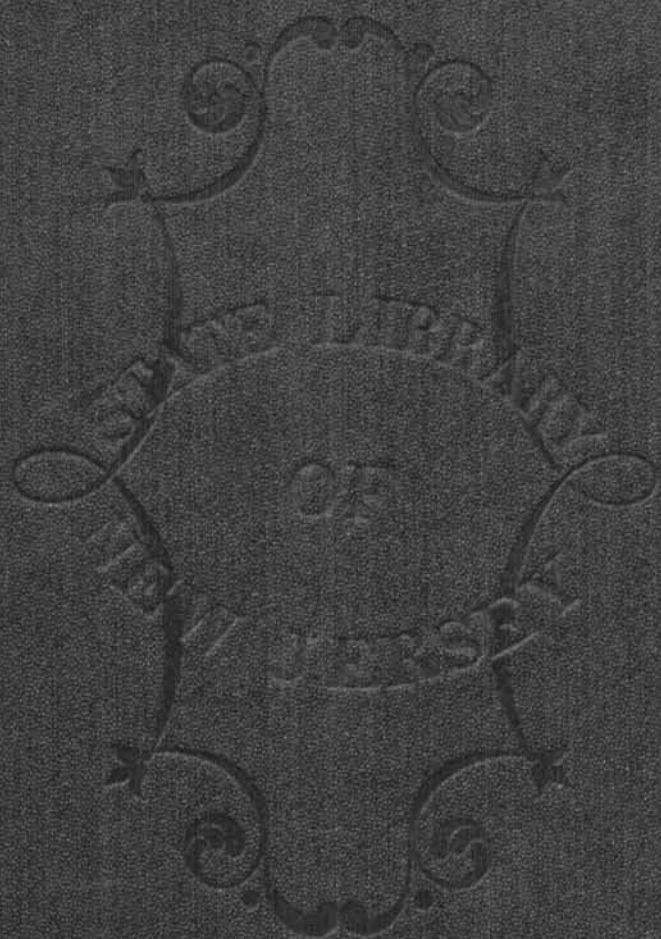




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SECOND ANNUAL REPORT

OF THE

BUREAU OF STATISTICS

OF

LABOR AND INDUSTRIES

OF

NEW JERSEY,

FOR THE YEAR ENDING OCTOBER 31st,

1879.

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SECOND ANNUAL REPORT

BUREAU OF STATISTICS

LABOR AND INDUSTRIES

NEW JERSEY

THE STATE OF NEW JERSEY

1892

PRINTED BY THE STATE OF NEW JERSEY

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STATE OF NEW JERSEY,
OFFICE OF BUREAU OF STATISTICS OF LABOR AND INDUSTRIES, }
TRENTON, October 31st, 1879. }

To His Excellency George B. McClellan, Governor :

SIR—I have the honor to submit to the Senate and General Assembly, through you, the Second Annual Report of the Bureau of Statistics of Labor and Industries.

JAMES BISHOP, CHIEF.

INTRODUCTION.

The second section of the law creating this Bureau reads as follows :

"2. *And be it enacted*, That the duties of such Bureau shall be to collect, assort, systematize and present in annual reports to the Legislature, on or before the last day of October in each year, statistical details relating to all departments of labor in the State, especially in its relations to the commercial, industrial, social, educational and sanitary condition of the laboring classes, and in all suitable and lawful ways foster and enlarge our manufacturing and every other class of productive industry, with a view to their permanent establishment upon a prosperous basis to the employer and employed."

It will be perceived at a glance that the duties imposed by law upon this Bureau are broad and onerous; in fact, so broad that they reach to the very centre of our present system of industrial development, and suggest at once an inquiry as to the relations and bearings of that system, not only upon the commercial, industrial, social, educational and sanitary condition of the laboring classes, but also its adaptability to the development and enlargement of "our manufacturing and every other class of productive industry."

Without entering into an inquiry as to the causes which brought about that universal depression in all kinds of business, which for several years has overspread not only this country, but also the older nationalities of the world, we cannot ignore the fact that the enforced idleness of so large a number of wage-laborers entailed upon that class of our fellow citizens great hardship, and in numerous cases absolute suffering.

The fortitude and courage with which this condition of things has been met by these wage-workers, together with the patience they have generally manifested, cannot but elicit the highest encomiums for the quiet endurance with which they have borne their hardships and privations. The loyalty of this class, also, under such depressing influences, furnishes encouragement in attempting to devise some system of industrial work by which they may become, to a larger

extent, sharers in that era of prosperity which is now dawning upon us.

At the time of presenting our last report there was no visible sign of improvement, either in our commerce or manufactures; now, however, rays of light are seen above the horizon, and the future gives more promise for encouragement and hope. Many factories and workshops in which the busy hum of machinery had been silent for years have been started into life, and the delightful music of industry again salutes the ear. The vast iron interest, the prosperity of which is always an unerring sign of mechanical activity, has been aroused from its continuous and deadening slumber, and the furnace, once more starting into life, has opened the mine to the patient laborer; thus a vast power has been set in motion which has an important bearing upon the industrial development of the whole land.

We mentioned last year the difficulty of obtaining correct statistics, and the apparent indifference manifested in furnishing information, even on the part of a large class whose interests were intimately related to the question of labor. In order to secure better results, the present year, our first business was to address a circular to each *Assessor* throughout the State, requesting names of manufacturers doing business either as individuals, firms or companies; also the names of those among the labor class who could intelligently fill up and return a proper blank to be furnished them. The assessor, being in possession of the name of each tax-payer in his district, was thought to be the proper one to put the Bureau in communication with every class of citizen, and by this means enable it to secure full and accurate information. We are compelled to report that this plan has not proved a success; for out of *two hundred and sixty five* Assessors to whom the circulars were sent, only *one hundred and thirty-three*, or *thirty-nine per cent.* of the number sent out, were returned to this office.

The only recourse left was to obtain, by means of city directories and by individual inquiry, the names of suitable persons to whom to direct our blanks. This plan, together with the employment of canvassers during part of the year to aid in the work, both among the manufacturers and the wage-workers, has been the course pursued.

The following will show the number of blanks of various kinds which have been issued, and the number returned to the Bureau properly filled:

	Issued.	Returned.
Blank No. 1.....Savings Banks.....	38	14
Blank No. 2.....For Employers.....	1,200	539
Blank No. 3.....For Employees.....	3,600	455
Blank No. 4.....For Grangers.....	100	77

As it is voluntary, both with manufacturing companies organized under the general laws of the State, and individual manufacturers, whether they shall fill up and returns the blanks sent them or not this method of obtaining statistics is incomplete and unsatisfactory. It will only be when that much-to-be-desired time shall come, when such an equitable industrial system shall be inaugurated as will bring into closer relationship the employer and the employed, either by the allowance of a percentage of profits in addition to daily wages, or by such co-operative measures as may be mutually agreed upon, thereby producing an entire harmony of interest between the two, that full and accurate statistics will be obtained without the employment of experts for the purpose.

To such as are conversant with the circumstances connected with the passage of the law creating this Bureau, it is well known that the leading influences brought to bear upon the Legislature, both by means of numerous signed petitions as well as individual effort, came from the workingmen, a class who, under the conviction that their labor had been an important factor in the material prosperity of the State, had long felt that they were entitled to more public recognition. With this in view, we propose, in the present report, to give special attention to the presentation of such facts as may stimulate the labor class to greater effort for their material prosperity and more earnestness of purpose in their social and educational progress.

Labor, it has been well said, "is the great educator." Labor gives character, makes independent and ennobles man; it prevents disorder, allays passion, promotes temperance and brings inward peace and contentment. To elevate the laboring man socially he must be given the opportunity for self-improvement and training. His self-respect will be thereby aroused, and he will be led to restrain his passions, give care to his physical, mental and moral culture, and fit himself to fulfill his duty as head of the family or citizen of the State.

During the period of depression through which every department of business has been passing there has been much to discourage. The laboring man has not been rewarded for his toil, neither has the manufacturer received adequate return for his capital invested. It would be as strange, therefore, that labor should not have been restless and complaining as that capital should have been liberal and tolerant.

The wage-laborer is a fellow-man, and should receive encouragement in his life of toil. His children have already been furnished by the State with educational advantages which fit them to share more than ever before in the benefits of our advancing civilization. Is it not then clearly the duty of those who, by position and education, are qualified for the work, to enter into closer sympathy with this class and afford them every possible help in the work of self-elevation and improvement?

