.00), which amount is not taken from the funds of the society, but is raised by an assessment on the individual members.

The total amount disbursed since organization for the relief of sick and the burial of dead members is four hundred and seventy-one dollars and seventy cents (\$471.70). The firm does not contribute to the fund of the society; it has never been requested to do so, as, apparently there has been no emergency which required their assistance. It does, however, receive the dues as collected and attends to the custody and disbursal of all moneys.

The firm reports a high average of sobriety and steadiness at work among its employes, which may not unreasonably be credited to the influence which the benefit society has had over them.

The betterment work described in the foregoing pages shows what is being done in seventy-five separate establishments for the improvement of factory life. Many industries are included. The factories or workshops referred to in explaining the various features which the benefit movement has assumed, range in size from those employing a small army of operatives down to others in which a much smaller working force is engaged.

There are, doubtless, many establishments, not heard from, in which plans along the same general lines of effort for better conditions are being carried out, but their projectors or managers remained silent regarding them when called upon for information, either because of failure to comprehend the degree of interest which the general public takes in such work, or because of its importance to anyone other than the group of workmen directly benefited, not having been understood by themselves.

Enough has been shown, however, to prove that New Jersey employers and employes are not behind those occupying such relations to each other elsewhere, in the disposition to make intelligent use of the means at their command for the purpose of harmonizing the relations of capital and labor and placing factory life on a higher plane of comfort and security than it has heretofore enjoyed.

The aggregate number of operatives employed in these seventy-five establishments falls only a few short of twenty thousand; these are for the most part engaged in lines of industry requiring skill, and are, as a matter of course, men of the grade of intelligence who are best able to originate and carry out plans of a constructive character, by which, acting alone or in co-operation with their employers, betterment work, such as is described here, may be made most productive of good results for all.

The first of these is the fact that the United States is a young nation, and that its history is a history of growth and development. The second is the fact that the United States is a nation of immigrants, and that its history is a history of the struggle for a common identity. The third is the fact that the United States is a nation of diverse peoples, and that its history is a history of the struggle for equality and justice.

The fourth is the fact that the United States is a nation of ideas, and that its history is a history of the struggle for freedom and democracy. The fifth is the fact that the United States is a nation of action, and that its history is a history of the struggle for progress and improvement. The sixth is the fact that the United States is a nation of hope, and that its history is a history of the struggle for a better future.

The seventh is the fact that the United States is a nation of faith, and that its history is a history of the struggle for belief and conviction. The eighth is the fact that the United States is a nation of love, and that its history is a history of the struggle for compassion and understanding. The ninth is the fact that the United States is a nation of peace, and that its history is a history of the struggle for harmony and cooperation.

The tenth is the fact that the United States is a nation of unity, and that its history is a history of the struggle for solidarity and brotherhood. The eleventh is the fact that the United States is a nation of justice, and that its history is a history of the struggle for fairness and equity.

The twelfth is the fact that the United States is a nation of truth, and that its history is a history of the struggle for honesty and integrity. The thirteenth is the fact that the United States is a nation of courage, and that its history is a history of the struggle for bravery and valor.

The fourteenth is the fact that the United States is a nation of wisdom, and that its history is a history of the struggle for knowledge and understanding. The fifteenth is the fact that the United States is a nation of power, and that its history is a history of the struggle for strength and influence.

The sixteenth is the fact that the United States is a nation of glory, and that its history is a history of the struggle for honor and fame. The seventeenth is the fact that the United States is a nation of beauty, and that its history is a history of the struggle for art and culture.

The eighteenth is the fact that the United States is a nation of goodness, and that its history is a history of the struggle for virtue and morality. The nineteenth is the fact that the United States is a nation of happiness, and that its history is a history of the struggle for joy and contentment.

The twentieth is the fact that the United States is a nation of peace, and that its history is a history of the struggle for harmony and cooperation. The twenty-first is the fact that the United States is a nation of unity, and that its history is a history of the struggle for solidarity and brotherhood.

The twenty-second is the fact that the United States is a nation of justice, and that its history is a history of the struggle for fairness and equity. The twenty-third is the fact that the United States is a nation of truth, and that its history is a history of the struggle for honesty and integrity.

The twenty-fourth is the fact that the United States is a nation of courage, and that its history is a history of the struggle for bravery and valor. The twenty-fifth is the fact that the United States is a nation of wisdom, and that its history is a history of the struggle for knowledge and understanding.

PART IV.

Labor Chronology.

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PART IV

Labor Control

Industrial Chronology.

Occurrences Relating to and Affecting the Interests of Labor and Industry in New Jersey for the Twelve Months Ending September 30th, 1904.

This chapter contains a record of occurrences and happenings in the great field of industry during the year ending September 30th, 1904, which seem important enough to make it desirable that they should be brought together in this, the most appropriate form of publication for the purpose.

The items of which it is composed are arranged by months under county headings, and these are brought forward in a series of nine tables, each of which is devoted to a particular phase of the many subjects referred to in the chronology. In the text of the notes will be found a substantially accurate account of the establishment of new manufacturing plants, the extension and enlargement of others, the losses sustained by fires, the retirement of manufacturing corporations or firms from business, the temporary suspension of work by others, manufacturing plants that have been moved to New Jersey from elsewhere, and others that have left this State to settle outside its borders. Accounts are also given of strikes and other manifestations of disagreement between employers and employes, the organization of new trade and labor unions, changes in wage rates and working hours, with a record of workmen who were accidentally injured while at work, and the number of these accidents that terminated fatally.

Besides these items, the chronology contains a wide variety of other matter of an interesting kind relating to industrial topics, a knowledge of which is necessary to keeping informed on the rela-

tions of capital and labor and the growth of the manufacturing interests of the State.

The information contained in the chronology was obtained from the most reliable sources to which the bureau has had access, and every possible effort was made to verify the correctness of all statements or reports that have been included in it.

All matter contained in the chronology susceptible of being presented in tabular form will be found arranged alphabetically in the series of tables which precedes the text. As before stated, the uttermost possible care has been taken to insure the substantial correctness of the items included in this chapter, and it may be depended on that all are approximately correct. It may be in some instances that the minor details as given in the chronology vary somewhat from the actual facts; as, for instance, the reports of strikes may not be absolutely accurate in the number of persons involved, or there may be a trifling over or understatement of some of the losses resulting from fires. But if there are any slight deviations from literal correctness, it is safe to say that they are few in number, and the historic value of the items in which they occur is but slightly impaired thereby.

In the record of new corporations or companies organized in the State for manufacturing purposes, care has been taken to include only those whose purpose it is to carry on their manufacturing business in New Jersey.

In the table of accidents to workmen, the number that occurred in each industry and the number that resulted in death are given by aggregates. Full particulars relating to the character and extent of the injuries sustained in each case are given in the text relating to accidents.

The number of workmen who sustained accidental injuries during the year covered by the chronology was 224; of these, 24, or 11.1 per cent., were so severely injured that death resulted in a short time after the occurrence. While a great majority of the accidental injuries recorded in this table were more painful than dangerous, there were still many among them partly or wholly crippled for life or whose ability to work in the future was badly impaired. But, even where the injuries received were least severe,

the resultant loss of working time and wages before full recovery must have been very severely felt by many of these workingmen.

The various interesting features of the chronology which are presented in the tables are as follows: 1. New Manufacturing Industries Incorporated; 2. New Manufacturing Plants Erected and Old Ones Enlarged; 3. Manufacturing Plants That Have Come Into New Jersey from Elsewhere; 4. Closing Up or Suspension of Work in Manufacturing Plants; 5. Manufacturing Plants That Were Totally or Partially Destroyed by Fire; 6. Changes in Wages of Workmen, showing increases or decreases that have taken place; 7. Accidents to Workmen While on Duty; 8. Strikes and Lockouts; and 9. A List of Trade and Labor Unions Organized During the Year. Although these tables are self-explanatory, it may be well to briefly review the points of particular interest to be found in them, all relating to the year ending September 30th, 1904.

First, the number of corporations created for manufacturing purposes during the twelve months, and who have avowed the intention of establishing plants in New Jersey, is 521, and the aggregate capitalization is \$97,038,800.

Second, forty-five new buildings of various sizes were erected and equipped for manufacturing purposes, and 21 old plants were more or less enlarged or extended.

Third, twenty-one manufacturing establishments, none of them employing less than 50 persons, and many having hundreds on their pay-rolls, have been moved into New Jersey from elsewhere because of some advantages offered here which were not found in their former locations.

Fourth, nine manufacturing plants were permanently closed, and thirty-six others were shut down during considerable periods, but with the expectation of again resuming work.

Fifth, one hundred and eleven manufacturing plants suffered losses from fire, some being totally destroyed; the number of establishments reporting losses is 81, and the total amount so reported is \$2,247,080.

Sixth, twenty-seven manufacturing establishments report changes in weekly wages during the twelve months; ten of these were increases and seventeen decreases.

Seventh, as stated in another part of this review, 224 workmen were accidentally injured while at work, of which number 25 died shortly after as a result of the injuries received.

Eighth, there were 80 strikes, of greater or less duration, springing from all the well-known causes, principal among them being: against a reduction of wages; against the employment of non-union men; for recognition of the union, and because others of the same trades were on strike elsewhere. In only a comparatively few instances could the actual number of persons involved in these disturbances, or their duration and final results, be ascertained.

Ninth, and last, there were twelve new trade organizations started during the twelve months, which included persons engaged in printing, weaving, mason work, iron work, carpenters, carriage-builders, bakers and confectioners. The notes in the chronology relating to these unions show that most of them were men engaged in the various occupations who had, or fancied they had, some grievance that could not be redressed in any other way.

TABLE No. 1.

Incorporation of New Manufacturing Industries, from October 1st, 1903, to September 30th, 1904.

Kind of Business, or Goods to be Manufactured.	Place Where Incorporated.	Name of Company or Firm.	Authorized Capital Stock.
Air brakes,	Jersey City,	International Air Brake Company,	\$3,000,000
Air compressors, pneumatic tools and machinery of all kinds,	Boonton,	The Textorius Manufacturing Company,	500,000
Articles for painting portraits,	Jersey City,	O'Donnell Art Company,	100,000
Articles for navigation,	Trenton,	Marine Transmission Company,	100,000
Art objects,	Trenton,	Electrotype Art Metal Company,	100,000
Artificial ice apparatus,	Camden,	American Plate Ice Construction Company,	125,000
Artificial stone window frames,	Newark,	New Jersey Stone Casting Company,	125,000
Asphalt blocks,	Jersey City,	Kelly Asphalt Block Company,	200,000
Axle greases, etc.,	Jersey City,	World Axle Grease and Fluid Lubricator Company,	100,000
Baby carriages (patented),	Newark,	Yeskin Convertible Baby Carriage Company,	100,000
Baking,	Newark,	Goodrich Baking Company,	25,000
Baking,	Paterson,	Consumers Baking Company,	50,000
Baking,	Trenton,	The Italian Baking and Trading Company,	25,000
Ball bearings,	Camden,	The Hess-Bright Manufacturing Company,	250,000
Barber supplies,	Newark,	Odell & De Norte Company,	25,000
Bleaching and finishing,	Bridgeton,	Bridgeton Bleach and Finishing Company,	500,000
Blind adjusters,	Paterson,	Garside Manufacturing Company,	15,000
Blocks for building purposes,	Camden,	Concrete Hollow-Block Supply Company,	55,000
Block signals,	Jersey City,	Electrical Block Signal and Semaphore Company,	250,000
Boilers,	Newark,	Newark Boiler and Radiator Supply Company,	125,000
Boilers,	New Brunswick,	Prospect Boiler Company,	100,000
Boilers,	Ridgfield Park,	Riverside Boiler Works, .....	.....
Bolts,	Camden,	Flannery Bolt Company,	50,000
Book binding,	Trenton,	Barr Press Publishing Company,	10,000
Bottling,	Camden,	Columbia Bottling Company,	5,000
Bottle stoppers,	Jersey City,	Downes Fusible Plug and Stopper Company,	100,000
Bottles and glassware,	Millville,	Vineland Bottle and Glass Company, .....	.....
Boxes (paper),	Newark,	W. B. Paper Box Company,	10,000
Boxes, barrels, etc.,	Trenton,	American Packing Company,	125,000
Brakes for cars,	Newark,	Emergency Car Brake Company,	125,000
Brewing,	Newark,	National Brewing Company,	500,000
Brewing,	Newark,	Adams & Koch,	30,000

TABLE No. 1—(Continued).

Incorporation of New Manufacturing Industries, from October 1st, 1903, to September 30th, 1904.

Kind of Business, or Goods to be Manufactured.	Place Where Incorporated.	Name of Company or Firm.	Authorized Capital Stock.
Brewing,	Jersey City,	Virginia Brewing Association,	125,000
Bricks,	Jersey City,	Cheshire Brick Company,	50,000
Bricks,	Millville,	The Millville Brick Manufacturing Company,	100,000
Bricks,	New Brunswick,	South River Brick Company,	100,000
Bricks,	Kingsland,	Kingsland Brick Company,	60,000
Bricks,	Keyport,	Raritan Brick Company,	50,000
Bricks and sewer pipes,	Trenton,	Hartford Brick Company,	100,000
Bridge construction,	Jersey City,	National Bridge Works,	70,000
Bridge and dock construction,	Jersey City,	T. J. Wasser Company,	50,000
Brushes,	Newark,	Newark Brush Company,	125,000
Brushes,	Jersey City,	Antiseptic Shaving Brush Manufacturing Company,	50,000
Building construction,	Jersey City,	Oriental Building and Construction Company,	500,000
Building material,	Newton,	The L. S. Cliff Company,	75,000
Burglar and fire alarm,	Atlantic City,	General Safety Appliance Company,	50,000
Buttons,	Newark,	New England Button Company,	100,000
Buttons (pearl),	Newark,	Castle Button Company,	100,000
Calcide, lime, limestone, etc.,	Belvidere,	The Calcide Company,	6,000
Candy,	Trenton,	New York Candy Company,	150,000
Candy,	Asbury Park,	The Taffy Manufacturing Company,	100,000
Cans,	Newark,	Manufacturers Can Company,	15,000
Canned fruits, vegetables, etc.,	Trenton,	The Tullytown Canning Company,	100,000
Canned fruits, nuts, etc.,	Jersey City,	The Havana Canning Company,	10,000
Carbon paper,	Newark,	Buffalo Carbon Paper Company,	100,000
Carpets and rugs,	Jersey City,	Westbora Carpet Company,	90,000
Carbonic acid gas,	Jersey City,	Consumers Liquid Gas Company,	100,000
Carriages, coaches, etc.,	Elizabeth,	The D. B. Dunham & Sons Company,	10,000
Castings, etc.,	Camden,	Horace E. Frick Company,	100,000
Celluloid articles,	Newark,	Voight Metal Company,	100,000
Cement,	Newark,	Star Manufacturing Company,	100,000
Cement,	Newark,	Iola Portland Cement Company,	1,500,000
Cement,	Jersey City,	American Portland Cement Company,	300,000
Cement,	Clinton,	Farnam Cheshire Lime Company,	2,000,000
		The Ajax Portland Cement Company,	

Cement,	Lincoln,	The Diamond Portland Cement Company,	1,000,000
Cement,	Perth Amboy,	The Diamond Cement Company of Perth Amboy,	1,000,000
Chemicals,	Camden,	University Chemical Company,	50,000
Chemicals,	Camden,	The A. T. Sellers Pharmacy Company,	25,000
Chemicals,	Elizabeth,	Muratt Chemical Company,	10,000
Chemicals,	Jersey City,	Marlon Chemical Company,	10,000
Chemicals,	Jersey City,	The Bidt Chemical Company,	20,000
Chemicals,	Newark,	The Koch Chemical Company,	25,000
Chemicals,	Newark,	Marvin Chemical Company,	10,000
Chemicals,	Newark,	Egyptian Chemical Company,	50,000
Chemicals,	Paterson,	Vreeland Chemical Company,	100,000
Chemicals,	Belvidere,	Paper Makers Chemical Company,	125,000
Chemicals,	Lambertville,	United Chemical Company,	10,000
Chemicals,	Maywood,	Thorium Chemical Company,	100,000
Chemicals,	Woodglen,	Charm Chemical Company,	2,100
Chemicals, glass, etc.,	Jersey City,	The Electrical and Chemical Glass Company,	50,000
Chemical and pharmaceutical goods,	Newark,	The John B. Foster & Bro. Company,	75,000
Chemicals and alkalies,	Passaic,	Thomas Chemical Company,	150,000
Chemicals and drugs,	New Brunswick,	Milltown Manufacturing Company,	100,000
Chocolate,	Jersey City,	Huyler & Company,	250,000
Cigars,	Camden,	The Goodhart Cigar Company,	25,000
Cigars,	Camden,	A. Weinstein & Company,	15,000
Cigars,	Camden,	Aslan Rose Company,	500,000
Cigars,	Camden,	Vincent Purtuondo Cigar Manufacturing Company,	100,000
Cigars,	Camden,	Globe Cigar Company,	50,000
Cigars,	Paterson,	Oxford Cigar Company,	5,000
Cigars, etc.,	Newark,	Cuban Tobacco Company,	5,000
Clay products,	Jersey City,	Continental Clay Products Company,	100,000
Clay products,	Trenton,	The Clay Products Company,	50,000
Clay, paints and pottery,	Passaic,	The Stonbridge Clay, Paint and Pottery Company,	100,000
Clay, kaolin, etc.,	Atlantic City,	The United States Kaolin and Development Company,	100,000
Clothing, etc.,	Newark,	Fleiders Company,	50,000
Cloaks for ladies,	Camden,	William Price Company,	10,000
Chocolate, etc.,	Camden,	De Lite Manufacturing Company,	100,000
Coal and coke,	Jersey City,	New River Consolidated Coal and Coke Company,	125,000
Coke and gas,	Camden,	The Improved By-Product Coke Oven and Gas Company,	100,000
Cocoa,	Camden,	The Coconut Company,	30,000
Confectionery,	Vineland,	Louis Sayre & Son Company,	200,000
Confections,	Camden,	Glazer Confection Company,	100,000
Cooperage materials,	Jersey City,	Consolidated Stave and Lumber Company,	300,000
Cooperage materials and lumber,	Jersey City,	Chesterton Cooperage and Lumber Company,	2,000,000
Copper refining,	New Brunswick,	De Lamar Copper and Refining Company,	25,000
Cordials,	Camden,	Moyer Bros. Company,	20,000
Corks,	Newark,	The Newark Cork Works,	25,000
Cotton, velvets, etc.,	Camden,	The Loraine Company,	25,000
Cotton, vetvets and other fabrics,	Camden,	Bunada Company,	5,000
Cotton, wool, etc.,	Camden,	Textile Commission Company,	150,000
Dairy products,	Camden,	Peninsular Dairies Company,	150,000
Demijohns,	Jersey City,	Fibre Demijohn Company,	125,000
Dies (sinking and cutting),	Newark,	A. W. Snow & Company,	50,000
Door check and closet (patented),	Newark,	Elk Manufacturing Company,	20,000
Drugs,	Newark,	Buzby Drug Company,	25,000
Drugs,	Paterson,	Thibe Drug Company,	100,000
Drugs,	Bridgeton,	Bergen Drug Company,	

TABLE No. 1—(Continued).

Incorporation of New Manufacturing Industries, from October 1st, 1903, to September 30th, 1904.

Kind of Business, or Goods to be Manufactured.	Place Where Incorporated.	Name of Company or Firm.	Authorized Capital Stock.
Drugs and chemicals.....	Camden.....	Welsh Chemical Company.....	100,000
Drugs, chemicals, etc.....	Jersey City.....	Murna Medical Company.....	125,000
Drugs and chemicals.....	Newark.....	Humphrey Drug and Chemical Company.....	50,000
Drugs and chemicals.....	Newark.....	Poinsetta Pharmaceutical Company.....	10,000
Drugs and chemicals.....	Newark.....	Milton Manufacturing Company.....	100,000
Door holders.....	Camden.....	Ruppman Door Holder Company.....	50,000
Dye stuffs.....	Elizabeth.....	Dale Manufacturing Company.....	100,000
Dye stuffs.....	Paterson.....	Whyte Bros. Corporation.....	100,000
Dyeing (silk).....	Paterson.....	E. Geering Silk Dyeing Company.....	300,000
Electricity (lighting and heating).....	Newark.....	Miller Electric Company.....	100,000
Electrical.....	Elizabeth.....	Shedd Electric Company.....	250,000
Electrical transformers.....	Jersey City.....	Winn Conklin Electrical Company.....	3,000
Electrical instruments.....	Camden.....	The Pennsylvania Electrical Equipment Company.....	20,000
Electric motors and fans.....	Newark.....	Essex Electrical Company.....	200,000
Electric motors, supplies, etc.....	Bayonne.....	Electro Dynamo Company.....	50,000
Electrical supplies.....	Newark.....	Newark Electrical Contracting Manufacturing Company.....	125,000
Electrical machinery.....	Plainfield.....	The Hume Motor Company.....	25,000
Engines.....	Camden.....	Essington Rotary Steam Expansion Engine Company.....	300,000
Engines.....	Camden.....	Waldron Flexible Engine Company.....	100,000
Engines.....	Camden.....	American Rotary Engine Company.....	100,000
Engines (kerosene).....	Trenton.....	Kerosene Safety Engine Company.....	50,000
Engines (steam).....	Camden.....	Commercial Engineering Company.....	125,000
Engines, automobiles.....	Rahway.....	The Commercial Truck and Power Company.....	50,000
Engines (steam).....	Trenton.....	General Engine Company.....	350,000
Engines.....	Jersey City.....	Holt Engineering Company.....	2,500,000
Engineering.....	New Brunswick.....	The Francke Engineering Company.....	15,000
Engineering.....	Paterson.....	Watson Flog Engineering Company.....	125,000
Eye glasses, etc.....	Newark.....	The Standard Optical Company.....	10,000
Fabrics.....	Newark.....	Franklin Manufacturing Company.....	100,000
Fans and novelties.....	Newark.....	Bellows Fan Company.....	5,000
Filters.....	Camden.....	American Water Purifying Company.....	1,000,000
Filters.....	Newark.....	Simmons Keystone Water Filter Company.....	150,000
Fire department supplies.....	Camden.....	Wirt & Know Manufacturing Company.....	25,000

Fire extinguishers,	Newark,	U. S. Inspection Company,	100,000
Fire extinguishers,	Trenton,	The World Fire Killer Company,	50,000
Fire extinguishers,	Cape May,	The Stevens Improved Chemical Mixing Fire Extinguisher Co., ..	125,000
Fireworks,	Camden,	King Specialty Company,	150,000
Flour,	Jersey City,	Deubell Milling Company,	100,000
Foods (cereals),	Jersey City,	Prince Cereal Food Company,	3,000,000
Food products,	Jersey City,	Mickelson Company,	5,000,000
Foundry,	Newark,	Mucker Foundry Company,	250,000
Foundry,	Morristown,	German-American Foundry Company,	25,000
Fuel,	Jersey City,	The New Jersey Briquetting Company,	100,000
Fuel preparation,	Jersey City,	The Sanitation Fuel Company,	1,000,000
Fuel-saving devices,	Jersey City,	The Home Fuel Saving Company,	200,000
Furnaces, etc.,	Newark,	White Merlin Furnace Company, .....	.....
Furnaces,	Camden,	American Corrugated Furnace Company,	350,000
Furnaces and blasts,	Newark,	Caloric King Furnace Company,	500,000
Funeral supplies,	Camden,	David H. Schuyler & Sons Funeral Supply Company,	50,000
Fruit jars,	Salem,	The National Fruit Jar Company,	100,000
Fruit and vegetable canning,	Millville,	Arthur D. Ayers Canning Company,	50,000
Gas,	Camden,	The East Coast Gas Company,	5,000
Gas,	Medford,	The Medford Gas Company,	25,000
Gas burners and incandescent mantles,	Trenton,	Weiderhold Light Company,	50,000
Gas and electric light fixtures,	Newark,	Block & Boyd Manufacturing Company,	2,000
Gas fixtures,	Camden,	The Baxter Lighting Company,	25,000
Gas fixtures,	Newark,	Jaelling Gas Fixture Company,	50,000
Gas engines,	Elizabeth,	Valentine Gas Engine Company,	150,000
Gas lighting devices,	Jersey City,	De Arsi Gas Lighting Company,	1,000,000
Gas ranges,	Newark,	Stewart Gas Range Company,	50,000
Garments,	Jersey City,	Diamond Garment Cutting Company,	50,000
Garments,	Vineland,	Henry A. Dix & Son Company, .....	.....
General manufacturing,	Jersey City,	Anderson Manufacturing Company,	25,000
General manufacturing,	Jersey City,	Kohner & Company,	150,000
Glass,	Jersey City,	Newark and Bylesville Glass Company,	1,000,000
Glass,	Trenton,	The Standard Lamp and Glass Company,	150,000
Glass bottles,	Jersey City,	International Glass and Bottle Company,	250,000
Glass (cut),	Atlantic City,	Hammond Cut Glass Company,	10,000
Glass (cut),	Hammoncton,	The New Jersey Cut Glass Company,	10,000
Glassware,	Trenton,	Manufacturers Window Glass Company,	1,000,000
Gloves,	Camden,	The J. F. Murphy Company,	100,000
Glue,	Camden,	The Veneer Company,	100,000
Glue,	Jersey City,	Standard Manufacturing Company,	100,000
Grates and grate bars,	Newark,	Macknet Grate Bar Company,	100,000
Hair,	Trenton,	American Interlaced Curled Hair Company,	250,000
Hair curlers,	Jersey City,	Magic Curler Company,	500,000
Hair lotions,	Jersey City,	Vitalized Hair Tonic Company,	100,000
Hardware,	Newark,	Heinze Manufacturing Company,	50,000
Hardware,	Paterson,	Forsythe Hardware Company,	7,000
Hardware,	Trenton,	Trenton Hardware Manufacturing Company,	50,000
Hats,	Newark,	Woodbine Hat Company,	50,000
Hats,	Newark,	Frederick Cummings' Sons Company,	180,000
Hats (straw),	Newark,	Squire-Aldrich Company,	2,000
Hats and caps,	Newark,	Southern Hat Works,	12,000
Heaters (illuminating),	Jersey City,	Sun Heater Company,	100,000
Heating and puddling furnaces,	Rockaway,	Rockaway Rolling Mill,	100,000
Hides, leather and leather goods,	Paterson,	Solar Patent Leather Company,	25,000

TABLE No. 1—(Continued).

Incorporation of New Manufacturing Industries, from October 1st, 1903, to September 30th, 1904.

Kind of Business, or Goods to be Manufactured.	Place Where Incorporated.	Name of Company or Firm.	Authorized Capital Stock.
Horse collars,	Jersey City,	New York Pneumatic Horse Collar Company,	\$200,000
Horse shoes,	Trenton,	The Ball-Bearing Horseshoe Company,	50,000
Horse shoeing,	Newark,	Farrier Horse Shoeing Company,	10,000
Hosiery,	New Brunswick,	The New Brunswick Knitting Company,	10,000
Hosiery,	Salem,	Salem Knitting Mills Company,	100,000
Household articles,	Newark,	The Lady Ware Company,	25,000
Household commodities,	Jersey City,	Harris Bros. Company,	100,000
Ice,	Atlantic City,	Mercer Coal and Ice Company,	20,000
Ice,	Camden,	Glenmore Ice and Coal Company,	150,000
Ice,	Camden,	Hamilton Village Ice Manufacturing Company,	100,000
Ice machines,	Camden,	Plate Ice Making Machine Company,	500,000
Insulators,	Bridgeton,	Elmer Glass Works,	100,000
Iron,	Camden,	L. J. Bordo Company,	100,000
Iron,	Jersey City,	Gibson Iron Works Company,	20,000
Iron,	Jersey City,	Hoboken Iron Works Company,	5,000
Iron,	Newark,	Newark Malleable Iron Company,	125,000
Iron,	Newark,	Eureka Iron Company,	50,000
Iron and celluloid hair ornaments,	Newark,	Star Manufacturing Company,	100,000
Iron and steel,	Camden,	Anthracite Machine Works,	50,000
Iron products,	Camden,	East Side Iron Works,	125,000
Iron, steel, etc.,	Jersey City,	Hudson Iron Company,	1,500,000
Iron and steel castings,	Newark,	Morrison Foundry Company,	100,000
Jars for preserving,	Kinkora,	Yearly Self-Sealing Jar Company,	75,000
Jewelry,	Newark,	Unger Brothers,	600,000
Jewelry,	Newark,	David C. Dodd & Company,	40,000
Jewelry,	Newark,	The Schroeder-Willstein Manufacturing Company,	25,000
Kites,	Camden,	The Leom Rudolph Company,	50,000
Knitting and spinning,	Faterson,	The American Eagle Kite Company,	20,000
Lace,	Camden,	The Consolidated Knitting and Spinning Company,	100,000
Lace,	Camden,	Diamond Tip Lace Company,	50,000
Lace curtains,	Camden,	J. F. Murphy Company,	100,000
Lamps, burners, etc.,	Jersey City,	Nottingham Lace Curtain Works,	500
	Trenton,	The Smith Incandescent Light Company,	

Lamps (incandescent),	Newark,	The Westbury Lamp Company,	100,000
Laundry,	Trenton,	Union Laundry Company,	10,000
Laundry,	Atlantic City,	White Star Laundry Company,	15,000
Laundry machines,	Camden,	National Laundry Machine Company,	25,000
Leather,	Camden,	Price Leather Company,	100,000
Leather,	Newark,	Capital Leather Manufacturing Company,	125,000
Leather,	Newark,	Rex Imperial Leather Company,	75,000
Leather,	Trenton,	Tabor Leather Company,	10,000
Leather belting,	Camden,	Elerie Tanning Company,	10,000
Leather goods, etc.,	Newark,	Foster Leather Belting Company,	50,000
Life belts,	Jersey City,	Duessing Manufacturing Company,	125,000
Lime,	Jersey City,	American Life Belt Company,	100,000
Locks and keys,	Jersey City,	Farnham Cheshire Lime Company,	350,000
Lumber,	Camden,	Bung Lock Company,	100,000
Machines,	Newark,	Righter-Parry Lumber Company,	100,000
Machines,	Newark,	Standard Machine Company,	40,000
Machines,	Newark,	Rowal Machine Company,	40,000
Machines,	Newark,	Robinson Machine Company,	50,000
Machines,	Jersey City,	Illustraphone Machine Company,	10,000
Machines,	Paterson,	Union Vending Machine Company,	12,000
Machines,	Rutherford,	International Wave Motor Company,	50,000
Machines (adding),	Camden,	Arithmograph Company,	100,000
Machines (voting),	Newark,	American Automatic Machine Company,	500,000
Machines (sewing),	Newark,	Arnold Sewing Machine Company,	200,000
Machines (gas),	Newark,	Intro-Gas Machine Company,	1,000,000
Machines (pasting),	Jersey City,	Universal Pasting Machine Company,	30,000
Machines (carbonating liquids),	Newark,	Fox Drastic Carbonating Company,	300,000
Machinery,	Camden,	The Standard Scale and Supply Company,	600,000
Machinery,	Camden,	Pennsylvania Iron Works,	200,000
Machinery,	Newark,	Newark Special Machine Company,	25,000
Machinery,	Newark,	Karmit Manufacturing Company,	500,000
Machinery,	Newark,	Robinson Machine Company,	50,000
Machinery,	New Brunswick,	Amboy Machine Company,	30,000
Machinery,	Paterson,	J. I. Terhime Machine Works,	50,000
Machinery (electric),	Jersey City,	Portable Electric Safety Light Company,	250,000
Machinery (marine),	Perth Amboy,	Greacen-Derby Engineering Company,	5,000
Machinery and tools,	Camden,	Eastern Foundry and Machine Company,	200,000
Manufacturing (general),	Newark,	Oxano Manufacturing Company,	50,000
Manufacturing (general),	Newark,	Charles Casper Engineering Company,	500,000
Manufacturing (general),	Jersey City,	M. S. Freida Company,	300,000
Manufacturing (general),	Jersey City,	The Crescent Company,	10,000
Manufacturing (general),	Trenton,	Economy Premium Payment Company,	200,000
Marble,	Newark,	Newark Marble Company,	50,000
Matches,	Jersey City,	Dixie Match Company,	250,000
Materials for coloring,	Camden,	Crandell-McKenzie Company,	25,000
Medical preparations,	Jersey City,	Phoenix Oil Company,	200,000
Medical preparations,	Jersey City,	Cushing Medical Supply Company,	300,000
Medical compounds and preparations,	Jersey City,	Sogni Salve Company,	125,000
Mechanical musical instruments,	Jersey City,	Harpophone Manufacturing Company,	100,000
Medical preparations,	Jersey City,	Hermo Medicine Company,	250,000
Metals,	Jersey City,	American Metal Company,	5,000
Metals (refining),	Paterson,	Shawangunk Lead and Zinc Company,	100,000
Metallic patent cases,	Camden,	Pennsylvania Metallic Packing Company,	30,000
Metal alloys and mining,	Jersey City,	United States Alloy Company,	100,000

TABLE No. 1—(Continued).

Incorporation of New Manufacturing Industries, from October 1st, 1903, to September 30th, 1904.

Kind of Business, or Goods to be Manufactured.	Place Where Incorporated.	Name of Company or Firm.	Authorized Capital Stock.
Merchandise (general),	Newark,	The G. Koehler & Company,	\$10,000
Milk powders,	Jersey City,	Sterilized Milk Export Company,	10,000
Milk (condensed),	New Brunswick,	The New Brunswick Hygiene Milk Company,	20,000
Milling,	Trenton,	The D. B. & S. A. Milling Company,	50,000
Mill supplies,	Camden,	Wyand Steam Turbine Manufacturing Company,	125,000
Mining,	Newark,	American Mineral Wax Mining Company,	10,000
Mining,	Newark,	Richardson & Mott Company,	50,000
Mining,	Newark,	Newark Mining Company,	25,000
Mining,	Jersey City,	Richland Mining Company,	100,000
Mining,	Jersey City,	Trenton Mining and Development Company,	1,000,000
Mining,	Jersey City,	Mercedes Mining Company,	60,000
Mining,	Jersey City,	Tungstein Mining and Milling Company,	100,000
Mining,	Glen Ridge,	Unmo Land and Mining Company,	10,000
Mining,	Newton,	Sussex County Mining Company,	125,000
Mining and quarrying,	Camden,	The Standard Crushed Stone Company,	50,000
Mining and quarrying,	Jersey City,	The Mines Development Company,	8,000,000
Mining and refining,	Jersey City,	International Separator Company,	500,000
Mining and milling,	Jersey City,	Federated Mines and Milling Company,	400,000
Mining and smelting,	Newark,	The Metals Reduction and Recovery Company,	500,000
Mining (steel and iron),	Jersey City,	Guanajuato Company,	1,250,000
Mining (clay),	Trenton,	Consolidated Folders Company,	125,000
Motors (electric),	Jersey City,	Wetherbee Igniter Company,	50,000
Motors, dynamos, etc.,	Jersey City,	The Auto-Coil Company,	100,000
Motors, engines, etc.,	Jersey City,	Union Motor Company,	100,000
Motors, dynamos, etc.,	Jersey City,	Burke Electric Company,	150,000
Nets and twines,	Paterson,	W. & J. Knox Net and Twine Company,	300,000
Novelties,	Elizabeth,	Gilchrist Specialty Company,	25,000
Novelties,	Camden,	The H. Ruderman Company,	12,500
Novelties,	Jersey City,	Wallman Manufacturing Company,	100,000
Novelties,	Jersey City,	Frank & Hedden Company,	25,000
Novelties,	Newark,	B. J. Riley Manufacturing Company,	25,000
Novelties,	Paterson,	National Ice Cartridge and Novelty Company,	50,000
Novelties,	Paterson,	Universal Ice Cartridge Company,	50,000

Novelties,	Ridgewood,	Ridgewood Commercial Company,	25,000
Novelties (art),	Newark,	Art Novelty Manufacturing Company,	25,000
Oils,	Newark,	The Narcisca Oil Company,	250,000
Oilcloth,	Salem,	The American Oil Cloth Company,	200,000
Oilcloth,	Yardville,	United Oilcloth Company,	100,000
Opera chairs,	Jersey City,	Automatic Opera Chair Company,	150,000
Ovens,	Newark,	The Bernz Oven Company,	10,000
Packing for journal boxes,	Jersey City,	Devlin Packing Company,	35,000
Paints,	Camden,	Chemical Coverall Company,	50,000
Paints,	Elizabeth,	Townsend Asphalt Paint Company,	250,000
Paints,	Newark,	Fire-Resisting Paint Company,	50,000
Paints,	Newark,	The Petriford Company,	100,000
Paints, etc.,	Newark,	George Meter Company,	100,000
Paints, oil and varnish,	Newark,	Newark Varnish Works,	100,000
Paints,	Raritan,	Raritan Paint Company,	10,000
Paper,	Camden,	The Ferry-Hallock Company,	100,000
Paper,	Camden,	Wagner, Wagner & Company,	150,000
Paper,	Jersey City,	American Paper Company,	250,000
Paper,	Newark,	Newark Paraffine and Parchment Paper Company,	10,000
Paper,	Newark,	W. L. Sargeant Company,	30,000
Paper,	Trenton,	Consumers Boxboard and Paper Company,	150,000
Paper boards,	Bogota,	The American Paper Company,	250,000
Paper boards,	Whippany,	The McEwan Bros. Company,	100,000
Paper and stencils,	Jersey City,	Knickerbocker Paper Company,	100,000
Packing from cotton and woolen waste,	Newark,	Japhair Packing and Manufacturing Company,	100,000
Pencils,	Jersey City,	Pencil Exchange,	500,000
Pianos,	Newark,	Mergott Piano Company,	15,000
Pianos,	Paterson,	Jordon Piano Company,	30,000
Picture frames,	Paterson,	Barbour & King Company,	10,000
Plumbers' materials,	Camden,	Kohne Bros. Company,	15,000
Plumbers' materials,	Camden,	Southern Supply Company,	50,000
Photophones,	Camden,	National Photophone Company,	100,000
Pneumatic tools,	Jersey City,	Cloud-Marple Pneumatic Tool Company,	100,000
Polish,	Trenton,	The J. H. Williams Manufacturing Company,	50,000
Porcelain,	Trenton,	E. D. Freeman Electric Porcelain Company,	25,000
Pottery,	Trenton,	Potteries Selling Company,	1,000,000
Powder,	Jersey City,	Bronze Powder Works Company,	50,000
Powder,	Jersey City,	Excelsior Powder Manufacturing Company,	100,000
Pressed metal wheels, pulleys, etc.,	Hoboken,	Pressed Metal Manufacturing Company,	150,000
Preserves (fruit and vegetables),	Tuckahoe,	The John E. Diamond Company,	100,000
Printing presses, etc.,	Camden,	Fullard Machine and Press Company,	100,000
Printing presses,	Woodbury,	New Jersey Printing Press Company,	50,000
Printing presses,	Jersey City,	Falcon Printing Press Manufacturing Company,	1,600,000
Printing,	Jersey City,	The United States Printing Company,	3,000
Printing and dyeing textiles,	Paterson,	Hamilton Printing and Dyeing Company,	50,000
Provisions,	Jersey City,	Vettermann Provision and Packing Company,	15,000
Railroad cars,	Jersey City,	Pittsburg Coal Car Company,	100,000
Railroad cars and car covers,	Jersey City,	The Hetfield Car Cover Company,	100,000
Railroad switches, signals and train-controlling appliances,	Jersey City,	Gaynor Train Control Company,	600,000
Railway signals,	Camden,	The Western Railway Signal Company,	60,000
Receptacles for holding liquid, powders and gas,	Jersey City,	Phoenix Liquid Containing Company,	100,000
Registers,	Newark,	Universal Register Company,	10,000

TABLE No. 1—(Continued).

Incorporation of New Manufacturing Industries, from October 1st, 1903, to September 30th, 1904.

Kind of Business, or Goods to be Manufactured.	Place Where Incorporated.	Name of Company or Firm.	Authorized Capital Stock.
Rowboats, yachts, sailing boats, etc.....	Jersey City,	Huntington Manufacturing Company,	\$30,000
Rubber,	Jersey City,	Old Colony Rubber Company,	125,000
Rubber,	Newark,	Combination Rubber Company,	150,000
Rubber,	Trenton,	The General Rubber Company,	2,000,000
Rubber goods, etc.,	New Brunswick,	Elliott Manufacturing Company,	125,000
Rubber hoof pads,	Camden,	Davis Rubber Company,	20,000
Saddles,	Newark,	American Saddle Company,	50,000
Sand and clay,	Jersey City,	J. C. Appleby Sand and Clay Company,	100,000
Sanitary supplies,	Salem,	The Naturo Company,	100,000
Salt,	Jersey City,	Crystalline Salt Company,	20,000
Sash and doors,	Newark,	Empire Sash and Door Company,	25,000
Saw mill and lumber,	Camden,	Larchmont Lumber and Mining Company,	15,000
Saw and planing mill,	Newark,	West Newark Saw and Planing Mill Company,	10,000
Scales,	Jersey City,	Pittsburg Scale Company,	100,000
Sewer pipes,	Paterson,	Joseph Sharpe Construction Company,	30,000
Shade rollers,	Paterson,	United States Combination Bracket and Lock Company,	25,000
Shirts, collars, etc.,	Newark,	Clinton H. Smith Company,	20,000
Shirt waists,	Newark,	The King Waist Company,	100,000
Ships, boats, vessels, etc.,	Bridgeport,	Farmers and Merchants Transportation Company,	25,000
Shuttles,	Jersey City,	The New Bedford Shuttle Company,	500,000
Shoes,	Newark,	Thomas Cort, Incorporated,	61,000
Shoes,	Camden,	The Style Comfort Home and Shoe Company,	300,000
Signals (electric),	Newark,	Automatic Electric Signal Company,	200,000
Signs,	Trenton,	Trenton Sign and Decorating Company,	50,000
Silk,	Jersey City,	Perfect Silk Finishing Company,	10,000
Silk,	Paterson,	Art Fibre Company,	90,000
Silk,	Paterson,	Barbour & King Company,	10,000
Silk,	Paterson,	Ætna Silk Company,	100,000
Silk,	Hackettstown,	The Ashley Silk Company,	50,000
Silk,	Little Falls,	The Killian Silk Company,	100,000
Silk,	Midland Park,	Midland Park Silk Company,	100,000
Silk goods,	Paterson,	Harrow-Ryder Manufacturing Company,	25,000
Silk goods,	Paterson,	Buckley-Cartwright Company,	25,000

Silk ribbons,	Paterson,	Upland Silk Company,	50,000
Silk mill supplies,	Paterson,	The Johnson & Van Vlaanderen Company,	10,000
Silk and woolen goods,	Paterson,	Paterson Silk Manufacturing Company,	10,000
Silk and woolen goods,	Paterson,	Hurley-Holbach Silk Company,	25,000
Silk, woolen, etc.,	Paterson,	Aronson Bloom Company,	50,000
Silk, woolen, etc.,	Paterson,	Sutton & Potts Company,	25,000
Silk, woolen, etc.,	Paterson,	Joseph Plenty Skylight Works Company,	100,000
Silk, woolen, etc.,	Paterson,	New York Standard Slate Company,	300,000
Silk, woolen, etc.,	Paterson,	John Baird Company,	50,000
Silk, woolen, etc.,	Paterson,	Theophilus M. Marc & Company,	100,000
Silk, woolen, etc.,	Paterson,	Bridgeport Athletic Manufacturing Company,	500,000
Silk, woolen, etc.,	Paterson,	The Ferry Patent Stay and Ring Company,	100,000
Silk, woolen, etc.,	Paterson,	Monarch Engraving Company,	5,000
Silk, woolen, etc.,	Paterson,	William H. Snyder Company,	50,000
Silk, woolen, etc.,	Paterson,	Bryant Steel Wheel Company,	200,000
Silk, woolen, etc.,	Paterson,	Universal Boring Company,	30,000
Silk, woolen, etc.,	Paterson,	The Metropolitan Sash and Blind Company,	30,000
Silk, woolen, etc.,	Paterson,	The Metropolitan Sash and Blind Company,	5,000,000
Silk, woolen, etc.,	Paterson,	National Switchboard Company,	10,000
Silk, woolen, etc.,	Paterson,	Handline Manufacturing Company,	100,000
Silk, woolen, etc.,	Paterson,	Hopewell Bobbin and Spool Company,	5,000
Silk, woolen, etc.,	Paterson,	Kinniskil Spring Company,	100,000
Silk, woolen, etc.,	Paterson,	Liggett Speaking Figure Company,	100,000
Silk, woolen, etc.,	Paterson,	Ideal Steel Company,	50,000
Silk, woolen, etc.,	Paterson,	Alftech Concrete Steel Tire Company,	100,000
Silk, woolen, etc.,	Paterson,	Smith American Metal Company,	100,000
Silk, woolen, etc.,	Paterson,	Sheridan Smelting Company,	750,000
Silk, woolen, etc.,	Paterson,	Flag Store Company,	20,000
Silk, woolen, etc.,	Paterson,	New Jersey Sanitary Street Sweeper Company,	125,000
Silk, woolen, etc.,	Paterson,	The Sansom Stone Company,	25,000
Silk, woolen, etc.,	Paterson,	Raritan Blue Stone Company,	20,000
Silk, woolen, etc.,	Paterson,	The Army and Navy Equipment Company,	10,000
Silk, woolen, etc.,	Paterson,	Garfield Chrome Tanning Company,	10,000
Silk, woolen, etc.,	Paterson,	Whitely & Conifer Company,	100,000
Silk, woolen, etc.,	Paterson,	The National Paper Company,	50,000
Silk, woolen, etc.,	Paterson,	The New York Telephone Company,	50,000
Silk, woolen, etc.,	Paterson,	The Pope Transmitter Company,	100,000
Silk, woolen, etc.,	Paterson,	Hopewell Manufacturing Company,	1,000,000
Silk, woolen, etc.,	Paterson,	Underhill Telegraph Translator Company,	100,000
Silk, woolen, etc.,	Paterson,	The Clifton Mills Company,	100,000
Silk, woolen, etc.,	Paterson,	Whitman Textile Company,	100,000
Silk, woolen, etc.,	Paterson,	Standard Temperature Regulation Company,	100,000
Silk, woolen, etc.,	Paterson,	National Canning and Manufacturing Company,	125,000
Silk, woolen, etc.,	Paterson,	The Meyers Manufacturing Company,	1,200
Silk, woolen, etc.,	Paterson,	Martin Zimmerman Tile Company,	10,000
Silk, woolen, etc.,	Paterson,	Black Horse Tobacco Company,	50,000
Silk, woolen, etc.,	Paterson,	Industrial Company of Porto Rico,	100,000
Silk, woolen, etc.,	Paterson,	The Queen City Tobacco Company,	50,000
Silk, woolen, etc.,	Paterson,	New Jersey Tobacco Company,	300,000
Silk, woolen, etc.,	Paterson,	United States Asbestos Company,	50,000
Silk, woolen, etc.,	Paterson,	National Sanitary Company,	100,000
Silk, woolen, etc.,	Paterson,	Turner Sanitary Appliance Company,	50,000
Silk, woolen, etc.,	Paterson,	Newark Puncture-Proof Tire Company,	25,000
Silk, woolen, etc.,	Paterson,	Royal Typewriter Company,	1,500,000

TABLE No. 1—(Continued).

Incorporation of New Manufacturing Industries, from October 1st, 1903, to September 30th, 1904.