The universal introduction of machinery in doing the work of the common laborer, makes it certain that this class of labor must ultimately, to a large extent, find employment in some other direction, and until some better means than are at present available shall be furnished for technical instruction, no employment seems so within the reach of the unskilled laborer as that of agriculture. The wage-worker has seldom any money laid up with which to purchase land and erect his habitation, even at a small cost, to say nothing of the necessary means with which to purchase the implements for tilling the soil.

With this fact in view, public attention is being directed to the organization of co-operative colony aid associations, one of which has recently been established in the city of New York, its executive committee being composed of gentlemen of the highest character, and well known for their earnest efforts in behalf of the working classes.

There is every reason why such associations should be organized in this State, in which are large tracts of uncleared lands perfectly susceptible of cultivation, and it only requires intelligent organizations, under well-considered regulations, to settle these lands, not only with the unemployed in our manufacturing towns, but also with large numbers of immigrants, who are arriving at our seaports, and who would be greatly benefited by locating nearer the great centres of trade, where their children could at once be placed under well-established

educational influences. By this means our State might be rapidly advanced in wealth and prosperity.

The *economic* advantage of co-operative agriculture will be seen in the fact that under one board of control the necessary buildings in which to place the colonists could be erected at a greatly-reduced cost; family supplies could be purchased and distributed at wholesale prices; agricultural implements to till *one thousand* acres would cost but little more than would be necessary to till *one-fifth* that number of acres; a greatly-reduced number of working cattle would be required, and as a consequence a saving of feed; selling the products without the intervention of the middleman; in fact, in everything pertaining to agriculture associated labor has the advantage over individual work. As before alluded to, while unskilled labor has been supplemented to a great extent by machinery, the demand for *skilled* labor has greatly increased in consequence of the advance made in this State in various kinds of manufactures. Our manufacturers of iron, clay, and the finer textile fabrics, including silk, flax and cotton, are rapidly increasing, and unless this new demand for skilled labor can be met from among our own working classes, it must be supplied from other countries. Is it not our plain duty, therefore, to supply this new demand from among our own citizens? It is well known that in the absence of any system of apprenticeship among us, there is no way by which the trades can be supplied with skilled workmen, and it was in view of this fact that the Legislature of New Jersey, at its annual session for the year 1877, passed an act entitled "An act to authorize the appointment of commissioners on textile fabrics," the first section of which reads as follows:

"1. *Be it enacted by the Senate and General Assembly of the State of New Jersey*, That the Governor is hereby authorized to appoint three commissioners, residents of this State, who shall consider and devise a plan for the encouragement of manufactures of ornamental and textile fabrics in the State, and report the same to the next session of the Legislature."

Under this act commissioners were appointed on the 29th day of May, 1877, and in the following year (1878) their report was presented to the Legislature.

Among others, the following recommendations will be found in the report then presented :

“The introduction of a complete system of technical and trade education, which shall begin with the children of our artisans, even in the primary schools, and which shall be continued into the polytechnic, agricultural and trade-schools.

“The establishment of trade-schools, such as are common in Europe, but unfortunately almost unknown in the United States, in connection with the polytechnic and other educational establishments of the State.

“The introduction throughout this whole scheme of instruction of such a complete and broad system of instruction in art education as applicable in the finer textile manufactures, pottery, etc., extending through all grades, such as shall insure the education, in the rising generation, of a sufficient number of artisans to place the State at least on a level, if possible, with foreign countries, and with States which have been more prompt to see and to attempt to remedy the evils which otherwise threaten us.”

It is unquestionably true that the cultivation of skilled industries, and of industrial art, are the present need of the working classes in order to place them upon a higher plane of prosperity and contentment; machinery has so far displaced common labor that a bare support for that class of workmen is possible, while for the skilled laborer a competency can be gained by less toilsome effort.

All labor cannot be turned upon agriculture, hence the imperative need that provision should be made for the youth now growing up, giving them the opportunity of becoming skilled workers; and it is but doing them an act of justice to give them advantages at least equal to what they might have secured had their lot been cast in other lands.

To provide this great need seems the duty of the hour, and it would appear that New Jersey ought to take such steps toward technical instruction for the more advanced pupils in the public schools as will prepare them to meet these new demands made upon them.

Those nations which have grown rich rapidly and surely have seized upon this idea, and, while they have not neglected agriculture,

they have provided amply for the industrial education of the labor class.

The money value of artistic work does not yet seem to be sufficiently appreciated by our working classes. The faculty of taking the crude material, and through the mere bestowment of labor upon it, turn it into an article of taste or virtue of almost priceless value, is comparatively unknown among us. We may not—nay, we cannot—reach this condition at once, but the sooner we enter upon the work of training with this end in view, the sooner we will be enabled to compete in this race with those countries which have so greatly the start of us.

The system of public instruction in New Jersey, efficient as it is, does not meet this great want of a large class of her citizens, and it would seem as if the time had fully come for such legislation as would secure to the youth of the present generation something approaching at least to the European system of practical training in the mechanic arts, so that the increased demand for skilled labor, arising out of the new impetus given our manufactures, by the revival of trade, may be met from amongst the dwellers upon our own soil.

The State Superintendent of Public Instruction, in his last annual report, in referring to this matter, says: "The class unprovided for are those who should become tradesmen in some department of industry, and this class includes a large percentage of the boys attending our public schools. Their course terminates at the age of fifteen. Between that age and manhood the trade must be learned, if at all. They are unable to find places as apprentices, and without trade-schools to attend they are left helpless. The consequence is they are led astray by the temptations to evil ways which naturally beset the idle during this most critical period of their existence, and thus they frequently become burdens to society."

In the same report the Superintendent says again: "With the establishment of technical schools we prepare this large and important class for useful and honorable employment, and we supply the trades with skilled workmen. Thus the circle of our educational institutions will be made complete, and the obligations of the State to the whole people will be fulfilled."

It will be observed by a reference to the returns made to our No. 3 Blank for Employees that in every department of labor a large num-

ber of wage-workers have fallen behindhand in the support of their families during the year. This appears to such an extent as to cause apprehension and alarm, and is an indication of some palpable defect in our present industrial system; for in the majority of cases the deficiency does not arise from a lack of employment, but from *an inadequate reward for labor*.

No nation can be considered prosperous when the labor classes cannot provide themselves with all the comforts which tend to make life desirable and home pleasant.

When the laborer has employment,* and is adequately rewarded, he becomes at once an active consumer, and this consumption gives life to the various industries necessary to production; but when the laborer is without employment his power to consume is so greatly diminished that for all practical purposes he may be called a non-consumer, and this changed relationship is immediately felt throughout all productive occupations, so that thousands are thrown out of employment only to become subjects of suffering and want.

In looking about us to discover whether it is possible for the working classes to become, to a greater extent than at present, sharers in the products of their own labor we solicit the co-operation of the intelligent and thoughtful among themselves to an examination of the question, as upon its successful solution hangs the destinies of thousands of workers in our land. Nothing can be gained by indulging in feelings of jealousy towards the more prosperous, nor by exciting the passions or prejudices of either of the opposing forces; but a cheerful, earnest and combined effort should be made for an immediate and permanent advance in industrial progress. The artisan and the laborer must associate together for self-help in a more practical manner than they have ever done before, and must organize with the determination to continue the work until success shall crown their efforts.

It would seem as if in associated productive work by the labor class will be found the true solution of the present labor problem, and with this conviction we devote a liberal space in the present report to the history of both distributive and productive co-operation, with the hope that a new interest may be created among workingmen

*More than three-fifths of the whole population in this country over ten years of age are employed in productive work.

upon this most important subject. That the workingman is entitled to a larger share than he has heretofore enjoyed in the results of production is largely admitted, and it is generally believed that in no better way than by associated effort in co-operative industry can this result be secured.

Reference was made in our last report to the amount of money wasted and time lost by working people on account of the use of intoxicating drinks, and examples were furnished by naming such towns as Millville, Vineland and Hammonton, where the decreased cost of maintaining a police, as well as the insignificant amount for supporting the poor, showed the advantage to be gained in a refusal upon the part of the voters of those places to authorize the sale of intoxicating beverages within their limits.

We cannot learn that the local option law has been adopted by any additional towns in the State during the past year, nor that the tendency upon the part of the working class to excessive indulgence has greatly diminished. The habit of using intoxicating drinks is a social one, and is often formed because the workingman, in order to find the recreation he needs after his day's toil, having no reading-room or club which he can resort to, goes to the saloon or hotel to obtain it. Once attracted to these places, temptation surrounds him, and he insensibly falls into habits of drinking which is generally followed by excessive indulgence, and before the man is aware of it he is the victim of intemperance. This habit once formed the man goes to his home or family self-condemned, feeling that he has not only wasted his money, but has lost his manhood and forfeited his claim to the respect and good opinion of his fellow-men.

To throw around the workingman every possible safeguard, and to assist him in the work of social advancement, is one of the most important questions of the day. The man who has money and leisure can go to his evening club and find congenial company, with the means of relaxation either in reading, conversation or amusement, while the poor man must either resort to the tavern or saloon, or be cut off from companionship altogether.

How to place the poor man in this respect more upon an equality, and give him, to a greater extent, social advantages with the rich, has become an important question, and is claiming in all civilized

countries the attention of the political economist, as well as the practical reformer.

In England this question has been at least partially solved by the establishment of what is called the "Workingmen's Club and Institute Union."* The office of the society is located at 150 Strand, London, and members of the council are sent out, when desired, to assist in the organization of affiliating clubs. A circulating library has been established for the purpose of loaning books to affiliating clubs, and various publications are issued containing practical information for workingmen in regard to the organization of clubs and institutes, as well as general advice with regard to their successful management. Such progress have these clubs made in England that they now number *eight hundred and twenty-nine*, with a membership of *one hundred and twenty-four thousand three hundred*.

As this rapid increase would not have been made unless the workingmen themselves—who, after the organization of these clubs, have their entire control and management—had found great benefits resulting from their organization, we invite the more intelligent among the workingmen of this State, as well as that large class of citizens who are in full sympathy with the wage-worker, to an examination of this subject, with a view, if practicable, of adopting something of a similar character as a means of instruction and recreation.

SERICULTURE.

The manufacture of silk goods has become one of the leading industries of this State, and we invite special attention to the tables presented in the present report upon that industry.

As this Bureau has not until the present attempted any statistics with regard to this manufacture, it is impossible, by comparison, to ascertain what has been its ratio of increase, yet by an examination of the reports presented through the "Silk Association of America," it will be found that the manufacturers of New Jersey have not been behind other States in their efforts to establish this industry upon a permanent basis, and we are certain it is making sure and rapid

* A copy of the act of Parliament under which these clubs have been established in England, and various publications connected with their organization, can be examined at the office of the Bureau in the State House at Trenton.

progress, as new mills are being started and the business is each year becoming more firmly established.

The annual production of the manufacture of silk in the whole country aggregates a value of more than \$20,000,000, and in the year 1878 the imports of raw silk amounted to \$6,807,725.

When we consider the fact that the southern part of our State possesses a soil and climate favorable to the growth of the different varieties of mulberry as well as the Osage orange, plants which furnish the food for the silk worm, we see no possible reason why a large proportion of the money annually sent abroad for the purchase of this raw material should not be retained at home, and the cultivation of silk entered upon largely in this State.

Every family having children unemployed between the ages of ten and sixteen years can profitably engage in the business, especially as it is in-door work, and well adapted to the females of the household. So important do we consider this question in its relation to the employment of a class of laborers now so wholly dependent—the females and children of the family—that we give as detailed information as possible upon the subject for the guidance of those who may be desirous of entering upon the work of cultivating the silk worm; and at the request of this Bureau, Rudolphus Bingham, Esq., of Camden, who has given careful study to the subject, has prepared a chapter upon silk culture which we think will impart valuable information to those who may desire to begin the work.

PRISON LABOR.

The question of prison labor under the contract system is at present commanding such a share of public attention that it cannot be ignored. From the wage-workers in those branches of industry upon which prison labor is employed within the walls of our State Prison under the contract system loud complainings are heard, and we find that in all the States where the same condition of things exists, there are urgent appeals for such legislation as shall correct what is considered as a grievous wrong.

The Legislature of the State of New York appointed a special commission in 1871 to examine this question, and after an extended and careful investigation a report of about 300 pages was made, in which, among others, were the following conclusions:

"1. The contract system of labor is bad, and should be abolished.

"2. The industries of a prison, as well as its discipline, ought ordinarily to be managed by its head.

"3. The successful management of the industries of a prison requires experience and business tact—qualities that can be acquired only by long practical familiarity with such management."

In April, 1877, the Legislature of Pennsylvania appointed a committee to investigate the convict labor system, and in April, 1878, the Legislature of Massachusetts passed the following resolve:

"CHAPTER 12. Resolve relative to labor in State institutions:

Resolved, That the Bureau of Statistics of Labor is hereby authorized to make a full investigation as to the kind and amount of work performed at the penal institutions of this State, and as to all the facts pertaining to the same; and to recommend such legislation, if any, as is advisable to prevent competition between said labor and the other industries of this State; and to report the same to the next general court."

The Chief of the Bureau of Statistics of Massachusetts, Carroll D. Wright, Esq., in response to this resolution, made a most thorough examination of the question of convict labor, and in person inspected nineteen State prisons, besides visiting county prisons, city workhouses, jails, etc., and in addition had personal interviews with the prison authorities of Maine and Georgia. This extended examination covers more than forty pages of the last annual report of the above-named bureau, and manifests careful study of every fact coming under observation which related to the subject.

Mr. Wright, in concluding his report, says: "The candid consideration of all the premises, leads us to make the following recommendations:

"1. That the Legislature memorialize Congress to take action looking to the thorough classification of all facts for the whole country relative to industrial labor in penal institutions, with a view to placing before the country full and reliable data on a subject whose ramifications preclude full and satisfactory State investigation and action.

"2. That legislation be instituted looking to the production in the prisons of the State of all goods required by them or by any other department of the State.

"3. That the greatest diversity of employment consistent with the capacity of the prisons be insisted upon; this diversity of employment to be secured by limiting the number of convicts to be contracted for, or the amount of products, in any one industry, such limitation to be under the direction of the Governor and Council.

"4. That, whenever possible, farms shall be carried on by the prison administration for the supply of the institutions.

"5. In order that the best possible pecuniary results may be obtained for prison labor, and, at the same time, the advantages secured in making contracts which accrue from free and open competition in bidding for the labor of convicts, we recommend a law providing that no contracts shall be entered into for the use of such labor, by the day or by the piece, except after thorough advertisement in different parts of the State for proposals—publication of notice for proposals to be for at least two months; and, further, that no contract shall be executed except upon the approval of the Governor and Council; and that the Governor and Council shall decide upon the expediency of instituting the public account system, when the same may be proposed by any prison administration, or may be deemed to work less injury to the industrial interests of the State."

In this State, at the last session of the Legislature, numerous signed petitions were presented, praying for the passage of a law to abolish the manufacture of boots and shoes in the State prison, and, although no definite legislation was obtained, the full discussion of the question of convict labor which resulted from the introduction of this question, resulted in the adoption of the following joint resolution, which, on the 13th day of March, 1879, passed the House of Assembly unanimously, and on the same day was approved by the Senate, fifteen Senators voting in the affirmative and four in the negative.

"NUMBER 3. Joint resolution in relation to the appointment of a commission to inquire into the labor of the State Prison.

WHEREAS, It is asserted and believed by large numbers of citizens of this State that prison labor, as at present managed in the State Prisons and Penitentiaries of this and other States, affects injuriously the welfare and means of living of masses of our mechanics and workingmen, by maintaining an unjust competition with their labor; therefore—

"1. *Be it resolved by the Senate and General Assembly of the State of New Jersey, That the Governor be and he is hereby requested to appoint a commission, to consist of five persons, who shall make a careful inquiry into the subject of prison labor, and whether it comes into competition with free labor, and if so, in what manner, and to what extent, and what, in their opinion, is the best means of preventing such competition, and at the same time providing proper maintenance for the prisoners; that such commission shall receive for their services and necessary expenses such compensation as may be approved by the Governor; and that they shall report to the Governor on or before the meeting of the next session of the Legislature.*"

In carrying out the above joint resolution, Governor McClellan, on the 5th day of July last—being the time when the joint resolution became a law—appointed a commission of five, as requested, but as two of the gentlemen whom he had appointed were, for satisfactory reasons, subsequently excused, it was not till September that the present commission, composed of Hon. Edward Bettie, Col. William R. Murphy, A. S. Myrick, Esq., Samuel Allison, Esq., and Samuel B. Hunt, M. D., was fully organized.

The commissioners have given diligent attention to their work, and from their well-known character and ability it is believed that their report will lead to the adoption of some practical plan by which equal justice may be done to all interested, and this vexatious question be thus taken out of the way.

STATE TAX.

Since writing that part of our first chapter referring to State taxation, the Comptroller of the Treasury of the State has made his annual report to the Legislature for the present year, in which he says, "it will be seen that the State is in a most prosperous financial condition."