Kind of Business, or Goods to be Manufactured.	Place Where Incorporated.	Name of Company or Firm.	Authorized Capital Stock.
Typewriters,	Newark,	Sim Typewriter Company,	\$125,000
Umbrellas,	Camden,	National Umbrella Company,	100,000
Umbrellas,	Newark,	Unique Umbrella Company,	50,000
Underwear,	Beverly,	Beverly Underwear Company,	100,000
Underwear,	Rutherford,	Rutherford Manufacturing Company,	100,000
Varnish,	Newark,	Imperial Varnish Works,	50,000
Vending and selling machines,	Jersey City,	Cascade Vending Company,	125,000
Wagons,	Newark,	The Lansden Company,	30,000
Waists, etc.,	Newark,	Charles R. De Bevoise Company,	10,000
Wall paper,	New Brunswick,	Janeway & Company,	600,000
Wall paper,	Trenton,	Leech Wall Paper Company,	100,000
Wall paper,	Bogota,	American Wall Paper Company,	250,000
Wares (gold and silver),	Newark,	Link & Angell,	200,000
Wares (miscellaneous),	Camden,	Hendrickson-Andrews Company,	125,000
Water filters,	Newark,	The Boston Water Purifier Company,	250,000
Watch cases,	Newark,	Mystic Watch Case Company,	10,000
Wearing apparel,	Jersey City,	Alliance Manufacturing Company,	12,500
Wearing apparel,	Bayonne,	Mrs. C. Atsma Corporation,	4,000
Wire, etc.,	Newark,	Igoe Brothers,	65,000
Wire, etc.,	Camden,	Phoenix Steel and Wire Company,	35,000
Wire mattresses,	Newark,	Newark Wire Mattress Company,	12,000
Window shades,	Jersey City,	Singer Window Shade Manufacturing Company,	15,000
Window screens,	Camden,	American Window Screen Company,	125,000
Wood heels,	Dover,	The Dover Wood Heel Company,	25,000
Wood products,	Newton,	G. A. Williams Company,	50,000
Woodwork,	Newark,	Empire Sash and Door Company,	25,000
Wool,	Camden,	The A. Sydney Rambo Company,	50,000
Woolen goods,	Camden,	Glenn-Riddle Manufacturing Company,	10,000
Wrenches, tools and machinery,	Trenton,	Fischer Wrench Company,	100,000
Yachts and engines,	Camden,	Excelsior Yacht, Launch and Engine Company,	100,000
Yarns and textile fabrics,	Passaic,	Postmann & Huffman Company,	750,000

TABLE No. 2.

New Manufacturing Plants Erected, and Old Ones Enlarged, from October 1st, 1903, to September 30th, 1904.

Kind of Business.	Location of Factory.	Improvements.		Name of Company or Firm.
		New Buildings Erected.	Old Buildings Enlarged.	
Asphalt,	Jersey City,	New,	Old,	Empire Asphalt Company.
Borax,	Bayonne,	New,	Old,	Pacific Borax Company.
Buttons,	Trenton,	New,	Old,	Sherwood Manufacturing Company.
Ball bearings,	Jersey City,	New,	Old,	Hall Button Company.
Boilers,	Bayonne,	New,	Old,	Name not reported.
Bricks,	Bayonne,	New,	Old,	Babcock & Wilcox Boiler Company.
Bakery,	Arlington,	New,	Old,	Bergen Industrial Company.
Bearings,	Hoboken,	New,	Old,	Name not reported.
Carbon paper,	Harrison,	New,	Old,	Hyatt Roller Bearing Company.
Cigar boxes,	Park Ridge,	New,	Old,	Mittag & Volger.
Creamery,	Hillsdale,	New,	Old,	Name not reported.
Chairs,	Peapack,	New,	Old,	Name not reported.
Corsets,	Fieldsboro,	New,	Old,	Robinson & Fosbrook.
Cocoa and chocolate,	West Caldwell,	New,	Old,	Name not reported.
Electrical,	Marion,	New,	Old,	Brewster Manufacturing Company.
Elevators,	Newark,	New,	Old,	Westinghouse Electric and Manufacturing Company.
Engines (hoisting),	Jersey City,	New,	Old,	Lee Elevator Company.
Foundry,	Newark,	New,	Old,	Lidgerwood Manufacturing Company.
Foundry,	Newark,	New,	Old,	Universal Casting and Foundry Company.
Foundry,	Bayonne,	New,	Old,	Goubert Manufacturing Company.
Foundry,	Newark,	New,	Old,	Morrison Foundry Company.
Foundry,	Ridgefield Park,	New,	Old,	Dinker Foundry.
Glucose,	Shadyside,	New,	Old,	New York Glucose Company.
Hats (straw),	Newark,	New,	Old,	M. S. Mork.
Hats,	Belleville,	New,	Old,	Napier & Mitchell.
Iron,	Trenton,	New,	Old,	J. L. Mott Iron Works.
Jewelry,	Newark,	New,	Old,	Woodside Sterling Company.
Linoleum,	Kearny,	New,	Old,	Nairn Linoleum Company.
Leather,	Newark,	New,	Old,	Albert A. Guigues.
Locomotive (repairs),	Kearny Meadows,	New,	Old,	Pennsylvania Railroad Company.
Locomotive (steam),	Trenton,	New,	Old,	Pennsylvania Railroad Company.
Machines (sewing),	Elizabeth,	New,	Old,	Singer Manufacturing Company.
Nails,	Newark,	New,	Old,	Igo Brothers.
Oil of wintergreen,	Califon,	New,	Old,	Name not reported.

TABLE No. 2—(Continued).

New Manufacturing Plants Erected, and Old Ones Enlarged, from October 1st, 1903, to September 30th, 1904.

Kind of Business.	Location of Factory.	Improvements.		Name of Company or Firm.
		New Buildings Erected.	Old Buildings Enlarged.	
Plates (aluminum),	Dewey Park,	New,		Aluminum Plate and Press Company.
Pottery,	Trenton,	New,		Trenton Potteries Company.
Printing,	Orange,	New,		Frederick J. Quimby Printing Company.
Paints,	Carteret,	New,		Benjamin Moore Paint Company.
Paints,	Newark,	New,		Cawley, Clark & Company.
Polishers' and platers' supplies,	Jersey City,		Old,	Footo Manufacturing Company.
Petroleum,	Bayonne,	New,		Guffy Petroleum Company.
Railroad cars (repairs),	Greenville,	New,		Pennsylvania Railroad Company.
Rope and cordage,	Jersey City,	New,		Lawrence Cordage Company.
Rubber,	Butler,	New,		American Hard Rubber Company.
Stone (artificial),	Birmingham,	New,		Platt Concrete and Construction Company.
Silk,	Paterson,		Old,	Meisch Silk Manufacturing Company.
Soaps, etc.,	Jersey City,		Old,	Colgate & Company.
Saw-mill,	East Orange,	New,		Charles Sauer.
Stairs,	Newark,		Old,	Peckham Manufacturing Company.
Steel,	Rahway,		Old,	New Jersey Steel Company.
Saw-mill,	Jersey City,	New,		Vanderbeck & Sons.
Steel,	Paterson,	New,		Passaic Steel Company.
Shades,	West New York,	New,		Fuessee Brothers.
Shoes,	Newton,		Old,	W. H. Merriman Shoe Company.
Silks,	West Hoboken,	New,		Schwarzenbach Hober Company.
Soaps,	North Bergen,	New,		B. T. Babbitt Corporation.
Stove supplies,	Jersey City,	New,		Butler Brothers.
Steel and iron,	Matawan,	New,		Matawan Steel and Iron Company.
Stoves,	Dover,		Old,	Richardson, Roynton Stove Company.
Thread,	Paterson,		Old,	Barbour Flax Spinning Company.
Tools,	Newark,		Old,	Atha Tool Company.
Varnish,	Newark,	New,		M. A. C. Mathews.
Vaseline,	New Brunswick,	New,		Cheeseborough Manufacturing Company.
Wire mill,	Kinkora,	New,		John A. Roebling's Sons Company.
Wrappers,	Bridgeton,		Old,	H. A. Dix & Sons.
	Jersey City,	New,		Dairymen's Manufacturing Company.

TABLE No. 3.

Industrial Plants That Have Come Into New Jersey from Elsewhere, from October 1st, 1903, to September 30th, 1904.

Kind of Business.	Place in Which it Has Settled.	Place from Which it Came.	Name of Company or Firm.
Aniline dyes,	Jersey City,	New York City,	Geigy Aniline and Electric Dye Company.
Braids,	West New York,	New York,	Sutro Brothers.
Ball bearings,	Bayonne,	Germany,	German-American Steel Ball Company.
Cloth hats and caps,	Jersey City,	New York City,	Mark Davis' Sons & Company.
Glass,	Millville,	Pittsburg,	Cathedral Glass Company.
Hatters' furs,	Newark,	New York City,	Donner & Company.
Jewelry,	Newark,	New York,	Kohn & Company.
Machinery,	Hackettstown,	New York,	American Machinery and Export Company.
Machinery,	Aldine,	New York,	Watson & Stillman.
Notions,	Jersey City,	New York,	Butler Brothers.
Nails,	Newark,	Brooklyn,	Igo Brothers.
Paints,	Carteret,	New York,	Benjamin Moore Paint Company.
Rubber,	Paterson,	Unionville, N. Y.,	United Rubber Company.
Registers,	Jersey City,	New York City,	Automatic Register Company.
Rope and cordage,	Jersey City,	Brooklyn,	Lawrence Cordage Company.
Sugar refining,	West New York,	New York,	Metropolitan Sugar Refining Company.
Shoe heels (patented),	Dover,	New York,	Block Manufacturing Company.
Soaps,	North Bergen,	New York,	The B. T. Babbitt Corporation.
Underwear,	Asbury Park,	New York,	Steiner & Company.
Underwear,	South Amboy,	New York,	Acme Underwear Company.
Vaseline,	Perth Amboy,	Brooklyn,	Cheeseborough Vaseline Company.

TABLE No. 4.

Closing Up or Suspension of Work in Manufacturing Plants, from October 1st, 1903, to September 30th, 1904.

Kind of Business.	Location of Factory or Works.	Closed Permanently or Temporarily.	Name of Company or Firm.
Bollers,	Bayonne,	Temporarily,	Babcock & Wilcox Company.
Cement,	New Village,	Temporarily,	Edison Portland Cement Company.
Cement,	Perth Amboy,	Temporarily,	New Jersey Portland Cement Company.
Cement,	Stewartsville,	Temporarily,	Edison Cement Works.
Celluloid,	Springfield,	Permanently,	Celluloid Zapon Company.
Chemicals,	Rahway,	Temporarily,	The E. O. S. Chemical Company.
Cutlery,	Keyport,	Temporarily,	American Cutlery Company.
Cigars,	Newark,	Temporarily,	American Cigar Factory.
Cigars,	Elizabeth,	Temporarily,	Hillson Cigar Factory.
Cars,	Camden,	Temporarily,	Pavonia Car Company.
Dolls,	Pleasantvale,	Permanently,	The Metal Doll Factory.
Emory and other grinding material, ..	Perth Amboy,	Temporarily,	Ashland Emery and Corundum Company.
Fire-proof tiles,	Port Murray,	Temporarily,	National Fireproofing Company.
Glass,	Millville,	Temporarily,	American Window Glass Company.
Glass,	Bridgeton,	Temporarily,	Parker Brothers.
Hats,	Hackettstown,	Temporarily,	Hackettstown Hat Factory.
Lace,	Rahway,	Temporarily,	H. B. Burns & Company.
Light,	Bridgeton,	Temporarily,	North American Light Plant.
Machinery (locomotives),	Pateron,	Temporarily,	Erie Railroad Company.
Machinery and foundry,	Elizabeth,	Permanently,	Samuel L. Moore Sons Company.
Machinery for saw-mills,	Hackettstown,	Temporarily,	American Saw Mill Machinery Company.
Paper,	Scotch Plains,	Temporarily,	Seeley Paper Mills.
Patterns for dresses,	Hoboken,	Permanently,	Standard Fashion Company.
Percussion caps,	Newark,	Permanently,	Paulus Manufacturing Company.
Paper mill,	Scotch Plains,	Temporarily,	Seeley's Paper Mills.
Railroad cars,	Elizabeth,	Temporarily,	John Stephenson Car Works Company.

TABLE No. 4—(Continued).

Closing Up or Suspension of Work in Manufacturing Plants, from October 1st, 1903, to September 30th, 1904.

Kind of Business.	Location of Factory or Works.	Closed Permanently or Temporarily.	Name of Company or Firm.
Sugar refining,	Jersey City,	Temporarily,	American Sugar Refining Company.
Silk,	Dover,	Temporarily,	E. J. Ross Silk Manufacturing Company.
Silk dyeing,	Paterson,	Temporarily,	Seyer & Cairns.
Ship building,	Elizabeth,	Permanently,	Crescent Shipbuilding Company.
Ship building,	Elizabeth,	Temporarily,	Cando Manufacturing Company.
Ship yard,	Camden,	Temporarily,	Peter Hogan & Company.
Steel and iron,	Oxford,	Temporarily,	Empire Steel and Iron Company.
Shoes,	Lumberton,	Temporarily,	Reed & Company.
Shoes,	Burlington,	Temporarily,	Bastam Company.
Shirts,	Keyport,	Temporarily,	Ullerberg's Shirt Factory.
Tubes,	Bridgeton,	Temporarily,	West Jersey Tube Company.
Underwear,	Hackettstown,	Temporarily,	Hackettstown Underwear Company.
Wines,	Jersey City,	Temporarily,	Niagara Wine Company.
Wood turning,	Jersey City,	Permanently,	Standard Wood Turning Company.
Woolen,	Trenton,	Temporarily,	Alryan Woolen Mills.
Wall paper,	New Brunswick,	Temporarily,	Janeway & Company.
Woolens,	Trenton,	Temporarily,	Colonial Woolen Mills.
Zinc works,	Newark,	Temporarily,	New Jersey Zinc Works.
Zinc works,	Franklin Furnace,	Temporarily,	New Jersey Zinc Works.

TABLE No. 5.

Manufacturing Plants Destroyed or Injured by Fire, from October 1st, 1903, to September 30th, 1904.

Kind of Business.	Location of Factory.	Name of Company or Firm.	Amount of Damage.
Asphalt	Jersey City,	Uvalde Asphalt Co.,	\$750
Brass foundry,	Newark,	Edward Zuzl, .....	.....
Brass foundry,	Newark,	Louis H. Furnett Co.,	100,000
Boilers,	Jersey City,	Alex. Miller & Bro.,	32,000
Brushes,	Irvington,	New Jersey Brush Co.,	980
Buttons,	Newark,	Standard Button Co.,	4,500
Bone boiling,	Jersey City,	Henry Vatsky, .....	.....
Bidding,	Jersey City,	Hudson Bedding Co.,	2,000
Bedsteads,	Jersey City,	Brooklyn Bedstead Co.,	82,027
Copper,	Bayonne,	Oxford Copper Company,	5,000
Chairs,	River Vale,	Thomas Post,	34,350
Cocoa,	Jersey City,	Brewster Cocoa Mfg. Co.,	800
Compounds,	Harrison,	Diamond Compound Co.,	5,000
Carriages,	Keyport,	Red Bank Carriage Co.,	4,550
Carriages,	Camden,	Frank Stytes,	4,000
Celluloid,	Springfield,	Celluloid Zapon Works, .....	.....
Chemicals,	Newark,	Hanson & Van Winkle Chemical Co.,	10,000
Celluloid,	Newark,	Celluloid Works,	800
Caps (electrical),	Pompton,	Smith Electrical Cap Works,	10,000
Caps,	Newark,	Newark Cap Mfg. Co.,	800
Chemicals,	Elizabeth,	Anathion Chemical Co.,	10,000
Dye works,	Jersey City,	F. Glaeser's Sons Dye Works,	2,000
Fire alarms,	Jersey City,	Holmes American Protection Co.,	8,673
Glue,	Newark,	American Tanner Glue Co.,	5,000
Gas and electric light,	Hackensack,	Bergen County Gas and Electric Light Co.,	15,500
Glass,	Vineland,	Victor Durand Glass Works,	25,000
Glass (window),	Vineland,	Vineland Window Glass Co.,	8,000
Gun cotton, praphtha, camphor, etc.,	Newark,	Petrefold Company,	3,000
Grist mill,	Lakehurst, .....	.....	2,500
Hosiery,	Hammonton,	David Cottrell,	15,520
Hats,	Newark,	Bernard Daly,	15,000
Harness,	Newark,	Eagle Winker and Harness Mfg. Co.,	11,000
Hats,	West Orange,	O. B. Rutan & Co.,	28,000
Hardware,	Trenton,	Skillman Hardware Mfg. Co., .....	.....

Hats,	Newark,	Excelsior Hat Co.,	5,900
Heaters,	Atlantic City,	New Jersey Hot Water Heater Co.,	250
Hats,	Newark,	C. M. Hedden & Co.,	4,000
Hats,	Newark,	Fishman & Co.,	6,000
Hats,	Newark,	Ferry, Weber & Co.,	300
Hats,	Newark,	J. Rummell & Co.,	10,000
Hardware (saddlery),	Newark,	Weimer & Co.,	39,000
Iron and steel,	Boonton,	Boonton Iron & Steel Co.,	1,600
Ice,	Newark,	Krueger's Ice Co.,	350
Knives,	Newark,	New York Knife Co.,	4,500
Leather,	Camden,	Morocco Leather Works,	25,000
Leather,	Newark,	Perfect Leather Company,	2,220
Leather,	Newark,	S. Halsey & Sons,	4,400
Leather,	Newark,	Edward H. McCormick Co.,	10,381
Leather,	Newark,	John Reilly Leather Mfg. Co.,	3,158
Locksmith,	Newark,	Geo. W. Stengel & Co.,	60,000
Lamps,	Newark,	William G. Langstroch,	3,000
Lumber,	Jersey City,	Vogre & Reilly Lamp Co.,	3,500
Lumber,	Paterson,	P. S. Van Kirk Lumber Co.,	500
Macaroni,	Atlantic City,	Atlantic City Lumber Co.,	115,458
Musical instruments,	Newark,	James Spagnola,	22,000
Milk (condensed),	Jersey City,	Joseph Schmidt & Sons,	5,175
Machinery,	Branchville,	Borden Condensed Milk Co.,	3,000
Machinery (electrical),	Bridgeton,	Ferracutte Machine Co.,	300
Machinery,	Jersey City,	Rossiter-McGovern Co.,	178,473
Machinery,	Hoboken,	W. and A. Fletcher Machine Co.,	4,000
Metal patterns,	Newark,	Hewes & Phillips,	1,075
Metal rollers,	Newark,	Benjamin P. Plant,	800
Oilcloth,	Harrison,	United States Metal Roller Co.,	8,100
Oil,	Athenia,	American Standard Oilcloth Co.,	350,000
Oils,	Elizabeth,	Pennsylvania & Delaware Oil Co.,	500
Planing mill,	Jersey City,	Standard Oil Co.,	307
Powder,	Orange,	Charles Sauer Co.,	25,000
Powder,	Gibbstown,	Repano Mfg. Co.,	285,000
Powder,	Oakland,	Dupont Powder Works,	10,000
Powder,	Pompton Lakes,	Laftin & Rand Powder Co.,	10,000
Powder,	Landing,	Forcite Powder Co.,	56,989
Powder,	Dover,	Huff Powder Works,	
Planing mill,	West Hoboken,	Gardner & Randell,	
Paving,	Hoboken,	Warren Brothers Paving Co.,	
Paper boxes,	Newark,	Specialty Paper Box Co.,	
Paper,	Newark,	Wheeler Mfg. Co.,	
Paper,	East Rutherford,	Navarre Paper Mfg. Co.,	
Paper,	Whippany,	Stony Brook Paper Co.,	
Plaster,	Harrison,	Adamant Plaster Co.,	
Pattern maker,	Newark,	C. E. Wenzel & Co.,	
Pottery,	Trenton,	Brian Pottery Co.,	
Refining,	Elizabeth,	Bayway Refining Co.,	
Rivets,	Newark,	Newark Rivet Works,	
Silk,	West Hoboken,	Reiling, David & Schoen,	
Silk,	Paterson,	Ashley & Bailey,	
Silk,	Paterson,	Eastside Silk Co.,	
Silk throwing,	Pompton Lakes,	Pompton Silk Co.,	
Silk,	Paterson,	Silk Co.,	

TABLE No. 5—(Continued).

Manufacturing Plants Destroyed or Injured by Fire, from October 1st, 1903, to September 30th, 1904.

Kind of Business.	Location of Factory.	Name of Company or Firm.	Amount of Damage.
Silk,	West Hoboken,	Reiling, David & Schoen,	
Stone,	Millington,	Morris County Crush Stone Co.,	\$25,000
Surgical instruments,	Jersey City,	T. G. Otto & Sons,	5,000
Smelting and refining,	Perth Amboy,	Perth Amboy Smelting and Refining Co.,	10,000
Saw-mill,	West Hoboken,	Gardner & Randall Saw-Mills,	300
Thread,	Newark,	Clark Thread Works,	860
Thread,	East Newark,	Clark Mile End Thread Co.,	
Talking machines,	Camden,	Victor Talking Machine Co.,	191,524
Underwear,	Newark,	Perfection Underwear Co.,	
Varnish,	Newark,	Essex Varnish Co.,	
Woolen mills,	Bloomfield,	Thomas Oakes & Co.,	650
Wagons,	Paterson,	J. S. Sowerbutt,	30,000
Zinc works,	Harrison,	New Jersey Zinc Works,	
Not reported,	East Rutherford,	Zahn & Bowley Co.,	83,000
Not reported,	Newark,	J. B. Oelkers Mfg. Co.,	11,500
Not reported,	Hoboken,	Summit Water Proofing Co.,	100,000
Not reported,	Fenchtown,	Crosby Mfg. Co.,	5,100
Brass foundry,	Newark,	Edward Zuzi,	
Brass foundry,	Newark,	Louis H. Furnett Co.,	
Harness,	Newark,	Eagle Winker and Harness Mfg. Co.,	
Metal pattern,	Newark,	Benjamin Plant,	
Paper boxes,	Newark,	Specialty Paper Box Co.,	
Underwear,	Newark,	Perfection Underwear Co.,	

* These establishments were all located in one building, which was destroyed. The individual losses are not reported.

TABLE No. 6.

Increase or Reduction in Wages, from October 1st, 1903, to September 30th, 1904.

Kind of Business.	Location of Factory.	Name of Company or Firm.	Reduction (-) or Increase (+) in Wages.	Amount per Week.
Beef.	Paterson.	Daniel Fullerton Co.	+	75 cents per day.
Cement.	Phillipsburg.	Vulcanite Cement Works.	+	10 per cent.
Chemicals.	Trenton.	Graselle Chemical Co.	+	10 per cent.
Clay.	Perth Amboy.	Federal Clay Co.	+	5 per cent.
Iron.	Netcong.	Musconetcong Iron Works.	+	10 per cent.
Iron.	Dover.	Ustir Iron Works.	+	10 per cent.
Iron and steel.	Morristown.	Empire Steel and Iron Co.	+	25 cents per day.
Iron and steel.	Paterson.	Passaic Rolling Mill Co.	+	10 per cent.
Laborers (public works).	Neptune City.	Borough Council.	+	10 per cent.
Locomotives.	Paterson.	Rogers Locomotive Works.	+	10 per cent.
Machinery.	Elizabeth.	Ball & Wood Machine Shop.	+	10 per cent.
Machinery.	Ampere.	Crocker-Wheeler Co.	+	10 per cent.
Powder.	Carney's Point.	Carney Point Powder Works.	+	5 per cent.
Rugs.	Trenton.	Highstown Smyrna Rug Co.	+	25 per cent.
Ribbons.	Paterson.	Union Ribbon Co.	+	5 per cent.
Ribbons.	Paterson.	Collins & Nolan.	+	5 per cent.
Railroad mechanics.	Camden.	Pavonia Railroad Co.	+	10 per cent.
Steam railroad firemen.	Passaic.	D. L. & C. R. & Co.	+	10 per cent.
Silk.	Paterson.	Johnson, Cowdin & Co.	+	10 per cent.
Silk.	Paterson.	Johnson, Cowdin & Co.	+	10 per cent.
Silk.	Paterson.	Johnson, Cowdin & Co.	+	10 per cent.
Steam.	Denville.	Levering & Gallegues.	+	50 cents per day.
Steam fitters.	Newark.	Jerfisky Brothers.	+	10 per cent.
Tailors.	Paterson.	Pond Tool Co.	+	10 per cent.
Tool works.	Plainfield.	Bothany Worsted Mills.	+	10 per cent.
Woolen and worsted goods.	Passaic.	Window Glass Works of America.	+	14 to 18 per cent.
Window glass.	Bridgeton.		+	

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TABLE No. 7.

Accidents to Workmen while on Duty, from October 1st, 1903, to
September 30th, 1904.

Trade or Occupation at Which Workmen Were Employed when Injured.	Number Injured.	Number Whose In- juries Resulted in Death.
Bricklayers,	3	..
Brick works,	2	..
Boiler making,	3	..
Bakery,	1	..
Brakemen (railroad),	1	..
Chemicals,	4	..
Carpenters,	18	..
Copper works,	1	1
Celluloid works,	1	..
Cutlery,	1	..
Chain works,	1	..
Car works,	1	..
Cement works,	3	3
Drivers,	3	..
Decorators,	2	..
Electrical works,	2	..
Engineers (inspecting),	1	1
Electric lighting,	1	1
Enameling works,	1	2
Firemen (city fire department),	1	..
Foundry (iron and steel),	23	1
Fireworks,	7	3
Glass,	2	..
Glucose works,	3	1
Grist mill,	1	..
Gas works,	1	..
Guncotton,	2	..
Hat working (men's),	1	..
Iron work (architectural),	8	..
Knitting works,	1	1
Lumber mill operatives,	1	..
Laborers (others),	35	1
Lime works,	1	..
Laborers (railroad),	8	2
Leather,	5	..
Linen,	1	..
Linooleum,	1	..
Locomotives,	2	..
Laborers (masons'),	1	..
Machinists,	22	1
Masons,	3	..
Metals,	1	..
Ore (refining),	2	1
Oil (refining),	1	..
Operators (railroad),	1	..
Painting,	6	..
Powder works,	1	2
Piano making,	1	..
Pattern making,	4	..
Pottery,	4	1
Paper mills,	1	..
Pin making,	1	..
Paint,	1	..
Paperhanging,	1	..
Quarrying stone,	1	..
Refining,	1	..
Railroad conductors (street),	1	1
Riveters,	1	..
Rubber,	1	..
Sugar refining,	1	..
Stone crushing,	1	..
Straw works,	1	..
Stone cutting,	1	1
Ship building,	1	..
Shoe making,	1	..
Terra cotta works,	2	..
Thread works,	2	..
Tar making,	1	..
Varnish works,	1	..
Wagon making,	3	..
Wire cloth,	1	..
Woolens,	1	1
Wire works,	1	..
Woolen mills,	1	..
	224	25

TABLE No. 8.

Strikes or Lockouts, from October 1st, 1903, to September 30th, 1904.

In What Business.	Location of Strike.	Object or Cause of Strike or Lockout.
Bridge workers,	West New York,	Because of the dismissal of some members of the Bridge Workers' Union and the employment in their places of men belonging to the House-Smiths' Union.
Beef,	Paterson,	For an increase in wages and shorter hours.
Bricklayers,	Bloomfield,	Against the employment of non-union men.
Boiler workers,	Hoboken,	To obtain free access to shops for walking delegates for the purpose of seeing that only union men are employed.
Beef,	Jersey City,	In sympathy with men of the same business on strike in Chicago.
Bricklayers,	Newark,	Refused to work with non-union men.
Carpenters,	Hoboken,	Rivalry between opposing unions.
Carpenters,	Trenton,	Because non-union men were employed.
Carpenters,	Atlantic City,	Because of the employment of out-of-town men.
Carpenters,	Trenton,	Against an attempted reduction in wages.
Carpenters,	Bloomfield,	Against the employment of non-union men.
Carpenters,	Jersey City,	Because of a refusal to work on material coming from mills that had refused to accede to their workmen's demands.
Carpenters,	Newark,	Refused to work with non-union men.
Clothing,	Red Bank,	To compel the reinstatement of a workmen who had been discharged for incompetency.
Clothing,	Bayonne,	No reason given.
Clothing,	Jersey City,	Against the restoration of the open-shop rule.
Cement,	Phillipsburg,	Against a proposal to change from piece-work to day-work.
Carriages and wagons,	Jersey City,	For half-holiday on Saturday without a reduction in wages.
Carriages and wagons,	Newark,	For a working schedule of 51 hours per week with 59 hours' pay, recognition of the union, and exclusion from the shops of all workmen not members of the union.
Cigars,	Hoboken,	Lockout. Because union refused to supply employer with labels.
Coopers,	West New York,	Against the employment of non-union men.
Elevators,	Newark,	To compel the adoption of a straight wage scale.
Elevator constructors and millwrights,	Jersey City,	For an increase in wages.
Engines,	Elizabeth,	To secure an advance in wages.
Electrical work,	Perth Amboy,	Because of the employment of non-union men.
Foundry laborers,	Jersey City,	For an advance in wages.

TABLE No. 8—(Continued).

Strikes or Lockouts, from October 1st, 1903, to September 30th, 1904.

In What Business.	Location of Strike.	Object or Cause of Strike or Lockout.
Glass bottle manufacturing,	Minatola,	To compel the unionization of factory.
Garments,	Newark,	To compel the employment of none but members of the union.
Garments (women),	Vinland,	To compel the re-employment of a folder who had been discharged.
Garments,	Newark,	To compel the exclusion of non-union men from the shops.
Hats,	Jersey City,	Because of refusal to give bond to Hat Makers' Union to conduct a union shop.
Hats,	Newark,	For an increase in wages.
Iron workers,	Trenton,	Because contractor was a member of the Allied Building Trades Council of New York.
Iron workers,	Newark,	Because non-union men were employed.
Iron workers,	Paterson,	Against a reduction of ten per cent. in wages.
Jewelry,	Newark,	To compel the discharge of an unpopular employe.
Leathers (metal),	Paterson,	Because of the employment of men not affiliated with the local union.
Leathers,	Newark,	To compel a recognition of the union.
Laborers (masons),	Montclair,	Against a reduction in wages.
Laborers (masons),	Bloomfield,	Against the employment of non-union men.
Laborers (building),	Passaic,	For an increase in wages.
Laborers,	Jersey City,	For a reduction in time to nine hours a day.
Laborers (tar roofing),	Newark,	Against an increase in hours per day.
Machinery,	Carteret,	For a nine-hour workday.
Marble workers,	Paterson,	Because of the hours of work per day.
Masons,	Perth Amboy,	For an increase in wages.
Masons (stone),	Bridgeton,	For an increase in wages and reduction of hours.
Mill wood workers,	Jersey City,	Reduction in hours and half-holiday on Saturday.
Motors,	Elizabeth,	To enforce a demand for fifty-seven hours' pay per week for fifty-five hours' work.
Painters,	Trenton,	Because non-union men were employed.
Plasterers,	Trenton,	Because non-union men were employed.
Printers,	New Brunswick,	Because of company's refusal to sign wage scale.
Plumbers,	Camden,	For a uniform daily wage scale for journeymen.
Pottery,	Camden,	Because of a misunderstanding in regard to work.
Painters, decorators and paperhangers,	Plainfield,	For an increase in wages.
Plumbers,	Bloomfield,	Against the employment of non-union men.
Polishers and buffers,	Newark,	Because a time allowance of ten minutes for washing had been reduced to five minutes.

Pottery,	Trenton,	Because of a disagreement over work.
Rugs,	Hightstown,	Against an attempted reduction in wages.
Rugs,	Gloucester City,	Against a ten per cent. reduction in wages.
Rubber,	Trenton,	For an increase in wages.
Ribbon weavers,	Paterson,	For an increase in wages.
Roofing (tar),	Newark,	Against an increase of hours.
Silk designers,	Hoboken,	For a uniform scale of wages.
Silk,	Paterson,	For an increase in wages.
Silk,	Paterson,	Because of a misunderstanding in regard to wages.
Steam fitters,	Elizabeth,	Against a reduction in wages.
Ship building,	Camden,	For an increase in wages.
Street pavers, etc.,	Newark,	City of Newark (Board of Public Works), for an increase in wages.
Shirts,	Paterson,	Because the wages of an employe had been reduced.
Stone works,	Newark,	Refusal of employer to allow the employes to dictate the manner in which the business should be run.
Tool makers,	Orange,	For an increase in wages and against the employment of non-union men.
Tools,	Newark,	For an increase in wages.
Underwear,	Hoboken,	Because of objection to forelady.
Vaseline,	Perth Amboy,	No reason given.
Weavers,	Trenton,	Because of being required to do an increased quantity of work.
Weavers,	Little Falls,	For a more equal division of difficult work.
Weavers,	Paterson,	To enforce a demand for increase in wages.
Worsted mills,	Passaic,	For weekly wages instead of piece-work.
Woven goods,	Pompton,	To compel the reinstatement of an employe.

TABLE No. 9.

Trades or Labor Unions Organized, from October 1st, 1903, to
September 30th, 1904.

Trade or Occupation.	Locality Where Union was Organized.
Bakers,	Atlantic City.
Compositors,	Atlantic City.
Carpet workers and upholsterers,	Newark.
Carriages,	Newark.
Carpenters,	Newark.
Drivers (building materials),	Jersey City.
Iron workers,	Jersey City.
Masons (stone),	Jersey City.
Printing,	Hackensack.
Printing,	Newark.
Printing,	Newark.
Weaving,	Little Falls.

Labor Chronology of New Jersey, 1903-1904.

ATLANTIC COUNTY.

October.

MINOTOLA.

A strike against the Jonas Glass Company, inaugurated nearly two years ago, is still in progress. Most of the striking blowers are Italians, and the union has paid them a certain amount each week as wages, while allowing them to work at anything they can get to do outside of the glass house.

November.

ATLANTIC CITY.

The bakers of Atlantic City have organized themselves into a union, to be known as Bakers Union, No. 556.

The compositors of the "Daily Press" have organized a chapel of Atlantic City Typographical Union, No. 377. This action was taken in consequence of the publishers having recognized the union, which they had not done heretofore, although the full union wage scale has always been paid to employes of the office. Almost all local compositors are now said to be members of the union.

A number of colored workmen who were making repairs on a sewer in Atlantic City were buried in the bottom of the trench in which they were working by the collapse of a scaffold. The men were promptly taken out without any of them having been seriously injured.

Isaac Spear, a conductor on an Atlantic avenue trolley car, had a hand severely injured by being caught in a pulley while trying to adjust a part of the motor mechanism that had become disarranged.

CHELSEA.

Efforts are being made by residents of Chelsea to abate the alleged nuisance caused by offensive odors arising from a fat distilling plant located on the meadows. The matter will be referred to the State Board of Health, if its removal is not accomplished by the Board of Freeholders.

PLEASANTVILLE.

Suit to eject the Composing Machine Company from the building it now occupies has been instituted by the borough of Pleasantville. The property was sold under the Martin Act because of the non-payment of taxes, and

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bought in by the borough. After obtaining title to the property, the municipality served notice on the company to vacate, which they declined to do, hence the ejection proceedings.

EGG HARBOR CITY.

Edward Senn & Son have completed the plans for their new machine shop at Egg Harbor City.

Plans have been completed for a new wrench factory at Egg Harbor City, which will be a building forty by seventy feet.

Excavation has been started for the erection of a new foundry at Egg Harbor City.

OCEAN CITY.

Louis Hartley, a carpenter employed at Ocean City, stepped on a rusty nail, which penetrated his foot nearly an inch, causing a serious and painful wound.

December.

HAMMONTON.

A fire, which occurred in the hosiery mill of David Cottrell near Hammononton, caused damage to the amount of \$15,520.00 to building, machinery, and material. Reynolds Cut Glass Factory occupied the second floor of the building. Over one hundred employees will be out of work as a result of the fire.

January.

ATLANTIC CITY.

The Mercer Coal and Ice Company of Atlantic City filed its articles of incorporation with the Clerk of Atlantic County. The company will make ice by artificial process. Capital invested, \$20,000.

PLEASANTVILLE.

The Lake & Risley Company has been incorporated with a capital stock of \$10,000 to manufacture brick, lime, paint, lumber, etc.

The Metal Doll Factory of Pleasantville, which has been idle for some time, is about to resume business.

BUENA.

It is thought probable that a new glass factory will soon be established at Buena by a Pittsburg syndicate. The company, if started, will manufacture bottles.

February.

ATLANTIC CITY.

The United States Kaolin & Development Company was incorporated at Atlantic City to deal in clay, kaolin, etc. Capital stock, \$100,000.

A fire occurred at the plant of the New Jersey Hot Water Heater Company at Atlantic City, which originated in the tower enclosing the boilers. The damage amounted to \$250.

At the annual banquet of the Merchant Tailors' National Exchange held at Atlantic City it was proposed to merge the exchange with the National Protective Association. A committee consisting of all the chairmen of the local exchanges was appointed to confer upon the subject and make a report.

HAMMONTON.

The New Jersey Cut Glass Company was organized at Hammonton with a capital stock of \$10,000. The company will begin operations in the Wetherbee Mill as soon as machinery can be secured, giving employment to forty cut glass workers.

March.

ATLANTIC CITY.

Anceatto Vinni, an iron worker, fell from the third to the second floor while at work on a building at Atlantic City and suffered a serious injury to the spine, besides being hurt internally.

Arthur Booye, employed as a carpenter on a new building at Atlantic City, was injured while at work by a box of plate glass falling upon him.

Nine carpenters employed on a new hotel at Atlantic City stopped work because workmen from Philadelphia were paid \$3.20 a day, while the local men were receiving only \$2.50.

EGG HARBOR CITY.

The local Tailors' Association have voted for a working scale of fifty-eight hours per week instead of fifty-four; payment of wages to be for fifty-nine hours.

April.

MINOTOLA.

The strike of the union glass bottle blowers against the George Jonas Glass Company of Minotola was two years in operation on April 12th. This has been one of the most persistent and remarkable struggles in the history of labor in New Jersey. Originally four hundred men and boys were involved, many of whom are still on the pay roll of the Bottle Blowers' Association. The George Jonas Company appear to be running their works about as full handed as before the strike was declared, and there appears to be no possibility of bringing the contention to a conclusion satisfactory to both sides.

May.

ATLANTIC CITY.

Christopher Murtland, a carpenter employed in erecting the Jubilee Arch at Atlantic City, lost his footing on the scaffold on which he was

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working, and fell through surrounding trestles to the ground. He was badly bruised about the head and body.

The Hammond Cut Glass Company was originated at Atlantic City with a capital of \$10,000. The company will manufacture cut glass.

PLEASANTVILLE.

A fire in the machine shops of J. S. Alston & Company at Pleasantville caused damage to the extent of \$25,000.

July.

ATLANTIC CITY.

The White Star Laundry Company of Atlantic City has been incorporated at that place. The capital stock is fixed at \$15,000.

August.

ATLANTIC CITY.

A fire which originated in the engine room, came near causing the total destruction of the Atlantic City Lumber Company's Mill at Atlantic City. The damage amounted to \$3,000.

The following named industrial companies filed their articles of incorporation with the Clerk of Atlantic County during the month of August: The General Safety Appliance Company, to manufacture burglar and fire alarms, capital \$50,000; The Meyers Manufacturing Company, to manufacture tinware of various kinds, capital \$1,200; The Liggett Speaking Figure Company, to manufacture speaking figures, capital \$100,000.

September.

ATLANTIC CITY.

The Currie Hardware Company has purchased a large tract of land at Atlantic City and will erect thereon in the near future, a large factory building which will cost \$50,000.

BERGEN COUNTY.

October.

PARK RIDGE.

The interior work on the addition to the factory of Mittag & Volger will soon be finished and the necessary machinery installed. When the improvements are all completed, this firm will have one of the largest manufacturing of carbon paper and typewriting machine supplies in the country.

HILLSDALE.

A large addition is being made to the cigar box factory in Hillsdale.

RIDGEFIELD PARK.

A new corporation, to be known as the Riverside Boiler Works, is being formed at Ridgefield Park.

CLIFFSIDE PARK.

Frederick Fuchs had a hand caught in a circular saw and severely cut while at work in a lumber mill.

OAKLAND.

Peter Muchi, an Italian laborer, had his head blown off by an unexpected explosion of a suspended blast while working in a stone quarry at Oakland.

EDGEWATER.

John McGrath, a laborer employed on a building of the Knickerbocker Sugar Refinery, fell from the second story to the ground and broke one of his legs.

November.

PARK RIDGE.

Dean's Apron Factory at Park Ridge is working overtime. The business of the plant has doubled in the past year.

HACKENSACK.

The printers of Hackensack have organized a union of their craft. The membership when all printers in the town are included will be about twenty.

The plant of the Bergen County Gas & Electric Light Company at Hackensack was damaged by fire on November 26th to the extent of \$15,500. Four hundred of this was to the building, \$15,000 to machinery and tools, and \$100 to material.

RUTHERFORD.

The clock factory in Paterson avenue, Rutherford, is offered for sale. Negotiations, looking to its acquisition by a New York concern, are now on.

ENGLEWOOD.

J. H. & E. L. White, trading as the New Jersey Paper Tube Company of Englewood, are constructing their own machines for making paper tubes of all kinds. Not having been successful in procuring satisfactory machinery outside, the company has equipped its own shops with the latest types of tools, and are now about to complete a number of special machines for making paper drinking straws or tubes, under its own patents. These machines, sixteen in number, will have a daily product capacity of 1,000,000 tubes. Additional room will be needed to handle this greatly increased output, and the firm will shortly erect as an addition to its present factory, a new three story building, the dimensions of which will be 30x36 feet which will give an additional floor space of 3,000 square feet.

The company is said to be contemplating taking up the manufacture of paper tubes for other purposes, such as those used in cotton and silk mills,

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spinning and knitting mills, many millions of which are annually used. If this is done, a mill for the manufacture of its own paper will soon become a necessary part of the plant.

December.

RUTHERFORD.

The International Wave Motor Company, Rutherford, N. J., has filed articles of incorporation which show a capital stock of \$50,000. They will make and deal in machines, instruments, and apparatus operated by wave power or electric power either in combination or separate.

SHADY SIDE.

James Burke, while working on the trestle of the Edison cold storage yard at Shady Side, fell a distance of fifty feet, sustaining bruises of the head and body in addition to internal injuries.

ROCHELLE PARK.

A switch engine with two box cars attached, while taking water from a tank at Coalburgh, about one-half mile from Rochelle Park, was run into by a fast west bound freight train on the Susquehanna Railroad. In the box car next to the engine were forty laborers, twelve of whom were badly shaken up, but only four received injuries that necessitated treatment at the hospital. The injured are Robert Kelso, fireman on freight train, compound fracture of the ankle; Frank Spina, laborer, of Dundee Lake, scalp wound; George Lalecia, laborer, of Passiac, bruised and shaken up; Mike Boka, laborer, of Dundee Lake, suffering from shock. Fortunately no one was in the last car, which was completely demolished.

January.

HACKENSACK.

The schedule of working hours in Givernaud's silk mill at Hackensack will be increased to three-quarters time. Owing to dullness in the business, the plant has for some months back been operated on half time.

RUTHERFORD.

The William H. Snyder Company of Rutherford has been organized with a capital stock of \$50,000. The firm will manufacture steel and copper plates for engraving.

The Rutherford Manufacturing Company has filed articles of incorporation with the Clerk of Bergen County. The company will manufacture and sell underwear, with other articles of clothing. The authorized capital stock is \$100,000.

John Duster, a machinist employed at the plant of Fuchs & Lang, manufacturers of lithographers' machinery and supplies, in East Rutherford, had his clothing caught while endeavoring to adjust a belt, and received a compound fracture of the left forearm.

LYNDHURST.

A newly organized company has purchased several acres of land in Lyndhurst, near the Lyndhurst Mill, upon which it will erect a factory for the manufacture of steel office furniture. When the plant is ready for operation about one hundred persons will be given employment there.

EDGEWATER.

James Burke, an iron worker employed in the Edison Cold Storage plant at Edgewater, fell from the structure, a distance of fifty feet and received injuries which are likely to result in his death.

John Swenski, of Shadyside, employed at the factory of the New York Glucose Company at Edgewater, sustained a broken jaw at the works by being hit with a large iron pipe.

OAKLAND.

A fire in the Dupont Powder Works at Oakland, which broke out in the cotton room, was confined to that place and finally extinguished by a volunteer fire brigade.

MIDLAND PARK.

The Midland Park Silk Company has filed articles of incorporation with the Clerk of Bergen County. It will manufacture and sell silk fabrics and other textiles. Capital stock, \$25,000.

RIVER VALE.

The factory of Thomas Post, manufacturer of chairs at River Vale, was completely destroyed by fire. Damage to the extent of \$2,000 was done to the building, and \$3,000 to machinery and material, making a total loss of \$5,000.

February.

EAST RUTHERFORD.

The factory occupied by the Navarre Paper Mfg. Company at East Rutherford was completely destroyed by fire. The damage to machinery and material amounted to \$8,100.

BOGOTA.

Articles of incorporation were filed with the County Clerk by the American Wall Paper Company of Bogota. Capital stock, \$250,000.

EDGEWATER.

George Gratz and L. Sunday, both of Cliffside Park, were handling a large iron girder at the works of the New York Glucose Company, when

another from a pile that had been stacked by them fell and injured the hands of both men.

March.

BOGOTA.

The American Paper Company has been incorporated with a capital stock of \$250,000 to manufacture paper and paper boards.

NORTH BERGEN.

The Metropolitan Sugar Refining Company is said to be contemplating the erection of a large plant at North Bergen, the cost of which, if undertaken, will run into the millions of dollars.

HILLSIDE.

Business at a factory of the American Cigar Box Company, which is located at Hillside, has been very dull because the American Tobacco Company, which has heretofore drawn its supply of boxes chiefly from this plant, now patronizes a southern establishment where the boxes are made for a fraction of a cent less than the prices charged by the New Jersey concern.

SHADY SIDE.

Surveys are being made at Shady Side by parties who are interested in securing a satisfactory site for a paper box factory.

April.

HACKENSACK.

The laborers of Edgewater, Cliffside and Fairview, Bergen County, are trying through their unions to secure a reduction of their working hours from ten to nine per day.

May.

EDGEWATER.

Michael Caulfield, a workman at the Barrett Tar Manufacturing Works, lost a finger through its being caught under the sharp blade of a cutting machine on which he was employed.

June.

RUTHERFORD.

The United States Circuit Court has appointed a receiver for the Rutherford Manufacturing Company. The concern is engaged in the manufacture of several varieties of underwear, and the action of the Court was taken to protect the business from the extreme consequences of temporary financial embarrassment in which it had become involved.

July.

KINGSLAND.

The Kingsland Brick Company has been incorporated at Kingsland. Capital stock, \$60,000.

EDGEWATER.

The Larkin Soap Mfg. Company of Buffalo, N. Y., has recently purchased land on the water front at Edgewater, on which it is said the company will erect a factory. Property in this place is being rapidly bought up by manufacturing firms because of the facilities for the comparatively inexpensive shipment of freight afforded by the Hudson River, and also the nearness of the town to New York City.

RIDGEFIELD PARK.

An extension is being built to the Dinker Foundry at Ridgefield Park.

MAYWOOD.

The Thorium Chemical Company has been incorporated at Maywood and will locate its factory at the same place. The capital stock is fixed at \$100,000.

NORTH ARLINGTON.

The Ideal Steel Company has been incorporated at North Arlington with a capital of \$50,000.

RIDGEWOOD.

The Ridgewood Commercial Company, to manufacture novelties, has been incorporated at Ridgewood. Capital stock, \$25,000.

August.

SHADYSIDE.

The general manager of the Barrett Manufacturing Company at Shady-side has issued an order for the discharge of all employes over fifty years of age. This action of the company official is strongly condemned in the community where the works are situated, and many old and faithful employes will suffer greatly if it is carried out.

EDGEWATER.

Frank McKenna, a brakeman, while working at the coal docks at Edgewater, was struck by a fragment of a brake which was torn from a car by a collision, and suffered a severe wound on the head.