The report of the Comptroller shows that the State debt has been reduced one hundred thousand dollars (\$100,000), being now \$2,096,300, instead of \$2,196,300, as stated. The revenue of the State has been increased during three years over one hundred thousand dollars (\$100,000), while a decrease of over six hundred thousand dollars (\$600,000) has been effected in the State expenditures. All outstanding obligations have also been liquidated without borrowing

money for the purpose. It appears by the report that the amount to the credit of the State Treasury is over \$530,000, and the Comptroller is fully justified in the conclusion which he reaches with regard to the State tax, when he says: "The present financial condition of the State warants the belief that *this tax may now be entirely extinguished.*"

In view of the importance of stimulating the cultivation of the various fibre-producing plants in our State, that we may supply in some measure the largely increased demand for manufacturing purposes which has sprung up in our midst, it is to be hoped that such legislation will be effected at the coming session of the Legislature as will not only establish liberal bounties for the *cultivation* of these various plants, but also for the machinery or process necessary for converting the same into fibre.

I must acknowledge the invaluable services of the Secretary, Mr. Samuel C. Brown, in the preparation of the present report; and also the indefatigable labors of Mr. John G. Drew in obtaining and tabulating statistics, as well as an examination into the early history of the silk industry in the State.

PART I.

STATE DEVELOPMENT.

CHAPTER I.

ADVANTAGES

WHICH THE

STATE OF NEW JERSEY

OFFERS TO

IMMIGRANTS AND SETTLERS

WHO WISH TO UNDERTAKE

AGRICULTURAL WORK.

PART I.

STATE DEVELOPMENT.

CHAPTER I.

ADVANTAGES WHICH THE STATE OF NEW JERSEY OFFERS TO IMMIGRANTS AND SETTLERS WHO WISH TO UNDERTAKE AGRICULTURAL WORK.

The Governor of New Jersey, in his last annual message, in referring to the lands of South Jersey, makes use of the following language: "I hope that through the Bureau of Statistics information concerning the qualities, quantity and location of this land, its price, the low rate of taxation in that part of the state, the climate, propinquity to good markets, &c., may be brought to the notice of immigrants, so that they may perceive the advantages offered to settlers in our state."

The suggestion of Governor McClellan prompts this Bureau, in the line of its legitimate work, to prepare the following summary of facts, setting forth the benefits which immigrants and settlers may secure by selecting the State of New Jersey for a permanent home:

ADVANTAGE OF LOCATION.

The State of New Jersey, as will be seen by reference to the map, is situate between the 39° and 42° of north latitude, and about the 75° of longitude west of Greenwich, having a climate, taking the whole year through, unsurpassed by any other state.

The state is about one hundred and fifty miles long and fifty miles broad, and contains 4,800,000 acres. It is situated between the larger

states of New York and Pennsylvania, and from the advantages of its location, as well as from the energy of its people, its growth has been more rapid in the last twenty years than the average for the whole United States. The population of the state, by the United States census for 1850, was 489,555, and by the census of 1860 it was 672,035, being an increase in ten years of 37.7 per cent. In 1870 the population was 906,096, being an increase in that decade of 34.83 per cent. The population in 1875, when a census was taken by the state, was 1,019,413, showing an increase in population for the five years of nearly 12.51 per cent.

As an evidence of growth, New Jersey, during the ten years from 1860 to 1870, rose from being the *twenty-first* state of the Union in population to take her position as the *seventeenth*.

INCREASE IN WEALTH.

The increase in wealth has been as remarkable as that of population, as will be seen by the following table :

Table showing the total value of *real* and *personal* property, according to the United States census.

Census of 1850, the valuation was	\$200,000,000
“ 1860, “ “	467,000,000
“ 1870, “ “	940,976,064

By the census for 1850, the value of the farm lands of New Jersey averaged \$43.67 per acre ; in 1860, \$60.40 per acre, and in 1870, \$86.14 per acre, thus showing a steady increase in the value of improved land, with an average value per acre higher than *any other state in the Union*.

The State of Pennsylvania, by the last census, came next to New Jersey in the average value of her farm lands, which was \$58.00 per acre, while New York came next, the value of her farm lands averaging \$57.36 per acre. It would be quite natural that the value of the farm lands of New Jersey should, on account of her peculiar advantages in location, advance more rapidly in value than any of the states which border upon her.

TAXATION.

During the recent civil war it became necessary for many of the states to borrow money to meet the increased expenses incident thereto, and even since the termination of that war many of the states have made large issues of bonds for railroad and other purposes, and a most important inquiry for one seeking a home is with regard to the rate of taxes, and whether the land he may propose to purchase has not already been largely mortgaged by the state in which he may be invited to settle.

In this respect New Jersey is pre-eminently fortunate, for although during the years 1861, 1863 and 1864 a large amount of money was borrowed to meet the extra expenses incurred by the war, the Legislature of the state wisely provided a sinking fund, by which the principal of the bonds issued could be paid as the same should become due and payable. As will be seen by reference to the message of Governor George B. McClellan to the Legislature in January last, the outstanding war loan now amounts to \$2,196,300, while the sinking fund with which to pay the same already amounts to \$1,458,852, leaving the *actual* indebtedness of the state only \$700,000. The principal of the loan falls due at the rate of \$100,000 each year, and the sinking fund is rapidly increasing, so that this indebtedness can scarcely be called a burden. The state tax at present amounts only to twenty-seven and one-half cents *per capita*, and the county tax in the southern part of the state being assessed upon a low valuation of the land, is merely nominal.

CLIMATE.

No man dependent upon agriculture for the support of himself and family can expect to succeed without a healthy body; therefore, the prime question in selecting a location, after becoming satisfied with regard to the soil, is *the salubrity and healthfulness of the climate*.

New Jersey, as has already been stated, lies between the 39° and 42° of north latitude, and about 75° of longitude west of Greenwich, and has a coast line of one hundred and twenty miles, which is indented with many good harbors. That part of the state to which we especially invite immigration, (the southern part,) is situated directly upon this coast line, and the winter winds are so wonder-

fully tempered by proximity to the gulf stream, (which in this part of the Atlantic ocean passes within seventy-five miles of the coast,) that the thermometer will not average above 32° to $34\frac{1}{2}^{\circ}$ Fahrenheit in the winter, while the summer average is only 70° to 74° . This uniform temperature not unfrequently permits out-of-door work to be carried on every month in the year. The advantage to the agriculturalist in having so protracted a season in which to work, cannot be over-estimated.

Why should the immigrant go to Minnesota, where the climate is like Sweden, when he can secure a home in the southern part of New Jersey, where the climate is more like the south of France or the shores of the Mediterranean? It will be seen, also, by reference to the first report of this Bureau, that there are large tracts of this country in which intermittent and remittent fevers have never been known, and in which persons suffering from asthma or pulmonary complaints are invariably relieved, if not entirely cured.

This question of climate is of so much importance in the selection of a permanent home, that we beg attention to the remarks of competent persons who have carefully examined the subject.

Professor George H. Cook, the present State Geologist for New Jersey, in his last annual report, in speaking of the climate and productions of South Jersey, says:

"The climate is mild—the mean temperature of the summer months at Vineland, for three and a half years, being $75\frac{1}{2}^{\circ}$ Fahrenheit, and the mean winter temperature 32° Fahrenheit. And the extremes from these are not large.

"The annual rainfall is 48.46 inches, which is pretty evenly distributed through the year. Very little snow falls, and the winters are so mild that plowing can be done every month in the year.

"The climate is salubrious, and has been specially noted for its entire freedom from malarial influences. It is specially liked by those who suffer from asthmatic and pulmonary diseases, and many come here for the relief they obtain from such ailments. The seaside resorts are continually increasing in number and enlarging in size; and throngs of visitors come to enjoy the delightful air.

"The water of this country is pure and soft. It is drained by many large rivers, which are chiefly remarkable for their full and equable flow, being very little affected by storms or by droughts.

They furnish excellent water-power for manufacturing purposes. Those at Mays Landing, Weymouth, Batsto, Atsion, Millville, Bricksburg, Manchester and Toms River are of this kind, and there are a great many other good ones.

"The soil is light, but easily cultivated, and when well managed is productive. Mr. Hay's farm at Winslow is a model of productiveness for all South Jersey. The improved lands at Vineland, Hammonton and Egg Harbor City are yielding large crops, and promise well for the future.

"The staple productions are wheat, rye, oats, Indian corn, hay, potatoes and sweet potatoes. Melons are raised in abundance. Apples, pears, peaches, grapes, blackberries, raspberries, strawberries and currants grow remarkably well."

Dr. Stevenson, in the *Medical Times*, speaking of a residence in South Jersey, says :

"That it is a desirable place of residence for sufferers with pulmonary complaints has become so well known throughout some portions of our country, particularly in New England and Northern New York, that two large settlements—Hammonton and Vineland—have been formed largely of persons seeking this favorable climate for the relief of those afflictions. My attention was first called to these facts in 1863 and 1864, while acting as examining surgeon for the government, to examine drafted men and volunteers for the army.

"During this time about three-fourths of all the men between twenty-one and forty-five years of age, residing in that section of the 'pines' south of the line of Burlington county, came before me for physical examination, and were found to be remarkably free from pulmonary diseases, except the very large number of settlers who had moved there because suffering from them."

Professor John C. Smock, Assistant State Geologist, says :

"The milder features of the climate of New Jersey make it not only more wholesome, but more attractive. As compared with New York and the New England States, the extremes of summer are not greater than in those States, while the heat continues later in the autumn, and the fine weather, known properly as Indian summer, is often prolonged to December.

"During the winter the depressions are generally from ten to twenty degrees less, and such extreme cold does not often last more

than three or four days. Mild weather is common during the winter, so that in the southern part of the State plowing is frequently done in every month in the year. The spring opens about a month earlier than Central New York or New England.

"This longer duration of warm and pleasant weather, and freedom from great extremes of heat and cold, together with its general healthfulness, makes New Jersey the most attractive of the Atlantic States, considered from a climatic standpoint."

A PROPER INQUIRY.

After such a statement of the advantages which New Jersey offers the immigrant, the question will naturally arise: How does it come to pass that a State so near the great commercial centres has remained so indifferent to her own interests as to allow more than 1,000,000 acres of uncleared land, located in eight counties upon her southern border, to continue until the present time comparatively uncultivated?

The tide of emigration having been settling towards the West for so many years, good lands, even though accessible to the cities of the seaboard, remained comparatively unnoticed, and in New Jersey, until within a few years past, when the State Geological Survey undertook an examination of this part of the State, these lands were by common consent set down as barren and unproductive.

It is well known, too, by all familiar with this part of New Jersey, that the lands have been held by individuals or families in very large tracts; that from family pride, in many instances, there has been an indisposition to sell, and that even when sales were attempted the lands were only offered in large parcels—no effort being made to invite their settlement by offering them in small enough parcels to enable persons having but a limited amount of means to occupy them.

This condition of things is now changed. A gentleman corresponding with the Bureau, who is at the present time a large land-holder, writes as follows:

"I have known seventy (70) bushels of corn grown to the acre on these South Jersey lands the first year after clearing. This, of course, implies a good situation and good farming; but I would consider thirty (30) bushels as a product that an average farmer might rely upon from the 'Cumberland Tract.'

"You may be induced to ask why, if these South Jersey lands are so naturally productive, their value should not before this have been discovered, and some portion of the immense immigration to this country diverted to them.

"This question is easy of solution. Up to comparatively recent times the whole southern part of the State was held by great proprietors, whose family consequence depended upon the extent of their ownership, and who were enabled to make large profits by turning their timber into the supply of charcoal for the furnaces and iron forges which were then operated by the water-powers, of which there are so many through that part of the State. For instance: The proprietors of the

Millville Furnace held		21,000 acres.
Cumberland Furnace held		17,000 "
Weymouth Iron Works, about		80,000 "
Hanover Iron Works, about		40,000 "

"Batsto and Tuckerton are other points.

"In addition, Rosenbaum, Hay and one or two others held large masses of land for glass manufacturing purposes.

"Until the introduction of anthracite coal, followed by the violent tariff fluctuations which ended in the tariff of 1844, these proprietors accumulated great wealth. Their families were able to keep the property together, and they did so until the western railroads were built and the current of settlement had received a permanent drift toward the far West, which has continued until among the strangest vagaries of fashion may be regarded the fact that many men have spent as much hard cash in taking their families and household goods to seek a location in the West, as would have procured them the fee-simple, unencumbered title to a farm in New Jersey, of equally good soil, fifteen hundred miles nearer the markets of the world."

This is the answer to the inquiry why these lands have not been hitherto offered to the public.

EDUCATIONAL ADVANTAGES.

In inviting the immigrant to locate in New Jersey, we bring him at once in contact with our complete system of public school instruc-

tion : for who, having the instincts of a parent, does not consider this question one of prime importance?

By the laws of the State, a census is taken annually of all the children between the ages of five and eighteen. The total school census for 1878 was 322,166, of which number 202,634 were enrolled in the public schools.

It will be seen by the last report of the State Board of Education that *seventy-one* per cent. of the children of New Jersey were enrolled in the public schools, and ten per cent. were in attendance at private schools, showing a total of *eighty-one* per cent. as in attendance at school.

What an advantage this affords to all who may become citizens of the State, for the education of their children!

PRODUCTIONS.

The soil of this section of New Jersey is so varied that almost any known crop can be raised upon it. Near the Camden and Atlantic Railroad at Winslow, and also upon the line of the West Jersey Railroad in the townships of Mannington and Pilesgrove in Salem county, the township of Clayton in Gloucester county, as well as in the townships of Greenwich and Deerfield in Cumberland county, can be seen as good fields of wheat, rye, corn and clover as can be found in any section of the State. At Egg Harbor City and Hammonton, as well as at Vineland, can be found the most flourishing vineyards. Already at Egg Harbor City and neighborhood there are 200,000 gallons of wine made annually; while at Vineland, where the business has but recently been started, the annual production is 50,000 gallons. Much of this wine is remarkable not only for its entire freedom from that foxy taste which characterizes many of the western wines, but also for its tendency to stand age and improve wonderfully by age. The character of the soil, which is porous and in many places superabundant in iron, gives every reason to believe that South Jersey may at no distant day compete with Bordeaux in its wines in the markets of the world. These wines took medals at the United States International Exhibition in 1876, and also at Paris in 1878.

In addition to the successful raising of wheat, corn, oats and clover, as already mentioned, the soil is particularly adapted to fruits and vegetables. Among the fruits, peaches and quinces have acquired an

enviable reputation, in preference to fruit from other States, while strawberries, blackberries, raspberries and cranberries attain a delicacy surpassed nowhere. Vegetables of every description are raised with great success. In fact, the products of South Jersey, in this line, command the highest prices in the markets of Philadelphia and New York.

Public attention has been called recently, through the report of the Commissioners of Agriculture, to the importance of maize and sorghum as sugar plants, and as the cultivation of these crops bids fair to become largely profitable, where is there such an opening for the agriculturist as the warm, rich soils of South Jersey?

It will be borne in mind that notwithstanding our large southern sugar production from cane raised expressly for that purpose, the United States expends \$100,000,000 annually in importing foreign sugars; and the public mind is intensely interested in experiments to arrest and turn into the pockets of our agriculturists some of this large expenditure. In Minnesota, sugar equal in quality to the common brown sugar of Louisiana has been made out of the "Minnesota early amber" cane. In Rice county, Minnesota, 15,000 gallons of juice was produced last season, and about one-half of it crystallized into sugar. New land is regarded as preferable for this variety of cane, and a clay loam of a rather loose, sandy texture the best. From 5 to 6 pounds of sugar are produced from a gallon of syrup weighing $13\frac{1}{4}$ pounds. The yield per acre, in Minnesota, varies from 125 to 150 gallons of syrup. From the report of Wm. McMurtrie, chemist of the Department of Agriculture, the following is the analysis of sample of sugar from the "Minnesota early amber sugar cane:"

Cane sugar (saccharose,)	88.8934
Grape sugar (glucose,)	5.6100
Water (by drying at 110° C.,)	5.8250

Mr. Stewart, of Murraysville, Pa., has been experimenting upon both maize and sorghum as sugar plants for many years, and in his report says: "The regular Chinese cane will yield 200 gallons of syrup to the acre, which can be increased to 300 gallons by the application of special manure and good cultivation, and that *eight* pounds of sugar from corn, and *ten* pounds from sorghum cane, can

be made from a gallon of syrup." In a more recent letter to the Commissioner of Agriculture, Mr. Stewart says: "From 2000 to 3000 pounds of sugar can be produced from an acre in a single crop, equal to the average from the sugar cane, or the beet, *and at one-half the cost*. That the total cost of production, including the cultivation of the ground, the harvesting of the crop, manufacturing, interest on the machinery employed, chemicals, royalty, &c., will not exceed $2\frac{1}{2}$ to 3 cents per pound."