WORTENDYKE.

Charles de Bon, of Midland Park, while oiling machinery in the factory of the Garnett Linen Company at Wortendyke, was drawn up to a rapidly revolving shaft through a portion of his clothing having been caught in

a gear. The man was whirled around the shaft several times before the power could be shut off, and when released, his left arm was found to be so badly broken and bruised that amputation was necessary.

GARFIELD.

John Hennch, a workman, had a hand badly injured by being caught in some machinery on which he was at work in the Enameline Mill at Garfield.

September.

HACKENSACK.

The Givernaud Silk Mill at Hackensack is run until 7 p. m. in order to keep up the demand for its products. The mill managers are unable to procure the necessary number of workmen to keep the work of the mill abreast of orders without working overtime.

SHADYSIDE.

The New York Glucose Company is building an addition to its factory at Shadyside.

Nicholas Flood, a workman employed at the factory of the New York Glucose Company, had both hands very badly burned by touching a running dynamo.

EAST RUTHERFORD.

The large factory buildings of the Zahn & Bowley Company at East Rutherford was entirely destroyed by fire. The loss amounts to \$83,000, of which \$21,000 was on the building; \$18,000 on tools and machinery; \$20,000 on material and \$24,000 on finished product that was stored in the works. One hundred and fifty men are idle as a consequence of the fire.

James O'Connor, an employe of the New York Glucose Company, was thrown from a high scaffold at the works while adjusting a piece of machinery and received injuries from which he died soon after.

BURLINGTON COUNTY.

October.

BEVERLY.

An explosion occurred in the Turner Birkhead Knitting Mills at Beverly, by which Albert Stuckey lost his life, and which resulted in the wrecking of the entire mill plant. Two hundred operatives, male and female, are thrown out of employment with little or no prospect of work being found by a considerable number of them in the local factories.

DELANCO.

The Ridgeway Shoe Factory at Delanco is making large shipments of goods to Cuba. At present the firm is rushed with work.

The receiver of the John W. Taylor Manufacturing Company has wound up the concern's affairs and filed his report showing no funds to meet claims of unprotected creditors.

November.

LUMBERTON.

The shoe factory of Reid & Company of Lumberton has stopped operation for an indefinite time and over one hundred persons are out of employment as a result. A lack of orders is the cause.

BURLINGTON.

Dominick Bonafazio, an Italian aged 17 years, was struck and killed by a train at the Sluice Bridge, Burlington. He was employed by C. A. Sims & Company, and was working on the stone bridge the Pennsylvania Railroad is erecting at this point.

December.

MOUNT HOLLY.

Edward Spith, of Mount Holly, a brakeman on the Pennsylvania Railroad, while climbing across the tender of an engine at Millham, fell into the coal pit and injured his hand.

BORDENTOWN.

Samuel Palmer, an employe of the Pennsylvania Railroad Company, while working on the Trenton branch, was struck with a piece of stone which cut him badly over the left eye.

January.

BURLINGTON.

William Reed, of Earl street, Burlington, while attempting to push a loaded car into an oven at the Delaware Iron Works, had a hand caught between the car and the spout of a cupola, injuring it severely. One finger was severed, another broken, and the hand otherwise badly lacerated.

LUMBERTON.

Through the efforts of the Board of Trade a new watch case and engraving company will locate in Lumberton. They will occupy the building formerly used by the Enterprise Shoe Company.

BEVERLY.

The Beverly Underwear Company of Beverly has been incorporated with a capital stock of \$100,000.

February.

MEDFORD.

The Medford Gas Company of Medford has filed articles of incorporation with the County Clerk which show an authorized capital stock of \$25,000.

March.

BURLINGTON.

The United States Cast Iron Pipe and Foundry Company is making improvements to its shipping facilities, by repairing the wharf and improving the tracks connecting the works with the main railroad line. The machinery and tools are also being overhauled.

FIELDSBORO.

The firm of Robinson & Fossbrook have completed the erection of their new building for the manufacture of chains. The new structure is of wood, equipped with modern machinery and cost \$5,000.

April.

BURLINGTON.

The Devlin Manufacturing Company is about to enlarge its plant by the erection of a brick building 40x45 feet, and three stories high. The company will engage in the production of malleable and grey iron castings. The cost of the new structure will be \$3,000 and ten men in addition to its present force will be employed.

The Burlington branch employees of the United States Cast Iron Pipe and Foundry Company have organized a social and benevolent society to which only employees are eligible. The new association will provide sick and death benefits for its members, and also develop a system of entertainment for the intellectual improvement of the company's employees.

May.

BURLINGTON.

William Grace, an employe of the United States Cast Iron Pipe Company at Burlington, was caught between a large pulley and belt while performing his customary duty of oiling shafting in the foundry, and killed. The man's body was literally dismembered and fell from the shafting to the floor in fragments.

August.

SMITHVILLE.

The H. B. Smith Machine Company have purchased almost the entire town of Smithville, and will hereafter be both landlords and merchants to their employes.

BURLINGTON.

After a suspension lasting two weeks, the Bastian Company's shoe factory has resumed work.

The Yearly Self Sealing Jar Company has filed its incorporation papers with the Clerk of Burlington County. The company will manufacture preserving jars, and commence business with a capital of \$75,000.

September.

BURLINGTON.

Smith Case, an engineer in the electric light works at Burlington, was struck on the head by a heavy iron clutch that became separated from the driving wheel, and very severely injured.

BIRMINGHAM.

The Platt Concrete Construction Company is now erecting a building at Birmingham in which artificial building stone will be manufactured. The structure will be of concrete and wood, and will cost when fully equipped, \$5,000. A force of ten men will be employed.

KINKORA.

A large force of laborers are employed grading and filling in preparatory to commencing work on the erection of the new iron and steel plant for the John A. Roebling's Sons Company.

The Mickle-Milnor Engineering Company was incorporated at Burlington. Capital, \$20,000.

CAMDEN COUNTY.

October.

CAMDEN.

The University Chemical Company was incorporated at Camden with a capital stock fixed at \$50,000, \$1,200 of which is paid in.

The Wyand Steam Turbine Manufacturing Company has been incorporated at Camden with a capital of \$125,000. The company will make and deal in mill supplies of all kinds.

A receiver was appointed for the Philadelphia Worsted Company whose mills are at Camden. Labor strikes is the cause given for the company's becoming insolvent. These did not occur among the firm's employes, but took place in other concerns who had been purchasers of their products. The liabilities are much in excess of assets.

After maintaining a hostile attitude toward each other for some years back, the several organizations into which the window glass workers are divided have come together, settled their differences, and agreed upon a wage scale.

A slight fire caused by electric wires under the floors, occurred in the Morocco Leather works at Camden. The damage was slight.

Michael Burk, an employe of the General Chemical Company, while working on the restoration of a building that had been burned, fell from a scaffold to the ground, a distance of twenty-five feet, and sustained a fracture of the left leg and a dislocation of the right shoulder.

MAGNOLIA.

The glassblowers formerly employed by the Atlantic Glass Company at Magnolia have organized a co-operative company with a view to rebuilding and again operating the plant which was destroyed by fire some time ago.

A force of men has been put to work cleaning up the ruins. An up-to-date plant will be constructed and a force of workmen equal in number to that formerly employed will be set to work.

LINDENWOLD.

Henry Galheber's leather plant, which has been in the hands of a receiver, has been sold to the Teeter Kid Company. The new firm will put the plant in operation, and employ about twenty-five men.

November.**CAMDEN.**

Carl Ehler, aged fifty-nine years, was crushed between a car and shifting engine at the Pavonia carshops at Camden. He was taken to the Cooper Hospital, where he died.

James W. Griffin, aged twenty-five years, of South Bethlehem, Pa., was severely burned by an explosion of gas at the plant of the Public Service Corporation at Camden. Although severely injured it is thought he will recover. He was taken to the Cooper Hospital.

John Johnson, colored, aged forty-three years, was overcome by and died from the fumes arising from a lime kiln at Twelfth and Federal streets, Camden.

The Thomas T. Eckman Company has been organized at Camden with a capital of \$25,000. The company will manufacture alternative drugs and broths.

The Kinniska Spring Company has been organized at Camden with a capital stock of \$100,000.

F. Hartman & Son, cigar manufacturers, have purchased the property located on the northeast corner of Third and Arch Streets, Camden, and will erect a building for the manufacture of cigars.

GLOUCESTER.

The City Council of Gloucester has under consideration an ordinance providing for the vacation of Ellis street, which appears on the map as running through the property of the old Gloucester Iron Works, now owned by the New York Shipbuilding Company. If this is done the latter concern will erect a new building at a cost of \$70,000. The structure will be of brick and steel and cover a space of 77,400 square feet. Eighteen thousand dollars will be expended for machinery and tools in the new plant.

December.**CAMDEN.**

The Larchmont Lumber and Mining Company of Camden has been incorporated with a capital stock of \$15,000. The company will conduct a saw mill and deal in lumber.

The Glenmore Ice and Coal Company of Camden has been incorporated with a capital stock of \$150,000, to manufacture and sell ice.

The Flannery Bolt Company filed articles of incorporation with the County Clerk showing a capital stock of \$50,000. The object of the company is to manufacture and deal in all kinds of bolts.

William Sedgely, of Camden, was injured about the shoulders by a box which fell on him at the United States Chemical Company's plant, where he was employed.

William Kummer, aged twenty-three years, while at work at the Keystone Leather Works, Camden, was accidentally struck over the right eye by a heavy iron bar.

The N. J. Graves Company, manufacturers of varnish and japan, at Twelfth and Federal Streets, Camden, will erect a brick addition to their present plant.

January.

CAMDEN.

Foster Leather Belting Company has been incorporated with a capital stock of \$50,000.

The Switzer-Robinson Corporation has been organized at Camden with capital stock of \$50,000.

The International Roller Company has been organized with an authorized capital stock of \$50,000. They will conduct a printing and publishing business.

The following named companies also have filed certificates of incorporation with the clerk of Camden County: Textile Commission Company, to manufacture cotton, wool, etc., capital stock, \$5,000; the Cocoonut Company, capital stock of \$30,000; Columbia Bottling Company, capital stock of \$5,000; Diamond Tip Lace Company, capital stock of \$100,000; Voight Metal Company, to manufacture castings, etc., capital stock of \$100,000; Fisher Leather Belting Company, capital stock of \$50,000; the Loraine Company, to manufacture cotton, velvet, etc., capital stock of \$25,000; Essington Rotary Steam Expansion Engine Company, capital stock of \$300,000; Empire Noodle Company, capital stock of \$25,000.

The Southwark Scale Company of Philadelphia has purchased a parcel of land in Camden, 60x183 feet. It is said to be the firm's intention to alter the three story brick building on the premises to meet the needs of its business and to erect such other buildings on the property as may be required. Other factories operated by the company at Philadelphia, Lansdale and North Wales, Pennsylvania, may finally be concentrated at Camden.

John Schultz, aged thirty-nine years, while working at John Dialogue's shipyard, at Camden, had a hand caught in some machinery and severely injured.

The Peter Hagan & Company Shipyard at the foot of 26th street, Camden, has been closed since December 19th, 1903, on account of the heavy ice in the Delaware River, causing fifty men to be idle.

The Camden Iron Works have secured the contract for the erection of a mammoth gas tank for the Public Service Corporation at Second and Cherry streets, Camden. Its capacity will be 2,002,000 cubic feet.

February.

CAMDEN.

Articles of incorporation have been filed by the following named industrial companies during the month of February: Horace E. Frick Company, boiler castings, etc., capital stock, \$10,000; Ashlan Rose Company, to manufacture cigars, capital stock, \$500,000; Western Railway Signal Company, railroad supplies, capital stock, \$60,000; Fullard Machine and Press Company, printing presses, etc., capital stock, \$100,000; Arithmograph Company, adding machines, etc., capital stock, \$100,000; Phoenix Steel and Wire Company, music wire, etc., capital stock, \$35,000; De Site Mfg. Company, chocolate, etc., capital stock, \$100,000; Davie Rubber Company, rubber hoof pads, capital stock, \$20,000; Bunada Company, cotton, velvets, and other fabrics, capital stock, \$25,000; American Heating and Ventilating Company, capital stock, \$25,000; The East Coast Gas Company of Camden has been chartered by the State to distribute gas in the borough of Wildwood, capital stock, \$5,000; The Western Railway Signal Company with a capital stock of \$60,000.

Thomas West and Stephen Green, both colored laborers, aged forty-eight and nineteen years respectively, narrowly escaped death by the falling of a pile of pig iron which they were loading on a car in the yard of the Camden Iron Works. Both men were severely injured, but will probably recover.

GLOUCESTER CITY.

The old Gloucester Iron Works was purchased for the New York Ship Building Company of Camden. It is reported that the company intends to raze the old buildings and erect a new steel plant.

March.

CAMDEN.

The following named industrial companies have filed their certificates of incorporation in Camden County during the month of March: The Goodhart Cigar Company, to manufacture cigars, capital, \$25,000; The Baxter Lighting Company, to manufacture gas fixtures, capital, \$25,000; Kohne Brothers Company, to manufacture plumbers' materials, capital, \$15,000; Wirt & Knox Mfg. Company, to manufacture fire department supplies, capital \$25,000; the Hess-Bright Mfg. Company, to manufacture ball bearings, capital, \$250,000; Price Leather Company, to manufacture leather, capital, \$100,000; Monarch Engraving Company, to manufacture steel dies, capital, \$5,000; the Ferry-Hallock Company, to manufacture paper, capital, \$100,000; A. Weinstein & Company, to manufacture cigars, capital, \$15,000; Welsh Chemical Company, to manufacture drugs and chemicals, capital, \$100,000; Southern Supply Company, to manufacture plumbers' materials, capital, \$50,000.

MacAndrews & Forbes Licorice Company will erect an addition to its plant at the foot of Jefferson Avenue, Camden, which will cost \$4,000. The new building will be of brick and cover a space of 300x100 feet.

A new schedule of wages has been established by the Carpenters and Joiners of Camden to take effect May first. The rate is to be \$16.50. Eight hours will constitute a day's work for five days in the week and five hours on Saturday.

COLLINGSWOOD.

Samuel Miller, a builder, fell a distance of twenty-three feet from a scaffold which gave way, while he was working, and sprained his ankles. Another workman by the name of Richards who was also on the scaffold, received several cuts and bruises about the body.

April.

CAMDEN.

Several of the principal buildings of the Victor Talking Machine Company's plant at Camden were destroyed in whole or in part by a fire which burned so fiercely that assistance had to be asked for from the Philadelphia fire department. The total loss foots up to \$191,524. Of this amount, \$30,148 was on buildings, \$32,582 on machinery and tools, \$41,147 on raw material, and \$87,647 on finished goods. The fire started in a wooden structure in the vicinity of the Victor plant. About three hundred men are temporarily idle in consequence of the damage done.

A large manufacturing concern from outside of the State has purchased a tract of land on the east side of Camden on which to erect a factory.

Arthur Hanesworth, a carpenter, fell from a scaffold on which he was working at the Mellon-Rittenhouse Licorice Works, and sustained a fracture of the right knee, besides other injuries that caused a temporary paralysis of his left side.

Frank Reed, a machinist, had the sight of his right eye totally destroyed by a chip of steel which penetrated the eyeball.

Fifty female employees of the C. Howard Hunt Pen Company were discharged for having taken a half holiday against the express orders of the manager forbidding them to do so.

A number of plumbers employed in Camden have gone on strike to enforce a demand which the union had made on employers for a uniform daily wage for journeymen regardless of difference in skill.

Sixty-three men, members of a local union of operative potters, have quit work at the Camden pottery because of a misunderstanding with their employers over the length of time that should be allowed for "building" a kiln. The time claimed by the National Convention of Potters for this work is sixteen and one-half days, but striking workmen claim that the Camden kilns are so much larger than the ordinary, that the allowance should be at least eighteen days. It appears that the matter in dispute was referred to the Conference Committee, which is composed of three operators and a like number of operatives, a body expressly created to settle disputes without resorting to strikes, and that the decision rendered was in favor of the men. The firm refused to abide by it, however, hence the refusal of the operatives to continue at work.

The following named industrial companies were incorporated at Camden and will carry on their manufacturing business in that city: Hamilton

Village Ice Manufacturing Company, to manufacture ice, capital, \$100,000; Wagner, Wagner & Company, to manufacture paper, capital, \$150,000; East Side Iron Works, to manufacture iron products of various kinds, capital, \$125,000; The Standard Scale and Supply Company, to manufacture machinery, capital, \$600,000; Vincent Purtuondo Cigar Manufacturing Company, to manufacture cigars, capital, \$100,000; American Window Screen Company, to manufacture window screens, capital, \$125,000; Commercial Engineering Company, to manufacture steam engines, capital, \$125,000; L. J. Bordo Company, to manufacture iron, capital, \$100,000; Excelsior Yacht, Launch and Engine Company, to build yachts and engines, capital, \$100,000.

HADDONFIELD.

The Mineral Products Manufacturing Company of Philadelphia has leased the abandoned power house at Haddonfield and will operate the place as a branch of its business.

The Clifton Mills Company, to manufacture textile goods, has started a plant at Haddonfield; capital, \$100,000.

May.

CAMDEN.

A "bolters up" gang, seventy-five in number, in the yard of the New York Ship Building Company at Camden went on strike to have their wages increased from \$1.25 to \$1.50 per day.

An explosion occurred in the mixing house of the Independent Fire Works Company situated in the borough of Woodlynne, just over the Camden city line. The building was entirely destroyed and of the ten persons who were in it at the time of the explosion, three were killed outright, and all the others suffered severe and painful injuries; one of these latter was a boy twelve years of age. The cause of the explosion was unknown.

Martin Polski and B. Howard, both employes of the Camden Iron Works Company, were accidentally injured while engaged at their regular duties. One had a foot crushed, and the other suffered from a severe laceration of the scalp.

The A. Sydney Rambo Company was incorporated at Camden with a capital of \$50,000. The company will manufacture mineral wool.

The Style Comfort Home and Shoe Company was incorporated at Camden with a capital of \$300,000. The object of the company is to manufacture shoes of all kinds.

The Leon Rudolph Company, with an authorized capital of \$50,000, has been organized at Camden. The company will manufacture glazed kid.

The improved By-Product Coke Oven and Gas Company, with a capital of \$100,000 has been organized at Camden to manufacture coke and gas.

The Pennsylvania Electrical Equipment Company has been organized at Camden to manufacture electrical instruments. The authorized capital is \$20,000.

The H. Ruderman Company has been incorporated at Camden with a capital of \$12,500. The company will manufacture novelties.

The following additional corporations were incorporated at Camden during the month of May, without the records showing where the factories are to be located:

The Collegiate Association, manufacturers of books, capital, \$100,000.

The David H. Schuyler & Sons Funeral Supply Company, to manufacture articles indicated by its title. Capital, \$50,000.

The Consolidated Knitting & Spinning Company; capital not reported.

The A. T. Sellers Pharmacy Company, manufacturers of chemicals. Capital, \$25,000.

Globe Cigar Company, manufacturers of cigars. Capital, \$50,000.

June.

CAMDEN.

A carriage building shop in Camden owned by Frank Styles was damaged by fire, which originated in sparks from the forge falling unnoticed in among waste, where it smouldered until after the establishment was closed for the day. The damages sustained amounted to a total of \$4,500, of which \$700 was on the building, \$300 on machinery and tools, \$500 on material, and \$3,050 on finished vehicles that were in the factory.

The Independent Fire Works Company, whose plant at Camden was wrecked by an explosion, are to re-open their manufactory at Chester, Pa.

Persons interested in the Ruby Match Company, whose plant is situated in North Camden, charge mismanagement of business and have applied for the appointment of a receiver.

The Victor Talking Machine Company has perfected arrangements for re-building the parts of its factory at Camden which was recently destroyed by fire.

The Evenson & Levering Wool Scouring and Carbonizing Company is about to start a plant in Camden in which to carry on its business. Entirely new processes will be used, and fifty operatives will be employed. The factory building to be erected will be 290x100 feet.

The Pennsylvania Metallic Packing Company was incorporated at Camden with a capital of \$30,000. The company will manufacture and deal in metallic packing cases of all kinds.

The King Specialty Company was incorporated at Camden for the purpose of manufacturing fireworks. The capital was fixed at \$150,000.

The Hirsch Brothers Company is the name of a company organized and incorporated at Camden to manufacture umbrellas, parasols, and walking sticks. The capital is \$650,000.

The Standard Crushed Stone Company was organized in Camden with a capital of \$50,000. The object of the company is to work mines, quarries, etc.

July.

CAMDEN.

The firm of Evenson & Levering, who now conduct a wool scouring establishment at Philadelphia, have contracted for the erection of a large brick building in South Camden, partly one and two stories in height, and

99x291 feet on the ground, in which a large wool scouring plant will be established. The total cost of the new establishment is stated by the proprietors to be \$45,000, and thirty-five men will be employed when active operations are commenced.

A reduction of five per cent. in the wages of workmen employed at the Pavonia Railroad shops at Camden, has been announced to go into effect for the month of July. The wages of mechanics only are to be reduced. No change will be made in the pay of laborers. The action of the railroad company in the matter is attributed to growing dullness in trade.

The J. F. Murphy Company, to manufacture lace, has been incorporated at Camden. Capital stock, \$100,000.

The Moyer Bros. Company, to manufacture cordials, has been incorporated at Camden. Capital, \$25,000.

The Veneer Company, to manufacture glue, has been incorporated at Camden. The capital stock is fixed at \$100,000.

The Righter-Parry Lumber Company has been incorporated at Camden with a capital of \$100,000. The company will carry on a general lumber and saw mill business.

The National Photophone Company has been incorporated at Camden with a capital of \$100,000.

The Chemical Coverall Company, to manufacture paints, has been organized at Camden. Capital stock, \$50,000.

August.

CAMDEN.

Notice was posted in the shops of the Pavonia Car Company at Camden to the effect that operations would be suspended for a period of two weeks. About four hundred employees will be idle until work is resumed at the plant.

Alfred Wuench, a workman employed at the Camden Iron Works, was severely injured in the abdomen by a piece of wood hurled from a circular saw on which he was working.

The following named industrial companies filed certificates of incorporation with the Clerk of Camden County during the month of August: Whitely & Collier Company, to manufacture tapestry, capital, \$16,000; American Corrugated Furnace Company, to manufacture furnaces, capital, \$350,000; Pennsylvania Iron Works, to manufacture machinery, capital, \$200,000; American Water Purifying Company, to manufacture filters and other machinery, capital, \$1,000,000; Eastern Foundry and Machinery Company, to manufacture machinery and tools, capital, \$200,000; Glazer Confection Company, to manufacture confections, capital, \$100,000; William Price Company, to manufacture ladies' cloaks, capital, \$10,000; Anthracite Machine Works, to manufacture iron and steel, capital, \$50,000; Waldron Flexible Engine Company, to manufacture rotary engines, capital, \$100,000; The J. F. Murphy Company, to manufacture gloves, capital, \$100,000. American Plate Ice Construction Company, to manufacture apparatus for making artificial ice, capital, \$125,000; National Umbrella Company, to manufacture umbrellas, capital, \$100,000; The Crandall-Mc-

Kenzie Company, to manufacture coloring materials, capital, \$25,000; American Rotary Engine Company, to manufacture rotary engines, capital, \$100,000.

September.

CAMDEN.

The Victor Talking Machine Company of Camden has contracted for the erection of a large addition to its plant at that place. The new building will be of brick four stories in height and 60x170 feet. The cost of the structure will be \$70,000.

The incorporated firm of Merrett & Company, manufacturers of many varieties of metal work, has purchased a large building in Camden, which is being re-fitted to accommodate the requirements of their business. The cost of the new factory was \$65,000.

Perry Pedrick, an employe of the Camden Iron Works, was accidentally struck on the head by a large piece of iron while at work in the pit.

George Schultz, an employe of the Keystone Leather Company at Camden, had his right hand badly lacerated by an accident which occurred while he was at work.

The Court of Chancery has appointed a receiver for the Excelsior Yacht and Launch Engine Company of Camden. It is charged in the petition that the company has not sufficient funds with which to carry on its business.

The Pennsylvania Car Shops at Camden were re-opened and work resumed in all the various departments with a full force of employes.

GLOUCESTER CITY.

The plant of the Welsbach Light Company at Gloucester City is being run overtime.

The employes of the Fries-Harley Company at their large rug mill at Gloucester City refused to resume work at a ten per cent. reduction in wages after the mills had been closed for nearly three months. The firm brought a number of workmen from New York City to take their places, and fitted up quarters within the works for sleeping and eating accommodations in order to avoid a clash between the new men and the strikers.

The mill was attacked by a lot of riotous boys who stoned the mill building and broke a large number of windows. Peace was finally restored by the police, who dispersed the crowd. The strike lasted throughout the entire month of September and much bitterness of feeling was shown on both sides. Local sentiment seems to have favored the strikers, who are residents of the town, from the start. The non-union men who took their places were all natives of Armenia. The situation became so disagreeable for them that the non-union men quit work after receiving their first week's wages, and the strikers soon after returned on a compromise of the proposed reduction in wages.

The following named industrial companies have been incorporated at Camden during the month of September: Ruppman Door Holder Company, to make door holders, capital, \$50,000; Glenn-Riddle Manufacturing

Company, to manufacture woolen goods, capital, \$10,000; Flag Stove Company, to make stoves, capital, \$20,000; Peninsular Dairies Company, to manufacture dairy products, capital, \$150,000; Platt Ice Making Machine Company, to manufacture ice making machines, capital, \$500,000; Hendrickson-Andrews Company, to manufacture miscellaneous wares, capital, \$125,000; Concrete Hollow Block Supply Company, to make building blocks, capital, \$100,000; Sheridan Smelting Company, to produce steel and iron, capital, \$750,000; National Laundry Machine Company, to make laundry machines, capital, \$25,000.

February.

CAPE MAY.

The Stevens Improved Chemical Mixing Fire Extinguisher Company has been incorporated at Cape May with a capital stock of \$125,000.

CUMBERLAND COUNTY.

October.

BRIDGETON.

A firm of cloak manufacturers are endeavoring to get possession of a school building in Bridgeton, in which it proposes to carry on the business of garment making. The property in question belongs to the municipality but never was used for school purposes. If successful in the negotiations, the firm promises to employ about three hundred hands.

English patentees of looms for making a special grade of textile goods have accepted an offer to locate in Bridgeton. Their factory will be erected on the site of the Eastlake Woolen Mill which was recently burned.

Preparations are being made to begin the erection of a large addition to the plant of H. A. Dix & Sons at Bridgeton.

The confectionery factory of L. Sagel at Bridgeton which was recently destroyed by fire is to be rebuilt immediately in fire proof form.

Lewis Mattison, a mason's helper employed on the new foundry building of Cox & Sons at Bridgeton, fell from the scaffold to the ground with a hod of bricks on his shoulder and was quite severely injured.

MILLVILLE.

The opening of the North American Window Glass Works for the season's blast has been delayed until October 15th because of the action of the large western combinations who have been unloading their surplus products on the market and threaten a cut in prices if the independent plants are started without their permission.

Henry Ingersoll, fourteen years old, a tending boy at the Millville Bottle Works, was terribly burned about the head and neck by hot glass which a workman, provoked by a mistake made by the boy, had thrown at him.

November.

BRIDGETON.

Chester Garrison, employed by the Moore Jonas Glass Works at Bridgeton, had one of his feet badly injured by a batch car running over it.

The I. Whilden Moore Company's window glass factory at Bridgeton will be in operation as soon as the plant can be made ready. Fires have already been started.

The West Jersey Tube Works of Bridgeton have notified their employes that work in the puddling mill will be shut down at once, and that probably two weeks later the same course will be taken in the pipe mill. The reason assigned by the company for this action is that prices are very low with but little demand for the pipe. The unsettled conditions that have for some time existed in the building trades owing to labor troubles is believed to be the principal cause of the depression.

VINELAND.

Louis Sagel, the Bridgeton candy manufacturer whose plant was destroyed by fire some time ago, has purchased the large factory in Vineland formerly occupied by the John R. Potts Shoe Company, and will carry on his business there.

The American Land Improvement and Silk Culture Association is the name of an organization that has undertaken to demonstrate that silk cocoons can be successfully produced in many parts of the United States, and that thereby the now great and constantly increasing demand of American mills for raw silk, may be supplied by a product raised on our own soil. Interest in the possibilities of domestic raw silk culture has been strengthened by a statement made recently by the Secretary of Agriculture which promises substantial assistance from the Federal Government to those who take up the business in a practical way. The Association has purchased 16,000 acres of land at Vineland, on which mulberry trees to feed the silk worms will be planted, and all other requisites provided for starting the industry.

MILLVILLE.

Henry A. Dix & Sons, who own and operate factories in Millville, Bridgeton, Vineland and Carmel, have purchased a large tract of land adjoining their property in Millville and have started to enlarge their plant. One hundred more persons will be employed when the addition is completed.

The North American Window Glass Company has started up its Millville plant which, for business reasons, has been idle several months. The wage scale will be the same as that in other factories.

The Bricklayers', Stone Masons' and Plasterers' Unions of Millville have already declared for the eight-hour law and fixed wages respectively at \$4.00, \$3.50 and \$3.00 per day. Timely notice of the change in working hours and wage rates is to be given to employers, so that account may be taken of it in estimating on contracts.

December.

BRIDGETON.

A company has been formed in Bridgeton with a capital stock of \$100,000 to manufacture insulators. The firm has purchased the Jonathan Parker Glass Works at Elmer, which it will operate under the name of the Elmer Glass Works.

Application has been made to the United States Court to have the J. F. Brady Company, fruit packers, adjudged bankrupt. Recently a receiver was appointed on the request of the company and it was alleged by three of the creditors that the officers committed an act of bankruptcy when they asked the Court of Chancery to appoint a receiver for the corporation.

The works of the Ferracute Machine Company at Bridgeton were destroyed by fire which did damage to the amount of \$8,990 to building and \$106,468 to machinery and tools; total \$115,458. Since, the company has been reorganized, and the plant will be rebuilt.

A new firm has rented the factory building formerly occupied by H. A. Dix & Son at Bridgeton, and will engage in the manufacture of ladies' wrappers.

MILLVILLE.

The window glass situation in South Jersey is in a confused and unsatisfactory condition owing to the fact that notwithstanding the wage scale for the year has been satisfactorily settled, manufacturers are unwilling to resume work unless the eastern and western factories can be got to run under substantially the same rules. Some of the principal glass plants of Millville and Bridgeton are idle and will remain so pending the making of such an agreement.

January.

BRIDGETON.

The Bergen Drug Company has been incorporated with a capital stock of \$100,000, to do a line of business indicated by its title.

The new wrapper factory being constructed for H. A. Dix & Sons is nearly completed.

VINELAND.

Many meetings of the directors and employes of the Vineland Window Glass Company of Vineland have been held for the purpose of settling the wage scale. The factory, which when running employs 150 men, has not been in operation this season but will, it is expected, resume work on February first.

MILLVILLE.

After an idleness of ten months the North American Window Glass Company of Millville will again begin work. The plant is to be operated on a co-operative basis, the employes taking stock in the company and the

present owners advancing the necessary capital for expenses for ten per cent. of the profits.

A representative of the Cathedral Glass Company of Pittsburg has been making investigations in Millville, preliminary to the erection of a large glass plant on the Garrison tract on the outskirts of the city. The company manufactures Japanese colored plate glass for church windows and the plant according to the plans will give employment to 300 persons.

CEDARVILLE.

The death of John E. Diamant, who was largely interested in the canning business and controlled factories at Cedarville and Tuckahoe, is announced.

February.

BRIDGETON.

Bridgeton Bleach & Finishing Company has filed articles of incorporation with the County Clerk which show an authorized capital stock of \$500,000.

Stratton Moore, of the I. Whildon Moore Glass Company, has purchased the factory of Kirby & McBride, formerly the East Lake Glass Works, and the plant will be put in operation at once.

An announcement has been made by the Window Glass Workers of America of a reduction in the wage scale of 18 per cent. on single and 14 per cent. on double strength glass. The inability of manufacturers of window glass to successfully compete with those of other countries at the present rate of wages, has caused a stoppage of work in several factories. It is probable that this concession will bring about a resumption of operations in all the idle plants.

VINELAND.

Louis Sagel & Son Company of Vineland has been incorporated with a capital stock of \$100,000, to manufacture candy.

TUCKAHOE.

The John E. Diamant Company, packers and preservers of fruit and vegetables, with factories at Tuckahoe and Cedarville, has been incorporated with a capital stock of \$100,000.

March.

BRIDGETON.

The Ayars Canning Company of Bridgeton has purchased the J. F. Brady Canning Company's factory at the same place, and will operate it in connection with its original plant.

The Ferracute Machine Works at Bridgeton are being run day and night.

The glass plant of Parker Brothers at Bridgeton has been closed for one week.

VINELAND.

A fire, supposed to have originated in the bursting of a pot of molten glass, the contents of which flowed into the basement cave where everything was dry and favorable to almost instantaneous ignition, destroyed the tube shop of the Victor Durand Glass Works at Vineland. The loss on building, tools and finished stock on hand is estimated at \$25,000, and about one hundred men will be out of employment pending the rebuilding of the factory.

The flattening house and cutting room of the Vineland Window Glass Company's factory at Vineland, was destroyed by fire. The damage to the buildings was \$4,000, machinery \$2,000 and finished product \$2,000; total loss, \$8,000.

GREENWICH.

The Watson Brothers Company has purchased the canning plant of the J. F. Brady Company at Greenwich.

April.

BRIDGETON.

The stone masons of Bridgeton have quit work to enforce a demand they had made for a minimum wage of \$3.75, and a reduction of the hours of labor from nine to eight hours per day. They have been receiving \$3.50. The contractors refused to concede anything either as to hours or wages. The result has been an almost complete stoppage of building operations in Bridgeton, as wherever a non-union mason has appeared to take the place of a striker, the organized carpenters have refused to continue at work. Most of the contractors whose workmen are on strike have, therefore, discharged all their remaining help, thus bringing the various jobs on which they were employed to a standstill.

MILLVILLE.

The United States District Court has been petitioned by the Phoenix Clay Pottery Company to have the Millville Crystal Glass Company declared bankrupt because of its having transferred its real property in a manner which created preferred creditors.

The following industrial companies were incorporated at the office of the Clerk of Cumberland County: Arthur D. Ayars Canning Company, to carry on the business of packing fruits and vegetables, and also to manufacture tin cans for its own use. Capital \$50,000. The factory will be at Bridgeton. The Millville Brick Manufacturing Company, to manufacture brick and stone, capital \$100,000. The factory will be located at Millville.

July.

BRIDGETON.

There is much interest shown by Bridgeton glassblowers in the annual convention composed of delegates from the unions and representatives of the Employers' Association, which is now being held in Buffalo N. Y. The

wage scale is fixed at these annual gatherings, hence the interest displayed in them by all glass workers throughout the country. It is expected by the trade that the wage scale of last year will be left unchanged.

VINELAND.

Forty girls, employes in H. A. Dix's women's garment factory at Vineland, struck to compel the re-employment of a folder who had been discharged because of absence from work for one week through sickness. The girls insisted on the re-instatement of the discharged folder as a condition of their resuming work.

Henry A. Dix & Son Company is the name of a corporation formed at Bridgeton to operate factories for the manufacture of women's garments at Bridgeton, Millville, Vineland and Carmel.

August.

VINELAND.

Sixty-two employes of the Vineland Window Glass Company of Vineland have begun suit in the Chancery Court to recover from the firm the sum of \$24,210 which, it is alleged, is due them by reason of a co-operative agreement entered into by the company on one side and the employes on the other, which provided that the men were to work for one-half the union scale of wages, and were each to receive in addition thereto his per-capita share of two-thirds of such profits as might be made through the operation of the plant. This division, it is averred, the company refused to make.

September.

BRIDGETON.

The Bridgeton glass factories have resumed work after the customary shut-down of two months.

The North American Light Plant at Millville is expected to resume work in October. During the summer shut-down extensive repairs have been made to the buildings and furnaces.

The Vineland Bottle and Glass Company, to manufacture and deal in all kinds of bottles and glassware, was organized at Millville. Capital, \$55,000.

ESSEX COUNTY.

October.

NEWARK.

M. A. C. Mathews is having a new two-story brick varnish factory erected at Newark at a cost of \$15,824.

A factory building is being erected on Chestnut street, Newark, which will cost \$15,000.

The Igo Brothers, nail manufacturers, are erecting a two-story factory building of brick on Poinier street, Newark. The plant is at present situated in Brooklyn, but will be moved to Newark when the new building is finished.

An addition is being made to the factory building of C. A. Reilly, in Newark. The cost will be \$5,000.

The Universal Castor and Foundry Company is having a new brick factory building erected at Newark. The cost will be \$14,500.

A permit has been issued by the building department of Newark for the erection of factory buildings for the Linwood Manufacturing Company. The cost will be \$130,000.

The Newark Paraffine and Parchment Paper Company was incorporated at Newark. The authorized capital is \$10,000. The company will begin manufacturing in Newark.

The Newark Malleable Iron Company was formed at Newark with an authorized capital stock of \$125,000, of which amount \$1,000 is paid in.

The Manufacturers' Can Company was incorporated at Newark. The capital stock is fixed at \$100,000, of which \$10,500 is paid in.

The Automatic Electric Signal Company was incorporated at Newark. The capital stock is \$200,000, of which \$1,000 is paid in. The company will carry on its manufacturing business in Montclair.

The Ysskin Convertible Baby Carriage Company has been formed in Newark; the object is to make baby carriages according to a patent granted to Herman Ysskin. The authorized capital is \$100,000, of which amount \$50,000 is paid in.

There was some trouble among the girls employed in the printing department of Tiffany & Company's factory, at Forest Hill, over a change in the payment of wages from the day to the piece price plan. It was satisfactorily settled.

Matthew Gilleran, an employe of the hat manufacturing firm of E. V. Connett & Company, was severely injured by a fall while at work in the company's factory at Newark.

William Clark, an employe at John Sturm's wagon factory, Newark, met with an accident while at work which resulted in his nearly losing his life through a piece of steel being driven through his side into his left lung.

George Batchelor and George McArthur, painters, fell from a scaffold on which they were working to the pavement, a distance of twenty feet, and both received very severe injuries.

Henry Hamilton, an employe of the Atlas Refining Company, fell into a vat of hot grease while at work and received such severe injuries that he died.

The Arbitration Committee of the Essex Trades Council has taken up the alleged grievances of the trolley employes of the Public Service Corporation, and will endeavor to establish a good understanding between them and their employers.

The Pennsylvania Railroad Company has established an arrangement at its meadow shops at Harrison by which all employes are to be "laid off" two days in each month, thus serving the purpose of reducing expenses without discharging any of the men. This plan is regarded by the workmen as being highly satisfactory.

A female employe of the Weingarten Brothers, corset manufacturers, has begun a suit against that firm for compensation for the loss of a finger cut off through an accident while at work. Damages are placed at \$5,000.

The Court of Chancery has appointed a receiver for the Newark Metallic Company on petition of its creditors.

ORANGE.

A committee of the Carpenters' Union requested the Federated Trades Council of the Oranges to stop the sale of flour manufactured in a mill which, it was alleged, had been erected under unfair conditions.

The toolmakers employed at the Edison works at West Orange have gone on strike for an increase in wages and against the firm employing non-union men.

The planing mill owned by Charles Sauer, at Orange, was partly destroyed by fire, damages, \$4,000.

The polishers employed at the Edison works at West Orange threaten to strike if the management persists in its refusal to grant the demands of the toolmakers who are on strike, and to recognize the union.

BLOOMFIELD.

The United States Circuit Court in Trenton has appointed a receiver for the Combination Rubber Company of Bloomfield. The business employs several hundred men, and will be continued in operation under the receiver's management.

November.

NEWARK.

The Caloric King Furnace Company was incorporated at Newark with a capital stock of \$500,000, all of which is paid up. Its object is to acquire and work patent rights granted for improvements in furnaces and blasts.

The American Saddle Company has been organized at Newark with a capital stock of \$50,000.

The American Mineral Wax Mining Company was incorporated at Newark to do business of a character indicated by its title. Capital stock is fixed at \$10,000.

The Simmons Keystone Water Filter Company has been organized at Newark with a capital stock of \$150,000, of which \$15,000 is paid in.

The Fire-Resisting Paint Company has been organized at Newark. Capital stock is \$50,000.

The West Newark Saw and Planing Mill Company has been organized in Newark with an authorized capital stock of \$10,000, all of which is paid up.

The Herm Company has been organized at Newark. It will do a manufacturing business with a capital stock of \$50,000.

The Woodbine Hat Company has been organized at Newark, and will begin business on a capital stock of \$50,000.

The receiver of the Japanese Hair Manufacturing Company of Newark has made his final account of the defunct company to the Chancellor. In his report the receiver shows that he has only \$2,783.33 to be divided among the creditors, and asks the Court to make an order as to how he shall make payment, and also for his discharge as receiver.

George P. Holzsuch, while painting a house, fell from the scaffold and had his back injured. He was taken to the City Hospital.

James Mallo, aged twenty-five years, of Newark, while working on one of the buildings of the International Pump Company, at Harrison, fell a distance of fifty feet, his head and back striking a piece of iron on the ground. He was taken to the Emergency Hospital, where he died shortly afterward.

Luigi Brunzi, an Italian laborer, forty years of age, was probably fatally injured while at work with a gang on the Pennsylvania Railroad track elevation at Newark. One of the derrick cables used in hoisting heavy stones parted and struck the Italian on the head, crushing his skull. He was taken to St. Barnabas Hospital in a dying condition.

The Atha Steel Company, a branch of the Crucible Steel Company of America, has laid off temporarily some of its employees on account of lack of orders.

A fire almost totally destroyed the plant of the Perfect Leather Company at Newark. The damage is estimated at \$25,000.

Fire partially destroyed the macaroni factory of James Spagnola, 23 Adams street, Newark. It is estimated that \$3,500 is the amount of damage done.

Damage to the extent of \$3,000 was the result of a fire at No. 9-11 Lum street, Newark. The Nota Hook Company, John Tichenor & Company, Keller & Company and J. L. Somers are the concerns which suffered loss.

Friction from a spinning-wheel set fire to some lint and waste cotton in the spinning department of Clark's Thread Works, Passaic avenue, Newark. The fire was extinguished by the company's volunteer fire brigade. The loss is \$850.00, nearly all on machinery and material.

A fire in the three-story factory building at No. 24-26 Market street, Newark, which is occupied by several manufacturing concerns, caused damage to the amount of \$14,103. The losses sustained by the firms involved were as follows: The Nonpareil Manufacturing Company, \$275 on machinery and \$2,000 on finished product; the John B. Oelkers Manufacturing Company, \$6,000 on building, \$3,500 on machinery, \$1,000 on material and \$1,000 on finished product; William G. Langstroth, a locksmith, who occupied a part of the building, also suffered some losses through damage to his stock and tools.

A fire in the leather factory of S. Halsey & Son, Belmont avenue and West Kinney street, Newark, resulted in damage to the extent of \$2,220. The fire was caused by a workman tapping a barrel of naphtha with an axe, which struck a nail, thus causing a spark to reach the liquid.

The Essex Wallpaper Mills Company will vacate their factory at Mt. Prospect and Railroad avenues, Newark, on January 1st, 1904, and move its machinery to Camden. Morris Herman & Company, dry color manufacturers, will occupy the premises, which will be greatly enlarged so as to provide for the employment of a great number of hands.

Maas & Waldstein, chemical manufacturers, Riverside avenue, Newark, intend to erect an addition to their plant. The new building, which is to replace a wooden storage house, will be of brick, and extend 210 feet. It is to be two stories high, and will cost \$10,000.

S. Halsey & Son, patent enamel and fancy leather manufacturers, have disposed of portions of their factory property at Springfield avenue and

High street, Newark. The business of the firm will probably be removed elsewhere and new buildings erected. Tanning was stopped in the old plant last June, and has since been done at the West Kinney street and Belmont avenue establishment.

A riot between rival labor unions was suppressed by the police reserves of Newark. The trouble was between members of the housesmiths' and bridgemen's union and the boilermakers' organization, both claiming the right to do the work on a big gas tank in course of erection for Public Service Corporation at Fifteenth avenue and North street, East Orange, N. J.

There is some dissatisfaction among Newark manufacturers over the refusal of the State Commission to bear any part of the expense for transporting exhibits to the St. Louis Exposition, and several firms are said to have decided for that reason to take no part in the exposition.

The Board of Trade of Newark received a letter from an Ohio glass manufacturing company informing them of their desire to move their plant to Newark, and inviting the Board to send a committee to inspect the works where they are at present situated. It is stated that the glass factory is to be located on the meadows, and will start with the employment of about 1,500 hands.

BLOOMFIELD.

The Combination Rubber and Belting Company of Bloomfield was declared bankrupt in the United States District Court.

MONTCLAIR.

A strike is threatened by the union branches of the building trades of Montclair if the tanners and gasfitters do not join the Plumbers' Union or organize themselves into a union of their own.

December.

NEWARK.

The National Brewing Company has been incorporated with a capital stock of \$500,000. A new brick factory building with steam power will be erected at the corner of Springfield avenue and Thirteenth street, Newark, at a cost of \$50,000.

The Elk Manufacturing Company has filed articles of incorporation at Newark. The capital stock is \$50,000. The company will make a patent door check and closer.

Croselmir, Ackor & Company have filed articles of incorporation at Newark. The capital stock is \$100,000. The company will operate mills and works for crushing and treating mineral ores of all kinds.

The Newark Varnish Works has filed articles of incorporation at Newark. The capital stock is \$100,000. The company will manufacture and deal in paints, oils and varnish.

Frederick Howe, a machinist employed in Fiegenspan's brewery, at Newark, was caught in the shafting and had both legs and arms fractured and several ribs broken.

Louis Warfield, a workman employed by the Ricketts & Banks Ore-Testing and Refining Works, at Waverly, had a hand caught between cog wheels, while at work, and badly lacerated. It was found necessary to amputate the injured hand.

Frederick Gibbs, a workman employed by Ricketts & Banks, ore-smelters, of Waverly, had a hand caught in an ore crusher, while at work and badly mangled.

Edward Crane, a workman, while employed on the Pennsylvania Railroad elevation, at Walnut street, Newark, fell from a scaffold and was severely injured.

Angelo Valentino, employed as a laborer at the new City Hall, in Newark, fell from a scaffold and received a fracture of the right kneecap, and also of the nose.

Fire destroyed the American Tanner Glue Company's factory, at Newark, causing a loss estimated at \$5,000.

A fire completely destroyed the Newark Hat Factory of Barnard Daly, which was a three-story frame structure. The loss is placed between \$10,000 and \$15,000. E. V. Connett & Company, hat manufacturers of Orange, also lost a quantity of material which had been sent to the factory to be finished.

A destructive fire, which extended from No. 68-75 Mechanic street, Newark, caused \$40,000 damage to several manufacturing plants located in that district; among them are the Specialty Paper Box Company; Edward Zuzi's Brass Foundry; Perfection Underwear Company; Eagle Winker & Harness Manufacturing Company; Louis H. Furnett Company, brass founders; Benjamin Plant, metal pattern manufacturers; and the Livingstone County Produce Company. About two hundred men and girls will be out of employment as a result of the conflagration.

A new union, to be known as the Newark Carpet Workers' and Upholsterers' Local, No. 107, has been organized with one hundred members. While satisfied with their wages, the upholsterers and carpet workers will endeavor to secure a reduction of the hours of labor per day.

Donner & Company of New York City, manufacturers of hatters' furs, have purchased the property formerly occupied by the Meyer Mercy Company, at Newark. The firm will remove its plant here, giving work to about seventy-five men.

Creditors of S. J. Meeker & Company of Newark, which firm was declared insolvent, have incorporated the business under the name of The Meeker Foundry Company. The new corporation will continue the foundry business of the old company. The authorized capital stock is \$250,000.

The Court of Chancery has appointed a receiver for the K. B. W. Novelty Company of Newark, which has been conducting the business of manufacturing toy balloons and other articles.

The Universal Caster & Foundry Company, at Newark, has taken steps toward making a great enlargement of its present plant.

3 Some girls employed in the oxidizing department of the Woodside Sterling Company's Works, went on strike to compel the foreman to discharge one of their number who had become unpopular through persisting

in being friendly with another girl employe against whom the strikers had instituted a kind of boycott.

The trustee in bankruptcy of the Spencer Optical Manufacturing Company, at Newark, has paid employes the amount due them for wages; their claims being a first lien on the money realized from the sale of the company's property.

A strike was declared at the Linoleum Works, in Newark, because, as alleged, a contractor had employed non-union iron workers. After the non-union men had been discharged work was resumed.

Almost a mile of meadow land at the junction of the Passaic River and Newark Bay has been reclaimed by being filled with clean ashes and street sweepings, so that the surface is elevated more than six feet above high water mark. It has been ascertained that a large glass manufacturing company from Ohio has decided upon this ground for the erection of a new factory.

ORANGE.

The work of clearing the site selected by the Frederick J. Quinley Printing Company, at Orange, preparatory to the erection of its large new plant, is now well under way. In its completed state the establishment will consist of two large buildings, one 160x50 feet, and three stories high, and another 50x50 feet, two stories high. The new plant will have a fine frontage on the Lackawanna Railroad.

Thirty-two screw makers employed in the Edison Phonograph Works, at Orange, have been on strike since May, 1903, to force the company to take back into its employ a certain foreman and two toolmakers, who had been discharged at that time. The loss in wages to these men is reported by their late employers to be at the average rate of \$18.00 per week for each man since the strike began.

A fire occurred in the hat manufacturing plant of C. B. Rutan & Company, at West Orange, on December 5th. The loss on the building was \$5,000; machinery, \$2,800; and material, \$3,200; total, \$11,000.

MONTCLAIR.

An order has been issued by the Building Trades Council of Montclair to the local tinnerns and as fitters that they must either join the Plumbers' Union or form some organization of their own; as, without they do so, men in other trades will refuse to do work on premises upon which they are or had been employed. The tinnerns and gas fitters paid no attention to the order, and as a result several carpenters, painters and electricians abandoned jobs in various parts of the town where tinnerns were at work.

January.

NEWARK.

The following industrial companies have filed articles of incorporation with the clerk of Essex County: Theophilus M. Marc & Company, to manufacture and deal in materials used in the soap and candle trade, capital stock, \$100,000; Jaelinig Gas Fixture Company, capital stock, \$50,-

ooo; Standard Machine Company, capital stock, \$40,000; Rowal Machine Company, capital stock, \$40,000; Newark Electrical Contracting & Manufacturing Company, capital stock, \$125,000; The Standard Optical Company, capital stock, \$10,000; Thomas Cort, Incorporated, capital stock, \$61,000, to manufacture shoes, etc.; Newark Marble Company, capital stock, \$50,000; The Ferry Patent Stay and Ring Company, capital stock, \$100,000; U. S. Inspection Company, to manufacture all kinds of fire extinguishing contrivances, capital stock, \$100,000; Newark Brush Company, capital stock, \$125,000; New England Button Company, capital stock, \$100,000; The Westbury Lamp Company, to manufacture incandescent lamps, capital stock, \$5,000; Robinson Machine Company, capital stock, \$50,000; Imperial Varnish Works, capital stock, \$50,000; Fox Drastic Carbonating Company, to manufacture machines for carbonating liquids, etc., capital stock, \$300,000; Igoe Brothers, to manufacture wire, etc., capital stock, \$65,000; Empire Sash & Door Company, capital stock, \$25,000; Black & Boyd Manufacturing Company, to manufacture gas and electric light fixtures, capital stock, \$2,000; Star Manufacturing Company, to manufacture iron and celluloid hair ornaments, etc., capital stock, \$100,000; New Jersey Stone Castings Company, to manufacture artificial stone window frames, capital stock, \$125,000; Universal Registry Company of Newark, capital stock, \$10,000.

A quantity of hot slag which came in contact with snow, at the Atha Steel Works, foot of Chapel street, Newark, caused an explosion and demolished the windows in an adjoining building.

The firm of E. R. Carhuff & Son, manufacturers of prussiate of potash, at Newark, which has been in the hands of a receiver for one year back, has been dissolved by an order of the Court of Chancery.

Maulbetsch & Whittemore, manufacturers of musical instruments, now located on Summit street, Newark, have purchased property in another section of the city, on which the firm intends to build a four-story brick building, 65x100 feet, at a cost of \$25,000. Between 40 and 50 males and 15 and 20 females will be employed in the new factory.

A fire in the factory of the Excelsior Hat Company, at No. 30 Wickliffe street, Newark, caused a loss of \$600 to building, and \$5,300 to machinery and material; total, \$5,900. A defective electric wire is believed to have caused the fire.

Fire completely destroyed the paper mill of the Wheeler Manufacturing Company, near the Waverly Park station of the Pennsylvania Railroad. On account of the deep snow and the long distance of the plant from a hydrant the fire department could render no service. It is estimated that the total loss will reach \$40,000, of which \$30,000 represents damage to machinery.

7 A strike has been declared between the leather manufacturers of Newark and the beam housemen, whose duty it is to work over the hides in lime vats, to remove the hair and offal, in the process of tanning. The demands of the strikers, which are made in the name of the Beam Hand-workers, Local No. 73, of the Amalinated Leather Workers of America, involve the recognition of the union. While some of the manufacturers have agreed to the demands, a general settlement has not yet been effected.

Work on the construction of the elevators in the new City Hall is still suspended because of a strike of the men brought to Newark by the Otis Elevator Company. The strikers demand a straight wage of \$4.50 per day, in accordance with the regulation of the New York District Union of United Elevator Constructors of America. The company, which employed the men under the Philadelphia scale of \$4.25 per day and, in addition, gave each man \$1.00 per day extra for board, refuse to agree to the demands of the union.

ORANGE.

Charles Sauer has started to rebuild his saw mill, which was recently damaged by fire at Oakwood avenue and the Lackawanna Railroad, East Orange. The new building is to be of wood and will cost about \$10,000.

The differences existing in the printing trade of the Oranges, Bloomfield and Montclair have been satisfactorily adjusted. The workmen modified their demands and asked for a minimum weekly wage rate of \$16.00; an advance over the present rate of \$1.00. They have also asked for a reduction in the hours of work to fifty-one per week.

February.

NEWARK.

The following named industrial companies have been incorporated in Essex County during the month of February: Newark Wire Mattress Company, capital stock, \$12,000; Duessing Mfg. Company, leather goods, etc., capital stock, \$125,000; Clinton H. Smith & Company, shirts, collars, etc., capital stock, \$20,000; Fielders Company, manufacturers of clothing, etc., capital stock, \$50,000; George Meier Company, manufacturers of paints, etc., capital stock, \$100,000; Link & Angell, manufacturers of gold and silver wares, capital stock, \$200,000; Unger Brothers, manufacturers of jewelry, capital stock, \$600,000; Charles R. DeBevoise Company, manufacturers of waists, etc., capital stock, \$10,000; White Meylin Furnace Company, manufacturers of furnaces, etc.; David C. Dodd & Company, manufacturers of jewelry, etc., capital stock, \$40,000; W. B. Paper Box Company, capital stock, \$10,000.

William Bollman, aged forty-two years, while at work in a leather factory on New York Avenue, Newark, was struck in the stomach by a crank of a hoisting machine, which became loose in some manner, causing his death.

Daniel Cassidy, aged sixty-two years, was fatally scalded by falling into a vat of boiling liquid at the leather factory of the Henry Lang Company in Newark. The man was taken to a hospital, where he died.

Robert Miller, of Kearney, an employee of the Maher & Flockhart foundry in Newark, aged thirty-six years, was killed by the bursting of an emery wheel, a piece of which penetrated his skull.

Peter Keehan, twenty-three years old, was severely burned at the leather plant of E. H. McCormick by an explosion which was caused by the boiling over of a pot of japanning fluid.

The Court of Chancery has appointed a receiver for the American Washer and Manufacturing Company.

A dissolution of the Paramount Rubber Company is under consideration by the stockholders. Recently the company's business was acquired by the A. W. Faber Company, pencil manufacturers of New York City.

Kohn & Company of New York City have begun the manufacture of jewelry in the Allsop Building, Newark. From forty to sixty workmen will be employed at the new factory.

The Woodside Sterling Company, manufacturers of silverware at Newark, have erected a three-story brick building, 35x80 feet, at a cost of \$6,500.

P. Ballantine & Sons, brewers at Newark, have purchased a large tract of land on Ferry street opposite its present plant. It is the intention of the company to erect a building through which all of its freight will be handled. Tracks will be laid from this structure to the main line of the Central Railroad, and later on, should it be necessary, buildings will be erected for additional manufacturing facilities.

The Court of Chancery has appointed a receiver for the E. E. Hogan Shoe Manufacturing Company at Newark. The directors of the company have agreed to the concern's going into voluntary bankruptcy.

Negotiations are under way for transferring the patent and enamel leather plant of T. P. Howell & Company at Newark to a new corporation.

9 Eighteen tailors employed by Jeritsky Brothers, manufacturers of garments at Newark, went on strike because of a reduction in their wages. All the strikers are members of the Garment Workers' Union No. 24.

10 About twenty union carpenters employed in the erection of the new South Street Station of the Pennsylvania Railroad at Newark quit work for the reason, as alleged, that non-union carpenters had been engaged.

Representatives of the Amalgamated Rubber Workers' Union of Trenton appealed to a meeting of the Building Trades League of Newark for support of the 600 strikers at the nine mechanical rubber works in Trenton who have been contending for a 10 per cent. increase in wages since January 25, 1904.

A fire in the hat factory of C. M. Hedden & Company at Newark destroyed the drying room and did other damage to the amount of \$4,000.

An explosion of a pot of japanning fluid in the leather factory of the Edward H. McCormick Company at Newark set fire to some combustible material. The damage was slight.

Fire completely destroyed a two story frame japanning shop which is one of the six structures composing the leather manufacturing plant of the John Reilly Leather Manufacturing Company at Newark. The damage to the building is \$1,500; to machinery and tools \$900, and finished products \$2,000; total loss \$4,400.

A hurry order of 60,000 lock washers was received by the National Lock Washer Company of Newark from the Japanese Government. The washer, which is a piece of circular steel cut and slightly bent, is forced straight when the nut is screwed against it and thus prevents the nut from becoming loose. It is thought that they are to be used in the construction of temporary railroads in the war with Russia.

GLEN RIDGE.

Unmo Land and Mining Company has been incorporated at Glen Ridge with a capital stock of \$60,000.

IRVINGTON.

The factory of the New Jersey Brush Company at Enterprise Hill, Irvington, was totally destroyed by fire. The damage to building is \$10,000; machinery \$9,000, and material \$13,000; total loss \$32,000. Three workmen, Louis Alendorf, Mahlon Drake, Jr., and Ross Burnes were injured.

March.

NEWARK.

The following named industrial companies have filed certificates of incorporation in Essex County during the month of March: Heinze Mfg. Company, to manufacture all kinds of hardware, capital, \$50,000; Brandywine Summit Brick Mfg. Company, to manufacture bricks, capital, \$200,000; Newark Boiler and Radiator Supply Company, to manufacture boilers, capital, \$125,000; The G. Koehler & Company, to manufacture merchandise in general, capital, \$10,000; the Bernz Oven Company, to manufacture ovens, capital, \$10,000; the Petrifoid Company, to manufacture paints, capital, \$100,000; Mergott Piano Company, to manufacture pianos, capital, \$15,000; Humphrey Drug and Chemical Company, to manufacture drugs and chemicals, capital, \$50,000; the Mansfield Gum Company, to manufacture chewing gum, capital, \$40,000; the Metals Reduction and Recovery Company, to carry on mining and smelting, capital, \$500,000; the Boston Water Purifier Company, to manufacture water filters, capital, \$250,000; the Narcissa Oil Company, to refine oils, capital, \$250,000.

The roof of the two-story frame building occupied by the Newark knitting works caved in, and six girls, with their employers, narrowly escaped injury. Heavy snows on the roof caused the collapse.

Frank Sheridan, a workman, fell from a scaffold on which he was working at the new City Hall, Newark, and broke his right leg.

By an explosion of naphtha at the plant of the Essex Varnish Company, Newark, John Caffrey, William Metz and Charles Weinstock were severely burned about the body and hands. The fire, which was quickly extinguished, did little damage.

A fire at the works of the Cooper-Weigand Works, Avenue D and Emmett street, caused a loss of \$350 to the building and \$100 to machinery.

Morris, Herman & Company, dry color manufacturers, have moved their business to Mount Prospect and Greenwood Lake Railroad avenues, Newark. The company employs about 300 persons.

The Peckham Mfg. Company, manufacturers of stairs, have begun the construction of an addition to their factory at Newark. The new structure will be of brick and cover a space of 3,800 square feet. The building will cost \$3,500 and additional machinery to the value of \$4,000 will be installed.

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Contracts have been awarded for the erection of a one-story brick addition, 54x97 feet, to the plant of the Atha Tool Company in Newark. Estimated cost, \$8,000.

The Westinghouse Electric & Mfg. Company will erect a large addition to their factory in Newark. The new structure will be of brick and concrete, four stories in height, and it is estimated will cost \$250,000 when completed. \$50,000 will be expended for machinery and employment given to an additional force of 300 males and 100 females.

Albert A. Guigues will erect an addition to his leather plant at Ferry and Monroe streets, Newark. The building will be one story in height, 56x147 feet, and is to cost when completed, \$3,500.

M. E. Mork, manufacturer of straw hats, will build a new two-story brick addition to his plant in Newark. The building, which is to be used for storage purposes, will cost about \$4,500.

The receiver for the K. B. W. Novelty Company has made application to the Court of Chancery for an order authorizing the sale of the insolvent company's property to a resident of Glen Ridge for \$600.

The leather manufacturing company of J. H. Halsey & Smith has purchased the plant of T. P. Howell & Company in Newark.

The Laborers' Protective Union No. 4 of Newark is endeavoring to have its charter restored. The union was dissolved by the National organization about one year ago because its members remained at work while other union laborers were on strike.

// Some laborers employed at the tool factory of James T. Clark, Newark, stopped work because their demand for an increase of wages was refused. Their places were filled by other men.

Differences between the 'Stone Cutters' Union and the proprietors of the various stone yards in Newark about the employment and discharge of stone cutters were satisfactorily settled.

The American Cigar Factory in Newark was closed for a few weeks owing to a lack of orders.

The Newark Harness Manufacturers' Association has issued a call for a meeting with a view to bringing about a settlement with their employes, who are out on strike.

The war between Russia and Japan has made it difficult for leather manufacturers in Newark to obtain their usual supply of horse hides from the former country.

BELLEVILLE.

Napier & Mitchell, hat manufacturers on Main street, Belleville, have erected a new factory.

WEST CALDWELL.

A new factory for the manufacture of corsets has been started in West Caldwell.

April.

NEWARK.

1-2 A strike of laborers engaged in helping tar roofers against being required to work ten hours when eight hours per day had been the rule,

resulted in the union workmen of the last named trade going out with the helpers on a sympathetic strike. The roofers disclaimed any intention to strike, and defended their action in quitting work on the grounds of their obligation to work with union men only, and as the employers could not or would not provide union laborers, there remained nothing for them to do in the matter but to cease working until laborers of the right class could be provided. The contractor's efforts to secure non-union men in place of the strikers was met by a refusal of other organized mechanics, carpenters, bricklayers, etc., to work with them. The Employers' Association, in which most of the largest builders and contractors held membership, issued an ultimatum to the Building Trades League, which controls the unions, demanding the return to work of all members of unions affiliated with the league who were at that time on strike, under penalty of a general lock-out and suspension of building operations throughout the entire city. The League rejected the demand, and the Employers' Association then submitted a proposition providing for the adoption of a plan of arbitration similar to that recently adopted in New York for the settlement of building trades disputes, which the League agreed to consider. A conference between committees representing both interests was finally arranged and an agreement arrived at, under which the main differences were settled in a manner that was mutually satisfactory and a plan adopted for the settlement of minor troubles by arbitration. All strikes were accordingly declared off, and work resumed wherever it had been suspended. From first to last there were two hundred and sixty-five men involved in the strike, divided among the following occupations: cement masons' helpers, seventy; tar roofers, one hundred and fourteen; laborers, thirty; carpenters, thirty-five; bricklayers, ten; plumbers, six. The greater number of these workmen were idle from April first to April thirtieth, a period of twenty-six working days. Taking three dollars per day as a fair average for mechanics and laborers combined, the loss in wages amounted to \$28,470.

Nine derrick men employed on the new Essex County Court House were discharged by the contractors for having, as alleged, formed a union with a view to demanding higher wages. The discharged men reported their version of the case to the Essex Trades Council, stating at the same time that although they were paid only \$3.00, the men engaged to take their places, all of whom came from New York, were receiving \$3.50 per day.

Members of the Carriage and Wagon Workers' Union of Newark have made a demand on their employers that working hours be changed from sixty to fifty-one per week without reduction of wages, and that for the future none but union men be employed in any of the shops. The Employers' Association peremptorily refused to consider either of these propositions, more particularly that which is aimed at the open shop. A strike of the union men is threatened as a result of the non-compliance of the employers.

The saddlery hardware factory of Weiner & Company at Newark was totally destroyed by fire which broke out early in the morning of April 23d. Two firemen were crushed to death under the collapsed walls and

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two others were badly injured, one of whom died shortly after. The total loss amounted to \$39,000, of which \$12,000 was on the building, \$7,000 on machinery and tools, and \$20,000 on material which was stored in the building. More than 400 men, the majority of them skilled mechanics, were thrown temporarily out of work in consequence of the fire. Not all of these were employed in the ruined factory; many worked in nearby buildings that were supplied with power from the Weiner plant, and were therefore unable to work until other arrangements for supplying the deficiency could be made.

A fire which started in the shipping room of the large leather works of George W. Stengel & Company, in the Park View section of Newark, caused damages to the amount of \$10,331. Of this, \$910 was on the building, \$613 on machinery and tools, \$1,010 on raw material and \$7,798 on finished goods that were stored in the shipping room, which was a frame structure.

A five-story brick building on Market street, Newark, which is occupied by several small manufacturing firms, was damaged to the amount of \$500 by fire, the origin of which was unknown. The principal sufferers were C. E. Wenzel & Company, pattern makers, whose loss amounted to \$307.

Thomas Jones, a workman employed in the carpenter shops of C. M. Russell at Newark, had three fingers of his left hand severed by a circular saw with which he was working.

Master Printers of Newark, Camden, Elizabeth, Montclair, Plainfield and the Oranges, held a meeting in Newark and organized the New Jersey State Employing Printers' Association.

Many carriage manufacturers of Newark have associated themselves together in a permanent organization for the purpose of acting jointly in resisting the demands of their journeymen for a reduction of the working hours from fifty-nine to fifty-one per week. This demand has been made by the workmen of Newark carriage and wagon shops coupled with another for the same wages paid for the longer time.

The yearly contract submitted to employers of painters, paperhangers and decorators, demands an increase of twenty cents per day in wages over the old rate paid during the previous year, which was \$2.80 per day.

Some malicious person or persons secured entrance to the cooperage of A. C. Burkhardt at Paterson street, Newark, and cut the main driving belt, which caused a loss of \$150 and a suspension of work for some hours until the damage was repaired.

ORANGE.

George A. Slovet, a carpenter, was badly hurt while at work through having fallen between the floor beams to the cellar of the house on which he was employed.

An Orange union of painters and paperhangers has fined an employer in the trade \$50 for having discharged some workmen whose demand for an increase of wages he had refused.

AMPERE.

The Crocker-Wheeler Company, manufacturers of electrical machinery, has increased its capital stock from \$1,000,000 to \$2,000,000.

The following named industrial companies have been incorporated at Newark during the month of April, and will manufacture their goods in that city: Morrison Foundry Company, to produce iron and steel castings, capital, \$100,000; Martin Zimmermann Tile Company, to make tile mantles, capital, \$10,000; The Newark Cork Works, to manufacture corks, capital, \$20,000; Essex Electrical Company, to manufacture electric motors, fans, etc., capital, \$200,000; The Koch Chemical Company, to manufacture chemicals, capital, \$25,000; Handerine Manufacturing Company, to manufacture soaps, capital, \$100,000; American Automatic Voting Machine Company, to manufacture voting machines, capital, \$2,500,000; Arnold Sewing Machine Company, to manufacture sewing machines, capital \$200,000; Mystic Watch Case Company, to make watch cases, capital, \$10,000; Adams & Koch, to carry on a beer and ale brewing business, capital, \$30,000; Standard Temperature Regulation Company, to produce thermostats, etc., capital, \$100,000; Kermit Manufacturing Company, to manufacture machinery, capital, \$500,000; W. L. Sargeant Company, to manufacture paper, capital, \$30,000; the Lansden Company, to manufacture wagons, capital, \$30,000; Macknet Grate Bar Company, to manufacture grates and grate bars, capital, \$100,000.

May.

NEWARK.

The organized Carriage and Wagon Workers of Newark, about three hundred in number, began a strike on May first to enforce a demand previously made on their employers for a working schedule of fifty-one hours per week with pay on the old basis of fifty-nine hours, then in vogue, recognition of the union, and exclusion from the shops of all workmen not members of their union. These several demands were refused by the manufacturers, most of whom were connected with the New Jersey Vehicle Manufacturers' Association. The firm of J. M. Quimby & Company, who are not in the manufacturers' association, offered to compromise matters with their employes by giving them a fifty-four hour a week schedule instead of the fifty-one demanded. This was agreed to by the firm's employes, and work was resumed at its plant after a loss of only two days. The union held a meeting and sanctioned the action of the Quimby Company's employes in returning to work, and decided that all the strikers would do likewise if the associated bosses offered the same terms. In the matter of working hours per week, the union modified its demands by adopting the fifty-four hour schedule in place of the fifty-one first demanded. The Newark Carriage Works Company agreed to these hours and the other conditions, which brought about a resumption of work at their shops on the 4th, after four days' idleness. The other firms, about twelve in number, all members of the Manufacturers' Association, resolved to refuse to grant the reduction of time, and determined to engage new help if their old employes had not returned to work before the expiration of one week. Substantially all the manufacturers not in

the association conceded the fifty-four hour schedule to the workmen within one week after the demand for it had been first made.

The wagon workers' cause was taken up by the Essex Trade Council and also by several of the local unions. The Bakers', and Brewery Workers' organizations were particularly active in efforts to render assistance. The Bakers donated \$200 outright to the strikers, and resolved to aid them further by an assessment of twenty-five cents a week per member, which they pledged themselves to collect and pay over to the wagon makers as long as the strike continues. The Bakers and the Brewers also sent out committees of their fellow workmen to call at all breweries and bake shops in Newark for the purpose of urging the proprietors to have their necessary wagon repair work done in some of the shops that had agreed to the demands of the wagon workers' union. About one-half of the original number of strikers have returned to work in the shops which have approved the contracts with the union.

The Vehicle Manufacturers' Association were requested to confer through representatives with a committee of the union with a view to settling the points at issue between them.

The workmen desired to stop the strike and promised that on the manufacturers' association agreeing to a conference, the strikers would immediately thereafter return to work in a body and remain until a decision on the questions involved should be reached, no matter when that should be. The employers took no notice of this proposition but made known to the striking workmen that they were ready to treat with them individually and restore each man to his place who was willing to resume work on the old terms. The strikers, in their turn, rejected this proposal. One hundred and forty men were idle at this time, and were being supported by weekly donations of money sent from Chicago and other places where organizations of the trade exist.

The Blue Stone Cutters' Union notified the employers that on May 1st the the union rate of wages would be advanced fifty cents per day, or from \$3.50 to \$4.00. A demand was also made that thereafter the yards should be closed to all except members of the Blue Stone Cutters' Union. Both these propositions were rejected by the employers and a strike ensued in which about sixty men took part.

Seventy-one employing bakers have signed contracts with their employes, about 250 in number, which settles all questions relating to hours of labor, wages, etc., for one year.

The street pavers, rammers and flaggers employed by the city of Newark petitioned the Board of Public Works for an increase in wages and having had no reply from that body, went out on strike and refused to return until their demands have been complied with. The superintendent took the matter under advisement.

A fire occurred in the factory building at No. 119-125 New Jersey Railroad avenue, occupied principally by the Fishman Hat Company, which resulted in damages to the building amounting to \$6,000 and to tools and machinery \$10,000. Joseph Monzock, who was asleep in the fourth story of the building at the time of the fire, was burned to death.

A fire partly destroyed the factory building of the New York Knife

Company at Fourth and Dickinson streets, Newark. The damage to the building amounted to \$2,000. The machinery and tools owned by several small manufacturing firms who occupied space in the factory, were damaged to the amount of \$2,500. The fire was caused by an overheated stove in the japanning department.

The building occupied by the Standard Button Company, and two other firms engaged in the same line of manufacture, was damaged to the extent of \$980.00 by a fire which broke out in the part of the building occupied by the first named concern.

An explosion of gun cotton followed by a fire wrecked a frame building occupied by the Petrefoid Company in Thomas street, Newark. A girl and a man, both employes of the company, who were the only persons in the building at the time, were severely injured by the explosion. The concussion broke windows in dwellings, stores and factories for several blocks on all sides of the place where the explosion occurred. The injured girl, Florence Wrigley, is only fifteen years of age, and is the daughter of a poor widow. The material used by the Peterfoid Company in its manufacturing processes seems to have been gun cotton, naphtha and camphor, all of a highly inflammable and explosive character. The wrecked building was destroyed by the fire which broke out immediately after the explosion. Damages are estimated at \$3,000.

The work of rebuilding the plant of the Wheeler Manufacturing Company in the Waverly district of Newark, which was destroyed by fire, on January 4th, has been begun. The new structure will be built of concrete, one story in height, and will measure 50x237 feet. It will be equipped with the best modern machinery, and will cost when completed \$35,000. The loss on account of the fire which destroyed the original plant was \$36,000.

The Morrison Foundry Company has begun work on a new building for foundry purposes at Gotthart and Jabey streets, Newark. The structure will measure 90x120 feet, one story, and will cost \$12,000.

Jacob Kloacker, a workman employed in the establishment of the National Biscuit Company, had four fingers severed from his left hand while at work on a cutting machine. The accident was caused by the revolving knives becoming loose.

John McCarthy, a workman, was badly injured by falling from a scaffold at the new building of the Nairn Linoleum Company at Newark, a distance of forty feet to the ground.

Edward Burns, a workman employed at the Lister Agricultural Chemical Works, had his clothing caught by a projecting bolt head and was drawn to the shaft, from which he was released only after having been whirled around many times. Several of the man's ribs were broken.

Upwards of twenty locals of the International Typographical Union of America, through their delegates, have taken part in a conference called for the purpose of devising ways and means for establishing the eight hour work day in all Newark job offices. At present a nine hour day rules in a great majority of these places throughout the country. Efforts will be made to put the proposed change into effect at the beginning of the year 1905.

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All the mason material dealers in the State are expected to take part in a movement to form a permanent organization for the protection of dealers against unfair competition from wholesalers and manufacturers. The first meeting was held in the Newark Board of Trade rooms.

A carpenters' union composed exclusively of Italians was formed at Newark. The new organization will be affiliated with the National Brotherhood of the craft. There are about 200 carpenters in Newark of Italian nationality, all of whom, it is expected, will finally become members of this new body.

The Paulus Manufacturing Company, who make a percussion cap for Fourth of July celebration purposes, was ordered to close its factory by the Newark Building Department, it having been discovered that the cap was in fact a torpedo, heavily charged with a high explosive of the dynamite character.

At the expiration of the annual contract between the District Council of Painters, Varnishers and Decorators, all employers in these lines of trade were notified that the union wage rate was to be advanced twenty cents per day, or from \$2.80 to \$3.00. The employers refused the advance asked and a strike to compel its payment seemed imminent, but the matter was settled by the unions withdrawing their demand and agreeing to continue at work for another twelve months at the old rate.

The following named companies were incorporated at Newark during the month of May:

The Empire Sash and Door Company, to manufacture all kinds of woodwork used in the construction of buildings. Capital \$25,000.

The Star Manufacturing Company, to manufacture and sell articles made of celluloid and of horn. Capital \$100,000.

The Imperial Varnish Company, to manufacture and sell varnish. Capital \$50,000.

The Goodrich Baking Company, with object indicated by its title. Capital \$25,000.

The Robinson Machine Company, to manufacture machinery. Capital \$50,000.

The United States Inspection Company, to make and sell fire extinguishers. Capital \$10,000.

The Poinsetta Pharmacal Company, to manufacture and deal in drugs and chemicals. Capital \$10,000.

The Richardson & Mott Company, to do a general mining business. Capital \$50,000.

The Newark Brush Company, to manufacture and sell brushes. Capital \$125,000.

The John B. Foster & Brother Company, to compound and deal in chemical and pharmaceutical goods of all kinds. Capital \$75,000.

MONTCLAIR.

16 The Montclair Master Builders' Association has given the Masons' Laborers' Union, whose members are on strike, one week's time in which to send their men back to work pending the settlement of their claims and alleged grievances by arbitration. The laborers claim that the bosses

want to cut their wages to the extent of five cents an hour, or forty cents per day, and utterly refuse to submit the matter to arbitration.

BLOOMFIELD.

Some stockholders of the Diamond Paper Mills Company of Bloomfield have filed papers in the Court of Chancery in a suit against the officers of that corporation to compel them to pay dividends on the capital stock of the company, and to restrain them from wasting the earnings of the business by paying excessive salaries to themselves.

A fire occurred in the drying room of the Thomas Oakes & Company Woolen Mills at Bloomfield, which damaged the building, material and finished product to the amount of \$650.00.

ORANGE.

The employment of some non-union laborers to assist bricklayers on some buildings at Orange, caused a strike of laborers, plumbers, carpenters and bricklayers in that place, which nearly brought building operations to a standstill. The employers have notified the Building Trades Council that unless the men return to work in three days from the issue of the warning, a lockout will be declared against all building trades workmen.

Samuel Atchinson has purchased one acre of land in West Orange on which he will erect a large four-story brick factory building for the manufacture of ladies' felt and straw hats.

The Crocker-Wheeler Company has decided to make a reduction in wages at its works in Ampere, which will affect absolutely every one drawing salaries or wages from the company, numbering approximately 800 persons. The reduction is said to average ten per cent.

June.

NEWARK.

About two hundred union garment workers, men and women, employed in the Benedict & Ulrich factory at Newark, quit work to compel the firm to agree to the "closed shop," or to employ none but members of the union. This the firm, who are members of the National Clothing Manufacturers' Association, refuses to do. The association has taken the stand that its members may employ workmen without reference to their being or not being connected with unions. The total number of clothing workers on strike in Newark against the employment of non-union operatives is 650. The unions concerned are two in number and have a united membership of 1,350, composed about equally of men and women. The object of the present movement among them, which originated with the New York District Council of the United Garment Workers, is to exclude from the trade in the city of Newark, over which the New York body claims jurisdiction absolutely everyone who is not a member of the organization. Six days after the commencement of the strike, the number of union operatives that had gone on strike under orders from their

organization numbered 1,100, or within a couple hundred of the total membership of the unions.

The hat manufacturers of Newark and the Oranges held a meeting for conference over important trade matters with representatives of the Journeymen Hatters' Union. The manufacturers had proposed a reduction of ten per cent. in wages, and that thereafter new agreements relating to wages, shop rules, etc., should go into effect on June 1st instead of July 1st as heretofore. The journeymen hatters urged against the ten per cent. reduction, which the employers asserted was required by the dullness of trade, that if accepted, it would be impossible for workmen to earn the \$3.00 per day which the union had fixed as the minimum rate, and that in order to earn that amount under the proposed ten per cent. reduction hatters would have to violate another rule of the union which provides that no member shall work more than fifty-five hours per week on any pretext. The proposition on the part of the manufacturers that the union rules in relation to the wages of apprentices during their three years' service should be changed so as to permit the payment of much lower rates per week and also to allow a more profitable use for the employer, to be made of their last year's service at the bench, provoked considerable discussion and was finally rejected in the form proposed by the representatives of the union. Several conferences were held over the matter in dispute between the employers and the journeymen and a settlement based on compromises satisfactory to both interests was arrived at in time to have the agreement which governs trade matters for the next year ready for signature by both parties on July 1st.

The Japhair Packing and Manufacturing Company was incorporated in Newark with an authorized capital of \$100,000. The purpose of the company is to manufacture packing and upholstering from cotton and woolen waste.

The Castle Button Company was incorporated at Newark with an authorized capital of \$100,000. The company will manufacture pearl and other varieties of buttons.

The Combination Rubber Manufacturing Company was incorporated at Newark with an authorized capital of \$150,000.

The Newark Mining Company, whose purpose is to do a general mining business for ores of all kinds, was incorporated at Newark. The capital stock to be issued is \$25,000.

The Franklin Manufacturing Company, to manufacture, dye and deal in textile fabrics, was incorporated at Newark. The authorized capital stock is \$100,000.

The Capitol Leather Manufacturing Company, whose object is described in its title, was incorporated at Newark with an authorized capital of \$125,000.

The Schraeder-Wittstein Manufacturing Company was organized at Newark with a capital of \$25,000. The company will make and sell jewelry and fancy articles made from gold and silver.

The Marvin Chemical Company was incorporated at Newark with an authorized capital stock of \$10,000. The company intends to engage in the manufacture and sale of all kinds of chemicals.

The Bellows Fan Company, which will manufacture fans of all kinds and also a wide range of novelties, was organized at Newark with a capital of \$5,000.

Two workmen employed at the Portable Electric Lamp Company's works at Newark were severely injured while handling a carboy of acid.

A fire, caused by excessive friction of the main belt and flywheel, occurred at the hat factory of Ferry, Weber & Company of Newark, which resulted in a loss of \$300.

The factory buildings of Morris Hermann & Company, situated on Mount Prospect avenue, are to be increased by the construction of a brick building two stories in height, and having a ground measurement of 50x250 feet.

The Newark plant of the New Jersey Zinc Works was closed indefinitely and the entire three hundred workmen hitherto employed there were discharged without promise of re-employment. The company has large works in Pennsylvania, and the impression is generally entertained that the small plants which it now operates in various places will finally be concentrated there.

The Baker Printing Company of Newark has made arrangements for a large extension of its present plant. Additions to be made to its present building will make it, when completed, 225 feet in length. The addition which will be made to carry out the plan of enlargement is a five-story brick building, 25x110 feet, which will cost \$12,000. New machinery to the value of \$25,000 will be added to the plant, and an additional force of thirty males and fifteen females will be employed.

At a meeting of the Essex Trade Council it was resolved to hold the annual labor carnival at Electric Park from September 26th to October 2d.

The following communications were received by the Bureau in answer to a letter addressed to the Ledgerwood Manufacturing Company, inquiring as to the correctness of reports which appeared in several newspapers, to the effect that steps were now being taken to move their plant from Brooklyn, where it is now located, to Newark, N. J.:

NEW YORK, June 13th, 1904.

Mr. C. C. Garrison, Chief Bureau of Statistics of New Jersey:

DEAR SIR—Referring to your inquiry of the 7th inst., we would say that it is our intention to remove our manufacturing business from Brooklyn, N. Y., to Newark, N. J., probably within the next five years. We have already secured sufficient acreage at Frelinghuysen avenue and Peddie street, Newark, which lies between Frelinghuysen avenue and the Pennsylvania Railroad main lines, and this being more or less meadow land is now undergoing the process of filling.

It is our intention to first move our iron foundry, and we have laid out the foundation of both this building and the power house. The foundry is some 650 feet in length by 120 in width, and about 40 in height to the roof trusses. The power house building is 225 feet in length, 40 feet in width, and about 25 feet in height to the roof trusses. Both buildings are of single story.

These structures are to be built on piles and concrete foundation, with a steel frame filled in with brick, and steel truss roof covered with concrete; there will be very little woodwork about any part of the buildings. When we come to take up the balance of the plant, which will consist of machine shops, erecting shops, boiler shops, blacksmith shops, pattern shops, woodworking shops, and storage warehouses, they will probably be constructed on the lines described above.

We shall probably begin operations in our new foundry in about one year from now, and the balance of the buildings will be erected as soon after that as possible.

We might say that we now have a very good plant in Brooklyn, but that we have no more room to expand, and in busy times find ourselves crowded. Another objection is that there is so much government in the city of Greater New York that it is almost impossible for a large manufacturer to do business within the city lines; hence we are moving over to New Jersey.

Your various queries respecting the names of our corporation, character and size of buildings, location, etc., are answered above. The line of industry to be followed is the manufacture of hoisting engines and conveying machinery to be run by steam, electricity, or gas power. All of these varieties will be made.

The driving power of our plant will be electricity furnished by generators which will be driven by large steam engines. The cost of the entire plant will be somewhere in the neighborhood of \$2,000,000. The foundry and power house, when equipped, will have cost, approximately, \$250,000.

The number of men it is proposed to employ in the entire plant is about 3,000. The first year or two we shall probably employ about 300 or 350 men in the foundry and power house.

Any further information you may desire will be cheerfully furnished.

Yours truly,

LIDGERWOOD MANUFACTURING COMPANY,

J. V. BEEKMAN, *Gen. Supt.*

July.

NEWARK.

18 Eleven polishers and buffers, members of local union No. 44, quit work at the plant of Karl Oswald & Company, in Newark, where they were employed, because the ten minutes heretofore allowed them for washing themselves at noon and at quitting time had been cut down to five. The indulgence had been allowed to the polishers and buffers only, and other employes complained that the men so favored stood around after completing their ablutions and taunted the workmen who were not allowed the same privilege; hence the action of the company in cutting down the time of grace one-half.

A matter of great importance to the union garment workers of Newark, who, following the example of the New York members of their craft, struck about three weeks ago to compel the exclusion of non-union men from the shops in which they are employed, is the report that their repre-

sentatives, in conference with the members of the Employers' Association, had reached an agreement likely to result in work being resumed on terms satisfactory to both sides. It is understood by the garment workers that the recognition of the closed shop—that is, a denial of the right of the non-union men to work—is provided for in the settlement.

As a result of the struggle in New York between the building trades unions and the National Association of Building Contractors, the V. J. Hedden & Sons Company has laid off for an indefinite time about 250 carpenters, cabinet makers, finishers and painters employed by them on various contracts in Newark. This action was taken by the firm because of a lockout which the association has proclaimed against the carpenters and joiners employed by its members in New York, and within a radius of 25 miles of that city. The trouble dates back about two weeks, when one of the unions affiliated with the carpenters and joiners' national organization refused to handle non-union window trimmings on a contract then being executed by a firm who held membership in the Contractors' Association. The trimmings objected to by the union men are made in the West, and are preferred by many house owners because of their artistic qualities and appearance. The firm against which the strike took place had to use the trimmings because they were provided for in the contract and specifications under which they were working.

About eighty-five girls employed, all of whom were working as weighers and feeders in some one of the Newark hat shops, have gone out on strike to compel their employers to increase wages two cents over rates then being paid. All the striking girls are members of a union.

A small fire occurred in the factory of the Hanson & Van Winkle Chemical Company, at Newark, caused by some rubbish having accidentally become ignited. The damage caused was very trifling.

A fire broke out in the drying room of the Celluloid Works at Newark, which was extinguished by the company's own fire brigade, composed of employes who are specially drilled in the best methods to be employed in meeting just such an emergency. The loss was very trifling.

A trustee has been appointed for the Domestic Novelty Company of Newark, with authority to receive bids for the purchase of the company's plant at private sale; such proposals as may be offered by intending purchasers are to be submitted to the officers and stockholders of the company for approval before being formally accepted by the trustee. The company has recently been adjudged bankrupt by the United States District Court.

The Court of Chancery has called on Schoellner & Company, leather manufacturers, to show cause why that firm should not be declared bankrupt and a receiver appointed. The company's difficulties are said to be due to bad management and lack of capital.

The firm of Cawley, Clark & Company, manufacturers of paints and colors, are having a new building erected as an addition to their plant at Newark. The structure will be of brick, 100x150 feet, and will cost \$4,000. An extra working force of fifteen men will be employed.

Another reduction of the working force of the New Jersey Zinc Company has been made, which brings the number of employes now on the

pay roll down to forty. When running to its full capacity about 350 men are employed. The shut-down is only temporary, and when the large stock of finished product now on hand is worked off operations will be resumed.

The delegate of the United Hatters' Union, No. 13, announced to the Essex Trades Council, at a meeting of that body, that the hat manufacturers and their employes have adjusted practically all their differences, and that there will be no strike in any of the Newark shops.

Steam Engineers' Local Union, No. 68, has ordered all union engineers to leave Newark hat shops. This has been done to force the non-union engineers employed in union hat shops to join Local No. 68.

The manager of one of the amusement parks in Newark was called on by the arbitration committee of the Essex Trades Council to explain why he had allowed a non-union vaudeville concert to be given at his place. The proprietor stated in extenuation that the show or concert was conducted by a union musician.

John Schaedel, a carpenter, fell a distance of twenty feet from a scaffold on which he was at work making repairs to the pavilion at Vailsburg Park. The man had both ankles dislocated and was otherwise severely injured.

The Oxa Manufacturing Company was incorporated at Newark with a capital of \$50,000. This company intends to carry on a general manufacturing business in Newark.

The United States Asbestos Company, to carry on the business of the Angell Asbestos Pipe Company, was incorporated at Newark. The capital stock is placed at \$50,000 and the chief manufactured article will be smokers' tobacco pipes.

The Unique Umbrella Company was incorporated at Newark with an authorized capital of \$50,000. The company will go into the business of manufacturing umbrellas in the city of Newark.

The Squire-Aldrich Company, who will make and deal in straw hats, was incorporated at Newark with a capital of \$2,000.

The Stewart Gas Range Company was incorporated at Newark to manufacture gas ranges. The authorized capital stock is \$50,000.

The firm of A. W. Snow & Company was incorporated at Newark with an authorized capital of \$125,000. The business to be carried on is the sinking and cutting of dies, and the works will be situated in Newark.

The Miller Electric Company filed articles of incorporation at Newark. The authorized capital is \$100,000 and the company will devote itself to producing electricity and selling the same for lighting, power and heating purposes, and to carry on any other business in which the application of electricity may be "useful, convenient or ornamental."

The B. J. Riley Manufacturing Company was incorporated at Newark with an authorized capital of \$25,000. The company will manufacture and sell novelties made of metal and wood.

The Art Novelty Manufacturing Company was incorporated with a capital stock of \$25,000. The company will make and sell art screens, fancy boxes, and other objects of decoration or art.

The Farrier Horse Shoeing Company was incorporated at Newark with a capital of \$10,000. The purpose is to engage in a general horse shoeing business, and in connection therewith also to carry on the practice of veterinary surgery by duly licensed agents.

BELLEVILLE.

The coarse wire drawing branch of the DeWitt Wire Company at Belleville has been closed down permanently. About twenty-five men were employed in that part of the work. The line of work just closed has been in operation for nearly seventy-five years. The company has found it advisable to discontinue drawing wire to the coarser sizes, and devote its attention and energy to the finer gauges, and also to developing its weaving department.

MILLBURN.

The Celluloid Zapon Company and the Boston Artificial Leather Company, both of which concerns have operated factories in Millburn for the past sixteen years, are about to remove their respective plants to Stamford, Connecticut.

August.

NEWARK.

An agent representing the wholesale and retail business interests of Oklahoma City, visited Newark for the purpose of establishing direct trade relations with Newark manufacturers so as to secure the shipment of goods to dealers in Oklahoma without the intervention of jobbers.

The Lidgerwood Manufacturing Company, which is to move from Brooklyn to Newark in accordance with arrangements already made for that purpose, has bought a tract in Newark bounded by Frelinghuysen avenue, Pennsylvania avenue and Peddie street. The land is being cleared and graded with streets laid out at proper intervals, all the work being done at the company's expense. The tract will be divided into one thousand building lots, which will be held for such employees of the company as may desire to have homes erected for their families.

A two-story factory building of brick is in course of erection on Union street, Newark. The structure is to be 25x75 feet, and will cost \$5,000.

The receiver for the American Washer and Manufacturing Company has filed a final report with the Court of Chancery, which shows that all the tangible assets of the company converted into cash has netted \$8,674.56. Deducting the disbursements necessary for handling the property, there remains \$7,794 for final distribution among the creditors, whose claims aggregate \$30,409.

Suit has been begun against a Newark manufacturer under the Child Labor Law for employing a girl in his works alleged to be under fourteen years of age.

Lightning struck the tall chimney of the Duranoid Works at Chestnut street, Newark, and rent the structure on one side for a distance of about forty feet from the top. The damage amounted to about \$2,000.

Several bales of scrap celluloid became accidentally ignited in the crushing room of the Celluloid Works at Newark, and for a time caused a very fierce blaze. The fire was quickly extinguished without having caused any considerable damage.

A fire in the foundry and machine shop of Hewes & Phillips at Newark, destroyed the platform around the casting cupola. A spark from the blasting furnace started the fire. The damages amounted to \$3,000.

The top floor of a three-story building occupied by the Newark Cap Manufacturing Company was badly damaged by fire, the origin of which is unknown. The loss amounted to \$800.

A fire occurred in the Newark Rivet Works, caused by a defective flue. The blaze was extinguished quickly and the loss was trifling.

A fire, which broke out at 2:30 o'clock in the morning, destroyed two one-story and one two-story frame buildings which were parts of the hat manufacturing plant of the J. Runwell Company at Newark. The damage inflicted was upwards of \$10,000.

ORANGE.

The hat manufacturing firm of Brennen & Carr is about to erect an addition to its factory at Orange.

Plans to reorganize the Retail Clerks' Union of the Oranges are under way, and are expected to bring together as members of the organization, substantially all the store clerks in the vicinity. When fully organized, members will be required by the rules of the union to wear identification buttons, the color of which will be changed every three months as a means of making known at all times those who keep in good standing. It is also intended to make a list of the employers whose clerks are not members of the union.

A New York manufacturing company has purchased a large tract of land on Valley road, West Orange, on which, it is said, a large factory will be erected.

MILLBURN.

A controversy which has been running some time between the township authorities of Millburn and the officers of the Diamond Paper Mills Company over the use of the lateral sewer for carrying away the mill waste, having failed to reach a satisfactory adjustment, has finally resulted in the paper company declaring its intention to abandon and dismantle the plant when the stock of material on hand has been completely worked up. The machinery will be taken to Saugerties, N. J., and Hampton, N. Y., where the firm has other mills. The capacity of the Millburn plant is two tons of tissue paper per day, which is the full product of continuous operation day and night. About forty-five hands were employed and the pay roll averaged \$2,000 a month. The township committee subsequently receded from its position of taxing the company \$10 per million gallons of sewage, and agreed to allow the unrestricted use of the sewer without charge. This action was taken as a means of inducing the company to reconsider its determination to shut down the plant.

MONTCLAIR.