Now, if this statement be correct, and Mr. Stewart states that his results as published are from practical experiments, carefully made, there is no reason why the cultivation of these plants, for sugar-producing purposes, should not be largely entered upon; and as sugar is a necessity of civilization, the United States may, at no distant day, become an exporter of sugar to the same extent to which she is now an importer—at any rate there is no reason why she should not be wholly independent of foreign countries for her sugar supply. The cultivation of the sugar beet, for the manufacture of sugar, which has been crowned with such success in France and England, could be carried on doubtless upon the rich, loamy soils of South Jersey, with equally good results.

The extent to which the manufacture of silk goods is carried on in New Jersey is not generally known. There are in the city of Paterson alone, *fifty-one* silk factories, making almost every variety of silk fabrics, while in the whole State there are 67. The gross amount of sales of several of the larger factories amounts to \$1,000,000 annually. In piece goods, sewing silk and machine twist the American manufacturers have driven out the foreign article altogether, and the manufacture of ribbons is making rapid progress. The whole number of manufacturers of silk, and dealers in silk goods, in the United States was, in 1879, 251,* and so large a home market having sprung up, the Department of Agriculture at Washington are making great efforts to promote sericulture (silk culture) in this country, with the view of furnishing at least a part of the supply of the crude material for these looms. The cocoons which have already been produced in North Carolina, Kansas and California have proved equal to the average of the imported, and the silk produced from them of equal average quality. Probably the most successful

* "Silk Goods of America," by Wm. C. Wyckoff.

establishment is that of E. V. Bossiere, at Silkville, Kansas. Mr. L. S. Crozier, who is associated with Mr. Bossiere, has issued a pamphlet entitled, "What Sericulture Promises to Millions of Idle Hands," which contains much practical information gathered from his own experience. We have room for but one paragraph from his work; he says: "It is not more than fifteen years ago since silk growers of the Cevennes, in France, were spinning their own cocoons, and they were in a prosperous condition. We might do the same here; every farmer, for the sum of \$5 or \$10, might fit up a spinning wheel. His sixteen-year-old daughter could run it. Another of ten or twelve could tend the reel, and in 3 weeks they will run off 4 to 6, then 8 to 10 ounces a day of white or yellow cocoons of good quality. There we have 3 pounds a week. I will not put the price at \$12 a pound (which was offered me in 1876,) although the spinner, a Yankee girl, had only 2 months' practice. We had better put it at current rates, say \$6.50 a pound. The figures quoted by the association itself are \$8 to \$9 a pound. At this rate, 3 pounds of silk will bring \$27 in money to the family stock. 10 or 11 pounds of fresh cocoons will make 1 pound of silk, the same as $3\frac{1}{2}$ or 4 pounds of dry cocoons. Thus 400 pounds of cocoons, picked by 4 children in 4 weeks, would give 36 to 40 pounds of silk, or \$360 in full. This would have employed 2 girls for 9 or 10 weeks, under the mother's eye. I simply put these figures, and I need not ask fathers of families whether they would prefer this position to that which hard times imposes on them."

The experience of a few German and Italian families at Vineland has fully established the fact that the soil and climate of South Jersey is well adapted to the growth of the mulberry and the rearing of the silk worm. It is believed the work may be carried on to an unlimited extent.

FERTILIZERS.

In the counties of New Jersey, to which we are inviting immigration, there are already constructed nearly 500 miles of railroad, furnishing not only the means by which the products of the soil may be readily transported to the best markets, but also facilities for placing *upon* the soil whatever fertilizers may be necessary to increase its productiveness, as the district abounds in marls of the best quality.

By the report of the West Jersey Marl and Transportation Company for the year 1878, the average price of marl, delivered along the line of the West Jersey Railroad, was about \$1.75 per ton. A large number of farmers, living within a few miles of the marl beds, haul their own marl, and deliveries were made on the line of the railroad at \$1.10 per ton.

This company also reports during the same year the sale of 46,668 bushels of lime. The price of lime is from 12 to 15 cents per bushel. Ground fish guano can also be had from \$15 to \$18 per ton.

The Kirkwood Marl and Fertilizing Company, at Kirkwood, Camden county, furnishes marl at 50 cents per ton at the pits, and offers to deliver by railroad, within 20 miles from the pits, at a price not exceeding \$1 per ton.

There are many other marl companies within this district, and as marl is found in different localities this most important fertilizer is readily obtained.

RAILROAD FACILITIES.

The following are the leading railroads which traverse this section of the State:

The West Jersey Railroad Company starts from Camden, opposite Philadelphia, and terminates at Cape May, the extreme southern part of the State; passing through Woodbury, Glassboro, Clayton, Vineland, Millville and smaller towns, providing, with its leased lines and railroad connections, easy communication with the counties of Camden, Gloucester, Salem, Cumberland and Cape May.

The Camden and Atlantic Railroad Company also leaves Camden, and runs directly to Atlantic City, passing through numerous thriving towns and villages, among which are Haddonfield, Atco, Waterford, Hammonton, Elwood, Egg Harbor City and Absecon.

The New Jersey Southern Railroad crosses both the above-named railroads at nearly right angles, and, running as it does, across the State from Sandy Hook bay, near New York, to the Delaware river, below Philadelphia, it forms, with its connecting lines, a complete outlet for the products of this extensive region of country to the markets of the East as well as those of the South.

These railroads, as well as others which intersect them, run through

large tracts of unimproved land, much of which is capable of the highest tillage. The country is almost level, yet sufficiently undulating to form effectual drainage, as there are frequent streams and rivers running through it.

BUILDING MATERIAL.

There are numerous saw-mills scattered throughout South Jersey, at which ordinary lumber, cut from the cedar and pine forests, can be obtained at most reasonable prices. Added to this source of supply, the numerous railroads are constantly bringing the finer qualities of lumber from the neighboring States of New York and Pennsylvania, so that competition will always secure the lowest market rates for lumber.

Then, too, there are large deposits of good building stone, and quarries have been opened in sufficient number to warrant the conclusion that the supply is abundant.

In the "Geology of New Jersey, 1868," the following statement appears :

"The glass-sand used in the southern part of the State is mostly obtained from a bed, which appears to be uniform throughout the whole of that part of the State.

"This sand is generally fine, angular, even-grained, and so pure that at many of the glass-houses it is used without any previous washing."

We introduce these quotations for the purpose of stating that this pure sand, found in abundance, mixed with lime in proper proportion, and pressed into the form of brick, after being baked in the sun, is used in the construction of houses; which, for cheapness, strength and durability challenges every other material.

UNDOUBTED LAND TITLES.*

So many instances have occurred in which immigrants having purchased lands in the West through agents traveling on behalf of corporations or individuals, after occupying the same with their families

*For this abstract of title, we are indebted to Hon. John Clement, of Haddonfield, N. J.

and making substantial improvements thereupon, have been subjected to tedious and extensive litigation to sustain their title—a contest too often ending in their being turned off the land in utter ruin—that we deem it important to give, in as condensed a form as possible, the foundation upon which the titles to land in New Jersey rests, which, at a glance, will show the undoubted character of these titles and the almost total absence of risk which purchasers or settlers run in selecting these lands for a location.

These titles, it will be observed, reach back to the early settlement of this country, and all questions have been so fully settled by the courts of the State, that it is hardly possible to open the door to litigation.

The title to the land in the State of New Jersey is based upon the grant of Charles II., King of England, to James, Duke of York, dated March 13th, 1664, for “certain lands in America generally called Virginia.”

(The second deed of the King to the Duke for the same territory bears date June 26th, 1674, to cure any defect of title caused by the Dutch Conquest.)

James, Duke of York, conveyed that part of said territory, now known as the State of New Jersey, to John Lord Berkley and Sir George Carteret, by deed dated June 24th, 1664.

(The deed from the Duke of York to William Penn and others, trustees, &c., for West New Jersey, bears date August 6th, 1680, to cure any defects of title caused by the Dutch Conquest.)

March 18th, 1673, John Lord Berkley conveyed his undivided one-half part of the State of New Jersey to John Fenwick. This conveyance was the cause of much dispute between the creditors of Edward Byllinge and John Fenwick, who claimed that the purchase money had been furnished by Edward Byllinge, and that John Fenwick only held the estate in trust.

To save litigation the matter was submitted to the arbitration of William Penn, who awarded the undivided one-tenth of the undivided one-half part of said territory to John Fenwick, and the remainder to the creditors of Edward Byllinge aforesaid.

In compliance with this award, John Fenwick and Edward Byllinge conveyed the undivided nine-tenths of the undivided one-half part of said territory to William Penn, Gawen Laurie and Nicholas

Lucas—for the use of Edward Byllinge's creditors—by deed dated February 9th, 1674.

July 1st, 1676, a division line between East and West Jersey was agreed upon between the trustees of Edward Byllinge and Sir George Carteret, separating said territory into two parts.

The trustees of Edward Byllinge sold the land in shares or proprietories, and conveyed such shares or proprietories to various persons—the first deed bearing date March 1st, 1676—discharging all his debts and leaving a large remaining interest to his two daughters and heirs-at-law, who disposed of the same in like manner.

These shares or proprietories remained undivided, and the proprietors or owners first appointed commissioners, and afterwards established a "Council of Proprietors," elected from the several tenths or counties, who adopted a system by which the lands were laid out, divided and sold to immigrants and settlers. The first Council of Proprietors was elected February 10th, 1687, and sat at Burlington, N. J., on the 10th day of the 8th month, 1688.

The "Concessions and Agreements," dated March 3d, 1676, were published by the proprietors, adopting a representative form of government, a liberal system of laws, and a proper administration of justice; with the assurance of a quiet title to "adventurers" who purchase portions of the soil.

The system, as first adopted by the proprietors, for the location of lands, has been continued to the present time, and the defects or uncertainties that existed or have been developed have been corrected and settled by the courts of the State.

LIBERAL STATE LAWS.

That the laws of New Jersey are wise and liberal, affording protection to the humblest citizen, will be seen from the following extracts from her statutes :

PROPERTY EXEMPTED FROM SEIZURE.

"Goods and chattels of every kind, not exceeding in value (exclusive of wearing apparel) the sum of two hundred dollars, and all wearing apparel (*a*), the property of any debtor having a family residing in this state (*b*), shall be reserved, as well before as after the

death of the debtor, for the use of his family, and shall not be liable to be seized or taken by virtue of any execution or civil process whatever, issued out of any court of this state (except the same be issued in case of taxation) on any contract after the passage of this act.”—*Revision of New Jersey*, § 10, p. 391.

HOMESTEAD EXEMPTION.

“An act to exempt from sale or execution the homestead of a householder having a family, approved March 17th, 1852.

“53. Sec. 1. That in addition to the property now exempted by law from sale under execution, there shall be exempt by law from sale or execution for debts hereafter contracted, the lot and buildings thereon, occupied as a residence and owned by the debtor, being a householder and having a family, to the value of *one thousand dollars*; such exemption shall continue after the death of such householder for the benefit of the widow and family, some or one of them continuing to occupy such homestead until the youngest child shall become twenty-one years of age, and until the death of the widow, and no release or waiver of such exemption shall be valid.”—*Revision of New Jersey*, § 53, p. 1055.

WHAT ACTUAL SETTLERS SAY OF THE LAND.

As it would add too greatly to the length of this chapter to publish the numerous letters written by persons who have located in that part of the State, confirming what we have said with regard to the advantages afforded to those who wish to engage in the cultivation of a variety of agricultural products, we must be content with publishing extracts from a very small number.

A German from Wurtemberg, Germany, writing from Vineland, says:

“I came here in December, and the next year I had enough land cleared to plant and raise sweet and round potatoes, cabbage, beans, and other things for my own use. I have increased the size of my farm to thirty acres, and since building the shanty have built a good house. I wanted land enough to support my stock. I keep a horse, two cows, pigs, poultry, &c. I have made my living and supported a family of ten. I have eight healthy children. I have found Vineland a very healthy place.”

An Englishman writes as follows :

“It must be taken into consideration that the farmers here do not manure their land as heavily as they do in England, for nowhere in the world have I seen such system, science and skill applied to agriculture as I have seen in ‘my own native land,’ England. There are many examples of profitable farming on this land by large farmers, but my object has been to show that small farms of ten to twenty acres may be made profitable—sufficiently so to support a family—and that such farms are within the reach of many.

“Here we buy land at what is paid annually for rent in England, viz., \$25 per acre, so there is hope, and in fact a certainty here, that an industrious man may raise himself to a point of independence and own the soil he tills. There is nothing so elevating as a man working and thinking for himself; it expands his mind, he takes a broader view of the world and humanity, he raises himself from an automaton (for whom others think) to a man.”

Another Englishman writes, after a temporary absence of one year in New York :

“I was living in London before I came here. England cannot compete with this country in fruit. I was surprised to see the fruit trees of all kinds and strawberries in full bloom, and not one to be seen about New York at the time. But I still love my native country where I was born, where farming and manufacturing are in perfection; but I don’t regret leaving it and coming here, to the land of the free, where you can sit under your own fig tree and sip your own wine. I was surprised to see my neighbor Wilson’s grape vines. He has sixteen hundred vines, and intends planting sixteen hundred more next year. And when I came, I was very much gratified to find how my own place had improved in my absence. Last year I planted two acres in grape vines and six acres in clover, without manure, and it looks better than any I have seen about New York. It is just coming into bloom, and will be ready to cut early in June.”

Another writes :

“I am a native of England, and came from Kingsey, near Aylesbury, Buckinghamshire. I first settled in Canada, and remained there six years. The great objection to Canada is the long, cold winters and the credit system. There was nothing but credit and trust to do business on. I could sell nothing for ready money, and

finally sold out my stock, goods and tools on from three to fifteen months' time. I have now ten acres of ground, all cleared, and in crop this year. Last year I raised provisions for my family and provender for my stock, and sold besides \$500 worth of produce, after paying expenses of marketing."

We might publish a volume of testimonials setting forth the advantages which would accrue to the immigrant in selecting a location in New Jersey in preference to the "far west," but believe enough facts have been given to substantiate every statement made in this chapter. It is always desirable, however, to examine any country before purchasing a homestead in it, and whoever will take the trouble to visit South Jersey, will find not only at Vineland and adjacent towns upon the West Jersey Railroad, but also at Egg Harbor City, Hammonton and other places upon the Camden and Atlantic Railroad, abundant evidences of thrift and prosperity.

We close this chapter with liberal quotations from a letter of recent date, written by a practical farmer, who but a few years ago came from the State of Maine to settle upon what were then called the "Wild lands of New Jersey."

"ATCO, Sept. 2d, 1879.

"In the year 1866 a few families of people from the Eastern States and from some of the fine agricultural regions of New York, in search of new homes and developments, purchased tracts and commenced clearing and improving them. The pines and scrub oaks were cut down and grubbed up, and cabins and cottages were erected. The new comers then began to study the nature and wants of the soil for agricultural and fruit-growing purposes, the latter especially, as they were sure that fruit and vegetables could be profitably raised so near to large cities and with good railroad facilities. The settlers were experienced tillers of the soil, and considered their calling as one upon which brain as well as muscle should be expended. They began to utilize the marls and mucks of this and neighboring localities, and to compost extensively with these and manure, and wastes of the barns, hen-coops, pig-pens, &c. The chemical wants of the soil were also studied, and such patent or compound fertilizers and guanos as seemed to possess the needed qualities were used. These, with well-directed, systematic labor, were brought to bear upon the natural resources, and soon an encouraging growth and valuable products were the result.

“Comparatively little was undertaken in the cultivation of cereals, but enough to prove that with thorough cultivation these could be grown to profit. Vegetables have been grown successfully, and, in many instances, of such superior quality and large yield as to be matters of note and comment in agricultural journals and other public prints.

“But the principal industry has been the setting out and cultivation of orchards, vineyards and the small fruits. Of the large fruits, pears and peaches have been most successfully cultivated. Grapes of various kinds and qualities are easily cultivated, and yield immensely. The grape rot, which has been so general of late years, has affected the crop in this region, but seems to be passing away, and grape culture will probably be an industry of growing importance. It has been ascertained by gentlemen acquainted with grape culture in the wine-producing countries of Germany and France, that the soils of South Jersey, upon chemical examination, contain qualities scarcely second to the countries referred to. This fact has led to the extensive grape culture of Egg Harbor and other districts, for which the soil of Atco is equally good.

“The cultivation of strawberries, raspberries, blackberries, etc., has been carried on with most gratifying results. The shipments of these small fruits and berries has amounted, during the season of 1879, to nearly 1,000,000 quarts from Atco station alone, to the markets of Philadelphia, New York and Boston.

“In all these labors and products, those engaged in them have been satisfied with the results, and are stimulated to larger and greater efforts.”

The State of New Jersey does not hold any public lands. The undeveloped lands referred to belong to individuals, who, in the majority of cases, are willing to dispose of them at prices varying from \$5 to \$20 per acre, according to location and the character of the soil.

Upon application being made to this Bureau the names of all the large landowners can be obtained, and also a general description of the land offered for sale.

PART II.

SAVINGS BANKS.

PART II.

SAVINGS BANKS.

CHAPTER I.