Application has been made to the Court of Chancery by several master plumbers of Montclair for an injunction restraining the members of the Journeymen Plumbers' Union from interfering with their business by threats, picketing, or other forms of coercion. The trouble between the master plumbers and the union originated in a declaration made by the former several months ago that thereafter the shops would be open to all good workmen regardless of their union affiliations. As a result of *this action the plumbers' union has forbidden its members to work in the master plumbers' shops and has thrown every possible obstacle in the way to prevent the employment of non-union men.*

The following named industrial companies have filed incorporation papers with the Clerk of Essex County during the month of August: The King Waist Company, to manufacture shirt waists, capital, \$100,000; The Rex Imperial Leather Company, to purchase and prepare leather of all kinds for the market, capital, \$75,000; The Frederick Cummings Sons Company, to manufacture and deal in hats, capital, \$130,000; The Buzby Drug Company, to manufacture drugs, capital, \$20,000; The Russell-Robinson Company, to manufacture brick and stone, capital, \$100,000; The Sun Typewriter Company, to manufacture and deal in typewriters, capital, \$125,000; The Inter-Gas Power Company, to manufacture power gas carbonators, illuminating gas machines, etc., capital, \$1,000,000; The Bakers' Mutual Co-operative Association of Newark, to unite journeymen bakers of Newark for mutual advantage, capital, \$12,000.

September.

NEWARK.

The Patent and Enamel Leather Manufacturers' Association held its annual meeting at Newark, and elected officers for the ensuing year.

A local branch of the United Typothetae has been organized at Newark by employing printers, who have taken this course to mutually protect themselves against unreasonable demands on the part of union men.

A strike which indirectly resulted from the labor troubles among the building trades associations in New York, had broken out in Newark on September 16th. The direct cause of the strike was the refusal of the firm of Carr & Ball of Harrison, to permit its employes to dictate the manner in which the business of the concern should be run. Sixty employes of this firm have been idle for three weeks at a loss to themselves of \$2,500 in wages. Workmen at other yards in and about Newark have been called out in support of the original strikers.

A fire occurred in one of the buildings of the Krueger Ice Plant at Newark, which caused damages to the extent of \$350.

George Roerbecker, a workman employed at the Sherwin-Williams Company in Newark, had a leg broken and was otherwise injured through a large tank of varnish which was accidentally overturned, having fallen upon it.

Charles Martin, a carpenter, fell to the ground from the second story of a building on which he was working and received severe injuries about the head and body.

William Steckell, a workman, was severely injured by an accident which occurred at the power house of the United Electrical Company, where he was employed.

Thomas Kaining, aged fifteen years, had his right arm broken while trying to pull a belt on a running pulley in the works of the Valley Forge Cutlery Company at Newark.

Work on the Lidgerwood Hoisting Engine Shops at Newark has been suspended temporarily.

An explosion caused by the clogging of an exhaust pipe of a gas engine in the jewelry factory of Allsopp Brothers at Newark, resulted in the blowing out of a large section of the wall and also a part of the chimney.

The walking delegate of the Mineral Water Bottlers' Union of Newark has been accused of selling packages of union labels to employing bottlers that were thousands short of the number paid for.

Application has been made to the Court of Chancery by a judgment creditor for the appointment of a receiver for the Swan Electric Company of Newark.

The Court of Chancery has granted an order to show cause why a receiver should not be appointed for the cigar manufacturing business of Allen & Lewis at Newark. The trouble has arisen from a misunderstanding among the partners.

BELLEVILLE.

Alice Flynn, an employe of the DeWitt Wire Cloth Company at Belleville, had a hand caught and very badly bruised and lacerated in the cog wheels of a machine on which she was at work.

MONTCLAIR.

William Bradshaw and Q. R. Kramer, both decorators, fell to the floor from a scaffold on which they were working, and suffered in one case, a broken rib and several internal injuries, and in the other, a broken ankle and painful bruises of the body.

BLOOMFIELD.

The American Brake Shoe Company is said to be contemplating the removal of its Bloomfield plant to Mahwah, N. J., where it has another factory.

The following named industrial companies were incorporated in Essex County during the month of September: The Egyptian Chemical Company, to manufacture and deal in chemicals, capital, \$50,000; The Eureka Iron Company, capital, \$50,000; Charles Casper Engineering Company, to manufacture and deal in goods of various kinds, capital, \$500,000; Newark Special Machine Company, to manufacture and sell special machinery of all kinds, capital, \$25,000; The Odell & DeNorie Company, to manufacture and deal in barber supplies, capital, \$25,000; The American Portland Cement Company, to manufacture and deal in cement, capital stock, \$1,500,000; The Milton Manufacturing Company, to manufacture drugs and chemicals, capital, \$100,000; The Lady Ware Company, to manufacture and deal in household articles, capital, \$25,000.

GLOUCESTER COUNTY.

October.

CLAYTON.

The Board of Trade of Clayton is negotiating with the managers of several distinct lines of industry for the settlement of a number of establishments in and about Clayton. Among those under consideration are two glass factories and a manufactory of shades.

November.

WOODBURY.

The New Jersey Printing Press Company is the title of a new firm established in Woodbury to manufacture and sell printing presses. The capital stock is fixed at \$50,000.

GIBBSTOWN.

One of the new houses of the Repaupo Manufacturing Company (powder works) at Gibbstown was almost totally destroyed by fire. The total damages amounted to \$1,075, of which \$500 was on the building, \$500 on machinery and tools and \$75 on raw material.

CLAYTON.

The town of Clayton is now enjoying a very high degree of prosperity in consequence of all the glasshouses being busy and running full time. The Janvier Glass Company, who make a beautiful spangled glass product similar to the venetian, now has both its plants concentrated there and will soon begin operations with a force of several hundred men.

The season's blast at the Clayton glass factories has proved to be an unusually good one. The orders for goods has taxed the capacity of the plants to their uttermost extent. The Moore Brothers Company, who operate five large furnaces, has turned out more ware this season than at any previous blast in its history. The other glass producing districts of South Jersey are equally prosperous; at Woodbury, the three furnaces are running full handed and turning out more ware than during any previous season at this time. The Glassboro plant is running continuously with two shifts, as is also the works at Williamstown.

December.

CLAYTON.

The Fruit Jar and Bottle Closure Company at Clayton have purchased the plant formerly owned by the Capital Glass Company at Vineland.

January.

WESTVILLE.

The Colonial Charcoal and Kindling Wood Company have filed articles of incorporation with the clerk of the county, which shows an authorized capital stock of \$50,000.

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February.

BRIGDEPORT.

The Farmers' and Merchants' Transportation Company has been incorporated with a capital stock of \$25,000, to construct ships, boats, and vessels of all kinds.

CLAYTON.

Moore Brothers' Manufacturing Company have filed an amendment to their articles of incorporation with the County Clerk, changing their name to Moore Brothers' Glass Company.

March.

GLASSBORO.

A manufacturer of cement building block will operate a factory in Glassboro.

WESTVILLE.

The Newbold-Whiting Manufacturing Company has filed its certificate of incorporation with the Clerk of Gloucester County; capital stock, \$100,000.

June.

SWEDESBORO.

The glass plant at Swedesboro will keep its fires going this season about two weeks longer than the usual time in order to fill some extraordinary large orders.

July.

SWEDESBORO.

The work of rebuilding the furnace at the Swedesboro Glass Works has been commenced.

August.

WOODSTOWN.

The glass factories of South Jersey are to open work on or about September 15th. The plant at Woodstown has shipped all the ware it had on hand at the close of the season.

September.

GLASSBORO.

The glass works at this place resumed work with a force of seventy men.

WOODBURY.

A glass manufacturing firm of this place was fined \$50 for violation of the factory act in employing a child under fourteen years of age.

HUDSON COUNTY.

October.

JERSEY CITY.

The Bryant Steel Wheel Company has been formed in Jersey City to manufacture steel wheels for vehicles of every description. The authorized capital stock is \$200,000. Registered office, No. 15 Exchange Place, Jersey City, N. J.

The American Sugar Refining Company's plant in Jersey City has been closed temporarily.

The receiver of the Wellington Paper Company has sold that plant under direction of the Court to the Newark Distributing Company.

The American Safety Clutch Company is about to make extensive improvements in its New Jersey plant. This company has works in Ohio and in Delaware.

The United Building Trades Council of Hudson County has adopted and forwarded to the Congressmen representing the Jersey City district bills dealing with the eight-hour day, and with the right of Federal courts to issue injunctions.

The T. J. Wasser Company has been organized at Jersey City with an authorized capital of \$50,000. The company will engage in bridge and dock construction.

The New York Standard Slate Company was incorporated in Jersey City. The authorized capital is \$300,000. The company will make and sell all kinds of articles manufactured from slate.

The Consolidated Stove & Lumber Company has been formed at Jersey City to make and deal in all kinds of cooperage material. Authorized capital, \$300,000.

The Giok Manufacturing Company has been incorporated at Jersey City. Authorized capital, \$100,000.

The Electro-Dynamite Company of Philadelphia, Pa., has purchased a plot of land in Jersey City, and will erect a factory upon it.

Charles Zang, a painter, fell to the ground from the roof of a steamship pier on which he was working, and had both legs broken.

Americus Cardini, a painter, fell from the scaffold on which he was working to the ground, a distance of twenty feet, and received injuries which may result in death.

Tony Seppo, an employe of the glucose works at Shadyside, met with an accident while at work that resulted in a badly crushed arm.

The administrator of the estate of a man named Kelley, a lineman who was killed while in the employ of the Gas and Electric Company of Bergen, sued the company for damages and was non-suited; the ground taken by the company and sustained by the Court being that the defective insulation responsible for his death should have been apparent to him, and that therefore no criminal carelessness could be established.

HOBOKEN.

The silk mill of Reiling, David & Schoen, at West Hoboken, was damaged by fire. A quantity of silk goods was injured by water.

The machinists formerly employed by the Fletcher Company at Hoboken, who have been on strike for about twenty weeks, are showing a disposition to relinquish the struggle and return to work.

Rivalry between opposing unions caused a strike of carpenters employed on the construction of the Auditorium at Stevens' Institute, Hoboken. The carpenters were ordered out by a walking delegate because Amalgamated painters were found at work on the decorations.

HARRISON.

Twenty-five of the leading manufacturers of Harrison have formed themselves into a body known as the West Hudson Board of Trade. Their object is to assist in developing the town of West Hudson.

George A. Pierson, a driver, was badly injured by being caught between the end of a boiler, which he was helping to unload from a car, and a pile of building material.

The Pennsylvania Railroad Company is rebuilding a number of the big repair shops on the Kearney meadows, and will spend upwards of a quarter of a million dollars for that purpose.

The newly-formed Board of Trade of West Hudson has given out these figures relating to the industries of the principal towns within its geographical limits: Capital invested in manufacturing—Harrison, \$6,773,000; Kearney, \$5,917,000; East Newark, \$2,163,000. Weekly wages paid out in each of these towns—Harrison, \$68,000; Kearney, \$32,000; East Newark, \$21,775. Value of annual production—Harrison, \$9,467,000; Kearney, \$2,702,000; East Newark, \$1,515,000. Men employed—Harrison, 6,112; Kearney, 3,021; East Newark, 2,610. Number of factories—Harrison, 34; Kearney, 11; East Newark, 8.

The works of the Nairn Linoleum Company, at Kearney, are being enlarged.

BAYONNE.

The Pacific Borax Company has commenced the erection of a borax soap factory as an addition to its large plant at Bayonne. The new building will cost \$34,000.

The Mrs. C. Atsma Corporation has been formed in Bayonne, with a capital of \$4,000. The corporation will manufacture women's and children's wearing apparel.

The Executive Board of the United Building Trades Council met for the purpose of bringing the long-continued fight between the boss plumbers and tinsmiths of Bayonne to a conclusion. Arrangements were made for a joint meeting of the disputing unions.

November.

JERSEY CITY.

The Cloud-Marple Pneumatic Tool Company filed articles of incorporation at the office of the Clerk of Hudson County. Capital stock, \$100,000.

The Harris Brothers Company has been organized at Jersey City with a capital stock of \$100,000. They will manufacture and sell commodities for personal and household uses.

The Onderdonk Engineering Company was organized at Jersey City. Capital stock, \$10,000.

The Richland Mining Company filed articles of incorporation at Jersey City. Capital stock, \$100,000.

The Murna Medical Company has been incorporated at Jersey City with a capital stock of \$125,000 to manufacture and sell drugs, chemicals, patent medicines and druggists' sundries.

Devlin Packing Company was organized at Jersey City with capital stock of \$35,000, to manufacture and sell packing for journal boxes of steam, electrical and other railway cars.

Winn-Conklin Electrical Company organized at Jersey City with a capital stock of \$3,000. The company will acquire inventions relating to improvements in systems for electrical distribution, which involves the use of electrical transformers and manufactures the same under letters patent.

The Electric Block Signal and Semaphore Company was organized at Jersey City with capital stock of \$250,000.

Oriental Building and Construction Company organized at Jersey City with capital stock of \$500,000.

The Bronze Powder Works Company was incorporated at Jersey City with a capital of \$50,000.

The Denney Anti-Fouling Company was organized at Jersey City with a capital of \$125,000.

A fire occurred in the factory of Joseph Schmidt & Son, manufacturers of musical instruments. It was immediately extinguished; no damage was done.

The Hall Button Company, manufacturers of metal buttons, has erected a new brick building on Grant Avenue, Jersey City, 52x90 feet, at a cost of \$5,000. Heretofore the company has operated several factories which are to be abandoned and the entire work of the company will be done in Jersey City.

The receiver of the Coronet Silk Manufacturing Company has filed his inventory in the Court of Chancery. The total assets are \$65,734.94; the liabilities are \$67,164.69.

An attachment for \$4,348.12 has been issued against the Whalebone Rubber Company of New York, in favor of the Voorhees Rubber Manufacturing Company.

Bankruptcy proceedings have been commenced against the National Cooperage Company of Jersey City because of inability to meet its debts.

A New York banker has commenced a suit in Jersey City against Fred-

erick B. Day of Newark, receiver of the Union American Electric Company. The claim is for money loaned to the firm.

George Budowski, of Jersey City, while working on the Central Railroad, near East 22d street station, had a hand smashed by a piece of iron hurled by a fast west bound train. He was taken to the Bayonne hospital. John Nadell, forty-eight years old, of Hoboken; Gentle Rober, fifty years old, of West Hoboken; John Brown, forty-five years old, of Jersey City, and Thomas Sallo, thirty years old, of Jersey City, were injured by the falling of a scaffold while at work on a new church building. All are bricklayers except Brown, who is a carpenter.

HOBOKEN.

The Pressed Metal Manufacturing Company filed articles of incorporation at the County Clerk's office in Jersey City. The capital stock is \$150,000. The company will manufacture and deal in pressed metal wheels, pulleys, frames, brackets, tanks, barrels, etc.

A fire destroyed the entire plant of the Summit Water-proofing Company at Hoboken. Combustion of chemicals from unknown causes is believed to have occasioned the fire, which resulted in damage to the amount of \$100,000. Two workmen, Herbert Tempest and David Carroll, were severely burned about the face and shoulders and taken to the hospital in a precarious condition.

Frank Botch, thirty-five years of age, of Hoboken, had his ribs injured while at work in the shaft of the Pennsylvania Tunnel in Weehawken. He was taken to the hospital in Union Hill.

Joseph Olvade, an Italian laborer twenty-four years of age, residing in New York, was struck by an engine in the West Shore railroad yards at Weehawken, and badly injured about the head and body. He was taken to the hospital.

John Cox, forty-eight years of age, employed by R. Woddington & Sons, contractors, while driving a cart loaded with sand, lost his balance and fell under the vehicle, the wheels of which passed over his body. He was taken to the hospital in an ambulance, where he died.

Robert Armstrong, a riveter of South Brooklyn, employed on the new grain elevator in course of construction for the New York Central Railroad at West New York, fell from a swinging scaffold a distance of sixty feet, breaking several ribs and receiving severe internal injuries. He was taken to a New York City Hospital, where it was thought he would die.

John Webber of South Brooklyn, employed in the power house adjoining the new grain elevator of the New York Central Railroad at West New York, fell from the engine bed, a distance of twenty-five feet, and fractured his ankle.

The silk designers of Hoboken have gone on strike. Their demand is for a uniform scale of wages with the minimum fixed at \$16.50 per week, and that boys learning the trade must serve an apprenticeship of six years, beginning at a wage of \$2.00 per week, which is to be increased at the rate of \$1.00 every six months.

The Organized Engineers of Hudson County have asked the Board of Freeholders to order that the engineers at the Court House hereafter be required to work only eight instead of twelve hours a day.

The strike of structural iron workers on the docks of the Hamburg American Company, which has been on for several days, seems likely if not soon settled, to involve the painters, carpenters and electrical workers now employed on these piers. 7

The strike of machinists at the Fletcher Marine Engine Shops at Hoboken has been declared off by the local of the International Union, of which the strikers were members. The contest was one of the longest in the history of the Hoboken labor unions. The strike was for a minimum wage rate of \$3.00 per day. The wages paid by the company before the strike ranged from \$2.50 to \$3.00 per day, although some of the best workmen were paid \$4.00 and \$4.50. The higher priced men were drawn into the strike by those who received the lower rates, that class being much the most numerous. Long before the strike was declared off, the places formerly occupied by the men who had gone out were filled, and no places remained for those who wished to return after the strike was abandoned. The strikers attribute their failure to two causes—the refusal of the boiler makers employed at the works to join them, and the action of a rival organization of machinists in supplying the firm with a sufficient number of workmen to keep the product of the works equal to the orders.

The Standard Fashion Company of Hoboken, makers of dress patterns, will move to New York City after the first of January, 1904. The reason assigned for the removal is that the factory is too far from New York, which is the business center for their trade.

The McClave Lumber Company of Hoboken will erect a big planing mill on the property it now occupies.

HARRISON.

Michael Georgi, a carpenter of Newark, received several contusions on the head and body while at work on one of the new buildings of the International Steam Pump Company.

The receiver of the Storey Motor & Electric Company of Harrison was ordered by the Court of Chancery to sell the property of the company in its factory for \$10,000.

A charter for a Board of Trade in Harrison has been granted by the State and a permanent organization has been effected. The principal object of the Board is to promote the industrial interests of the town.

A fire occurred in the works of the Warren Brothers Paving Company. The damage was about \$30.00.

A number of business men of East Newark have organized a Board of Trade which will look after the industrial interests of the town.

Complaints have been made against the manner in which a paving company, whose works are located in East Newark, is conducting its business. The company manufactures a new kind of paving and a dust which is alleged to be dangerous to public health, arises from the plant and spreads over the neighborhood. Action has been taken by the

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Common Council of East Newark to protect the residents in the vicinity of the works.

WEST NEW YORK.

Arnold Sturburg of West New York had three ribs broken while working on machinery at his place of employment.

Fuessel Brothers of New York City, shade manufacturers, have contracted for the erection of a three-story brick factory at West New York. The building will occupy a space of 250x80 feet, and its erection will be commenced immediately. At present about fifty members are in the service of the firm.

Suttro Brothers, braid manufacturers of New York City, have purchased land and intend to erect a large factory in West New York. Plans for the building are now being prepared. Employment will be given to two hundred persons.

8 A strike was inaugurated by the bridge workers employed on the elevator and power house which the West Shore Railroad Company is erecting at West New York. The cause of the strike was the dismissal by the contractors of some members of the Bridge Workers' Union and the employment in their places of men belonging to the Housesmiths' Union. In anticipation of trouble, the entire police force of West New York and Hoboken were called to the scene of the strike.

BAYONNE.

Peter Schulph was severely burned at the Oxford Copper Works, and removed to the hospital.

Work on the new foundry of the Babcock & Wilcox Company is advancing rapidly. The building will cost \$60,000.

Three large frame buildings forming a part of the Oxford Company's works at Bayonne were destroyed by fire. The total loss was \$82,027, of which \$26,670 was on the buildings, \$4,550 on machinery and tools, \$39,019 on raw material and \$11,718 on finished product.

The Electro-Dynamite Company, Bayonne City, to deal in electric motors, electric supplies, etc., has been organized with a capital stock of \$50,000.

A receiver has been appointed for the Bayonne Knitting Mills. The enterprise was a very small one, and failed for want of capital.

WEEHAWKEN.

Henry Moran, inspecting engineer of the Pennsylvania Railroad Company at the Weehawken excavation for entrance to the tunnel under the Hudson River, fell a distance of fifty feet into the tunnel shaft and was seriously injured.

UNION HILL.

Dominick Petro, an Italian laborer, was seriously injured at Union Hill by the breaking of a chain while at work on an elevator hoist.

GUTTENBERG.

John Farrie, a laborer, was struck by a falling rock while at work at the Clinton Point stone crusher. His skull was fractured and he will probably die.

December.

JERSEY CITY.

The following companies have been incorporated at Jersey City:

The Alcolm Public Company, capital stock \$100,000, to publish and deal in business directories.

The Industrial Company of Porto Rico, capital stock \$100,000, to deal in tobacco in all its forms.

Monroe Automatic Awning Company, capital stock \$25,000, to acquire, hold and lease trade marks, formulas, secret processes, trade names, and to carry on a manufacturing business.

Trenton Mining and Development Company, capital stock \$1,000,000, to act as agents of mining companies.

The Price Cereal Food Company has increased its capital stock to \$3,000,000.

The Electro Dynamic Company, Bayonne, has increased its capital stock from \$50,000 to \$250,000.

The Portable Electric Safety Light Company has been incorporated with a capital stock of \$250,000. The company will manufacture and deal in electrical machinery and appliances of every kind.

The Huntington Manufacturing Company has filed articles of incorporation at Jersey City, with a capital stock of \$30,000. The company will build and deal in rowboats, yachts, sailing boats, ships and vessels of all kinds.

The Perfect Silk Finishing Company has been incorporated with a capital stock of \$10,000. The firm will manufacture and deal in silk fabrics and textile yarns.

The Federated Mines and Milling Company has been incorporated with a capital stock of \$400,000.

The New River Consolidated Coal and Coke Company has been organized at Jersey City with a capital stock of \$125,000.

The New Jersey Cap Union has filed articles of incorporation at Jersey City. The object is for improvement and advancement of its members in their business dealings and other relations with their employers.

John Durban of Congress street, Jersey City Heights, while at work on a scaffold on the elevator being erected for the West Shore Railroad, at Weehawken, fell and received an ugly scalp wound and a dislocated shoulder.

Albert Wiley of Jersey City Heights, a superintendent of construction, while inspecting some work on a building in course of erection, lost his balance and fell from the third story to the cellar, between the beams, into a heap of mortar. He received a bruised shoulder and some deep cuts on his hands.

James Guy, a railroad laborer sixty years of age, was struck by a drill engine at the Waldo avenue yards of the Pennsylvania Railroad, at Jersey City, and his right leg crushed.

James Gurk, a brakeman of Jersey City, had both legs cut off by an engine on the Pennsylvania Railroad.

Mark Davis' Sons & Company of New York City have purchased the factory located at No. 304-310 Ninth street, Jersey City, for \$25,000. The property covers four city lots, with a three-story brick building having steam and electric power. One hundred males and 150 females will be employed in the manufacture of cloth hats and caps.

The new additions to Colgate & Company's soap manufacturing establishment at Jersey City are nearly completed. This plant is one of the best equipped of its kind in the country.

The Niagara Wine Company, located in Jersey City, has sold its building and machinery to the Geigy Aniline and Electric Dye Company of New York. January 1st the latter company will take possession of the premises and manufacture aniline dyes.

Plans have been prepared for the erection of a four-story brick addition, 50x70 feet, to the Boynton Furnace Company's plant at Jersey City. The new building, which will cost about \$13,000 will be used for storage.

The B. T. Babbitt Company, manufacturers of soaps, soap powders and perfumeries, have purchased eighty-seven acres of land in North Bergen, fronting on the Hackensack River and extending easterly to the line of the New York, West Shore & Buffalo Railroad, for \$8,203. It is the intention of the company to erect a large number of factory buildings, contracts for which have been awarded.

The Weiderhold Company, a newly organized corporation, has purchased the property on Winfield avenue, Jersey City, formerly occupied by Von Longerke & Detmold, where they will manufacture gas burners. It is said that machinery and equipment to the value of \$25,000 will be installed in the plant, which will be in full operation before the end of January, giving employment to about fifty hands.

Application has been made to the United States District Court by the creditors of the International Rubber Company at Jersey City to have the company declared bankrupt. A receiver was recently appointed for the company, whose liabilities are far in excess of the assets.

The Court of Chancery has decided against the Regina Music Box Company of Rahway in their suit to vacate a mortgage given by G. F. Otto & Sons, manufacturers of musical boxes, Jersey City. The Regina Company contended that it was an act in contemplation of insolvency for the directors of the concern to execute a mortgage for funds with which to continue business.

Michael Green, twenty years old, recovered damages of \$12,000 against the Barnes Manufacturing Company, at Jersey City, for injuries received in the employ of the latter concern. This is the second verdict obtained against the company, the first one having been set aside as excessive.

The employes of the Mark Davis' Sons & Company, hat manufacturers of Jersey City, went on a strike because the company, which recently

moved to Jersey City, refused to give a bond of \$10,000 to the Hat Makers' Union to conduct a union shop.

HOBOKEN.

Thomas Riley, machinist, of Jersey City, while working in the transport Kilpatrick, at the Tietjen-Lang dry docks, Hoboken, fell and sustained injuries which necessitated his removal to the hospital.

William Carhart of Hoboken, a brakeman on the Lackawanna Railroad, had both his legs cut off by an engine. He was taken to the hospital, where he died.

Martha Cahill, eighteen years old, residing at Hoboken, while at work on a power-run sewing machine at the Hoboken Straw Works, was caught in the shafting and had her hair pulled from her head, tearing with it about six inches of the scalp.

The Standard Fashion Company of New York has sold its three-story brick factory at Clinton and Tenth streets, Hoboken, to the Autographic Register Company of New York.

Plans are being made for the organization of a Board of Trade among prominent business and professional men in Hoboken and the North Hudson municipalities.

BAYONNE.

Plans have been filed for the erection of two buildings by Dodge, Olcott & Company, drug manufacturers of New York City, who will establish a plant in the Bergen Point section of Bayonne. The two buildings will cost \$3,000.

A big engine works, it is said, will be established in Bayonne by a New York corporation that has purchased property on the Boulevard in the upper section of the city. The company's annual output is said to be 3,600 engines, and the force employed between four and five hundred men.

The announcement has been made that the Safety Insulated Wire and Cable Company of Bayonne is to be absorbed by the National Steel and Wire Company of Boston. It is intended to considerably enlarge the plant of the first-named company at Avenue A and First street, which will hereafter furnish the bulk of the material to the sub-companies controlled by the last-named corporation.

James Connors of Bayonne, employed by the Standard Oil Company at Constable Hook, had his left arm badly burned by the bursting of a barrel of hot pitch which he was rolling.

HARRISON.

The Electric Chemical Glass Manufacturing Company of Philadelphia and Pittsburg have purchased a large plot of ground at Harrison, on which they will erect a large furnace and other buildings for the manufacture of the finest kinds of chemical glassware. When the works are completed the company will employ about 200 men.

WEEHAWKEN.

James Sheehan, a laborer employed on the Lackawanna Railroad, was struck by a drill engine at Weehawken and had his shoulder dislocated.

WEST NEW YORK.

Fuessel Brothers, shade manufacturers, are erecting a new building at West New York.

Thomas Quirk of New York, while at work on the grain elevator which is being constructed in West New York by the New York Central Railroad Company, lost his balance and fell to the ground, a distance of 196 feet. He died shortly after reaching the hospital.

January.

JERSEY CITY.

The following industrial companies have filed certificates of incorporation with the Clerk of Hudson County: Kelly Asphalt Block Company, capital stock, \$200,000; Guanajuato Company, to mine, manufacture and deal in steel and iron, capital stock, \$1,250,000; Falcon Printing Press Manufacturing Company, capital stock, \$1,600,000; J. C. Appleby Sand & Clay Company, capital stock, \$100,000; Fibre Demijohn Company, to manufacture fibre-covered demijohns, capital stock, \$150,000; World Axle Grease & Fluid Lubricator Company, capital stock, \$100,000; Kohner & Company, to do a general manufacturing and mercantile business, capital stock, \$150,000; Diamond Garment Cutter Company, capital stock, \$50,000; Illustraphone Machine Company, to manufacture automatic vending machines, capital stock, \$10,000; Home Fuel Saving Company, capital stock, \$200,000; Marlon Chemical Company, capital stock of \$10,000; Charles Scribner's Sons, Incorporated, to do a general publishing business, capital stock, \$2,000,000; Royal Typewriter Company, capital stock, \$1,500,000; The New Bedford Shuttle Company, capital stock, \$500,000; Gibson Iron Works Company, capital stock, \$60,000; Newark & Byesville Glass Company, capital stock, \$1,000,000; O'Donnell Art Company, to manufacture articles used for painting portraits, capital stock, \$100,000; Marlow Chemical Company, capital stock, \$10,000; Cheshire Brick Company, capital stock, \$50,000; American Life Belt Company, capital stock, \$100,000; Farnham Cheshire Lime Company, capital stock, \$350,000.

James Phelan, a machinist, was cut in the head and had his left arm broken by the bursting of an emery wheel in the machine shop of the Pierce Well Digging Company of Jersey City.

On application of the Second National Bank of Jersey City, the Court of Chancery has made permanent the appointment of a receiver for the Standard Wood Turning Company, whose factory is located at Bay and Greene streets. The company was turned over to a receiver by the unanimous consent of the stockholders, and the business will be closed up as soon as possible.

The Columbia Electric & Manufacturing Company of Jersey City was made defendant in a suit brought by creditors, who claim that the corporation is insolvent and ask that a receiver be appointed.

An application has been made to the Street and Water Board of Jersey City to vacate Commercial street from Jane street to a point 275 feet east to the line of the Newark and New York Railroad. It is stated that M. Goldman, who made the application, intends to erect a factory on Commercial street, and the object of the proposed vacation is to afford him better facilities for the carrying on of his business.

The Central Labor Union at Jersey City has adopted a new set of by-laws. Numerous changes were made in the old laws to facilitate the transaction of business.

A serious fire occurred in the boiler works and marine machine shops of Alex. Miller & Bros., at Jersey City, completely destroying the large building, which was filled with a valuable stock of machinery. The damage is estimated at \$100,000. Other companies which suffered loss are Rossiter, McGovern & Company, manufacturers of all kinds of electrical machinery, and the Holmes American Protective Company, manufacturers of fire alarms. The former fix their loss at \$2,000 to machinery and \$20,000 to material, the latter \$1,051 to machinery and \$7,622 to material.

HOBOKEN.

The employes of Schmidt's Musical Instrument Works, on Jersey City Heights, stopped work because a favorite foreman has severed his connection with the company. The workmen refused to return to the factory until the foreman was re-employed by the firm.

BAYONNE.

Charles Griffin, a carpenter in the employ of the Bayonne Building Company, at Bayonne, had a deep gash cut in his right hand while sawing timber.

A company, which manufactures machinery, contemplates the erection of a large plant in the Bergen Point section of Bayonne. If the proposed plans are carried out, employment will eventually be given to a large number of skilled mechanics.

The Common Council of Bayonne has passed an ordinance permitting the Goubert Manufacturing Company to erect a foundry of iron and brick in that city, which will cost \$300,000. The construction of the building will be started in the spring and the company expects to begin operations in the fall, giving employment to 500 men.

The Babcock & Wilcox Company's boiler plant has resumed full operation after being idle for one week. It is stated that the company intends to remove its foundry, which has been for several years past at the Singer Sewing Machine Company's plant in Elizabeth, to Bayonne. This change will affect a large number of men at present employed in the foundry.

The German-American Steel Ball Company, manufacturers of ball bearings, has purchased property located at Bayonne. In addition to alterations being made to the buildings now on the premises, the company will erect a large addition of structural iron and glass at a cost of

\$150,000. The company will employ in the beginning 150 males and fifteen females, and within three years the number will be increased to 500 males and fifty females. This is the first American branch of the company, which has a paid up capital stock of \$1,000,000 and whose headquarters are in Germany.

About twenty males and six females have been on strike at the Herman Brothers' Hat and Cap Establishment at Bayonne for the past ten weeks.

February.

JERSEY CITY.

The following named industrial companies have filed articles of incorporation with the County Clerk at Jersey City during the month of February: Virginia Brewing Association, capital stock, \$125,000; International Glass & Bottle Company, capital stock, \$200,000; Pencil Exchange, manufacturers of pencils, capital stock, \$500,000; Witherbee Igniter Company, manufacturers of electric motors, capital stock, \$50,000; Universal Stone Machine Company, artificial stone blocks, capital stock, \$30,000; Hermo Medicine Company, Hermo remedies, etc., capital stock, \$250,000; Dixie Match Company, capital stock, \$250,000; New York Pneumatic Horse Collar Company, capital stock, \$200,000; Cushing Medical Supply Company of Jersey City, capital stock, \$300,000; World Axle Grease and Fluid Lubricator Company, capital stock, \$100,000; Mercedes Mining Company, capital stock, \$60,000; National Switchboard Company, capital stock, \$10,000; the Home Fuel Saving Company of Jersey City, to manufacture and sell fuel saving devices, capital stock, \$200,000.

The Court of Chancery has granted an order directing the receivers of the Standard Wood Turning Company at Jersey City, to sell the plant.

At the annual meeting of the Hillingsworth Drill and Tool Company at Jersey City, large increase in the volume of business done was reported, and a semi-annual dividend declared.

The Phillips Mfg. Company of Jersey City will erect a one-story frame building on Kearney avenue at a cost of \$400.

Work of installing the machinery in the new plant on Winfield avenue for the manufacture of incandescent gas mantles is completed. Fifty people will be employed and work is to begin at once.

A suit in the Court of Chancery instituted by the Eureka Fire Hose Company of Jersey City is now on to restrain the Eureka Rubber Manufacturing Company of Mercer County from using the word "Eureka" as part of its corporate title and trade-mark.

Extensive alterations are being made in the double frame factory building at No. 423-425 Montgomery street, Jersey City, formerly owned by the Lehan Carriage Factory. It is estimated that \$1,700 will be spent on improvements by Frederick M. Eberhart, the present owner.

Butler Brothers, notion dealers of New York City, have purchased almost the entire block bounded by Washington, Greene, Bay and Morgan streets, in Jersey City, where they will erect a large merchandise warehouse of stone and brick. The new building is to be completed by January, 1905, and employment will be given to about 500 persons.

The firm of Vanderbeek & Sons, Jersey City, box and moulding manufacturers, has been changed by the admission of some new members. Recently the company's plant at Steuben and Greene streets was destroyed by fire. New buildings will be erected, one of brick, two stories high, $77\frac{1}{2} \times 100$ feet, another of the same height, 36×22 feet. The buildings, which will be used as a saw mill and for the manufacture of wooden boxes and mouldings, will cost about \$30,000.

The strike at the factory of Mark Davis' Sons & Company, cap makers of New Jersey, has been settled by the firm consenting to recognize the Cap Makers' Union, and to pay the union scale of wages. The adjustment of the trouble has given much satisfaction to the employees. 22

A new union has been formed at Jersey City among the bridgemen and structural iron workers of Hudson county. Over two hundred members have been enrolled.

The Iron Moulders' Union No. 7 of Jersey City, at a meeting, reported a membership of 386 and that with few exceptions it controls every man working at the trade in this section.

The Master Sheet Metal Workers of Jersey City have requested Local Union No. 13, Journeymen Sheet Metal Workers, to abrogate their rules requiring an enforced holiday on Saturday and limiting the number of apprentices to one for each five journeymen. The latter refuse to make any alterations in their rules.

The Knights of Labor of Jersey City have refused to grant a charter to a body of men who had made application for one but did not want their identity known, and refused to pledge themselves to assist all branches of labor when called upon to do so.

HOBOKEN.

A rule to show cause why the John Parker Company, manufacturers of sashes, doors, and other woodwork, at Hoboken, should not be declared bankrupt, has been granted by the Court of Chancery.

Oscar Frommel will rebuild his three-story brick factory on the southeast corner of Madison and Eighth streets, Hoboken.

The Vetterman Provision and Packing Company of Hoboken has been incorporated with a capital stock of \$15,000.

Typographical Union, No. 323, of Hoboken, held a meeting and endorsed the newly-elected international officers.

The organization of a labor employment agency was discussed at a meeting of the Building Trades Council of Hudson County.

Fifteen girls went on strike at the factory of Wright's Health Underwear Company, Hoboken, because of objection to a forelady. The latter left the company's employ and most of the strikers' places were filled by others. 23

BAYONNE.

The erection of the big iron foundry building for Babcock & Wilcox, boiler makers, at the foot of Cottage street, Bayonne, is practically completed. Several hundred additional men will be employed.

Joseph Taradash, manufacturer of wrappers at No. 88 West Twentieth street, Bayonne, has disappeared. Forty girls employed in the factory will be permitted to continue the business on a co-operative basis by the Baron de Hirsch Fund, which holds a mortgage on the plant.

The Common Council of Bayonne has granted permission to the Central Railroad to construct and operate a single track from its main line at West Eighth street to the plant which is to be erected by the Goubert Manufacturing Company between First and Third streets and Newman and Humphreys avenues. It is thought that this ordinance will be an inducement to manufacturers to locate in this section of the city, as it will greatly facilitate shipping and receiving of goods.

HARRISON.

William Dalton, nineteen years old, of Harrison, had his thumb and two fingers severed from his right hand by a machine saw while at work in the factory of the New Jersey Tube Company.

Edward Youngard, nineteen years old, a driver employed by Christopher Maier of Harrison, while unloading iron rails from a wagon, had three fingers severed from his right hand by one of the rails falling.

The receiver for the Storey Motor & Electric Company, at Harrison, made a report to the Chancellor on the basis of which a dividend of twenty-five per cent. has been declared to all creditors.

WEEHAWKEN.

The Court of Chancery has granted an order to show cause why a receiver should not be appointed for the Lambert-Schmidt Telephone Manufacturing Company of Weehawken. Application was made by the New York Supply & Equipment Company, a creditor of the corporation.

MARION.

The Brewster Manufacturing Company, manufacturers of cocoa and chocolate, contemplate the erection of a new three-story brick building on Fox Place, in the Marion section of Jersey City.

March.

JERSEY CITY.

The following named industrial companies have filed their certificates of incorporation in Hudson County during the month of March; Phoenix Liquid Container Company, to manufacture receptacles for holding liquids, powders, and gases, capital, \$100,000; Knickerbocker Paper Company, to manufacture paper and stencils, capital, \$100,000; Sun Heater Company, to manufacture illuminating heaters, capital, \$100,000; Farnam Cheshire Lime Company, to manufacture portland cement, capital, \$300,000; Anderson Manufacturing Company, to engage in a general manufacturing business, capital, \$25,000; Phoenix Oil Company, to manufacture patent and proprietary medicine preparations and compounds, capital, \$300,000; Black Horse Tobacco Company, to manufacture tobacco in all its forms, capital,

\$50,000; Pittsburg Coal Car Company, to construct railroad cars, capital, \$100,000; the Field Multiplex Telegraph Installation Company, to manufacture telephones, capital, \$200,000; Nottingham Lace Curtain Works, to make lace curtains, capital, \$500; Standard Manufacturing Company, to manufacture glue, capital, \$100,000; Gaynor Train Control Company, to manufacture train controlling appliances, railroad switches, signals and equipments, capital, \$600,000; Bridgeport Athletic Manufacturing Company, to manufacture sporting goods, gymnasium equipments, etc., capital, \$500,000; United States Alloy Company, to manufacture metal alloys, and to do a mining, milling, concentrating and smelting business, capital, \$100,000; Pittsburg Scale Company, to manufacture scales, capital, \$100,000; Consumers' Liquid Gas Company, to manufacture carbonic acid gas, capital, \$90,000; Downs Fusible Plug and Stopper Company, to manufacture bottle stoppers, capital, \$100,000; The Havana Canning Company, to can fruits, nuts, etc., capital, \$100,000; American Paper Company, to manufacture paper, capital, \$250,000; Crude Products Company, to do a general manufacturing and mining business, capital, \$100,000; Dairy Products Company, to manufacture prepared milks, capital, \$575,000; Deubell Milling Company, to manufacture flour, capital, \$100,000; Excelsior Powder Manufacturing Company, to manufacture blasting powder, capital, \$100,000; Harpophone Manufacturing Company, to manufacture mechanical musical instruments, capital, \$100,000; Singer Window Shade Manufacturing Company, to manufacture window shades, capital, \$15,000; Macklegon Company, to acquire, manufacture and prepare for market and deal in food products of every class and description, capital, \$50,000.

A fire in the factory of the Brewster Cocoa Manufacturing Company at Washington and Morgan streets, Jersey City, caused a loss of \$4,300 to the building and \$30,050 to machinery and material. The company was about to transfer its business to the Marion section of Jersey City at the time of the fire.

The plant of the Vogel and Reilly Lamp Company at Tenth and Grove streets, Jersey City, was partially destroyed by fire. Damage to the building is estimated at \$900; to machinery and material, \$2,258.

A fire occurred in the factory of F. G. Otto & Sons, manufacturers of surgical instruments at Jersey City, which damaged the plant to the extent of \$5,000.

The new buildings of the Empire Asphalt Company at the foot of Manhattan avenue, Jersey City Heights, have been completed. The plant will be put in operation at once with about fifty employees.

Coach Drivers in Hudson County have asked their employers for an increase in wages from \$12.00 to \$14.00 per week.

The local union of the Retail Clerks International Early Closing Association, which was organized for the purpose indicated by its title, adjourned on March 17th to meet on April 7th.

The Gubelman Photo-Graveur of Jersey City has amended its charter by changing the name to the Gubelman Company.

A new union to be known as the Stone Masons' Union No. 42 of Jersey City has been organized as a branch of the Bricklayers' and Masons' International Union of America.

Differences between the employing Lithographers' Association and the national and local unions of lithographers have been adjusted.

BAYONNE.

Work has been started for the erection of the new ball-bearing factory at 52d street and Avenue E, Bayonne.

The big iron foundry of Babcock & Wilcox, boilermakers, which has been in course of erection for six months, is now completed. Between 300 and 400 men will be given work.

The wrapper factory formerly operated by Joseph Tarradash at Bayonne has been sold. Recently Mr. Tarradash disappeared and an attempt was made by the female employes to continue the business on a co-operative basis. Attachments were subsequently obtained to satisfy numerous claims for salary and the property was sold at auction.

HARRISON.

Andrew Van Hise, sixty years of age, while at work on the building of the International Pump Company in Harrison, fell a distance of about thirty feet, breaking his right arm and injuring his back.

A fire occurred in the factory of the Adamant Plaster Company in Harrison which caused damage to the extent of \$256.70 to the building and \$243.30 to machinery and material.

A manufacturing company is negotiating for land on which to build a large factory in Harrison.

The New Jersey Tube Works Company has purchased the building and property at Kingsland avenue and Cross street, Harrison.

KEARNY.

James Stevenson fell from the second story of the new building of the Nairn Linoleum Works in Kearny, where he was employed, receiving a compound fracture of the right elbow and other injuries about the body.

ARLINGTON.

The Arlington Manufacturing Company have discharged many employes because of having stopped the manufacture of celluloid collars. It is expected that this branch of their business will be resumed in about a month.

WEST NEW YORK.

Twenty-six coopers of the American Cotton Oil Works in West New York are out on strike. The claim that non-union men are being employed to do cooperage work.

WEEHAWKEN.

The Metropolitan Sugar Refining Company, which was recently incorporated with a capital stock of \$5,000,000, will erect a large refinery on the New Jersey side of the Hudson River opposite Forty-second street.

April.

JERSEY CITY.

The Brewster Cocoa Company is erecting large factory buildings in the Marion section of Jersey City, and have them now rapidly nearing completion. The plant will probably be in full operation about June 1st. The structure is of brick and will have cost when completed \$60,000. Work will be commenced with forty male and thirty-five female employes.

Representatives of a firm who manufacture silk dress goods at Roubaix, France, have secured options on a large tract of land at Block House Point, North Bergen, on which their principals will, if the selection is satisfactory to them, erect a large mill, and also many dwellings for the workingmen and women whom they will bring with them from abroad.

A large manufacturing firm that does business in both New York and Chicago, supplying five and ten-cent stores with fancy goods and notions, propose erecting a factory in Jersey City which will cover an entire block, if permission can be obtained from the city authorities to construct a spur track connecting the works with the Pennsylvania Railroad. The proper municipal officers have promised to take favorable action in the matter.

The building material drivers of Jersey City have organized a union which is rapidly growing in membership. The organization has put forward one of its members as a candidate for the office of Boulevard Commissioner.

The Elevator Constructors' and Millwrights' Union of Hudson County, members of which have been on strike for an advance in wages, voted that work should be resumed by all pending the settlement of the wage question by arbitration; but later, at a second meeting, the action previously taken was reversed and the strike continued. 24

The carriage and wagon workers of Jersey City, acting with thier fellow craftsmen of other cities of New Jersey and New York, where unions of the trade are established, have decided to go on strike to enforce their demand for a reduction in working time from fifty-nine to fifty-one hours per week. The unions insist also on the wages paid per week remaining the same as that which has been paid for the longer time. 25

Application has been made to the Court of Chancery for the appointment of a receiver for the Rex Fire Apparatus Company of Jersey City; the grounds alleged being that the company's liabilities are vastly in excess of its assets, and that it is now practically bankrupt.

The deadlock which has existed in the lithographic trade for some time back, owing to a strike of the Lithographers' Union, has been ended by an agreement between the contending forces brought about by the conciliation committee of the Civic Federation, which provides a form of arbitration satisfactory to both.

The plant of the Standard Oil Company, at the foot of Jersey City Heights, which was destroyed by fire, will be replaced by new buildings without loss of time. Architects are now at work on the plans.

The United States Steel Company has purchased the Clinton Steel Plant of the Crucible Steel Company of America, which is situated in the West Bergen section of Jersey City.

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BAYONNE.

The drug manufacturing firm of Dodge, Olcott & Company are about to start a factory for the manufacture of their various products in the Bergen Point section of Bayonne.

The Babcock & Wilcox Boiler Company, whose works are situated on the Kill Von Kull shore of Bayonne, has filed a certificate with the Secretary of State, increasing its capital stock from \$1,500,000 to \$3,000,000. During the past three months work on a large new foundry addition to the plant has been pushed with the uttermost possible speed. This, when finished, will furnish accommodations for fully 300 more men.

HOBOKEN.

lock out
An employing cigar manufacturer in Hoboken has locked out his workmen because of the refusal of the union of which they are members to supply him with labels. On their part, the men assert that the scale of prices paid at the shop did not entitle the manufacturer to the privilege of using the label.

WEST HOBOKEN.

Several large silk mills in and about West Hoboken are suffering from a scarcity of orders, and apparently will either have to make a great reduction in production during the spring and summer months, or else close down entirely for a time.

A fire occurred in the silk mill of Reiling, David & Schoen at West Hoboken, which was extinguished before it had gained headway enough to do any damage.

EAST NEWARK.

Employees of the Clark O. N. T. Mills at East Newark have been notified that until otherwise ordered this works will not be run on Saturday.

KEARNY.

A ship yard and floating dry dock has been established on the Passaic shore of Kearny. Vessel owners may have repairs done here in future, and thus avoid the delay and expense of sending their boats to remote yards for that purpose.

HARRISON.

The Hyatt Roller Bearing Company is having a brick building, 50x75 feet, erected as an addition to its works at Harrison. The new structure will cost \$6,000, and additional machinery to the value of \$4,000 will be required. Fifteen more workmen will be employed.

A fire in the Diamond Compound Company's factory at Harrison caused damages to the amount of \$800.

The works of the Henry R. Worthington branch of the International Steam Pump Company, located on the Hackensack Meadows within the corporate limits of Harrison, are now rapidly nearing completion. The plant is designed to be the largest in the world engaged in the production of

steam pumps. When finished the work now being done in the Worthington shops at Elizabeth, N. J., and Brooklyn, N. Y., will be transferred there and the old plants closed.

The erection of the gigantic shops of the Worthington Company on the Meadows points a future use for these immense tracts hitherto regarded as little more than irreclaimable wastes, and it is not improbable that other industries requiring large space for carrying out the most advantageous plans of factory construction may in the near future follow the example set by this enterprising corporation. The objection which has always hitherto been advanced to the use of the Meadows for manufacturing purposes has been its supposed inability to sustain the weight of a large building; but the engineers and architects of the Worthington Company have proven that this long-established impression is an error, and that buildings of any size can be safely erected on any part of the meadow tract without even the customary precaution of using piling as a basis of foundations. The product of the Worthington plant will include steam, electric and power pumps, a new type of centrifugal pump, condensers, cooling towers, water meters, and many other varieties of hydraulic and steam machinery. The location of the plant and every detail of the general design of buildings have been arranged to secure the greatest economy in production. The Erie, Lackawanna and Pennsylvania Railroads, all of which run directly past the doors of the plant, affords facilities for railway shipment to every part of the country or to steamships for sending products abroad. Spurs from the trunk line tracks will enter each building in which finishing operations are carried on, thus permitting machinery to be loaded on cars for shipment right in the shops in which it is made. The plant will also be equipped with a complete system of railway tracks connecting the various buildings, upon which small locomotives will move the rough material and partly finished parts from one building to another, as the necessities of manufacture may require. The buildings are constructed throughout of steel and brick, and when finished will cost \$3,000,000. The motive power will be electricity, and 3,500 men and 100 women and girls will be employed when regular operations are commenced at the completed works.

The following industrial companies were incorporated in Hudson County during the month of April: Alliance Manufacturing Company, to manufacture women's and children's cloaks and other wearing apparel, capital, \$12,500; The Army and Navy Equipment Company, to manufacture and sell supplies used by the United States and other governments, capital, \$10,000; The Auto-Coil Company, to manufacture and deal in electric coils, motors, dynamos and other electrical machinery, capital, \$100,000; The Bidtt Chemical Company, to manufacture chemicals, capital, \$20,000; The Sanitation Fuel Company, to manufacture a patent fuel preparation known as Kolo, capital, \$1,000,000; The International Condenser Company, to engage in the business of mechanical and electrical engineers, and to manufacture condensers; The United States Printing Company, to do a general printing business, capital, \$3,000; The Hetfield Car Cover Company, to make railroad cars and car covers, capital, \$100,000; The Pope Transmitter Manufacturing Company, to manufacture and sell telephone transmitters and other electrical appliances; The Queen City Tobacco Company, to manufacture and sell tobacco in all

its forms, capital, \$50,000; The Huyler & Company, to manufacture chocolates, capital, \$250,000.

May.

JERSEY CITY.

The Carriage and Wagon Workers' Union of Jersey City notified all master wagon builders that on and after May 1st, journeymen in the trade would require a half-holiday on Saturday which must be given without reduction in wages. There are about one hundred shops in Hudson County where wagons and carriages are built or repaired, and the new schedule was designed to apply to them all. The employers either took no notice of the demands of the union or else refused to accede to them. A strike was thereupon declared which brought work in all the shops affected to a stand still.

26 The Mill Wood Workers' Union of Hudson County decided to enforce a demand previously made on the mill owners for fifty hours working time per week instead of fifty-three, and also a half-holiday on Saturday. The men struck to enforce the demand. About twenty-two large and small shops throughout the country were affected, and 250 men were idle. The strikers had the support of the Hudson County Building Trades Council. After the cessation of work for one day, eight out of the twenty-two firms conceded everything to the strikers, and work was resumed at their establishments. Some carpenters belonging to unions affiliated with the United Building Trades Council of Hudson County, refused to work on material coming from the mills that had refused to accede to their workmen's demands. A suspension of work on many buildings in course of erection followed this action of the carpenters. The mill owners and master carpenters met and after due explanation of their position in the contest now on between themselves and their employes, the mill owners were assured that carpenters who had entered on the sympathetic strike should return to work and use the material provided for them, or their employers would institute what would amount practically to a lockout by shutting down work on all contracts controlled by them. The Allied Building Trades Council on its part, adopted resolutions re-endorsing the millworkers' strike, and declaring itself ready to call out from work all union workmen connected with any of the Allied Building Trades, who were working on jobs where non-union men were employed or where material made under non-union conditions was used. The trouble between the contending interests was finally settled by the carpenters who struck in sympathy with the mill workers returning to their old jobs. It was agreed that the difference between mill owners and their employes from which sprang all the difficulties should be submitted to a special board of arbitration for final settlement and that meanwhile the so-called unfair wood working mills should be closed and no material whatever sent out from them. After due consideration given to the matter and hearing representatives of both sides, the Court of Arbitration, which consisted of two clergymen, a railroad roadmaster, the secretary-treasurer of a large trust company, and a merchant engaged in business in Jersey City, found for the side of the workmen on both counts,

viz: that the working hours should be fifty per week instead of fifty-three as formerly, and no reduction in wages should be made in consequence of the decrease in time. The men's contention for "closed shops" or the exclusion from employment in the mills of non-union men was also sustained. The strikers returned to work after having been idle for twenty-seven days.

The following industrial companies were incorporated in Hudson County during the month of May:

The Old Colony Rubber Company, to deal in rubber in all forms. Capital stock \$125,000.

The New Jersey Tobacco Company, to manufacture and deal in all kinds of tobacco and goods made from tobacco. Capital \$300,000.

The Electrical and Chemical Glass Company, to manufacture and deal in chemicals, glass and combinations of metal and glass. Capital \$50,000. The company will establish a plant at Harrison.

The Sterilized Milk Export Company, to manufacture milk powders and other products of milk prepared by the National Nutrient Company. Capital \$10,000.

The Union Motor Company, to manufacture and deal in motors, engines and machines in which power is generated, or which are operated by gasoline, steam, electricity, etc. Capital \$100,000.

American Metal Company, to manufacture, buy and sell all kinds of metals, oxides, metallic ores, earths and chemicals of all kinds. Capital \$5,000.

James Reilly Repair and Supply Company, to manufacture and repair chemical engines, evaporating machines and distilling plants of all kinds. Capital \$1,000,000.

Richard Walsh, a former employe of the Marine Machine Shops at the foot of Essex street, Jersey City, who had been on strike for three weeks in an effort to unionize the works, visited the works and while arguing with some non-union workmen who had taken the place of the strikers, accidentally exploded a pistol which he carried in his pocket, the ball from which lodged in his arm.

Charles Felt, a carpenter employed on the new Pennsylvania Railroad docks at Greenville section of Jersey City, cut his foot with an adz, with which he was working. The wound inflicted was very severe.

The large bone boiling plant of Henry Vateky, situated on the west side of the Hackensack River in Jersey City, was totally destroyed by fire. The loss on building, machinery, material and finished product on hand amounted to a total of \$4,500.00.

HOBOKEN.

A fire broke out in the pattern shops of the W. & A. Fletcher Machine Works at Hoboken and caused damage to building of \$300, to machinery \$175, material \$100, and finished product \$4,600; a total loss of \$5,175. While making efforts to save some of the patterns, three men were severely injured by the falling of a ladder on which they were standing. One of the number, Charles Hendrickson, was so badly hurt that his death seemed likely to occur after the accident.

A body of public spirited citizens of Hoboken have organized a Board of Trade, whose special aim will be to endeavor to increase the commerce of Hoboken, and induce capitalists and manufacturers to build factories and invest capital in manufacturing business.

The Undertakers' Association of Hudson County, whose headquarters are at Hoboken, propose to meet the increase in the price of caskets and other funeral supplies ordered by the trust which controls the production of these goods, by starting a manufactory of their own on the co-operative plan.

BAYONNE.

The Boulevard Commission of Bayonne has denied the petition of the Goubert Manufacturing Company for permission to construct a railroad spur over the boulevard to connect with its works.

HARRISON.

Joseph McNamara, a workman employed at the Crucible Steel Works at Harrison, had both his legs and feet badly burned by the falling of a red hot bar which he was handling at the time.

WEEHAWKEN.

The firm of James Pyle & Sons, manufacturers of "Pearline," has purchased a large tract of the Hudson River shore front of Weehawken with the intention of erecting a large factory thereon.

June.

JERSEY CITY.

27 Practically all the union clothing workers who live and work in Jersey City are now on strike. Theirs is a part of a movement of the National Association of their trade against the restoration of the "open shop" rule which the Manufacturers' Association has adopted. About 400 Jersey City garment workers are idle.

78 Thirty laborers employed in Hitchings & Company foundry at Jersey City struck for an advance in wages. Efforts to replace them with non-union men are being made, but the strikers are supported by the moulders employed by the firm, who have taken the position that the matter in dispute should be settled by arbitration.

29 The union laborers of North Hudson employed in the building trades have gone on strike for a nine hour work day which the contractors agree to concede on condition that the same shall be made uniform throughout the county. The contractors insist on this being done because otherwise they will be at a disadvantage in bidding for contracts against employers who work their men ten hours per day. The union men have recognized the reasonableness of the contractors' position and, agreed to return to work pending the making of arrangements for uniform hours of labor in this class of work throughout the entire country.

The Bung Lock Company was incorporated at Jersey City with a capital of \$125,000. The company will manufacture locks and keys.

The Continental Clay Products Company was incorporated at Jersey City with an authorized capital of \$100,000. The company has been formed to manufacture and deal in fire proofing materials, sewer pipes, tiles, etc.

The National Bridge Works, to engage in the construction and erection of iron and steel bridges, was incorporated at Jersey City. Capital stock, \$70,000.

The Magic Curler Company was organized at Jersey City with an authorized capital of \$500,000. The company will erect a factory at Jersey City and engage in the manufacture of women's hair curlers.

The Vitalized Hair Tonic Company, to manufacture hair lotions, was incorporated at Jersey City with a capital stock of \$100,000.

The Eggvanola Manufacturing Company, to manufacture and sell an article under the trade name of Eggvanola to saloons, drug stores and club-houses. The capital is fixed at \$250,000.

The Hudson Iron Compny was organized at Jersey City with a capital of \$1,500,000. The company will mine, refine and prepare for market, iron, steel, etc.

The International Air Brake Company was incorporated at Jersey City with an authorized capital of \$3,000,000. The company will manufacture automatic air brake couplers under the patents granted to John H. Phillips.

The Holt Engineering Company (object not stated) was incorporated at Jersey City with an authorized capital of \$2,500,000.

The Antiseptic Shaving Brush Manufacturing Company, to manufacture a patented brush of peculiar construction, was incorporated at Jersey City with a capital of \$50,000.

The Crystalline Salt Company, to mine, manufacture, refine, prepare and sell all kinds of salt, was organized at Jersey City with an authorized capital of \$20,000.

The Truslow & Fulle Company of Jersey City, manufacturers of cork specialties, has purchased the factory building formerly occupied by the Brewster Cocoa Manufacturing Company of the same place, and will move its entire plant there.

An entire block in Jersey City has been purchased by a New York firm of manufacturers, who propose erecting a large factory building thereon, which will cost \$750,000.

The Wiederhold Light Company, manufacturers of the Black Diamond Incandescent Gas Mantle, has purchased and now occupies the factory building in the Greenville section of Jersey City which was formerly used by the Weustner Eagle Dry Plate Company.

The Autocoil Company, manufacturers of coils for automobiles and for other purposes, has leased the factory in Jersey City formerly occupied by the Varly Duplex Magnet Company, in which place the manufacturing part of their business will in the future be carried on.

The Lawrence Cordage Company has purchased the plant covering four acres of land in Jersey City which was owned and occupied up to four years ago by the New Jersey Zinc Company. The Zinc Company's business is said to have been very prosperous up to about six years ago, when it was absorbed by the trust.

An explosion of chemicals occurred in the dye house of the F. Gläser's Consolidated Dye Works, in the Hudson City section of Jersey City, which

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blew out a part of the structure and caused a fire that did about \$2,000 damage before it was extinguished. No one was hurt, principally because the accident occurred at the noon hour, when the employes, forty in number, were absent for lunch.

HOBOKEN.

30 Negotiations are now under way to end the boilermakers' strike, which has seriously disturbed business at Hoboken and Jersey City shops. The chief matter of contention on the part of the boilermakers' union is that its walking delegate may have free access to shops at all working hours for the purpose of seeing that only union men are employed. This is regarded as unreasonable by the employers principally because conceding such rights to the representatives of the union would be followed by a demand for the discharge of many old and faithful employes who do not choose to become members of the union. This course, the companies declare, they could not be driven to under any species of compulsion. A satisfactory compromise was finally effected after the extreme demands of the union had been modified.

The Hoboken Iron Works Company was incorporated at Jersey City with a paid up capital of \$5,000. The company will engage in the manufacture of steel and iron.

WEST HOBOKEN.

A fire supposed to have been caused by spontaneous combustion broke out in the Gardner & Randall Saw Mill at West Hoboken. The damages were, to building, \$100; to machinery, \$150, and to stock, \$50.

HARRISON.

The International Pump Company, whose gigantic works at Harrison are not yet entirely finished, are buying adjoining land with a view to the necessities of future enlargement. All the buildings comprised in the plant are now practically finished so far as the exteriors are concerned. The principal work remaining to be done is to fit up the interiors with derrick, forges, cranes and machinery necessary in the production of steam pumps, water meters, condensers and other kindred articles which the corporation will manufacture. The foundry and pattern shop will, it is expected, be ready for the commencement of regular operations about September 1st, and all the other departments, soon after January 1st, 1905. When in full operation this plant will be one of the largest and best equipped industrial plants of any kind in the world, and incomparably the greatest one engaged anywhere in the production of steam pumps.

BAYONNE.

The Bayonne Knife Company, which was incorporated in February of this year, has had petitions in involuntary bankruptcy filed against it in the Court of Chancery by several creditors.

The Wire Works at Bayonne are now running continuously with a day and night shift of workmen.

WEST BERGEN.

The Spiral Riveted Steel Company, whose factory is at West Bergen, is winding up its affairs, and in a short time will go out of business. The company was organized about five years ago, but has not found the manufacture of its specialty as profitable as was expected.

NORTH BERGEN.

The B. T. Babbitt Corporation, named after the famous soap manufacturer, has purchased a large tract of meadow land in North Bergen township, which is now being filled in and otherwise prepared for the erection of buildings into which, when finished, the entire soap producing plant at present located on Washington street, New York, will be transferred. The cost of the buildings, which will be second in size only to those of a famous soap works in the West, will be approximately \$500,000. Between 3,000 and 4,000 men will be employed when the plant is ready to begin operations.

SECAUCUS.

The old Secaucus iron furnaces, which comprise about fifty acres of land in Secaucus, are said to have been purchased by the Hudson Iron Company. An expenditure of about \$600,000 is to be made in renovating the properties. Among other improvements will be the erection of a coke plant.

EAST NEWARK.

A fire occurred in the spinning department of the Clark Mile End Thread Company at East Newark. The blaze was extinguished by the company's own brigade of firemen, who are all employees. The damage was slight and resulted principally from the water used in putting out the fire.

UNION.

The Ligmatite & Heartometer Company was incorporated at Union with a capital stock of \$7,000. The company is to manufacture and sell ligmatite and heartometers.

July.

JERSEY CITY.

Two receivers for the Conover Manufacturing Company of Jersey City have been appointed by the Court of Chancery. The company manufactures steam condensers and is suffering principally from lack of capital. The Court has authorized the receivers to continue the business.

Complaints have been made to the Hudson County Board of Health by many persons relative to the rebuilding of the Uvalde Asphalt Company's plant at Jersey City, which was destroyed by fire some time ago. The objections urged against work being resumed in the old neighborhood are the noxious odors and the dust which seems to be inseparable from the business.

The Retail Grocery Clerks' local union of Jersey City are energetically pushing ahead in the movement to close all places of business on Sundays.

The large establishments welcome the cessation of business on Sundays, but the smaller dealers in the side streets do not take to the movement so readily.

A fire which had a curious origin broke out in the upholstery department of the Hudson Bedding Company's plant at Jersey City. A nail was in some way dropped into one of the electric machines used for pulling hair apart, and the friction caused thereby caused a spark which set fire to the hair in the machine. The blaze was extinguished after having caused a loss of only \$4 in material.

The factory of the Brooklyn Bedstead Company at Jersey City was damaged by a fire which began with a quantity of excelsior being ignited by a spark from an adjacent foundry. The loss was \$2,000.

The plant of the Uvalde Asphalt Company at Jersey City was partly destroyed by fire. The blaze was very hard to extinguish on account of the inflammable nature of the large stock of material on hand and stored in the works. The loss on building and machinery was \$10,000, and to finished material \$750.

The International Separator Company was incorporated at Jersey City with a capital of \$500,000. The company will carry on the business of mining, milling, concentrating, smelting and refining all kinds of metal ores.

The Chesterton Cooperage and Lumber Company was incorporated at Jersey City to carry on the business of making and selling cooperage materials and other products.

The Mines Development Company was incorporated at Jersey City with a capital stock fixed at \$3,000,000. The company will lease, purchase and operate mines, quarries, etc., in this and other States in countries.

The Westboro Carpet Company was incorporated at Newark with a capital of \$100,000. The company will carry on the business of carpet and rug making.

The Joseph Plenty Skylight Works Company was incorporated at Jersey City to take over the business of the Plenty Horticultural and Skylight Works at Jersey City. The capital stock is fixed at \$100,000.

The Sagni Salve Company, which will manufacture and sell medical compounds and preparations, was incorporated at Jersey City. The capital stock was fixed at \$125,000.

The Crescent Company, which will do a general manufacturing business, was organized at Jersey City with a capital of \$10,000.

The Cascade Vending Company, whose purpose is to manufacture vending or selling machines, was incorporated in Jersey City. The capital stock is fixed at \$125,000.

The Afflech Concrete Steel Tile Company was incorporated at Jersey City with a cash capital of \$100,000. The object of the company is to manufacture the articles named in its title.

The Tungstein Mining & Milling Company, which will carry on a general mining business, was incorporated at Jersey City. The capital stock is \$100,000.

The Tri-State Mining and Manufacturing Company of Jersey City filed articles with the Clerk of Hudson County at Jersey City, by which its capital stock was increased from \$150,000 to \$200,000.

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The Cook Carburator Kerosene Company was incorporated at Jersey City with a capital of \$100,000.

The Wallman Manufacturing company was incorporated at Jersey City. The object of the company is to manufacture and deal in novelties of all kinds. The capital stock is fixed at \$100,000.

The National Sanitary Company was incorporated at Jersey City. The company will manufacture and deal in toilet articles of a special kind with an authorized capital of \$100,000.

The Automatic Opera Chair Compnay was incorporated at Jersey City. The company will manufacture and deal in wood and all other fibrous substances for making chairs. The authorized capital is \$150,000.

The Burke Electric Company was incorporated at Jersey City with an authorized capital of \$150,000. The company will manufacture electric motors, dynamos and other electric machinery.

HARRISON.

The plant of the New Jersey Zinc Works, situated on the Hackensack meadows between Newark and Jersey City, was partly destroyed by fire on the morning of July 10th. The flames broke out in a wooden building two stories high and 100 feet long, and quickly spread to other parts of the works, notwithstanding the best efforts of the factory fire brigade. Two large buildings of the group of structures comprised in the plant were entirely consumed before the fire was finally extinguished.

BAYONNE.

A number of men who had been employed to take the places of strikers at the clothing factory of Bressler & Bros., Bayonne, went on strike themselves and created such a disturbance that the police were called in to keep order. 21

GREENVILLE.

Greenville merchants and store keepers have generally acceded to the expressed wishes of the clerks for a shorter workday, and have agreed to close at 7 p. m. throughout the months of July, August and September.

ARLINGTON.

The Bergen Industrial Company will soon begin to manufacture brick on its recently purchased property near the Belleville turnpike. Machinery is now being placed in position, and when the equipment is all ready, the plant will turn out at least 20,000 bricks per day. The authorized capital of the company is \$125,000.

August.

JERSEY CITY.

At a fire in an awning factory at Jersey City, Joseph Campbell, a fireman attached to the fire department, was killed by the explosion of a fire extinguisher which he was using to quench a blaze.

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The union plumbers, steam and gas fitters of Jersey City are engaged in a quarrel over the efforts which the steam fitters are making to withdraw from the National Association as a preliminary to joining another central body, membership in which it believes would be more conducive to its interests.

The new factory being erected for the See Elevator Company is nearing completion. The company has carried on its work in Brooklyn until the factory which it occupied was condemned by the New York authorities in order that the ground on which it stood might be used as part of the approach to the Manhattan bridge. The Jersey City factory will cost about \$40,000.

Butler Brothers, who are erecting a factory at Jersey City to cover one entire city block, have asked and received permission from the City Council to build a platform eleven feet in width over a street bordering their works for the purpose of extending and improving shipping facilities.

A new factory is being erected in the Lafayette section of Jersey City for the Dairymen's Manufacturing Company. The structure will be of brick, and will cost when completed, \$35,000.

The Central Labor Union of Hudson County has endorsed the action of the Brewers' Local Union in withdrawing the label from one of the large breweries of Jersey City because one of their members was discharged by the proprietors without, as they claimed, sufficient cause.

Work at the shops of the Pennsylvania Railroad Company situated on the meadows, has been suspended for ten days, in order to make certain necessary changes and repairs to the plant.

HOBOKEN.

The Court of Chancery has issued a decree in the case of a suiter against the North Manufacturing Company of Hoboken, declaring it insolvent and enjoining the company against conducting business until permitted to do so by the Court.

A new bakery on a very large scale is to be erected in Hoboken. The concern will have a capacity of 450 loaves every forty minutes. The entire plant will cost \$50,000.

Because some non-union riggers had been employed in putting up derricks and scaffolds on the work of enlarging the factory of the United Electric Company at Hoboken, the other men engaged on the job went on strike although there was no riggers' union in the State from which the required labor could be obtained.

WEST HOBOKEN.

The silk manufacturing firm of Schwartzenbach, Huber & Company at West Hoboken is enlarging its facilities by the erection of a large addition to its main building. The work will cost \$16,500.

KEARNY.

32 The employes of Swift & Company's branch at Jersey City, who have been on strike for some time back, have returned to work. The strike

was a sympathetic one, entered on to help the Chicago stock yard workmen's movement for higher wages.

HARRISON.

A fire occurred in the factory of the United States Metal Roller Company at Harrison, which was extinguished after \$300 damage had been done.

The owner of extensive silver mines in Mexico has placed an order for a complete electric pumping equipment with the H. R. Worthington branch of the International Steam Pump Company at Harrison. This is the first large order that has been received at the new works.

BAYONNE.

The Guffey Petroleum Company is having large storage tanks to receive Texas oils, erected as additions to its plant at Bayonne.

A proposed reduction in the wages of moulders has caused much discontent among the employes of the H. B. Worthington Company at Harrison and seems likely, if persisted in by the company, to cause a strike.

HOMESTEAD.

Patrick Burk, a laborer employed by the Hackensack Water Company, had a leg badly injured by a heavy weight falling upon it.

NORTH BERGEN.

The work of driving the piling for the new buildings of the B. T. Babbitt Soap Manufacturing plant at North Bergen, has been commenced. The company owns eighty-seven acres of land and piling is being placed to secure the foundations of thirteen buildings in which the various divisions of the company's work will be done.

The following named industrial companies have been incorporated in Hudson County during the month of August: Buffalo Carbon Paper Company, to manufacture carbon paper, capital, \$10,000; Cuban Tobacco Company, to manufacture and deal in cigars, cigarettes and other tobacco products, capital, \$5,000; Emergency Car Brake Company, to manufacture and deal in a certain type of car brake, capital, \$125,000; Iola Portland Cement Company, to manufacture and deal in portland cement, capital, \$100,000; Newark Pneumatic Puncture Proof Tire Company, to manufacture non-punctureable tires for bicycles and other wheeled vehicles, capital, \$25,000; The Southern Hat Works, to manufacture and deal in hats and caps, capital, \$12,000.

September.

JERSEY CITY.

The Pennsylvania Railroad Company is having a large car repair shop erected at Greenville. The buildings will consist of a machine shop and store room, 160x41 feet, and a lumber shed 75x100 feet.

An association of undertakers in Jersey City has secured a large factory building there, which, it is intended, shall be fitted up as a manufactory of

burial caskets and coffins. The combination of local undertakers has been formed to compete with the trust, which now practically controls this line of goods.

The soap and perfumery manufacturing firm of Colgate & Company are about to add to their large plant at Jersey City an addition which will be 79x79 feet and four stories in height. The new structure will be of steel and fireproofing and will cost \$60,000.

The Lawrence Cordage Company, whose works are now situated in the Williamsburg section of Brooklyn, is at present erecting five large buildings on the site of the old zinc works at Jersey City. In addition to these new structures, some old ones now on the grounds will be used for the purpose of the firm. The plant will be equipped with the most perfect machinery yet devised for the manufacture of all kinds and sizes of rope and cordage. The building will all be of brick and when completed will have cost \$200,000. Steam and electric power will be used and in the beginning a force of 125 men and 100 girls will be employed.

The Foote Manufacturing Company, producers of polishers' and platers' supplies, are now erecting a new power house as an adjunct of their plant at Jersey City. The structure will be of brick, one story, and 30x50 feet. The estimated total cost will be \$2,500.

Charles Atkinson, an ironworker, was crushed by a heavy cast iron plate falling upon him while he was superintending the work of placing it in position at the new plant of the gas company at Jersey City. When released, the man was found to have received what may prove to be fatal injuries.

Dominick Sack, a workman, was injured about the head and body while removing some heavy pieces of metal at the Magnus Metal Works, Jersey City.

The Johnson Dunbar Mills Company of Jersey City has been adjudged bankrupt by the United States District Court on petition of its creditors.

The Jersey City members of the International Typographical Union are engaged in taking a referendum vote which will determine the attitude of the members of the order toward the question of an eight hour day. If the vote is favorable, it is intended that the eight hour day shall go into effect on January 1st, 1906. The vote must be filed at the meeting of the International Union at Indianapolis on October 26, 1904.

HARRISON.

The moulding machine foundry of the International Steam Pump Company at Harrison has been started with a force of seventy-five men. This is the first branch of the plant to begin operations, and others will follow as soon as the buildings are got ready and the machinery is installed.

James P. Crawley, a youth of eighteen years, had his left hand so badly crushed in some machinery on which he was working at mill No. 2, Clark O. N. T. Company, that it was necessary to amputate his four fingers.

Daniel Gallagher, a young boy employed in the Crucible Steel Company's works at Harrison, had his right foot cut off at the ankle while taking red hot iron from a roll. His foot was caught in a loop of the hot wire, which burned its way through the flesh and bone of the ankle before the boy could be released.

BAYONNE.

A. Fingard, workman employed at the Babcock & Wilcox Boiler Works at Bayonne, was very severely injured about the body through an accident which occurred in the foundry.

John Connolly, an employe of the Babcock & Wilcox Boiler Company, was injured internally and also sustained some severe external bruises from a heavy casting which fell upon him.

The Babcock & Wilcox Boiler Company has commenced work on a new shop for making and storing patterns. The building when completed will cost about \$10,000.

TOWN OF UNION.

The walking delegate of the Building Trades Council called 200 men from their work on the West Shore Grain Elevator because ten non-union electrical workers were employed.

NEW DURHAM.

A tank containing 100,000 gallons of water on the roof of one of the buidings of the Peerless Rubber Works at New Durham, burst and deluged the place with water as well as causing a serious panic among the 150 employes who were at work in the building when the accident occurred.

HOBOKEN.

The thousands of operatives in the silk mills of North Hudson who have been working since spring on half or three-quarters time are greatly encouraged over the better prospects arising from the growing demand for fine silk goods, and expect soon to be as busy as ever.

WEST HOBOKEN.

The planing mill of Gardner & Randell at West Hoboken was completely destroyed by fire. A conservative estimate of the loss places it at \$30,000.

The following named industrial companies were incorporated at the office of the Clerk of Hudson County during the month of September: Turner Sanitary Appliance Company, to manufacture and deal in toilet articles and appliances, capital, \$50,000; Universal Pasting Machine Company, to manufacture and deal in pasting and other machines, capital, \$30,000; The Manhattan Electrical Supply Company filed a certificate reducing its capital stock from \$1,000,000 to \$750,000; Frank & Hedden Company, to manufacture and deal in novelties and special designs for ornamental and practical purposes, capital, \$25,000; Underhill Telegraph Translator Company, to manufacture a special telegraph instrument, capital, \$100,000; The New Jersey Briquetting Company, to manufacture and deal in briquettes and other kind of fuel, capital, \$100,000; DeArshi Gas Lighting Company, to manufacture and deal in gas lighting devices, cap-

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ital, \$1,000,000; M. S. Freida Company, to manufacture and deal in goods, wares, etc., of every description, capital, \$300,000.

HUNTERDON COUNTY.

November.

FLEMINGTON.

The Universal Chemical Company has purchased a building near the Lehigh Valley Railroad station in Flemington which will be fitted with machinery for the carrying on of their business.

HIGH BRIDGE.

The Standard Shoe Company of Naughtright, near German Valley, is negotiating for the purchase of the Jericho Mills, near High Bridge. If purchased, the building will be converted into a shoe factory and the company will move its plant there.

The rolling mill at the High Bridge forge has resumed operation.

PEAPACK.

A compromise has been effected between the firemen and the Lackawanna Railroad whereby the former are to receive an increase in wages.

A new building, to be used as a creamery, is now in course of erection at Peapack.

JUNCTION.

A representative of a brass foundry has been at Junction with a view of locating there.

December.

LAMBERTVILLE.

Jonathan Dilly, while working at Raven Rock, slipped from a scaffold and fell head downward, but managed to break the fall by catching hold of a portion of the scaffold as he descended. He was brought to his home in Lambertville, where it was found that his injuries were painful and dangerous.

HIGH BRIDGE.

Fred Miller, an employe of the Car Wheel Works, had a hand badly sprained while engaged at his regular duties at the foundry.

WARREN PAPER MILLS.

The Warren Manufacturing Company has filed with the Morris Canal Commission a brief setting forth its rights in the waters flowing from Lake Hopatcong through the Morris Canal, and strongly protesting against any change being made in the charter of the Canal Company which will permit it to use the water of the lake for any purpose other than navigation.

The Warren Manufacturing Company operate mills at three different points on Musconetcong Creek, all of which derive their motive power from its moving waters. The creek receives its waters through the canal from the lake, and a stoppage of navigation would result in shutting off the supply of water which runs these mills.

January.

PITTSBURY.

Isaac Hoffman had one of his fingers lacerated by being caught in the gearing of the machinery at the mill.

LAMBERTVILLE.

Thomas Kilroy, an employe of the Pennsylvania Railroad shops, was badly hurt by having a heavy journal box fall on his feet.

HIGH BRIDGE.

August Miller, eighteen years old, while working at the Taylor Iron and Steel Company's Works at High Bridge, was seriously burned on the side, legs and feet by the splashing of molten metal.

CLINTON.

The Ajax Portland Cement Company of Clinton have filed articles of incorporation with the clerk of the county. Capital stock, \$2,000,000.

WOODGLEN.

Charm Chemical Company of Woodglen has been incorporated with a capital stock of \$2,100.

February.

STOCKTON.

The S. B. Twining Company of Stockton has been incorporated with a capital stock of \$50,000, to quarry and sell stone, etc.

CLINTON.

The shoe factory at Clinton has resumed operations.

MARTINS CREEK.

George Riddle, who resides at West Portal, was caught in the machinery at the cement mill at Martins Creek and had both legs injured.

March.

JUNCTION.

Negotiations to have the Trimont Tool Company of Boston locate in Junction have been abandoned.

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HIGH BRIDGE.

Garner Cox, an employe of the Taylor Steel & Iron Company's Works at High Bridge, suffered a painful injury to his foot through a heavy mold having fallen upon it.

CALIFON.

A new plant has been started in the forests near Califon for the manufacture of oil of wintergreen from the birch trees.

May.

HIGH BRIDGE.

John Peacher, a workman employed at the Taylor Iron & Steel Plant at High Bridge, lost the little finger of his right hand while working on a machine.

LAMBERTVILLE.

Benjamin Brooks, a workman employed at the Lambertville Hair Pin Factory, was caught in a belt and severely injured before he was extricated.

GLEN GARDNER.

Two large vacant factory buildings at Glen Gardner have been leased—one for manufacturing wall paper, and the other for a tannery.

JUNCTION.

The Tremont Manufacturing Company has decided to erect large works at Junction, to which its tool manufactory at present located in Roxbury, Mass., will be removed. When in full operation the plant employs 200 men.

June.

FRENCHTOWN.

The Crosby Manufacturing Company of Frenchtown suffered a loss of \$5,100 from fire caused by lightning which struck the storage house during the prevalence of severe storm. The building was damaged to the amount of \$700, and the finished goods in the storehouse \$4,400.

HIGH BRIDGE.

George Ferguson, an employe of the Taylor Iron & Steel Company at High Bridge, had a hand badly bruised by a heavy casting, which fell upon it.

GLEN GARDNER.

Negotiations are under way which, it is hoped by residents of Glen Gardner, will result in the establishment of both a paper mill and a tannery at that place in the near future. The paper mill will be on a large scale, employing about 200 men.

August.

LAMBERTVILLE.

The Pennsylvania Railroad shops have been shut down until September 1st. About 125 machinists, boiler makers and men employed on freight cars are thrown out of work.

The United Chemical Company of Califon, to manufacture chemicals, has filed its incorporation papers with the County Clerk of Hunterdon. Capital, \$10,000.

September.

HAMPTON JUNCTION.

The Union Car Truck & Construction Company of Springfield, Mass., has decided to move its works to Hampton Junction, and has through inducements offered by the borough Board of Trade purchased the necessary land on which to erect its buildings. The people of the place have subscribed to \$10,000 of bonds to be issued by the company. The firm is capitalized at \$10,000 and at present employs a force of 100 men.

GLEN GARDNER.

Andrew T. Linderberry, an employe of the Taylor Iron & Steel Company, suffered a severe injury to one of his hands through an accident which occurred while he was at work.

MERCER COUNTY.

October.

TRENTON.

The Sherwood Manufacturing Company has commenced the erection of a new factory building in Trenton which will cost \$17,500.

Proceedings were begun in the Court of Chancery to have the Trenton Bedding Company declared insolvent. The assets are stated to be \$8,094. and liabilities \$12,231.

Henry Kuehule has been appointed a deputy factory inspector, to take the place of Lewis H. Barrett, who had resigned. Mr. Kuehule's district includes all the southern counties of the State.

Fifty weavers employed by the Alryan Mill Company at Trenton went out on strike because the management attempted to compel them to weave thirty pick cloth for the price paid for twenty-eight pick cloth.

The Hipwell Manufacturing Company was incorporated at Trenton with an authorized capital of \$100,000. The company will manufacture and deal in telephones, switch boards, arc lamps, and electric novelties.

The Superior Electrical Manufacturing Company was organized at Trenton with an authorized capital of \$1,000,000. The company will carry on the business of electricians, mechanical engineers, and manufacturers of motive power, heat and light.

The Weiderhold Light Company was formed at Trenton to manufacture gas burners and incandescent mantles. Authorized capital stock, \$50,000.

The Kerosene Safety Engine Company was incorporated in Trenton with capital stock fixed at \$50,000. The company will manufacture and deal in kerosene oil engines.

The Fischer Wrench Company was organized at Trenton with a capital of \$100,000. The company will acquire patents on and manufacture wrenches, tools and machinery.

The American Interlaced Curled Hair Company was formed at Trenton with an authorized capital of \$250,000. The company is to manufacture and prepare for market, curled hair and hair of all kinds.

An effort is being made to reorganize the carriage and wagon builders' union of Trenton.

November.

TRENTON.

The New Jersey Steel Corporation with a capital stock of \$1,250,000 and the New Jersey Steel Holding Company, capital stock \$750,000, were both incorporated at Trenton. The purpose of the first named corporation is to carry on the general manufacture of steel products and that of the Steel Holding Company is to guarantee the payment of dividends and interest on stock of such corporations as may find it to their interest to contract for such security.

The Trenton Steel Company has reduced its capital stock from \$25,000 to \$2,500.

The John A. Roebling's Sons Company are erecting a new building to be used as a plumbing shop.

The United States Circuit Court has issued an order directing the receivers of the Great Eastern Clay Company and the National Clay Company to continue operating their plants until spring, and for that purpose the receivers were authorized to borrow necessary funds.

John A. Campbell, general manager of the Trenton Potteries Company, is mentioned for the position of president of the United States Potters' Association to succeed Joseph T. Lee, whose term expires December 1st, 1903.

Michael Kissock, a laborer, while at work at the plant of the American Bridge Company, had both arms badly injured through an accident.

Thomas P. Hughes, a painter, fell from the top of a snakestack, a distance of eighty-eight feet, and escaped without sustaining any serious injury.

10 The painters, carpenters and plasterers employed on the Wilkinson Theatre went on a strike because the Philadelphia Steam Heating Company employed non-union steam fitters. On the Philadelphia concern abandoning its contract for the heating of the building, the strikers resumed work.

11 Forty iron workers on the new Armory building at Trenton stopped work as a result of the building trade strike in New York and other adjacent cities. The contractor is a member of the Allied Building Trades Council of New York and a strike has been declared against all builders affiliated with the council. Work on the building has been entirely sus-

pendèd in all branches pending an adjustment of the trouble between the iron workers.

The Bellmark Pottery Company of Trenton has just completed the sanitary equipment for the new lavatories in the Philadelphia Post Office building. More than 100 closets were included in the order.

The International Pottery is making 200,000 pieces of dinner ware for the United States army in the Philippines.

The Trenton Potteries Company is erecting an addition to its present plant, which is expected to be ready for occupancy soon.

Work is progressing at the American Bridge Company's establishment in Trenton for the station of the New York subway at One Hundred and Twenty-fifth street.

Deputy Factory Inspector Joseph Milburn, of the State Department of Inspection of Factory and Workshops, has ordered the discharge of twelve girls from a worsted works in Trenton on the alleged ground of their being employed under false affidavits as to their age, it being charged that they are less than fourteen years of age.

December.

TRENTON.

The Potteries Selling Company have filed articles of incorporation at Trenton. The concern is organized with a capital stock of \$50,000 to act as selling agents for general pottery, material and to promote pottery industries in general.

The Manufacturers' Window Glass Company of Trenton has been incorporated with a capital stock of \$1,000,000 to manufacture window glass and glassware of every description.

An agreement has been filed at Trenton between the State and the New Jersey Shore Line Railroad Company granting the corporation more time in which to complete certain extensions of its road.

Oscar Lehman, a potter employed at the Maddock pottery on Third street, Trenton, while carrying some clay up a stairs, slipped and fell to the bottom, injuring his spine.

Edward Comfort, of Centre street, Trenton, who sustained a fractured skull by falling in a kiln at Maddock's pottery, died at St. Francis hospital. David R. Risdon, who was in the kiln with Comfort, was also injured.

Frederick Campbell, of Winthrop, Mass., a boss carpenter, and David Samuels, of Trenton, also a carpenter, were killed by the falling of the top floor of the main building of the Jordan L. Mott Iron Company's new plant at Trenton.

A fire destroyed the four-story main building of the Skillman Hardware Company at Trenton. The damage to the building is placed at about \$8,000, to machinery and material \$18,000; total loss \$26,000.

The John A. Roebling's Sons' Company of Trenton will erect a four-story brick addition to their works, which will be 1,000x60 feet. When completed an additional force of 250 males will be given employment.

No settlement has as yet been reached between the master job printers of Trenton and the journeymen. The latter demand that after January 1st, 1904, eight hours shall constitute a day's work.

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HIGHTSTOWN.

Two hundred loom operators quit work at the Hightstown Smyrna Rug Company because of a reduction in wages.

HAMILTON.

The Eureka Fire Hose Company of Jersey City has instituted a suit to restrain the Eureka Rubber Manufacturing Company of Hamilton from using the word "Eureka" in its corporation title, and as a trade mark.

January.

TRENTON.

The Consolidated Feldspar Company of Trenton has been incorporated with a capital stock of \$125,000 to do a clay mining business.

William McDermott, aged twenty years, a machinist, while engaged in adjusting a pulley in the braiding shop at Roebling's Mill, Trenton, had an arm caught in the belting and severely injured.

An order has been granted by the Court of Chancery, allowing the receiver to sell the plant and equipments of the Moses, Swan & McLewee Lamp and Glass Works.

A meeting of the executive board of the State Federation of Labor was held at Trenton on January 25th to discuss the various labor measures which are before the Legislature.

An organization of the Manufacturers' and Employes' Association of Trenton has been formed with nearly 200 representatives of the different industries of the city. The union was formed to meet the demands of organized labor and is patterned after those of various other cities. It is the purpose of the association to establish a bureau of employment through which willing workmen who are idle may obtain work.

The Bricklayers' and Masons' International Union and the national organization of Hod Carriers will hold their annual convention in Trenton. It is expected that affirmative action will be taken at both conventions on the proposition to affiliate with the Structural Trades Alliance, which if done, it is thought, will stop petty strikes and lockouts.

The job and newspaper printers of Trenton demanded an eight hour day and an increase in pay. A compromise was effected whereby the printers receive a slightly shortened day without an increase in wages.

A new corporation known as the Potters' Selling Company has been chartered under the laws of this State with a paid up capital stock of \$1,000,000. It is said that this company is a combination of all but three small potteries in the United States and will control the manufacture and sale of pottery products in the country.

33 Between five and six hundred men, employes of the various rubber companies at Trenton, went on strike because their demand for an increase of ten per cent. in wages was not acceded to by the manufacturers, who claim that by reason of the condition of trade, the request of the Rubber Workers' Union is unreasonable. The action taken by the union was endorsed by the Central Labor Union and supported by organized labor generally in the city. Manufacturers claim that enough men remain to continue the operation of their plants.

February.

TRENTON.

The Italian Baking and Trading Company has been incorporated at Trenton with a capital stock of \$25,000.

The Standard Lamp and Glass Company of Trenton filed articles of incorporation with the Clerk of Mercer County. Capital stock is \$150,000.

Three hundred operators resumed work at the Alryan Woolen Mills, Trenton. The plant has been idle for some time because of the high water of the Delaware river, which flooded the finishing department.

At a meeting of the Potters' Convention held in Trenton, John A. Campbell was elected President.

The rubber workers employed in several mills in Trenton have gone on strike for a ten per cent. increase in wages. They are receiving financial aid from other organized labor associations, and refuse to work until their demands are granted.

The Manufacturers' and Employers' Association of Trenton have effected a permanent organization with a membership of over ninety firms and individuals. Its object is to promote the mutual interest of the employers and employes in the matter of operating their works. An employment bureau is part of the system. The organization is affiliated with the National Manufacturers' Association.

March.

TRENTON.

The General Rubber Company was incorporated at Trenton with an authorized capital of \$2,000,000.

Articles of incorporation were filed by the E. D. Freeman Electric Porcelain Company with the Clerk of Mercer County, capital, \$25,000.

The World Fire Killer Company, to manufacture fire extinguishers, was incorporated with a capital of \$50,000.

Because of an accident at the wire works of the John A. Roebling's Sons Company at Trenton, about 1,200 men were thrown out of employment for a few days.

Six of the seven buildings being erected for the Mott Iron Works in Trenton have been completed. Machinery for the new buildings will be put in place as soon as received, and it is expected that by June first 300 additional men will be employed. The new plant, it is estimated, will cost \$1,000,000.

An agreement of sale has been filed with the Clerk of Mercer County for the purchase of the mill of the Alryan Woolen Company on Factory street, Trenton.

The Manufacturers' and Employers' Association of Trenton, through its representatives, will oppose the passage of the proposed eight-hour law at a hearing to be given before the Congressional Labor Committee in Washington.

The mill of the Eagle Anvil Works was damaged to the amount of \$25,000 by the braking of the ice in the Delaware river.

The United States Potters' Association has appointed a committee to ascertain whether German china and earthenware from Holland and

Belgium are being brought to this country in an illegal manner. The annual quantity of goods from these countries has largely increased and it is charged that undervaluation of these products is made, to evade the payment of full duty.

One hundred and thirty acres of land has been purchased by the Pennsylvania Railroad Company in Hamilton township, near Trenton, upon which new repair shops are to be erected. It is intended to transfer all the repair work now done at the Jersey City and Lambertville factories to the new plant when completed, and to build new freight and passenger cars at the latter shops. The new plant will give employment to about 1,000 men. A large freight yard is also to be established on Perry street, Trenton.

Application has been made to the Court of Chancery for the appointment of a receiver for the American Lamp and Brass Company of Trenton.

An order has been granted by the Court of Chancery to show cause why a receiver should not be appointed for the R. Stephens Company of Mount Olive Morris County.

Owing to the impending strike of the bituminous coal miners, manufacturers in Trenton have been unable to obtain a sufficient quantity to operate their plants. Anthracite coal is being substituted in many of the mills.

The rubber workers in Trenton are still out on a strike for an increase of ten per cent. in their wages.

April.

TRENTON.

The Alryan Woolen Mills of Trenton have been closed until May 2d. Wages of employes have not been promptly paid and the notice of suspension contained nothing in reference to the settlement of the arrears of wages due to the employes, a number of whom placed their claims in the hands of attorneys for collection. On the petition of some creditors of the mill company, the Court of Chancery appointed a receiver for the purpose of winding up the affairs of the embarrassed company and disposing of the mill and machinery to the best advantage of all creditors.

About one thousand workmen, mechanics and laborers are employed in clearing the grounds, grading, filling in, and excavating for the foundations of the new shops of the Pennsylvania railroad which are to be erected at Hamilton Township, a suburb of Trenton.

The shirt factory which was formerly occupied by the V. Henry Rothschilds Company at Trenton, has passed under the control of a new business organization called the Trenton Sewing Company.

The Rubber Workers of Trenton, who have been on strike during the past twelve weeks, returned to work in accordance with a unanimous vote in favor of that course which was adopted by their organization. The strike was started to enforce a demand for a ten per cent. advance in wages; failure is attributed to the lack of financial support by other unions.

The plant of the Brian Pottery Company in Hamilton township was completely destroyed by fire; the loss amounts to \$25,000. The pottery buildings were directly adjoining the tracks of the Pennsylvania Railroad, and

the fire is supposed to have been started by a spark from a passing locomotive dropping on the roof of the buildings.

The following named industrial companies have been incorporated in Mercer County during the month of April, and will carry on business in the county: Tabor Leather Company, to manufacture leather goods, capital, \$10,000; Elerle Tanning Company, to manufacture leather, capital, \$10,000; New Jersey Sanitary Street Sweeper Company, to make street sweeping machines of a particular design, capital, \$125,000; The Ball-bearing Horseshoe Company, to manufacture a combination rubber and iron horseshoe of peculiar construction, capital, \$50,000.

May.

TRENTON.

Pitcher & Champion, a Philadelphia firm of shirt manufacturers, has leased a building in Trenton and established a plant of fifty sewing machines, which will furnish employment for about seventy-five operators.

The receiver of the Alryan Mills at Trenton has decided to continue operations there only until the goods on the looms have been finished and the material on hand worked up.

Owing to exceptional dullness in the steel and iron trade, the managers of the John A. Roebling's Sons' Company have reduced working time in most of the departments of its large plant at Trenton to four days per week.

June.

TRENTON.

The Oliphant Steel & Iron Company, located on the main line of the Pennsylvania Railroad near the Fashion Stud Farm at Trenton, is the only one of its kind in that city. Its specialties are cast iron soil pipes, small steel castings, and plumbers' iron work, in the production of which it has been signally successful. The main building of the plant is 450 feet long and 115 feet wide. In this building the company is now completing the installation of the most modern and up-to-date machinery for the purpose of turning out its products more perfectly and at less expense. When the new equipment is completely set up a force of upwards of 250 hands will be employed.

Joseph Jonasson & Company, manufacturers of women's suits, have opened a branch factory in Trenton for the manufacture of ladies skirts. Fifty females and six males will be employed in the beginning. The power to be used in running the sewing machines is electricity.

Several large manufacturing establishments in Trenton are showing evidence of dull trade by either laying off hands or running their usual force on reduced time. Among those that have resorted to either of these methods for curtailing production is The John A. Roebling Sons' Company, W. R. Throp, of the Throp Machine Works, the American Bridge Company, and a number of the principal potteries.

The Union Laundry Company was incorporated at Trenton to do a general laundry business. Capital stock, \$10,000.

The Smith Incandescent Light Company was incorporated at Trenton to manufacture and deal in lamps, burners and fittings adapted to the burning of gas and liquid hydrocarbon, especially for incandescent lighting.

The Tullytown Canning Company was incorporated at Trenton with an authorized capital of \$15,000. The company will prepare and can fruit and vegetables of all kinds, to be sold in the markets of the United States and foreign countries.

Alexander Maroldi, a laborer employed at the Empire Rubber Mill, had a foot caught in the cog wheels of a machine which he was operating. The foot was so badly mangled that it had to be amputated.

HOPEWELL.

The Hopewell Bobbin & Spool Company was incorporated at Trenton with a capital of \$15,000. The company will manufacture every variety of spools and bobbins.

YARDVILLE.

The United Oil Cloth Company of Yardville was incorporated at Trenton with an authorized capital of \$100,000. The company will operate a plant at Yardville at which several kinds of oil cloth will be produced.

July.

TRENTON.

The Hartford Brick Company was incorporated at Trenton with a capital of \$100,000. The company will manufacture brick and sewer pipe.

The Electrotyping Art Metal Company was incorporated at Trenton with an authorized capital of \$100,000. The company will manufacture art objects of glass, china, gold and silver.

The Marine Transmission Company was incorporated at Trenton with a capital of \$100,000. The company will manufacture articles in aid of navigation.

The General Engine Company was incorporated at Trenton with a cash capital of \$350,000. The company will manufacture steam engines and other motors.

The American Packing Company was incorporated at Trenton to manufacture boxes, barrels and packing cases. The authorized capital is \$125,000.

The D. B. & S. A. Milling Company was incorporated at Trenton with a capital of \$50,000, and will do a general milling business.

The Master Bakers' Association of Trenton, which was formed about one year ago, has been incorporated as a means of making the organization permanent and giving it wider powers. The association has for its object the carrying out of measures for the promotion of the interests of employers and employees engaged in the bread baking industry.

The receiver of the bankrupt Capital City Brewing Company filed his report with the Court of Chancery, showing that the liabilities of the company are much greater than its assets.

Thomas Fany, an employe of the Ideal Pottery Company, had his left hand badly crushed while at work in that place.

A strike occurred at the three plants of the Cook Pottery Company at Trenton which was ended after a loss of one week's time. The strike was the outcome of a disagreement between the men and their employers over the scale for the placing of electrical specialties and cereal ware. Under the new arrangement agreed upon the men are allowed twenty days for the placing of a kiln; formerly twenty and one-quarter days were allowed. Nearly 1,000 workmen were idle during the strike. 39

August.

TRENTON.

The men on strike at the International Pottery of Trenton have held a meeting to discuss ways and means of ending the strike at that plant. A committee appointed by the meeting waited on the managers of the pottery, and through their joint efforts a satisfactory adjustment of all outstanding difficulties was reached, and the striking workmen returned to the places they had left. 37

The twenty-sixth annual convention of the New Jersey State Federation of Labor was held in the assembly chamber of the Capitol building at Trenton.

Frank Steele, a workman employed at the Trenton Linoleum Works, was caught in the rolls of a machine on which he was working and had his collar bone and two ribs broken before he was released.

The Maddock Pottery Company of Trenton has delivered to the United States Government the first installment of a large order of crockery for use on war vessels, for which the firm has a contract.

The John A. Roebling Sons' Company is said to be preparing for the removal of its large rolling mill from Trenton to Kinkora. This action, if taken, will be because of the company's inability to secure land adjoining its works for the purpose of enlarging its plant.

The following industrial companies have filed incorporation papers with the Clerk of Mercer County during the month of August: New York Candy Company, to manufacture candy, capital, \$150,000; Trenton Hardware Manufacturing Company, to manufacture hardware, capital, \$50,000; Barr Press Publishing Company, to carry on the business of bookbinding, capital, \$10,000; Economy Premium Payment Company, to manufacture goods given in exchange for stamps and coupons, capital, \$200,000; Leech Wall Paper Company, to manufacture wall paper, capital, \$100,000; The J. H. Williams Manufacturing Company, to manufacture polish, capital, \$50,000; The Consumers' Box Board and Paper Company, to manufacture paper and pulp, capital, \$150,000.

September.

TRENTON.

There has, apparently, been much dissatisfaction among the operative potters of Trenton over the question of wages, and all branches of the trade excepting only the jiggersmen have notified the president of their

national association that unless the uniform wage scale paid in the West is put into operation in the general ware potteries of Trenton there will be a strike. The jiggermen have decided to hold a meeting to decide as to continuing to keep aloof or joining the other branches of the trade in whatever course they may decide on to enforce their demands. It is understood that a majority of the employing potters are in favor of the uniform wage scale if only the men's union can enforce it at all the pottery producing centers of the country.

The Court of Chancery has been petitioned for the appointment of a receiver for the Hart Brewer Pottery Company of Trenton, which is one of the oldest institutions of its kind in the city.

Agents of the Ford City Pottery Company of Ford City, Pa., are seeking to employ potters in Trenton for the purpose of breaking a strike which is now on at their works.

The Court of Chancery has directed, by order, the sale of, at public vendue, all the property of the Oakland Manufacturing Company at Trenton. The concern was engaged for one year in the manufacture of enameled brick.

The employes of the Crescent Pottery Works at Trenton have all signed a protest to the Board of Health against the beef house of Swift & Company, which is located near the pottery, and have also presented a petition praying for its removal as a nuisance. The stench emanating from the beef house, which contaminates the air of the entire neighborhood, is the cause of the protest and petition.

Owing to complaints of Trenton potters and others of the Potters' Association of America the United States Treasury Department has made a decision that practically increases the duty on imported pottery ware about ten per cent. The potters complain that French manufacturers were sending large quantities of cheap ware into this country at undervaluation, and in that way making their competition keenly felt by American manufacturers, and at the same time cheating the Government out of a part of its legal revenue.

The Colonial Woolen Mills of Trenton have been closed for a time in order to put in new machinery and otherwise improve the facilities for the production of goods.

Marcus Minton, an employe of the Enterprise Chain Works, had the first finger of his right hand badly lacerated by being caught in the gearing of a machine on which he was working.

Michael Pasco, an employe of the New Jersey Car Works, had two fingers of his right hand badly crushed while attempting to run a belt on one of the large motors.

John Benson, a wire drawer, had his right leg badly crushed through an accident which occurred while he was at work in the Roebbling Mills at Trenton.

William Clee, an engineer employed at the Greenwood Pottery, had his right arm drawn between a pulley and the belt which he was trying to run off. The arm was broken and his hand badly lacerated.

Clayton Smith, a carpenter, had his right hand badly cut by a saw with which he was working.

The Court of Chancery has granted leave to the Trenton Trust Company to file a bill of foreclosure against the Alryan Woolen Mills, upon which it holds a mortgage.

HOPEWELL.

The Hopewell Spool and Bobbin Company's factory at Hopewell was completely destroyed by fire. The loss is estimated at \$10,000.

The following named industrial companies were incorporated in Mercer County during the month of September: The Clay Products Company, to manufacture specialties from Kaolin, capital, \$50,000; Trenton Sign & Decorating Company, to manufacture signs of glass, metal and wood, capital, \$50,000.

MIDDLESEX COUNTY.

October.

PERTH AMBOY.

The Cheeseborough Vaseline Company, which has moved its plant from Brooklyn to Perth Amboy, began work with fifty female employees.

DUNELLEN.

Owing to the strikes in the building trades in New York City the steel works of Levering & Garringues at Dunellen have become so slack that forty men were laid off temporarily.

CARTERET.

A strike of six hours' duration occurred at the works of the Wheeler Condenser Company at Carteret. The men on strike, who were with few exceptions machinists, demanded a work day of nine hours, and returned to work immediately on its being granted by the firm.

November.

NEW BRUNSWICK.

The De Lamar Copper and Refining Company has been incorporated at New Brunswick with a capital of \$2,000,000.

James R. Langan, a laborer, fell from a roof, a distance of thirty feet, receiving a severe scalp wound and several bruises about the body.

PERTH AMBOY.

Andrew Dudosh had a toe cut off by a heavy iron rail which he with a number of other men were carrying, having fallen upon it. The accident occurred at the Lehigh Valley coal yards.

A. Harbit, a workman employed in the cable works at Perth Amboy, fell from a ladder, a distance of seventeen feet, and injured his back.

The Ashland Emery & Corundum Company's plant at Perth Amboy has stopped operation owing to an over-production of goods.

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The Columbia Match Company of Perth Amboy has been dissolved by the Secretary of State.

A number of plasterers, pressers and finishers at the Perth Amboy Terra Cotta Works were laid off for an indefinite period. This is the result of the ironworkers' strike in New York, which has tied up work on all buildings to which the material produced in the factory should be shipped.

SOUTH RIVER.

A glass manufacturing firm is said to be looking for a suitable location in South River on which to erect a new factory. The borough of South River has offered a free gift of land as an inducement to locate there.

December.

PERTH AMBOY.

The Greacen-Derby Engineering Company of Perth Amboy has been incorporated with a capital stock of \$5,000 to manufacture and sell machinery and marine engines, and also to buy and equip vessels.

Birden Golden, employed in the plaster department of the Perth Amboy Terra Cotta Works, while endeavoring to turn a large mold, had his right arm caught and a deep cut inflicted from the wrist to the elbow.

A number of workmen at the Perth Amboy Terra Cotta plant were laid off for an indefinite period. The strike among the iron workers in New York has tied up the work.

An arbitration committee is now endeavoring to settle the strike at the Cheeseborough Vaseline Works of Perth Amboy.

A committee has been appointed by the creditors of the Perth Amboy Shipbuilding & Engineering Company to determine on the advisability of re-opening the plant. It seems likely that a reorganization of the company will be effected.

DUNELLEN.

Work is increasing at the factory of Levering & Garrigues Company, and a number of men who were laid off during the summer are being taken on again.

LINCOLN.

George Orlorskey, an employe at the Atlas Manufacturing Company's plant in Lincoln, had a foot crushed in some machinery.

MAURER.

August Uste of Maurer, while working on a scaffold, stepped backward and fell a distance of ten feet, breaking three ribs.

CARTERET.

Joseph O'Blosky, a Polander, aged forty years, while working on a barge owned by the National Phosphate Company at Carteret, was struck on the head and chest by a coal bucket and so severely injured internally and externally that he may die as a result.

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The Chrome Steel Works of Williamsburg, N. Y., have decided to move to Chrome, N. J., where they will erect six large factory buildings, occupying nearly forty acres of ground. In addition to these buildings the company will build model tenements, which will be at the disposal of its employes.

January.

NEW BRUNSWICK.

The Brunswick Knitting Company of New Brunswick was incorporated with a capital stock of \$10,000.

Certificates of incorporation have been filed with the Clerk of Middlesex County by the following industrial companies: The New Brunswick Hygiene Milk Company, to make condensed milk, etc., capital stock, \$30,000; Hudson Reduction Company, mining, milling, etc., capital stock, \$25,000; The Franck Engineering Company, capital stock, \$15,000; Elliott Manufacturing Company, to make rubber goods, etc., capital stock, \$125,000.

David Lambert, a resident of New Brunswick, aged fifty-five years, employed in a local factory, was struck and killed while crossing a side track of the Pennsylvania Railroad at that city.

The strike of the printers employed by Johnson & Johnson at New Brunswick was settled at a conference between the Deliberative Board of Typographical Union No. 307 and the superintendent for Johnson & Johnson. The firm consented to sign a wage scale with the printers to continue in force until May 1st, 1905. 32

At a meeting of the stockholders of the Norfolk & New Brunswick Hosiery Company at New Brunswick it was unanimously decided to reduce the capital from \$550,000 to \$275,000.

PERTH AMBOY.

The Dutton Engineering Company, manufacturers of gas engines, at the foot of Gerdon street, Perth Amboy, will erect a wooden addition to their plant at a cost of \$200. Improvements will be made in the present building as soon as the plans are completed.

A workman at the foundry of Patrick W. White & Sons, Fayette street, New Brunswick, lost the sight of his eye by being struck with some hot iron.

LINCOLN.

The Diamond Portland Cement Company has filed its certificate of incorporation with the Clerk of Middlesex County, showing an authorized capital stock of \$1,000,000.

February.

NEW BRUNSWICK.

The Francke Engineering Company has been incorporated with a capital stock of \$15,000.

PERTH AMBOY.

The Diamond Cement Company of Perth Amboy has been incorporated with a capital stock of \$1,000,000.

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The Amboy Literage & Transportation Company of Perth Amboy has been incorporated with a capital of \$21,000.

The masons of Perth Amboy have asked an advance of five cents an hour, which would make their wages \$4 for a day of eight hours. They have gone on strike to enforce the demand, and efforts to arbitrate the matter have so far been unsuccessful.

The Cheeseborough Manufacturing Company's plant, which was recently erected at Perth Amboy, is in full operation. More than 400 persons are employed in the manufacture of vaseline.

MENLO PARK.

The Elliott Manufacturing Company of Menlo Park has been incorporated with a capital of \$125,000, to manufacture rubber, etc.

SAYREVILLE.

Creditors of William F. Fisher & Company of Sayreville, which filed its petition in bankruptcy last fall, submitted a plan of compromise to the United States District Court for approval, which was rejected.

March.

NEW BRUNSWICK.

Janeway & Company, wall paper manufacturers, have been incorporated at New Brunswick with a capital stock of \$600,000.

PERTH AMBOY.

The National Fireproofing Company of Perth Amboy will increase the wages of its employees ten per cent. Early in the year a reduction was made, which this advance is intended to restore. About 2,500 men are affected.

Work has been resumed in the plant of the New Jersey Portland Cement Company at Perth Amboy.

A fire occurred in the factory of the Perth Amboy Smelting & Refining Company, which damaged the plant to the extent of \$10,000.

April.

NEW BRUNSWICK.

The wall paper manufacturing plant of Janeway & Company at New Brunswick, which has been idle for some months, has been taken possession of by a stock company, at the head of which is Mr. Janeway, of the old firm. Work will soon be under full headway with a force of operatives equal in number to that employed before the works were closed down.

SOUTH RIVER.

The receivers of the Great Eastern Clay Company, whose works are situated at South River, have orders on hand sufficient to keep the plant busy for several months.

Residents of South River are making efforts to secure the settlement of a new iron foundry at that place, which, it is said, will employ about 300 men.

The following named industrial companies were incorporated in Middlesex County during the month of April: Janeway & Company, to manufacture wall paper, capital, \$600,000; Amboy Machine Company, to manufacture machinery of all kinds, capital, \$30,000; Raritan Blue Stone Company, to manufacture and deal in blue building stone, capital, \$20,000.

May.

PERTH AMBOY.

The Federal Clay Company of Perth Amboy has increased wages ten per cent. The advance is a restoration of wages to the amount paid previous to a reduction made some months ago during a period of dullness in the trade.

The Pardee Steel Works at Perth Amboy, which has been closed for some time, is about to reopen with a working force of about 100 mechanics and laborers. Two new basic open hearth furnaces will be started with the rest of the plant.

SOUTH AMBOY.

The Acme Underwear Company of New York City has leased a building in South Amboy formerly used as a shirt factory, and will begin the production of women's and children's underwear. Fifty sewing machines will be installed and at least an equal number of operators will be employed.

SOUTH RIVER.

John Wenzel, foreman of the National Pyrogranite Works at South River, fell from the top of a kiln to the ground and had four ribs fractured.

NEW BRUNSWICK.

A new wage scale has been put in operation among the employes of the trolley road department of the Public Service Corporation. The scale applies to the roads running to and from New Brunswick; under it motormen and conductors who have served ten years are to be paid twenty-two cents an hour; those who have served five years, but under ten, twenty-one cents an hour; men of two years standing are to be paid twenty cents, and all below that time nineteen cents an hour.

June.

CARTERET.

Work has been commenced on a large factory building at Carteret for the Benjamin Moore Paint Company of New York. It is expected that the structure will be finished by January 1st, 1905.

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NEW BRUNSWICK.

The South River Brick Company was organized at New Brunswick with a capital of \$100,000. The company will carry on the brick making business conducted until recently by John Whitehead of South River.

July.

NEW BRUNSWICK.

The Prospect Boiler Company was incorporated at New Brunswick with an authorized capital of \$100,000. The company is to manufacture and deal in steam boilers and to acquire the business now being carried on by the Prospect Boiler Works at New Brunswick.

Measures are being taken to reorganize the Milltown India Rubber Works at Milltown. The company once did a very prosperous business, but has now been idle for the past three years.

PERTH AMBOY.

William Giles, an employe of the Perth Amboy Terra Cotta Company, was seriously injured while working with a circular saw.

August.

PERTH AMBOY.

The Barber Asphalt Company has purchased a tract of about seventeen acres of land on Staten Island Sound, at Perth Amboy, which adjoins its other plant at that place. The new Property, which has a deep water frontage of 300 feet, will be used as a site for a new plant for the production of wooden blocks, treated chemically, for paving purposes.

John Kola, an employe of the Copper Works at Perth Amboy, died in consequence of an injury which he received a week before while at work.

The dock-building and repair gang of the Pennsylvania Railroad Company at Perth Amboy, the members of which had been working very irregularly of late, were laid off entirely for nine days.

The local Electrical Workers' Union at Perth Amboy has taken an aggressive stand against the Public Service Corporation because of non-union men being employed in wiring its buildings. The Building Trades Union is supporting the electricians, and has forbidden all union men to work on buildings belonging to the Public Service Corporation, pending a satisfactory settlement.

The Elmira Explosive Company, of New York, has purchased a large tract of land on the Raritan River, in the vicinity of Piscataway, on which some twenty buildings devoted to the manufacture of a new and powerful explosive called "iodite" will be erected. About \$50,000 will be expended on preparing the plant for work.

September.

PERTH AMBOY.

The Atlantic Roofing Manufacturing Company is the name of a new concern that has secured the old plant of the New Jersey Portland Cement

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Company at Perth Amboy. The firm will manufacture wooden paving blocks and tar paper roofing.

The Dutton Engineering Company, manufacturers of motor boats, has closed down its shops at Perth Amboy with the intention of reorganizing the company and reopening the works on a much larger scale.

SOUTH RIVER.

An order has been made by the United States District Court directing the receiver to sell the property of the Great Eastern Clay Manufacturing Company and the National Clay Manufacturing Company, both situated at South River. The prices fixed by the Court for the properties are \$225,000 and \$48,000 respectively.

The following named industrial companies filed their certificates of incorporation with the Clerk of Middlesex County during the month of September: The Milltown Manufacturing Company, to manufacture and deal in chemicals, drugs and minerals, capital, \$100,000; Prospect Boiler Company, to manufacture boilers for steam engines, capital, \$100,000.

MONMOUTH COUNTY.

November.

ASBURY PARK.

Walton Rushton and Richard Collins, both masons, were injured while working on the ceiling of the Central Hall in Asbury Park.

The Board of Trade of Asbury Park has instructed its attorney to begin legal action against the Symphonian Company, to recover the forfeit of \$3,000, which it had deposited with a trustee as an evidence of good faith. It is alleged that the company has failed to fulfill the contract entered into with the Board of Trade before it located in Asbury Park.

LONG BRANCH.

A Board of Trade has been organized in Long Branch.

KEYPORT.

The American Cutlery Company's plant at Keyport has been closed indefinitely upon application of one of the creditors. A receiver has been appointed to wind up the company's affairs. About seventy-five workmen are out of employment as a result.

Utterberg's Shirt Factory was forced to close on account of the American Cutlery Company's trouble, being deprived of steam power. Forty girls once employed there are out of work.

MATAWAN.

The United Cigar Manufacturing Company has leased the canning factory property and will employ about 300 girls as soon as necessary alterations are completed.

December.

ASBURY PARK.

The Symphonian Manufacturing Company has signed a formal agreement with the board of directors of the Asbury Park Board of Trade whereby the company is to pay the board \$1,500 of the \$3,000 deposited with a trustee as security for the company's faithfully carrying out the provisions of its contract made with the board in reference to the operation of the music box plant.

Union workmen employed in the construction of the new Asbury Park Pavilion were ordered by the walking delegate to stop work because they were not receiving the wage scale of \$3 per day adopted by the local union of the district. About eight or nine men were employed on the job, two of whom decided to obey commands, but the rest determined to continue work until the union secured them other positions at \$3.

January.

BRADLEY BEACH.

Negotiations are under way by a large New York firm, which manufactures novelties, to obtain the plant of the Symphonian Manufacturing Company at Bradley Beach.

LONG BRANCH.

Frank Skidmore, an employe of the Lakewood Electric Light Company at Long Branch, fell from an electric light pole, a distance of thirty feet, and fractured his nose and dislocated an ankle.

MIDDLETOWN.

The American Cigar Factory at Middletown has been compelled to move elsewhere owing to the inability of the managers to procure sufficient help. The employes were principally girls, and the wages paid were not large.

February.

ASBURY PARK.

Steiner & Son, manufacturers of night robes of all kinds, have moved their ladies' underwear department from New York to Asbury Park.

FREEHOLD.

Application has been made by Hubbard F. Weeks of Freehold to the Court of Chancery for a rule to show cause why the Pneumatic Wheel Company of Freehold should not be declared insolvent.

March.

FREEHOLD.

Application has been made to the Court of Chancery for a rule to show cause why a receiver should not be appointed for the Pneumatic Wheel Company of Freehold.

April.

ASBURY PARK.

A wealthy resident of Asbury Park has offered as a free gift to the Consolidated Methodist Book Concern a plot of land in that place, 300x400 feet, on condition that the publishing business of the concern be located there.

FREEHOLD.

The factory property of the Pneumatic Wheel Company at Freehold has been purchased by a firm which intends to operate it as a wagon manufactory.

The Court of Chancery has appointed a receiver for the Pneumatic Wheel Company of Freehold. The Court acted in the matter on the request of the company, which confessed itself insolvent.

NEPTUNE CITY.

The borough Council, by a unanimous vote, increased the wages of laborers employed on public works from \$1.50 to \$1.75 per day.

May.

LONG BRANCH.

The Board of Trade of Long Branch, through its committee on manufacturing, is considering a proposal made to it by Steiner & Sons, shirt manufacturers, that the board should erect for the firm's use a building to cost from \$22,000 to \$25,000, on which sum it agrees to pay six per cent. per annum, with the privilege of purchasing the building after five years.

KEYPORT.

The receiver of the American Cutlery Company has procured an order from the Court of Chancery directing the creditors to audit and allow his accounts in connection with the receivership.

RED BANK.

The building occupied by the Red Bank Carriage Company was partly destroyed by fire and forty-seven new wagons were practically ruined. The loss is estimated at \$5,000.

June.

LONG BRANCH.

The local Board of Trade are making strenuous efforts to advance the industrial interests of Long Branch. The liberal inducements which the town and its enterprising people are preparing to offer for the settlement of labor-employing industries within its limits have been widely advertised in the newspapers of New York and other large cities, and negotiations are now pending between the board and several firms at the head of large manufacturing establishments who are seeking new locations for their several plants. Among these is the International Power & Vehicle Company of Stamford, Conn., which manufactures power boats, automobiles,

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etc., and employs 200 hands; a New York firm wishes to start a plant for the production of glue and gelatin, and another firm, also from New York, which is engaged in the manufacture of ladies' muslin underwear.

August.

RED BANK.

37 One hundred Italian workmen employed in the Sigmund Elsner Clothing Factory at Red Bank struck because one of their number had been discharged for incompetency. After a few days' idleness several of the strikers returned, but were not permitted to resume work.

LONG BRANCH.

The National Canning and Manufacturing Company, to manufacture and use a line of tin cans for packing purposes which are to be lined with a new substance having very valuable properties for the purpose of holding canned goods. The authorized capital is \$125,000.

MATAWAN.

The Matawan Steel & Iron Company has commenced work on the extension of the buildings of its plant. The cost of the improvements is stated to be \$16,000.

September.

ASBURY PARK.

The Toffey Manufacturing Company is the name of a newly organized firm that will manufacture candy in the old building of the Symphonion Company at Asbury Park.

KEYPORT.

The works of the American Cutlery Company at Keyport have been closed down because of financial difficulties.

The Raritan Brick Company, to manufacture brick of all kinds, has been organized at Keyport with a capital of \$50,000.

MORRIS COUNTY.

October.

DOVER.

The E. J. Ross Silk Manufacturing Company has shut down its three silk mills at Port Oram. The suspension is only temporary, but between 200 and 400 operatives are out of employment while it continues.

The Singleton Silk Mills at Dover are being operated by a much smaller force than heretofore because of dullness in the demand for thrown silk.

NETCONG.

Notice has been posted at the Musconetcong Iron Works at Netcong that a reduction of ten per cent. in the wages of employes earning over \$1.25 per day will be put in operation.

MILLINGTON.

The plant of the Morris County Crushed Stone Company at Millington was destroyed by fire. The loss is \$25,000.

BOONTON.

The Bard-Cate Company are about to build an extension to their plant at Boonton.

November.

MORRISTOWN.

Notices have been posted in all mines of the Empire Steel & Iron Company in Mount Hope, Hibernia and the other big mines in Morris County, that a ten per cent. reduction would be made in the wages of all miners beginning December 1st, and that thereafter only one shift of men instead of two would be employed.

A fire broke out in a silica mill a short distance from Morristown, on the Erie Railroad. The flames were smothered by the use of bags of sand, as no water could be procured.

BUTLER.

The American Hard Rubber Company at Butler are changing their frame buildings to brick at a cost of many thousands of dollars.

BOONTON.

A receiver has been appointed by the Court of Chancery for the plant of Mercey Brothers & Company, hat manufacturers.

STERLING.

A peremptory order of Court has been served on the Miller Metal Company of Sterling to remove their buildings from their present location.

December.

MORRISTOWN.

Fred Keller, an employe of the Hanover Brick Company at Morristown, had one of his ankles broken while at work by an iron bar falling on it.

January.

MORRISTOWN.

The Court of Chancery has appointed a receiver for the Rockaway Iron and Steel Company.

BOONTON.

The Court of Chancery has granted an order directing the creditors of Mercey Brothers & Company to show cause why the sale of the insolvent corporation's hat factory in Boonton to the Knox Hat Company of New York, for \$22,000, should not be confirmed.

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BUTLER.

The Butler Soft Rubber Works started on January 1st to operate their plant night and day.

February.

DOVER.

The Dover Wood Heel Company, which was recently incorporated with a capital stock of \$25,000, will occupy the building on East Blackwell street, Dover, formerly used by the George Richards Company, where it will do its manufacturing. About twenty males and females will be employed as soon as machinery is installed.

BOONTON.

The large mills of the Boonton Iron & Steel Company were partially crippled by fire. Damage to the extent of \$1,600 was done to machinery.

March.

MORRISTOWN.

The Sansom Stone Company has been organized to deal in stone, manufacture plaster, cement, etc., with a capital stock of \$25,000.

BOONTON.

The Textorius Manufacturing Company of Boonton has filed its certificate of incorporation with the Clerk of Morris County. The company will manufacture air compressors, pneumatic tools and machinery of all kinds. The capital stock is \$500,000.

MOUNT OLIVE.

The R. Stephens Company has been formed with a capital stock of \$30,000, to manufacture flour and other food articles.

May.

DOVER.

The Block Manufacturing Company of New York has leased the old Richards Building at Dover and established a plant for the manufacture of patent shoe heels.

WHIPPANY.

The large plant of the Stony Brook Paper Company at Whippany has been completely destroyed by fire. The estimated loss is \$350,000. The works were controlled by the Paper Board Trust and was one of its best equipped plants. The heaviest part of the loss is on machinery, which in this mill was entirely modern and of a very expensive kind.

The McEwan Brothers is the corporation title of a company formed to build and operate a paper board mill at Whippany. The capital is placed at \$100,000. In addition to a mill with a capacity of 550 tons per

month, which the new company has purchased, another building is to be erected for manufacturing purposes, which will be capable of producing paper boards to the extent of 850 tons per month. The new mill will be 80x1,000 feet in measurement and one story high.

June.

ROCKAWAY.

The Rockaway Rolling Mill was incorporated at Morristown to build and operate heating and puddling furnaces. Authorized capital, \$100,000.

July.

MORRISTOWN.

The German-American Foundry Company was incorporated at Morristown with a capital of \$25,000. The company will carry on a general foundry and machine manufacturing business. Its works will be located at Boonton.

August.

MORRISTOWN.

Property has been purchased in Morristown by a New York firm for the purpose of erecting a large factory in which patent medicines are to be compounded.

BOONTON.

A Paterson silk manufacturer has purchased land in Boonton on which to erect a branch mill.

The new bronze works at Boonton is now being equipped with new machinery, which has been brought from Germany, and the production of fine work will soon begin there.

LANDING.

An explosion occurred in the "rubbish building" of the Forcite Powder Company at Landing, on the shores of Lake Hopatcong, and completely wrecked the building, the ruins of which were burned up by the fire which started with the original casualty. The loss from fire was \$800.

DOVER.

Two frame building belonging to the Huff Powder Works at Dover, which contained four tons of partly finished powder, were burned to the ground by a fire of accidental origin.

September.

DOVER.

The foundry of the Richardson & Boynton Stove Company at Dover is being enlarged to make room for twenty-six additional moulders. The addition will be of brick and wood, 40x125 feet in dimensions, and will cost \$2,500.

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Playcards have been posted in the rolling mill of the Ulster Iron Works announcing a reduction of five per cent. in wages, to go into effect October 9th.

Alexander Cameron, assistant manager of the Ulster Iron Works at Dover, had a foot very badly crushed by a heavy piece of iron, which fell upon it.

LANDING.

Berry Betson, an employe of the Forcite Powder Company at Landing, Lake Hopatcong, was badly burned by the explosion of an acid pipe, which threw the fluid over him.

OCEAN COUNTY.

May.

LAKEHURST.

A grist mill at Lakehurst was damaged by fire to the extent of \$2,500. One thousand dollars of this was on the building and the remainder on machinery.

PASSAIC COUNTY.

October.

PATERSON.

The United Rubber Company has moved its plant from Unionville, N. Y., to the old market building on Ellison and Van Houten streets, Paterson.

Martha Snyder, an employe at the William Strange Silk Mill in Paterson has brought suit against the mill company to recover damages for injuries sustained from being struck on the head by a driving rod which had worked itself loose while the loom cared for by her was running.

101 The silk throwsters of Ramsey & Gore now on strike have started a movement for the organization of all hard silk workers into one union.

15 The marble workers employed on the Court House at Paterson were called out from work by the officials of their union because of a disagreement between the Evans Marble Company of Baltimore and their employes over the question of the hours of work per day.

A petition was filed in the United States District Court to have the American Chemical Company declared a bankrupt concern.

Henry Delaney fell to the ground from the top of a forty-two feet smoke-stack at the Passaic Rolling Mill and sustained a fracture of the spine.

PASSAIC.

The Garfield Chrome Tanning Company was formed in Passaic with a capital stock of \$100,000. The company will erect a tannery in the borough of Garfield.

WAYNE.

An explosion occurred in the powder house of the Laflin & Rand Company at Wayne, by which two employes, William McCombs and John Dwarach, lost their lives.

The German Artistic Weaving Company of Pompton Lakes borough has purchased the entire estate of which the mills which it occupies forms part, and will take steps in the near future to greatly extend the works.

November.

PATERSON.

Edward Green, a carpenter, while at work on the sixth floor of a building in course of erection at Paterson, fell to the fifth floor, injuring his head and back.

The Solar Patent Leather Company has been incorporated at Paterson with a capital stock of \$25,000, to manufacture, deal in and export hides, leather and leather goods.

The Art Fibre Company has been incorporated at Paterson with a capital stock of \$90,000. The object of the company is to manufacture silk and other textile fabrics.

The King-Quick-Gerber Company, to carry on a business of mechanical and electrical engineers, filed articles of incorporation at Paterson.

A fire in the old Broomhead Mill, on River and West streets, Paterson, caused damage to several manufacturing concerns which occupied rooms in the building. The total loss was \$5,000.

Contracts have been filed in the County Clerk's office for the erection of a two-story building, 200x65 feet, on Mill street, Paterson, at a cost of \$22,673. The structure will be used for dyeing purposes by Ferman, Stumpf & Company.

The trustee in bankruptcy for Seyer & Cairns, Bond and Madison streets, Paterson, will sell the entire silk dyeing plant at auction.

One Paterson firm of silk throwsters has announced a reduction of from eight to fifteen per cent. in wages.

Johnson, Cowdin & Company, silk manufacturers of Paterson, have made a reduction in wages.

Operators in the silk industry fear that a general reduction in wages will have to be made because of dullness in the trade.

Employes of the Passaic Rolling Mill Company of Paterson have decided to accept a reduction of ten per cent. in wages.

An extensive addition to the plant of the Meisch Silk Manufacturing company, on Leslee street, Paterson, is being erected.

The Barbour Flax Spinning Company is erecting a large addition to its Grand street mill in Paterson.

J. A. Hall & Company, silk weavers on Hamilton street, Paterson, will erect a four-story addition to its present plant. The new building will be 25x100 feet.

Paterson tin workers have plenty of work and the prospects for steady employment are good.

Paterson waiters are about to form a union for mutual protection.

A Paterson man has invented a new machine which will spin, double and twist silk in one operation. By this system, it is claimed, the production of thrown silk will be double that of any other method in use. This is the first machine of its kind, and it is proposed to organize a company to manufacture them.

The Local Union No. 185, of the International Union of Steam Engineers, has protested to the Board of Freeholders against the appointment of one of the board to the position of engineer at the Court House.

Thirteen men stopped work on the new concrete floor at the trolley sheds on lower Market street, Paterson, because an Italian was given employment.

The Cigarmakers' Union No. 3 of Paterson has declared against the reciprocity bill between the United States and Cuba, which, they hold, discriminates against the cigar industry in this country.

Efforts are being made by the Paterson local Trolleyemen's International Union to have the Public Service Corporation reinstate employees who were, it is alleged, discharged without just cause.

PASSAIC.

The Botany Worsted Mills Company has increased its capital stock from \$2,500,000 to \$3,000,000, and will greatly extend the range of its business. Heretofore the company has confined itself to the production of goods for women's wear, but now it is intended to go into the manufacture of cloth for men on a large scale.

Three hundred girls employed as weavers in the Gera Worsted Mills at Passaic went on strike for weekly wages instead of piece work. Most of them returned to work without their demands being satisfied, and the strike is practically ended.

December.

PATERSON.

John Lamb, a workman, was injured at the American Locomotive Works at Paterson by an axle which fell upon and crushed his right foot.

John Christie, aged sixteen years, employed by a firm on the third floor of the Barnert Mills, had his right arm badly lacerated by being caught in some machinery on which he was at work.

Lizzie Pritchard, a working woman, was caught in machinery in the Barbour Mill, on Grand street, Paterson, and had both arms broken and her hands crushed.

John Brower, a contracting carpenter, while working on a scaffolding, which collapsed, fell a distance of three stories to the ground, receiving only a few comparatively trifling injuries.

John McMurray, who was on the same scaffold, clung to the gutter of the roof of the house until released by a ladder.

David Waldron and John Prentiss, employed at Rogers Locomotive Works in Paterson were knocked unconscious by the bursting of a compressed air cylinder. Several other men were slightly bruised.

James Fleet, a stone cutter employed on the new Free Public Library building at Paterson, had his neck broken and was instantly killed by a

derrick boom striking him on the head and hurling him to the ground from the wall on which he was working. The accident was caused by the breaking of the rope with which a heavy block of stone was being raised to the point at which the man was at work upon the building.

A suit for damages of \$40,000 has been started by Emil Baumann against Johnson, Cowdin & Company of Paterson. Baumann claims that on June 2d, while employed in the boiler room of the defendant company, he was seriously injured by the explosion of an automatic scum blower, which was attached to the boiler; that he is disfigured for life, as well as having defective vision as a result of the accident.

Siegfried Butz, a broad silk manufacturer in the old Adams Mill, on Van Houton street, Paterson, has made a general assignment owing to dullness of business and lack of capital. Joseph Formans, of the firm of Formans, Stumpf & Sharpe, is acting as assignee, and will endeavor to adjust the affairs of the company to the satisfaction of all concerned.

The silk dyeing plant of Seyer & Corrin, at Bond street, Paterson, was sold at auction for the sum of \$1,824.65.

The Passaic Steel Company of Paterson has made a reduction of ten per cent. in the wages of men employed in its plant, nearly 3,000 in number.

The appeal from the Vice Chancellor's action in declaring the strikers at the Frank & Dugan Mills at Paterson in contempt of Court for defying the Court's order restraining them from picketing the mills, has been dismissed by the United States Supreme Court on the ground that it has no jurisdiction. The Vice Chancellor has refused to remit the fines imposed on the strikers, but in the case of Clements Herold the term of imprisonment has been reduced from sixty to thirty days.

Disagreement between the Master Builders' Association and the Building Trades Council has caused a cessation of work on a large building in Paterson. It is claimed by the Metal Lathers' delegate that the men employed in lathing on the building are not affiliated with the International Lathers' Union, while the contractor asserts that the local union has no men competent to do the work, and that therefore it is necessary to employ workmen from the New York Iron Metal Lathing Union. The Master Builders' Association demand that the questions in dispute be submitted to arbitration, and declare that if the men do not return to work by January 2d, 1904, a "lockout" should be declared which would effect 1,200 men employed in the building trades in and about Paterson.

ATHENIA.

Fire destroyed part of the plant of the American Standard Oil Cloth Company at Athenia on December 28th, 1903. Damage to the extent of \$43,200 was done to the building, which was of brick; to machinery and material the damage amounted to \$135,273; total loss, \$178,473. John Deal and Patrick O'Byrne were badly burned about the face and body. Over 200 employees will be out of work as a result of the fire.

January.

PATERSON.

The American Eagle Kite Company has filed its certificate of incorporation, which shows a capital stock of \$20,000.

A disastrous fire destroyed the silk plant of Ashley & Bailey, Paterson, on January 30th, 1904. The dye houses and ribbon plant, together with a portion of the broad silk department, were saved from the flames. Damage was done to building of \$40,000, to machinery and tools \$95,000, and to material \$130,000; total loss, \$265,000.

J. Hengeveld has leased the silk throwing works formerly operated by Post & Sheldon, and will operate the plant on a commission basis. The name of the new company will be the Paterson Silk Throwing Company.

Eighty male and thirty female ribbon weavers, employes of the Meding Silk Manufacturing Company, went on strike for an increase in wages. A committee has been appointed by the strikers to confer with the company with a view to effecting a settlement.

POMPTON.

37 About forty-five weavers employed by the German Artistic Weaving Company at Pompton stopped work because, as was alleged, one of their number had been discharged for having been active in their union. This is contradicted by the company, who assert that he was dismissed from their employ with several other weavers by reason of dullness in the business. Nearly half the strikers have returned to work.

HALEDON.

The Haledon Tapestry Company has filed articles of incorporation with the Clerk of the county, which show a capital stock of \$50,000.

February.

PATERSON.

The following industrial companies have filed articles of incorporation with the Clerk of Passaic County during the month of February: Barbour & King Company, silk manufacturers, capital stock, \$10,000; George Howard & Son, picture frames, etc., capital stock, \$25,000; Atherton Wright Feed Company, capital stock, \$50,000; John Baird Company, snow guards, capital stock, \$50,000; National Ice Cartridge and Novelty Company, capital stock, \$50,000; Watson Flag Engineering Company, capital, \$125,000.

The trustees in bankruptcy of the Barclay Silk Company at Paterson sold at auction the real estate of the company located at Clifton to New York parties, who held a second mortgage on the plant.

The broad silk plant formerly located in the Harding Mill, and which later moved to the Jackson Mill, near Idlewild Park, Paterson, will shortly be put in operation by the new owners, who are New York men.

The new steel mill of the Passaic Steel Company in Paterson has been completed. The building, which is of corrugated iron, will cover a space of 198x114 feet and will cost \$100,000. Additional machinery to the value of between \$400,000 and \$500,000 will be installed and employment will be given to at least 100 more workmen than are at present engaged in the plant.

A movement has been started in Paterson to raise by popular subscription the money necessary to pay the costs of court which are charged against the two young men and six young women who were found guilty of con-

tempt by the Court of Chancery in disobeying an order restraining strikers from interfering with employes of the Dugan Silk Mills.

Clements Herold and Emmanuel Bossard, who were found guilty of contempt of court in violating the order of the Court of Chancery restraining the strikers at the Dugan Silk Mills from interfering with the company's employes, have surrendered themselves to the Sheriff.

A patent has been obtained by Ernest Von der Heyden of Paterson for a cam or eccentric which is used for converting a rotary motion into an irregular fast and slow intermittent rotary or reciprocating motion. The invention has been assigned to the Graef Hatband Manufacturing Company, who have applied it to their silk machinery.

PASSAIC.

The Stourbridge Clay Paint and Pottery Company of Passaic has been incorporated with a capital stock of \$100,000.

LITTLE FALLS.

The Killian Silk Company of Little Falls has been incorporated with a capital stock of \$100,000.

POMPTON LAKES.

Laffin & Rand Powder Company's plant, six miles west of Paterson, was totally destroyed by an explosion in one of its powder houses. Three employes lost their lives and forty are reported to have been injured.

March.

PATERSON.

The following named companies have filed their certificates of incorporation with the Clerk of Passaic County: Upland Silk Company, to manufacture silk ribbons, capital, \$50,000; Tilbe Drug Company, capital, \$25,000; Jordon Piano Company, to manufacture pianos, capital, \$30,000; The Johnson Van Vlaanderen Machine Company, to manufacture silk mill supplies, capital, \$10,000; J. I. Terhune Machine Works, to manufacture machinery, capital, \$50,000; Hamilton Printing & Dyeing Company, to print and dye textiles, capital, \$50,000; W. & J. Knox Net and Twine Company, to manufacture nets and twine, capital, \$300,000.

John Wilkie was severely burned and will lose the sight of one eye by an explosion at the Cooke Locomotive Works, where he was employed. Terence Leonard, an employe of the Rogers Locomotive Works in Paterson, was killed by having a huge iron block, weighing 1,000 pounds, fall on him.

Johnson, Cowdin & Company have advanced the wages of the silk weavers in their employ ten per cent. An increase of twenty per cent. in the wage scale was requested by the employes and a compromise on the first named amount was agreed upon.

Thomas Goldie, a manufacturer of silk on Dale avenue, Paterson, has made an assignment for the benefit of his creditors.

The Court of Chancery has appointed a receiver for Patterson Brothers, silk manufacturers in the Gordon Mill on lower Mill street, Paterson.

Ashley & Bailey, whose plant in Paterson was damaged by fire several weeks ago, have restored the mill to its former condition and will resume operation.

Twenty-five ribbon weavers stopped work at the plant of the Union Ribbon Company because their demand for an increase of ten per cent. in wages was refused. A compromise of five per cent. was subsequently effected and the men returned to work.

Ribbon weavers employed at the mills of Collins & Nolan in Paterson went on a strike for a twenty per cent. increase in their wages. After an idleness of three weeks the firm agreed to an increase of ten per cent. immediately and ten per cent. to begin on April 1st, which concession is regarded as a decided victory for the employees.

Employees at the David Fullerton & Company beef establishment in Paterson went on strike. They demanded that the drivers and carriers be given an increase in wages from \$12 to \$14 and shorter hours. The company granted an advance in wages and a satisfactory adjustment of the hours was made.

PASSAIC.

The New York Automatic Telephone Company of Passaic has been incorporated to manufacture telephones, with a capital stock of \$50,000.

LITTLE FALLS.

The Killin Silk Company has been organized to manufacture dress silks. The company supersedes the firm of Fogle and Killin, which was dissolved, and is now operating the plant at Little Falls.

The weavers at the Beattie Mills in Little Falls stopped work because of a dispute over a more equal division of difficult work.

The weavers in Little Falls have organized a union to be known as the Little Falls Local, No. 5, Tapestry Velvet Carpet Workers, and is affiliated with the National Textile Workers' Union.

The plant formerly operated by Chanvray & Beaudevin has been purchased by a syndicate of capitalists, mostly from Paterson. The buildings are being refitted and modern machinery will be installed. It is intended to operate one of the largest skein silk and piece dyeing plants in the country, giving employment to between 400 and 500 hands.

April.

PATERSON.

The mill building of the Eastside Silk Company of Paterson was practically destroyed by fire. The structure was built of wood, two stories high and 100x150 feet ground measurement. The damage amounted to \$10,000: \$2,000 of this was on the building, \$4,000 on machinery and \$4,000 on material and finished goods.

The Burnham Musical Typewriter Company, a Massachusetts corporation, has taken steps to secure a suitable location in Paterson for the

establishment of a large plant in which to manufacture a new machine on the typewriter principle for printing music. The company has a paid up capital of \$200,000 with which to commence operations.

Much uneasiness has been caused in Paterson by the rumor of efforts on the part of the American Locomotive Company to buy up a controlling interest in the Rogers Locomotive plant at that place. Fears are entertained that in the event of success the trust will close the Rogers works and concentrate its orders on the Cook Locomotive shops, which the American Company now owns, this plant having the advantage of the Rogers concern in the matter of facilities for railroad shipment.

A general shut-down of the silk mills in Paterson and other parts of the State seem likely to occur in consequence of the slowness of trade. Many of the largest mills are running up to only sixty per cent. of their full capacity.

The receiver of the Patterson Brothers Silk Company of Paterson has filed its inventory in the Court of Chancery showing the liabilities of the company to be \$12,000, and its assets \$3,500.

PASSAIC.

The Botany Worsted Mill Company of Passaic has made arrangements for the addition to its plant of a large mill, which will be erected in the northern part of the city, that is to be devoted exclusively to the manufacture of men's clothing. The new structure will cost, when completed, about \$350,000. The mills thus increased in size will be the largest works in the world engaged in the production of worsted and woolen goods.

Mr. Andrew McLean of Passaic, who manufactures linen goods in that city, has acquired the ownership of valuable patents for spinning flax extracted from the hitherto supposed worthless flax straw that grows in Wisconsin and other parts of the Northwest. New machinery has been developed for cleaning the fibre, which experiments have proven can be manufactured into the finest linen.

The managers of the Botany Mills at Passaic have caused a general advance in wages of ten per cent. to be made throughout and including the entire working force of the plant.

The following named industrial companies have been incorporated in Passaic County during the month of April, and will carry on business somewhere within its limits: The Ætna Silk Company, to manufacture silk fabrics, capital, \$100,000; Forsythe Hardware Company, to manufacture hardware, capital, \$7,000; Whyte Brothers Corporation, to manufacture dye stuffs, capital, \$100,000; Union Vending Machine Company, to manufacture machines operated by coin, capital, \$12,000.

May.

PATERSON.

A joint committee representing the Master Builders' Association and the United Trades Council have, after much deliberation, arrived at an agreement under which employers and workmen in all the building trades are to make an annual agreement covering wages, hours of labor and other

conditions that are of mutual interest or that may become subjects of dispute. The agreement is to contain a clause providing for a joint board of arbitration to which all questions in dispute relating to trade matters shall be referred. The board of arbitrators is to be constituted by each Master Builders' organization and each union represented in the United Trades Council electing three men each to serve as a general arbitration board. From this body special boards are to be drawn to arbitrate such difficulties relating to trade matters as may arise from time to time. Walking delegates of the unions are not eligible to either the general or special boards.

The North Paterson repair shops of the Erie Railroad have closed up indefinitely. For some time previous there had been a regular monthly reduction of the force employed, owing to the falling off in business activity throughout the country, which affected the business of the railroads.

The following named industrial companies filed certificates of incorporation at the office of the Clerk of Passaic County during the month of May:

The Vreeland Chemical Works, to manufacture all kinds of chemicals, capital, \$100,000. The factory will be at Little Falls, N. J.

The Universal Ice Cartridge Company, to manufacture novelties, capital, \$50,000. Factory at Paterson.

The Aronson Bloom Company, to manufacture silks, woolens, etc. capital, \$50,000. Mill to be located at Paterson.

The Sutton & Potts Company, to manufacture silk, woolens, etc., capital, \$25,000. Mill to be located at Paterson.

The United States Combination Bracket & Lock Company, to manufacture combined shade rollers, brackets and curtain poles supports, and also window shutter fasteners, capital, \$25,000. Factory to be located at Paterson.

The Harrow-Ryder Silk Manufacturing Company, to manufacture silk goods, capital, \$25,000. Mill to be located at Paterson.

PASSAIC.

36 Building laborers, to the number of 100, employed on construction work in Passaic, went out on strike for thirty cents an hour. They were receiving twenty-five cents.

POMPTON LAKES.

The mill occupied by the Pompton Silk Company at Pompton Lakes was completely destroyed by fire. The business carried on at the mill was silk throwing; the loss on building and machinery is \$10,000.

June.

PATERSON.

A very destructive fire broke out in the buildings of the P. S. Van Kirk Lumber Company at Paterson, which, in consequence of a high wind prevailing at the time, soon spread to the large silk mill of

The lumber mill with its contents was entirely destroyed. The silk company suffered most in damage to its material and machinery, the injury to the buildings being comparatively slight. The

lumber company's losses as reported were \$50,000 on building and \$10,000 on machinery. The losses of the silk company were, on building, \$5,000; on machinery, \$10,000; on material (raw silk), \$40,223; and on finished goods, \$1,746. The total loss sustained by both firms in consequence of the fire was \$116,969, and the number of operatives, male and female, who were thrown out of employment through the same cause was 1,200.

The Board of Aldermen of Paterson has directed the Street Commissioner to make an examination of the shore line of that part of the Passaic River which flows through the city, with power to remove such buildings as project in whole or in part over the stream. So far as the survey has progressed it has found that most of the structures overhanging the shore line are factories. If these are interfered with many persons will be thrown out of employment, hence there is a strong sentiment in the city in favor of going slow in the matter.

A receiver has been appointed by the Court of Chancery for the Riverside Silk Mill. The action of the Court was taken on the petition of the company, who desired permission to wind up its affairs. Dull trade and lack of sufficient capital are the reasons assigned for winding up the business.

The Oxford Cigar Company was incorporated at Paterson with a capital of \$5,000. The purpose of the company is to go into the business of manufacturing cigars.

The Consumers' Baking Company was incorporated at Paterson to manufacture and sell bread, crackers, pastry, confectionery, etc. The authorized capital is \$50,000.

The E. Geering Silk Dyeing Company was organized at Paterson to manufacture, dye, work and sell silk wool and other textile fabrics. Capital stock, \$300,000.

July.

PATERSON.

Two hundred girls employed in the hard silk department of the Ramsey & Gore Throwing Mill at Paterson went on strike because of a misunderstanding regarding wages, which grew out of a rearrangement of the product required from each operative as a day's work. The fact appears to be that the girls were required to run eighty-four ends for the wages they had been receiving for fifty-six ends. After this department of the mill had been closed for a week the strike was ended by a compromise satisfactory to both sides. 39

The weavers employed at the Johnson & Cowdin Mill at Paterson went on strike to enforce a demand they had made some time previously for an advance in prices of ten per cent. After being idle for four days the weavers returned to work under a compromise which conceded a five per cent. increase in wages immediately and another advance of five per cent. in September, when, it was hoped by the firm, trade conditions would be so improved as to enable it to pay the increase. 40

The Joseph Sharpe Construction Company was organized at Paterson with a capital of \$30,000. The company will manufacture drain and sewer pipe.

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The Garside Manufacturing Company was incorporated at Paterson with a capital of \$15,000. The company will make blind adjusters and other articles.

The Buckley Cartwright Company was organized at Paterson with a capital of \$25,000. The company will manufacture silk goods.

The Cook branch of the American Locomotive Works, situated in Paterson, has reduced its force of employees during the past three months from 1,800 to only 200 men. Recently, it is said, a large order for locomotives was received from Canada, the execution of which was assigned to the Cook branch. It was found, however, that in making the contract no allowance had been made for the Canadian tariff duty, and to avoid inevitable loss on the work the company has decided to ship its machinery to Montreal. A small number of the working force is being sent to Canada.

Some of the large silk mills of Paterson are threatened with the probability of being forced to close down because insurance companies are disinclined to continue taking risks in the mill district of the city unless the local fire department is very much improved.

PASSAIC.

The Fostmann & Huffman Company was incorporated at Passaic with an authorized capital of \$750,000. The company will manufacture and deal in yarns and textile fabrics.

The Whitman Textile Company was incorporated at Passic with an authorized capital of \$100,000. The company will manufacture textile fabrics of several kinds.

POMPTON.

The wire room of the Smith Electrical Cap Works at Pompton was completely destroyed by fire; the loss was about \$1,000 on building, \$6,000 on machinery and tools, and \$3,000 on material. The total loss was \$10,000.

WAYNE.

The Lafin & Rand Powder Company will reopen its mills at this place, after having placed them in a condition of thorough repair. In many parts of the plant entirely new machinery, with every modern device for securing the safety of operatives, has been installed. When in full operation the works will give employment to 200 men.

August.

PATERSON.

Through the cordial generosity of its employees in giving free one day's labor each, the Peter S. Van Kirk Lumber Company, whose plant was burned to the ground in the latter part of July, entailing a loss of \$80,000, was enabled to build in one day a workshop 84x58 feet, which if erected in the ordinary way would have cost fully \$6,000. The company carried only \$17,000 at the time of the fire and were unable to meet the expenses involved in restoring the plant. The employees, 150 in number, remembered

that they had always received kind treatment from their employers, and adopted this method of showing their gratitude and at the same time helping their employers and themselves in a practical way.

A Swiss firm, who manufactures shirts and a general line of underwear from the fibre of the rumic plant, is endeavoring to secure floor space in some Paterson mill for the purpose of beginning the manufacture of its goods.

The Phoenix Silk Manufacturing Company of Paterson is about to erect a large fire-proof mill building in Paterson with a view to renting out space for manufacturing purposes. The structure will be 300 feet long and five stories high.

Joseph Balli, a workman at the Cook Locomotive Works, had three fingers cut from his right hand by an accident which occurred while he was at work.

John Murray, an iron worker's helper, had a foot and leg crushed while engaged at setting up an ornamental column at a new building.

James Tracey, a workman employed in the Passaic Rolling Mill at Paterson, had a hand very badly burned by molten steel, which was accidentally spilled upon it.

Daniel Headley, a workman employed in the Rogers Locomotive Works at Paterson, suffered a compound fracture of the right leg through an accident, which occurred while he was at work.

Charles Dougherty, a workman employed at the Passaic Rolling Mill at Paterson, fell into an empty retort and received a bad fracture of the right wrist and painful contusions of the chest and face.

The employes of the Brown Shirt Factory in Paterson went out on strike because the wages of one of their number had been reduced from \$14 to \$10.

Suits for violating the factory law were instituted against two Paterson silk manufacturers by the Attorney-General.

The wagon manufactory of J. S. Sowerbutt at Paterson was totally destroyed by fire. The loss was \$30,000.

Suit has been brought against the Haenichen Bros. Silk Company of Paterson by an employe to recover damages to the amount of \$10,000 for injuries suffered through an accident, which occurred while he was at work.

The managers of the Rogers Locomotive Works have posted a notice in their shops of a reduction in wages of 10 per cent., to go into effect September 1st.

PASSAIC.

Annie Lorlanski, an employe of the Botany Mills at Passaic, was killed while cleaning a carving machine in operation. The woman was caught in the belting and drawn up to the roof with great force and fell back to the floor unconscious. Her skull was fractured and death resulted soon after. The victim was a widow thirty years old and had three small children dependent upon her for support.

The Thomas Chemical Company, to manufacture chemicals and alkalies, was incorporated at Paterson with an authorized capital of \$150,000.

September.

PATERSON.

412 Nine employes of the Dexter & Lambert Company, silk manufacturers of Paterson, were charged in the Recorder's Court with "loitering" about the mills, in which a strike is now on, their purpose, as asserted, being to interfere with the company's employes who remained at work. As the men had committed no breach of peace, they were discharged by the Court, with a warning not to molest, in any way, the men at work.

413 The wages of the blacksmiths, bridgeworkers, beam and machine men employed in the Passaic Rolling Mill at Paterson were reduced 10 per cent. and the rolling mill men 20 per cent. Most of the men concerned refused to accept the reduction and went out on strike. These men were declared discharged by the company and paid off in full. The cut in wages, the company explained, was made necessary by a fall of \$3.50 per ton in the price of steel, which entailed a reduction in the income of the Passaic plant amounting to \$175,000 per month. Notice of the strike and of the general conditions at the mill was sent to the national president of the Amalgamated Association, pending whose arrival nothing was to be done toward extending the strike to other departments of the mill. Most of the steel heaters earn from \$50 to \$75 per week and the scale as announced by the company will reduce their earnings variously from \$10 to \$15 per week. The company has notified the men that the reductions must be accepted, unless the mills are to be closed. On the arrival of the Advisory Board of the Amalgamated Association the members were invited by the officers of the company to examine the books and prepare themselves for advising the men intelligently regarding the proper course for them to pursue. This invitation was accepted, and after going over the records and accounts with care, the Advisory Board reached the conclusion that the cut in wages was fully justified and unavoidable, if the mills were not to be run at a heavy loss. A mass meeting, attended by the entire working force, about 800 in number, was held, and after the Advisory Board had made known its decision, a vote was taken of all the employed, which showed a majority in favor of accepting the new scale of prices and continuing at work. The strike was accordingly declared off and the men returned to work after being idle for one week.

A representative of the Star Silk Company of New York is looking for a suitable building in Paterson, to which, if successful, the entire plant will be removed. Seven hundred people are employed by this company.

The Rogers Locomotive Works at Paterson received orders for five locomotives recently, and indications favor the receipt of more orders in the near future, which will restore the old-time activity at the plant. Pending the realization of these expectations, however, the company has been forced by the scarcity of orders which has prevailed for some time back to reduce the working hours from ten to eight per day, and also to make some reductions in salaries. Confidence in the future is shown, however, by the fact that the company is making some necessary additions to the buildings and carrying out other plans for facilitating the handling of work in the future.

Michael Gross, an employe of the Passaic Rolling Mill, had one of his hands caught between two rolls and the fingers so badly crushed that two of them had to be amputated.

General Joseph W. Congdon of the Phoenix Silk Company has awarded the contracts for the erection of a new factory on perfectly modern plans. The buildings will be specially adapted to silk manufacture and will be rented out in floors for that purpose.

The Riverside Silk Company is adjudged bankrupt by the United States District Court, and a trustee has been appointed to represent the creditors of the firm.

The Court of Chancery has appointed a receiver for the Dordoni Silk Dyeing Company of Paterson.

PASSAIC.

David McCann, a loomfixer in the Algonquin Woolen Mills at Passaic, had an arm caught between a large pulley and the frame of a loom on which he was at work. When released it was found that his arm was so badly cut and torn that sixteen stitches were necessary to close up the wounds.

The following named industrial companies were incorporated in Passaic County during the month of September: Paterson Silk Manufacturing Company, to manufacture silk and woolen goods, capital, \$10,000; Aigrette Supply Company, to manufacture aigrettes, capital, \$25,000; Hurley-Holbach Silk Company, to manufacture silk and woolen goods, capital, \$25,000; Shawangunk Lead & Zinc Company, to refine metals, capital, \$100,000.

SALEM COUNTY.

October.

ELMER.

A factory at Elmer is engaged in working up the refuse or waste part of the tomatoes left over from canning, into a "paste" or "cheese" that is rapidly gaining in favor as an article of food.

December.

SALEM.

The Embossed Wall Covering Company has rented a three-story brick building at Salem for one year. They will employ about fifteen men in the manufacture of embossed wall paper, and later intend to erect a new factory.

ELMER.

A company which has been formed with a capital of \$100,000, to manufacture insulators, has purchased the glass works of Jonathan Parker, at Elmer, where it will carry on business.

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CARNEY'S POINT.

The employes of the Carney Point Powder Works received an increase in their wages of ten per cent.

January.

SALEM.

The American Oil Cloth Company has filed its certificate of incorporation with the Clerk of Salem County, which shows an authorized capital stock of \$200,000.

February.

SALEM.

Salem Knitting Mills Company of Salem has been incorporated with a capital stock of \$100,000.

The National Fruit Jar Company of Salem has been incorporated with a capital stock of \$100,000.

March.

SALEM.

The National Fruit Jar Company has filed its certificates of incorporation with the Clerk of Salem County. Capital, \$100,000.

May.

PENNSGROVE.

Some powder stored in what is known as the passing house at the Carney Point Powder Works completely wrecked that building, but other parts of the plant escaped without much damage.

July.

SALEM.

The Naturo Company was organized at Salem to carry on the business of manufacturing sanitary supplies. The authorized capital is \$100,000.

September.

WOODSTOWN.

A large canning company at Woodstown has in operation a machine for skinning and removing the cores from tomatoes. With the help of silk feeders, to place the tomatoes in position, the machine will do the work of fifty women. The operation of removing the skins and cores is done in this way with far less waste than by the old hand method, and at a cost of three cents work is done that formerly cost \$1.50 to perform.

SALEM.

J. K. Stanley, a paperhanger, was thrown from a ladder on which he was standing while hanging paper on the second story of a building. The ladder slipped and the man fell down the stairway to the floor below, receiving severe injuries which necessitated his removal to a hospital.

SOMERSET COUNTY.

November.

SOMERVILLE.

The Somerville Board of Trade is negotiating with a Philadelphia worsted mill company to locate its plant in Somerville.

December.

BOUND BROOK.

The Court of Chancery has granted an order directing the New Jersey Gelatin Company of Bound Brook to show cause why a receiver should not be appointed. The application was made by a Boston company to whom the gelatine firm, it is claimed, is heavily indebted for machinery.

March.

SOMERVILLE.

The Carbon Stove & Range Company, which recently moved to Somerville from Weissport, Pennsylvania, has its factory in full operation.

April.

SOMERVILLE.

The Somerville Woolen Mills, which has heretofore employed about 500 persons, has, through its managers, made an assignment. The action was brought about by the illness of the principal managing official of the company, which rendered him incapable of devoting to the business the time and attention which it required. The assets are said to be largely in excess of liabilities, and the assignee will run the mill and clothing department until the stock and material on hand has all been worked up and the creditors of the company have been paid in full.

The Court of Chancery has appointed a temporary receiver for the Ideal Cash Register Company, whose works are situated in East Bound Brook. The debts of the company are said to aggregate \$350,000.

May.

SOMERVILLE.

The creditors of the Somerville Woolen Mills have agreed to allow work at the mill to be continued so that unfinished goods may be made up and sold. The assignee hopes to pay creditors in full.

BOUND BROOK.

The Kelso Factory at Bound Brook has been sold to a New York firm, which has a large factory there for the production of pump and other metal goods. A part of the New York plant will be moved to Bound Brook, and when ready to commence operations the new enterprise will furnish employment to 200 men.

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RARITAN.

The Raritan Paint Company was incorporated at Raritan to manufacture paint. Capital, \$10,000. Factory to be located at Raritan.

June.

RARITAN.

The Raritan Paint Mill was incorporated at Somerville with a capital of \$10,000. The object of the company is to manufacture paints of all kinds.

July.

SOMERVILLE.

The Somerville Woolen Mills at Somerville has had a receiver appointed by the Court of Chancery to wind up its affairs. The company itself has made an assignment, selecting its former counsel as assignee. In proceedings instituted in the United States District Court, looking to a settlement of the company's affairs, the assignee was also appointed receiver by the Court.

PLAINFIELD.

The Hune Motor Company was incorporated at Plainfield with a capital of \$25,000. The company will establish a plant in Plainfield for the manufacture of motor vehicles and electrical machinery of several kinds.

The Smith American Metal Company was organized at Plainfield with a capital of \$100,000. The plant will be established in Plainfield, and a general foundry business in steel and iron will be carried on.

August.

BOUND BROOK.

John Koechlein, an employe of the Graphite Lubricating Works, eighteen years old, was caught in a rapidly running belt and killed by being crushed between a large driving pulley and the ceiling.

RARITAN.

All the mills and factories in Raritan that use the water power of the Raritan Power Company stopped their mills so as to allow the water to be drained from the reservoir, to permit the recovery of the body of a little girl, five years old, who had been drowned in it.

SUSSEX COUNTY.

October.

NEWTON.

Henry Miller was caught in the machinery of a grist mill at Newton and before he was extricated received injuries that may result in his death.

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November.

BRANCHVILLE.

A fire in the creamery of the Borden Condensed Milk Company at Branchville, on November 26th, caused damage to the extent of \$500.

January.

HAMBURG.

George Jenkins, who is employed at the paper mill in Hamburg, while grinding a steel point which is used in separating paper from rolls, had his hand drawn between the stone and the guard and lacerated so badly that it was found necessary to amputate one of the fingers at the first joint.

February.

NEWTON.

Articles of incorporation have been filed with the Clerk of Sussex County for the Sussex County Mining Company. The capital stock is \$125,000.

March.

NEWTON.

William Loncor, while working at a circular saw, had his left hand caught and three fingers nearly severed.

G. A. Williams Company of Newton has been incorporated with an authorized capital stock of \$50,000, to manufacture wood products.

April.

STANHOPE.

Floyd Noble and David Grogan, both employed at the Musconetcong Iron Works at Stanhope, were badly burned about the body, face and hands by the explosion of the contents of a large ladle with which they were making a cast.

NEWTON.

The George A. Williams Company, to manufacture woodwork of various kinds, has been incorporated at Newton with a capital of \$50,000.

The L. S. Cliff Company, to manufacture and deal in building materials, has been incorporated at Newton with a capital of \$75,000.

May.

NEWTON.

The Duplex Radiator Company of Newark has agreed with the Newton Board of Trade to move its works to Newton, and occupy the factory building of the defunct Newton Shoe Company, provided the claims of all persons against that property are paid by the Board of Trade. The Newton board must also place fire escapes on the structure and secure

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for the use of the Radiator Company two acres of land adjoining the factory building on which to erect an iron foundry.

June.

NEWTON.

The W. H. Merriman Shoe Company of Newton are having two additions made to their factory which will measure respectively 58x20 and 85x20 feet. The buildings will be of brick and four stories high each. The company reports its business as never having been more prosperous than at present. The new buildings will cost \$12,000, and at least \$8,000 will have to be expended on the new machinery which will be required because of the extension of the plant. An additional force of fifty operatives will be provided with employment.

August.

FRANKLIN FURNACE.

The New Jersey Zinc Company's mine at Franklin Furnace has been closed down for a time to permit the making of necessary repairs. This plant supplies material for the New Jersey Zinc Company's works at Newark, which also were closed recently.

NEWTON.

The citizens of Newton have appointed a committee to secure subscriptions and other necessary support for a manufacturing plant which the Duplex Radiator Company, formerly of Newark, are about to start at Newton.

STANHOPE.

The newly established underwear factory at Stanhope has finally secured all the help necessary to run the plant, and is now doing a prosperous business.

September.

NEWTON.

William F. Cooper, an employe of the Merriam Shoe Company at Newton, had a hand crushed and one finger torn off through being caught in a machine on which he was at work.

STANHOPE.

The Board of Trade of the borough of Stanhope are considering a proposition from the Liberty Automobile Company, which provides that that firm shall remove its works to Stanhope on condition that the local residents erect a factory of suitable size and with sufficient grounds about it, and also subscribe to \$25,000 worth of stock which will be issued by the concern. The project contemplates the employment of fifty men for the first year and 250 thereafter.

UNION COUNTY.

October.

ELIZABETH.

The United States Circuit Court has appointed ex-United States Senator James Smith, Jr., receiver of the Crescent Shipbuilding Company at Elizabethport. The plant is completely shut down, leaving several unfinished ships of various sizes in the yard.

The new steel plant of the Singer Manufacturing Company at Elizabeth is completed, and a mill for twelve-inch rolls will be put in operation immediately. All the steel required for the manufacture of sewing machines will hereafter be produced at the new plant. When the steel works are running full a force of 300 men will be employed in that branch of the industry.

The plant of the John Stephenson Car Works Company at Elizabeth has resumed work with a full force, after a partial suspension during two weeks, caused by inability to procure the necessary supply of steel and iron.

John Dickert, an employe of the United States Electric Company at Elizabeth had a hand caught in some machinery and so badly bruised as to necessitate the amputation of a finger.

Stanislaus Jans, a minor, has begun suit through his father, acting as guardian, against his employers, the W. E. Rankin Company, for the recovery of damages placed at \$10,000, for the loss of two fingers, which occurred while working for that firm.

SUMMIT.

The weavers of the Summit Silk Mill returned to work after having been on strike for two months. The men, fifty in number, were allowed to return as individuals and not as a union. The strike originated in an effort on the part of the weavers to compel the company to recognize their organization.

PLAINFIELD.

The new plant of the Aluminum Plate and Press Company at Dewey Park is nearing completion.

Charles Leighs, an employe at the Pond Machine Tool Works, had his face badly burned while pouring hot babbit, the metal coming in contact with water which was in the casting into which it was being run.

G. Thomas, an employe of the Pond Tool Company, had his fingers caught in the gears of a moving planer and very severely lacerated.

James Long, an employe of the Aluminum Press works at Plainfield was struck in the eye by a bar of steel while working on a Monitor lathe and received injuries that nearly resulted in the destruction of his sight.

SCOTCH PLAINS.

The Seeley Paper Mills, which have been closed for two weeks for repairs, have started up again with a full force of labor.

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RAHWAY.

The lace factory of H. B. Burns & Company at Rahway has been closed down, and the plant will be removed to Newark.

November.

ELIZABETH.

Frank P. Williamson, a pattern maker employed by the American Sanitary Pottery Company at Elizabeth, had a hand badly lacerated by the teeth of a rip saw. One finger and part of another had to be amputated at the Emergency Hospital.

There is some reason for believing that the Lake Torpedo Boat Company at Bridgeport, Conn., are negotiating for the purchase of the Crescent Shipyard in Elizabeth.

The receiver of the United States Shipbuilding Company has announced that arrangements have been made with the Erie Land & Improvement Company for the completion of their ferry boat "Tuxedo," at the works of the Harlan & Hollingsworth Company, Wilmington, Delaware. The "Goshen," which was included in the contract with the same company, and the "Plainfield," for the Central Railroad Company of New Jersey, together with others in course of construction, are expected to be finished in the Crescent Yards at Elizabethport.

The Amalgamated Association of Street and Electric Railway Employees of Division No. 229, at Elizabeth, have decided that strikes as the result of hasty action are unwise, and recommend that no strike be inaugurated among the trolley-men, in case of difference between employer and employe, until every other means has been adopted to settle the grievance.

The Samuel L. Moore & Sons foundries and machine shop at Elizabeth, which is an adjunct of the Crescent Shipyard, is now being operated by the receiver of the United States Shipbuilding Company independent of the shipyard plant. There is a large quantity of work on hand from contracts which were taken nearly two years ago.

PLAINFIELD.

Robert Marsh, a machinist employed at the Potter Press Works in Plainfield, had his right hand caught in a machine and severely injured.

George McComb of Plainfield had an eye badly burned at Pond's Machine Tool Company.

William Stapleton, an employe of the Campbell's Press Company at Plainfield, received a severe gash in his arm by falling from a ladder while working about some machinery.

Sixty-five men were laid off at the Pond Machine Tool Company's plant in Plainfield, owing to dullness in trade.

A large leather concern now in Newark is, it is said, looking for land in Plainfield for the purpose of establishing a plant there.

RAHWAY.

Dyngner & Steinerlid, manufacturers of upholstery goods, have rented the lower half of the building corner of Broad street and Maple avenue,

Rahway. They will start operation about January 1st with five looms, employing twenty-two males and ten females.

The Uniform Steel Works have been reorganized under the name of the New Jersey Steel Works. Their plant is now being very much enlarged.

WESTFIELD.

The Valentine Gas Engine Company has filed its certificate of incorporation at Elizabeth. The capital stock is fixed at \$150,000. The company will manufacture and deal in gas engines and other machinery.

SPRINGFIELD.

John H. Ellis of Milburn, employed by the Celluloid Zapon Company at Springfield, was caught in a machine at the works and had two ribs on his right side fractured and his right arm and body badly bruised.

SCOTCH PLAINS.

Frank Hunter of Scotch Plains had his right leg broken and his left leg badly bruised by the fall of a heavy packing case in the Æolian Works at Garwood. He was taken to the hospital in Elizabeth, where he is now in a dangerous condition.

DUNELLEN.

Work is increasing at Levering & Garrigues' Iron Company's plant and several of the men who were laid off during the slack spell have returned.

December.

ELIZABETH.

John Stanby of Elizabeth had his leg severely crushed at the Babcock & Wilcox boiler shop in Bayonne by a heavy casting falling upon it.

Three men fell a distance of fourteen feet from a scaffold on the new Levy Building, corner of Second street and Magnolia avenue, and were all more or less seriously injured.

All the men employed in the construction of the new Court House at Elizabeth, except the masons, went on strike, which was declared because a New York firm who has the contract for the steamfitting is not affiliated with the Union County Trades Council.

PLAINFIELD.

Winslaw Carson, a machinist in the employ of the Fulmer Company of Plainfield, was caught in a shaft and had his right arm broken in three places and was also severely bruised about the body.

William Muir, an apprentice at the Campbell Press Works, Plainfield, had his cheek torn open by the flying pieces from an emery wheel, which broke while running at a high rate of speed.

Charles Carey, aged twenty years, employed as a laborer at the Potter Press Works, Plainfield, was injured through a heavy weight falling upon him while at work.

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Fred Bird, a workman of Plainfield, while thawing out a valve in the Vanderbeek Building, had his hand torn by flying pieces of iron and was also scalded by steam from the bursting of the valve.

More workmen have been laid off at the Pond Tool Works in Plainfield, including employes in both the foundry and machinery shop; other men have been put on half time and are working only three days a week.

WESTFIELD.

Adam Hoffman, while working on the roof of a new house being erected on Westfield avenue, Westfield, lost his balance and fell to the ground, sustaining severe injuries.

GARWOOD.

Several men have been laid off at the Hall Signal Works at Garwood, where work is said to be exceedingly slack.

January.

ELIZABETH.

The Standard Sanitary Pottery Company has become a part of the Potteries Selling Company, which was recently incorporated with a capital stock of \$1,000,000. It is stated that the new company is a combination of all the potteries in the United States except three, and will control the manufacture and sale of the products of various companies in the country. The plan requires all the potteries identified with the new organization to turn over entire products to the company, which has an option on the same. Each constituent company will retain its individuality, keeping its own organization, firm name and trade mark, but the quantity of product is to be regulated by the demands of the selling company. Under this plan each company may suspend operation temporarily or indefinitely and still receive a monthly distribution of its share in the profits made by the Potteries Selling Company.

Employes of Crescent Shipyard plant predict a long suspension of work shortly, as many of the ships in course of construction are nearly completed.

Notice of a reduction of ten per cent. in their wages, beginning January 1st, has been given to the 150 employes at the Ball & Wood Machine Shops. It is expected that the reduction will be accepted without opposition when work is resumed at the factory, which has been closed for the purpose of taking an inventory.

Francis E. Kerns of Elizabeth, aged thirty years, an operator on the Central Railroad of New Jersey, had his arms almost severed from his body, his skull fractured, and his face severely lacerated on the railroad tracks at Elizabethport. Kerns was walking from the operator's tower, near the Port depot, when an engine running backward struck him. At the hospital both arms were amputated.

The Singer Manufacturing Company at Elizabeth will erect a new foundry one story high, and to cover a space of 250x100 feet. The building, which is to be of concrete, will cost \$20,000.

Eight hundred men employed in the foundry at the Singer Manufacturing Company at Elizabeth will return to work after three weeks' vacation. Because of repairs to machinery and the putting in of new rumblers this branch of the factory has been closed since December 16th.

PLAINFIELD.

Notice has been given the employees of the Pond Machine Tool Company that there would be but five working days at the plant each week hereafter. The men have been working fifty-five hours each week and receiving fifty-seven hours pay. *Under this new rule fifty hours will constitute a week's work, and the men will receive pay for that time only.*

Because of the annual stock taking at the Potter Press Works the factory was closed for a few days.

Wallace M. Brown, manufacturer of clothing on Front street, Plainfield, will remove his business to New York City.

SUMMIT.

Richard Jerolaman, a carpenter, aged sixty-one years, fell from the roof of a building on Russell Place, East Summit, a distance of thirty-five feet, and received injuries which resulted in death.

DUNELLEN.

John Schenk, a freight conductor for the Central Railroad, aged thirty-six years, was killed by being caught between two freight cars at the Communipaw yard.

Frank Stites, an employe of the Levering & Garrigues Iron Works, was injured by the falling of a heavy steel plate on one of his feet.

Levering & Garrigues have notified their employes that owing to a dullness in the steel business, caused by the labor strikes, a reduction of ten per cent. would be made in wages.

ALDENE.

Watson & Stillman Company of New York, manufacturers of hydraulic machinery, have bought the plant of the defunct Jackson Iron Works.

February.

ELIZABETH.

Glichrist Specialty Company has been incorporated with a capital stock of \$25,000. The company will manufacture novelties.

The Court of Chancery has been petitioned for the appointment of a receiver for the business of Charles H. Moore and the New Jersey Dock and Bridge Building Company of Elizabeth.

PLAINFIELD.

Herzig & Knapp, shirt manufacturers located on Watchung avenue, Plainfield, have instituted a merit system among their employes which has

caused a spirit of friendly rivalry as to the amount of wages on a piece scale. The system seems to be yielding satisfactory results.

Owen McGee, an iron worker, while setting beams on the steel skeleton of the new Aluminum Press Company's factory at Plainfield, missed his footing and fell to the ground, a distance of twenty feet, but escaped serious injury.

March.

ELIZABETH.

The following named industrial companies have filed their certificates of incorporation during the month of March: Muratt Chemical Company, capital, \$10,000; Townsend Asphalt Paint Company, to manufacture paint, capital, \$10,000; Shedd Electric Company, capital, \$250,000.

A fire completely destroyed the plant of the Bayway Refining Company and did considerable damage to the Pennsylvania & Delaware Oil Company's factory at Elizabeth. The loss is estimated at \$150,000 to both companies.

The Worthington Company has announced to its employes that ten instead of nine hours would hereafter constitute a work day. About 400 moulders and helpers are affected by the change.

Forty carpenters employed on the buildings in course of construction at the Singer Manufacturing Company's plant in Elizabeth were discharged because, it is alleged, they refused to work with non-union men.

James A. McAloon, one of the carpenters discharged from the Singer Manufacturing Company because of his refusal to work with alleged non-union men, was arrested and held for the Grand Jury for an assault made upon another workman who was employed in his place.

RAHWAY.

The New Jersey Steel Company is adding a structure of brick and steel, 250x80 feet, to its main building in Rahway. A new boiler room and power house are also in course of erection; the cost of all to be \$50,000. When the structure is completed it will be equipped with machinery to cost \$75,000, and 250 additional men will be employed.

TREMLY.

Fifteen carpenters employed by the Grasselli Chemical Company in Tremly stopped work because their wages had been reduced from \$3.35 to \$2.60 per day.

April.

ELIZABETH.

The Hillson Cigar Factory at Elizabeth has been obliged to shut down temporarily owing to dullness in the tobacco trade.

Preston D. People, a mason employed at the works of the Singer Manufacturing Company, fell from a scaffold, a distance of thirty feet, to the ground, and was badly bruised about the body, besides sustaining a concussion of the brain.

Some steam fitters employed in the new Union County Court House at Elizabeth went on strike because of a reduction in their wages from

\$4 to \$3.50 per day. The men were employed by a New York contractor, who paid the New York scale (\$4) in the beginning, but reduced wages to the lower amount referred to, that being the union rate in New Jersey. The strike caused a practical suspension of work on all parts of the building.

The business of the several iron foundries in Elizabeth being dull there is a condition of apprehension among the molders regarding the wage scale. The impression seems to be entertained by many in the trade that a reduction is likely to be attempted at some one of the several shops.

The A. & F. Brown Company's plant at Elizabethport will be increased by the erection of a large building, which will be used exclusively as a machine shop. The new structure will be of brick, concrete and steel throughout; in size it will be 80x200 feet, and will cost, when finished, \$50,000.

PLAINFIELD.

In pursuance of declaration made by them in January, the union painters, decorators and paper hangers of Plainfield, numbering 100, went on strike for an increase in wages. The rate demanded by the strikers was \$3.28, five and one-half days, or fifty-five hours, to constitute a week's work. Employers, without exception, refused to grant the demands. After being idle for one week, the striking painters, not having any reason to look for an early submission on the part of the bosses, decided to go into business on their own account, and accordingly a store was rented on the main thoroughfare of the city and stocked with all the merchandise and material used in the trade, the idle journeymen meanwhile holding themselves in readiness to execute on the co-operative plan, any kind of work in their line that might be brought them. A superintendent and four assistants were elected from among the men to look after obtaining work and to see that it is properly executed when secured.

The Campbell Printing Press Company will soon remove its plant, which has been located in Plainfield for many years, to Taunton, Mass., where the work of the concern will be done on a much larger scale than could be done with the limited facilities of the Plainfield works.

RAHWAY.

The Commercial Truck and Power Company was incorporated at Rahway, to manufacture and deal in air compressors, electrical, gasoline and steam engines, trucks, automobiles and other vehicles. The authorized capital is \$50,000.

An explosion in a part of a private house on the outskirts of Rahway, that had been used as a manufactory of fire works, resulted in the death of a little girl, thirteen years of age. The child was the daughter of the man who carried on the business. Two other children, aged ten and fourteen years, were blown through a window by the explosion and very severely burned as well as being otherwise injured.

May.

ELIZABETH.

A New York manufacturing company has purchased the grounds formerly covered by the Linden Race Track at Elizabeth, and will erect thereon

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a large factory for the manufacture of gas engines. It is said the new plant, when completed, will represent an investment of \$1,000,000.

PLAINFIELD.

Employees in every department of the Pond Tool Company's works at Plainfield have been notified that after May 15th wages will be reduced ten per cent. The reason assigned for the reduction is lack of orders and the necessity of reducing expenses.

The Campbell Press Company of Plainfield has been consolidated with the Mason Machine Works of Taunton, Mass., and the work of removing the Campbell Company's machinery to that place has been commenced.

The Potter Press Company of Plainfield has notified its employes that working time, beginning with May 18th, would be reduced one-half. The arrangement is to lay off one-half of the employes on alternate weeks.

June.

ELIZABETH.

The Worthington Company are making preparations to remove its foundry business from Elizabethport to the International Pump Works plant at Harrison.

SPRINGFIELD.

A fire in the works of the Celluloid Zapon Works at Springfield destroyed two buildings and their contents, causing a loss of \$4,000, which was divided as follows: \$2,000 on the building, \$1,500 on material, and \$500 on machinery and tools. The fire was caused by a carboy of acid having cracked and allowed its contents to flow out into the straw surrounding it, which thus became ignited. The flames spread quickly because of the high inflammable character of all the material used in the operations of the works.

July.

ELIZABETH.

46 Six pattern makers employed at the Ball & Wood Engine Works at Elizabeth went on strike to secure an advance in wages of one half a cent per hour. The strike has lasted now from January 1st to July 30th, 1904; during that time the six strikers have lost wages aggregating in amount the sum of \$5,295.

The machinery of the Worthington Pump Works at Elizabethport is being transformed to the company's new buildings at Harrison.

August.

ELIZABETH.

A new plant has been established at Elizabeth for the manufacture of cement stone from a mixture of Portland cement and cracked rock.

The Singer Manufacturing Company has voluntarily agreed to pay taxes on \$10,000 increase in the valuation of its property for the past year. The Elizabethport plant is assessed on a valuation of \$1,100,000.

The plant of the Anathron Chemical Company in Elizabeth was damaged by fire to the extent of \$10,000.

The shipyards of the Canda Manufacturing Company, the Crescent Shipyard Company, and the machine shops and foundry of the Samuel L. Moore Sons Company, all located near or at Elizabeth, and now idle, will resume work on November 1st.

The proposal to reduce the wages of molders at the factory of the Worthington Company continues to agitate the workman, although there is a general agreement that a strike will not be resorted to as a measure of resistance. The wage reduction contemplated is ten per cent.

The workmen employed by the Diehl Motor Company, which does its manufacturing in a part of the Singer Sewing Machine Factory at Elizabeth, began a strike which lasted just four hours, because the company would not pay wages for fifty-seven hours per week, the actual working time being only fifty-five hours. About 250 men were involved, and all but four, who were discharged, abandoned their claims and returned to work.

RAHWAY.

The Hamilton Manufacturing Company of Wisconsin has purchased land in Rahway for the erection of a large factory building for the production of cabinet cases, wood type, etc., for printers.

PLAINFIELD.

The American Adding and Accounting Machine Company, the president of which is a resident of North Plainfield, is looking for a site on which to erect a large plant for the manufacture of its machines.

William Ayers, a youth employed by the Walter Scott Printing Machine Company at Plainfield, had a hand caught in an automatic gear-cutting machine and very badly crushed and mangled.

The Campbell Auto Plate Company of Plainfield will move its works to Taunton, Mass., on September 1st. The works are to be consolidated with those of a concern making a similar product in Taunton.

The following named industrial companies filed certificates of incorporation with the Clerk of Union County during the month of August: The D. B. Dunham & Sons Company, to manufacture and sell carriages, coaches, hearses, etc., capital, \$100,000; The Dale Manufacturing Company, to manufacture and deal in dye stuffs, capital, \$100,000.

September.

ELIZABETH.

The Crescent Shipyard at Elizabeth has been entirely shut down, and will remain idle until the sale of the plant by the receiver, which is expected to soon take place.

In pursuance of a court order directing him to do so the receiver of the American Shipbuilding Company sold the Crescent Shipyards and the Samuel L. Moore's Sons' Machine Shops and Foundry at public vendue.

Both plants were bought in by a representative of the reorganization committee of the stockholders of the bankrupt American Shipbuilding Company.

The Stephenson Car Works of Elizabeth has secured from the Public Service Corporation the contract for repairing its damaged cars. Six hundred of these vehicles are now in the various barns of the Public Service Corporation awaiting their turn to be sent to the shops for repairs.

Several manufacturing firms have sought to get possession by lease or purchase of the site now occupied by the old Elizabethport Cordage Works, with a view to the erection of a factory thereon, but the property is so bound up in the affairs of the Standard Rope and Twine Company, its present owners, that nothing has come of it.

The foundry of the Henry R. Worthington Company at Elizabethport has been finally sold, and the buildings, with the extensive grounds on which they stand, have passed into possession of the Singer Manufacturing Company. The foundry work done here for years has been transferred to the great pump works at Harrison, owned by the International Steam Pump Company, and the property will hereafter be occupied by its new owners for storage and packing purposes.

PLAINFIELD.

The owners of a large manufactory of underwear at present located in Fonda, N. Y., are investigating the advantages offered by three New Jersey cities, viz., Plainfield, New Brunswick and Freehold, with a view to the transference of its entire manufacturing plant to the one among them having the best shipping facilities and a sufficient supply of the kind of labor required for its work. The company will be largely influenced in its decision by the willingness of local residents of either place named to subscribe to its stock.

By the catching of a strong and heavy belt in a wheel at the Potter Press Works nearly fifty feet of the main shafting in the machine shop was torn from its fastenings and fell to the floor. Several workmen had very narrow escapes from being killed or injured.

RAHWAY.

The factory of the Egyptian Lacquer Company at Rahway was closed by the Board of Health because of guncotton being stored and used there. The managers of the factory threaten to remove their works from the town entirely if the embargo of the health officers is not removed.

The E. O. S. Chemical Company of Rahway has closed down its works for an indefinite time.

John Murphy, an employe of the E. O. S. Chemical Company at Rahway, was caught in the shafting while at work and killed before the machinery could be stopped.

SPRINGFIELD.

The Celluloid Zapon Company is dismantling its factory at this place and removing the machinery to its new location at Stamford, Conn.

GARWOOD.

The Court of Chancery has issued a decree of foreclosure of a mortgage on the plant of the Graphite Metal Company at Garwood. The mortgage, which was given to secure bonds, was for \$50,000.

SCOTCH PLAINS.

Seeley's Paper Mill, which has been idle for some time, while making repairs and improvements, has been started again.

WARREN COUNTY.

October.

NEW VILLAGE.

The Edison Cement Plant at New Village has resumed work for the first time since the explosion occurred in the mill, in which eight lives were lost. Many changes and improvements have been made in the machinery.

OXFORD.

The Empire Steel and Iron Company has banked the fires in its blast furnaces at Oxford because of the unsatisfactory condition of the iron market. A majority of the employes will be given work on improvements in the mines until a change for the better occurs. The wages of employes have, meanwhile, been reduced from ten to fifteen cents per day.

HACKETTSTOWN.

The American Machinery & Export Company of New York are considering a proposition for the removal of its works to Hackettstown, where the Board of Trade has made arrangements for the donation of a site for the erection of a factory building.

WASHINGTON.

Bartley Bowlby, an employe of the Cornish Works at Washington, was badly injured about the head through being struck by a pulley.

November.

PHILLIPSBURG.

The Vulcanite Cement Works, located near Phillipsburg have made a reduction in the wages of all employes excepting the engineers and firemen. Low price of cement is given as the cause of the reduction.

NEW VILLAGE.

The Edison Portland Cement Company at New Village, N. J., will erect a new steel packing and storage house, 50x200 feet, and build two new kilns. At the present time two kilns are turning out about 1,500 barrels

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per day, which will be doubled when the four are in operation. When the additions are completed forty more men will be employed. A unique invention of Mr. Edison's is a moving steel roof, which covers up the mouth of the quarries. It is laid upon a track about 400 feet long and is operated by a stationary engine, so that it can be moved over the quarry or away from it as occasion demands. The purpose of the roof is to protect the employes during bad weather, thus avoiding a loss of time.

BELVIDERE.

Bamford Brothers' Silk Mill is on short time, beginning at 8 o'clock and quitting at 4 o'clock, making seven hours a day. A temporary dullness in the silk business has made this advisable.

HACKETTSTOWN.

The Board of Trade of Hackettstown has practically completed negotiations with the American Machinery & Export Company for a transfer of its plant from Atlanta, Ga. The old Hall Saw Mill property, near the railroad, is donated as a site, and \$4,000 added to pay expenses of removal. The company manufactures saw mills and other portable mill machinery, and will employ from sixty to eighty hands.

OXFORD.

The Empire Steel & Iron Company will make a reduction of ten per cent. in wages on December 1st.

December.

WASHINGTON.

The manufacturers of Portland cement have entered a protest against the proposition of the Government to build its own works for the manufacture of cement to be used in the irrigation plants. It is said that the Government could save two-thirds the cost on cement it will use by manufacturing the product in its own mills.

NEW VILLAGE.

John Kishline, a workman in the Edison Cement Works at New Village, was crushed to death in the machinery at the plant on which he was at work.

January.

HACKETTSTOWN.

The Ashley Silk Manufacturing Company of Hackettstown has been incorporated with a capital stock of \$50,000. The company will start operation in about three months and give employment to 300 persons.

STEWARTSVILLE.

The Freid Engineering Company of Orange has secured options on a piece of property in Stewartsville, with the intention, it is reported, of erecting a cement plant there.

February.

HACKETTSTOWN.

George Riddle, a workman, was caught in the machinery at the cement mill in Martin's Creek, where he was employed, and so severely injured that it was found necessary to amputate both legs.

The Hackettstown Underwear Factory has resumed operations with a full force of employes.

PORT MURRAY.

The National Fire-Proofing Company of Port Murray, whose plant has been idle since December 21st, owing to excessive freight rates, will start in full operation shortly.

March.

HACKETTSTOWN.

The American Saw Mill Machinery Company of Hackettstown is in full operation and has been forced to use part of their unfinished building for setting up new machinery.

WASHINGTON.

John Debreese had two fingers crushed at the Edison Cement Plant.

Employes of the Needham Factory in Washington are now working ten hours per day.

NEW VILLAGE.

A new woolen mill, to employ about 200 persons, is expected to locate in New Village.

PORT MURRAY.

The National Fireproofing Company has resumed work in their plant at Port Murray, which was closed last December. It was the intention of the company to permanently abandon the factory, but owing to an increase in the demand for their product, caused by the Baltimore fire, the South Jersey plants are unable to fill the orders.

April.

STEWARTSVILLE.

Farm labor in this section is scarce owing to the fact that the cement mills and other industries recently started have most of the available men. Women and children are, therefore, compelled to assist largely in doing the work which men have heretofore performed on the farms.

PHILLIPSBURG.

The shops of the Central Railroad of New Jersey at Phillipsburg are to be closed and the work done there up to the present time will be distributed among the shops of the company located at Elizabethport and Jersey City.

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May.

OXFORD.

The furnace of the Empire Steel & Iron Company at Oxford has gone out of blast. The closing was due to some defect in the blowing engines, and work will be resumed when this is corrected.

HACKETTSTOWN.

Work at the Hackettstown Hat Factory has been resumed after a short suspension of business.

June.

PHILLIPSBURG.

49 Fourteen packers of the Martin Cement Works have gone on strike against the company's proposal to change from piece work to day work. The rate offered for day work is fourteen cents an hour for a ten hour work-day. The men claim that the change would cause a very great reduction in their wages.

BELVIDERE.

An attempt was made to destroy the feed gates which govern the water supplied for power to the Bamford Brothers' Silk Mill at Belvidere, because, as alleged, the water rights of the Crane Felt Manufacturing Company, whose works are in the same neighborhood, were impaired to a degree that practically nullified them.

July.

BELVIDERE.

The Calcide Company was incorporated at Belvidere to mine, cut, saw and manufacture calcide, lime, limestone, etc. The capital is fixed at \$6,000.

August.

PORT MURRAY.

The National Fireproofing Company, which owns six large plants at Perth Amboy, is making extensive changes and reconstructing their buildings at Port Murray. These alterations involve a complete change in the system of manufacture, which will greatly improve as well as cheapen the production of hollow tile and fireproof brick. Ten large motors have been installed to replace steam by electric power. This, it is expected, will effect a saving of over \$300 per month in fuel.

HACKETTSTOWN.

The American Saw Mill Machinery Company has resumed full operation, after a period of dullness during which work was practically suspended.

BELVIDERE.

Albert Laygon, a workman employed on the new bridge at Belvidere, fell from the platform of the false work, a distance of thirty feet, landing

on a heap of stones. The man sustained severe external and internal injuries, among the latter being a broken rib, the end of which penetrated the lung.

STEWARTSVILLE.

Michael Frenski, an employe of the Edison Portland Cement Works, was killed while operating a rock drill by the premature explosion of a blasting charge, and his helper, John Francicim, had his right eye destroyed and was otherwise severely injured from the same cause.

September.

PHILLIPSBURG.

Mill No. 3 of the Vulcanite Construction Company will soon be placed in operation and the output of the plant greatly increased thereby.

STEWARTSVILLE.

Owing to dullness in the cement trade the Edison Cement Plant at this place will be closed down indefinitely.

ALPHA.

Harry Blair, a workman employed at the Martin's Creek Mills of the Alpha Cement Works, was caught in the large belting, and after being whirled about the shafting many times was finally thrown to the floor, when it was found that he was dead.

The following named industrial companies were incorporated in Warren County during the month of September: Chapman Superior Slate Company, to quarry, manufacture and sell slate, capital, \$100,000; Paper Makers' Chemical Company, to manufacture rosin, alum, size, soap and paste, capital, \$125,000.



1875