It will be found by an examination of the "Annual Statements of the Banks and Savings Institutions of the State of New Jersey, for the year 1879," made by the Secretary of State, that there were 38 banks for savings, whose deposits and surplus earnings amounted to \$16,589,899.50, while in the year 1878 the amount reported was \$18,950,490.07.

Without some explanation with regard to this large reduction in the savings banks deposits, it would appear that these banks had been undergoing a severe depletion during the past twelve months. This, however, is not the case, as will be ascertained upon a more careful examination and comparison of the reports referred to.

The *apparent* reduction is accounted for from the fact that subsequently to the publication of the report for the year 1878, several banks whose returns had been included in that report were placed in the hands of the Chancellor, under the provisions of the supplement to the act concerning savings banks, approved April 5th, 1878, whereby, under certain conditions, any bank not being able to pay interest upon its deposits can be placed under the direction of the Chancellor as a ward of the Court of Chancery, and yet be allowed, for a time, to continue its business without the appointment of a receiver.

The difference between the amounts of deposits and surplus of the banks which had been thus placed in the hands of the Chancellor during the year 1878, and the amount reported by banks which, although yet in the court, were allowed to report their deposits and surplus under the head of "New Account" for the year 1879, was

about \$1,500,000. This amount being added to the amount reported for 1879—viz., \$16,589,899.50—will show the real falling off in the business of the savings banks as about \$900,000, and will agree substantially with the amount of reduction as shown in the tables herewith presented.

The importance to the labor class of savings banks, furnishing, as they have done, as a general rule, a convenient and safe depository for any surplus earnings they may have been able to accumulate, leads us to make one more attempt to ascertain, if possible, to what extent the industrial classes were making use of these institutions for the legitimate purpose for which they were established.

In view of the fact that the banks responding to our blank for the purpose of our last report had become somewhat familiar with the form then issued, it was deemed advisable not to make any material change for the present year.

Although but *fourteen banks* out of the *thirty-eight* in the State filled up and returned the tally blanks sent them, it is worthy of notice and a source of encouragement that the banks located in the larger cities and towns, receiving to a large extent the deposits of the labor classes, were careful in attending to the request made in the circular addressed to them. It is also gratifying to note that *eleven* out of the fourteen banks making returns for the present year had sent in their return for the year previous, thus showing a continued interest in furnishing these important statistics.

As previously stated, the whole amount of deposits and surplus of the *thirty-eight* banks in the State was \$16,589,899.50, and of this amount the *fourteen* banks which reported to this Bureau represented \$12,300,391.25, showing that three-fourths of the savings banks capital is represented in the tables which we publish; and we cannot resist the conclusion that the condition of the labor class, in so far as it can be represented by their ability to use these banks as a depository for their earnings, is fairly presented.

[CIRCULAR No. 1.]

CLASSIFICATIONS OF OCCUPATIONS.

CLASS I. (*Day Wage.*)

This Class includes all persons who work for "day wages" where deductions are made for loss of time.

Agricultural Laborers.
Barbers, *Journeymen*.
Bar-keepers.
Bakers, *Journeymen*.
Blacksmiths, "
Boot and Shoe Makers.
Butchers.
Cabinet-makers, *Journeymen*.
Carpenters and Joiners.
Cigar-makers.
Coopers.
Cotton Mill Operatives, *m.* and *f.*
Curriers and Leather Finishers.
Domestic Servants.
Dress and Cloak Makers.
Employees of Manuf'g Estabs., *N. O. S.*
Fishermen.
Gas Works Employees.
Glass Works "
Horse Railroad "
Housekeepers.
Iron Foundry Operatives.
Knitting and Hosiery Mill Operatives.
Linen Mill Operatives.
Laborers, not otherwise specified.
Machinists.
Mechanics, *N. O. S.*
Minors—*see Instructions*.
Marble and Stone Cutters.

Masons.
Mast, Spar and Block Makers.
Mattress-makers.
Mill and Factory Operatives, *N. O. S.*
Milliners.
Oil Refining Operatives.
Paper Hangers.
Paper Mill Operatives.
Painters, *Journeymen*.
Plasterers.
Printers.
Print Works Operatives.
Quarrymen.
Rubber Factory Operatives.
Sailmakers.
Saw Mill Operatives.
Sewing Machine Factory Operatives.
Seamen.
Shop-girls.
Ship-smiths.
Ship-carpenters.
Ship-caulkers.
Straw-workers.
Tailors and Tailoresses.
Tanners.
Teamsters—*see Instructions*.
Tobacco Factory Operatives.
Wheelwrights.
Woolen Mill Operatives.

CLASS II. (*Salary.*)

This Class includes all persons whose compensation for labor is a stated salary, where deductions for loss of time are not general.

Agents, Mill and Manufacturing.
Bookkeepers and Accountants, *m.* and *f.*
Clergymen.
Clerks, *m.* and *f.*
Commercial Travelers.
Journalists.

Minors—*see Instructions*.
Overseers and Foremen.
Porters.
Salesmen and saleswomen.
Steam Railroad Employees.
Teachers.

CLASS III. (*Professional.*)

This Class includes all persons whose income is not properly wages or salary, being governed by services rendered.

Actors.	Dentists.
Architects.	Engineers, <i>Civil.</i>
Artists.	Lawyers.
Auctioneers.	Minors— <i>see Instructions.</i>
Authors.	Physicians.
Chemists.	Photographers.

CLASS IV. (*Use or Interest of Money.*)

This Class includes all persons whose income is derived from the use or interest of money.

Barbers, Employers.	Livery-stable Keepers.
Billiard-saloon Keepers.	Milkmen.
Boarding-house “	Minors— <i>see Instructions.</i>
Bankers and Brokers.	Peddlers.
Bakers, Employers.	Restaurant Keepers.
Builders and Contractors.	Shopkeepers— <i>all Trades.</i>
Employers in Mechanical Business.	Undertakers.
“ “ Manufacturing “	Women not accounted for under Occu-
Farmers.	pations.
Hotel Keepers.	

NOTE.—*N. O. S.* is used as an abbreviation for “not otherwise specified.”

The Bureau desires the “Tally Blanks” kept from June 1st, 1879, to Sept. 1st, 1879 .

Books should be returned by Sept. 10th, 1879, by *Express*.

Should one book not be sufficient, others will be sent on application.

For full INSTRUCTIONS, see last page.

Address all communications or inquiries to

SAM'L C. BROWN, *Secretary.*

JAMES BISHOP, *Chief,*
TRENTON.

INSTRUCTIONS.

To the Treasurer of the Bank :

DEAR SIR:—You will have observed in the first report of this Bureau, that with but few exceptions the book returns were very incomplete.

We renew the effort to obtain accurate statistics respecting the ownership and specific amounts of saving deposits, with the assurance that the proposed classification will secure your co-operation. The object of this inquiry is now well understood to have direct relations to the personal resources of the industrial classes as represented by the savings institutions of this State. The process will occasion you some inconvenience, but we earnestly hope you will second the efforts of this Bureau, by having the following instructions carefully carried out:

1. Fill out form on outside of cover ; we insert the office number.
2. At the head of each “Tally Blank” put the date (“From”) when the first

entry of a deposit is made on the page, and the date ("To") when the last entry is made.

3. The class of depositors that we desire a record of are those opening *new accounts* with your Bank during the three months that you are asked to keep the Blanks, and we desire every deposit entered which is made by them.

4. When deposit is made, ascertain occupation; a reference to the "Classification of Occupations" on first page will show *the class* in which the deposit entry belongs. Turn to the appropriate Class, and put down the *figures* representing the deposit, with due regard to the Column heads "Under \$300" or "Above \$300." This is the only entry for *each deposit* that you are requested to make.

5. If certain employments peculiar to your locality are not specifically named, a reference to the explanations under the Class Headings in the "Classification of Occupations" will indicate the proper place for their deposit entries.

6. "Teamsters" should include all those who are hired to drive or take care of horses.

7. The deposits made by "Minors" should be entered according to their occupations; if they have none, according to occupations of their parents or guardians.

8. The deposits made by "Women" should, if possible, be entered under occupations; if not, reference should be had to occupation of father, mother, or husband. Uncertain cases enter in Class 4.

N. B.—To obviate possible misapprehension, we should have stated in our Tally Book note that this is not to be an annual inquiry. It is well known that last year's returns were very incomplete. The inquiry is renewed upon this occasion solely with the view to obtain data for a complete presentation, in this year's report, of points of interest respecting Savings Bank Deposits, which were so inadequately furnished in response to our circular in 1878. It is desirable that our statement should apply to 1879, otherwise we should have been glad to excuse those who so kindly gave us full returns last year, from this additional labor.

In addition to the keeping of the "Tally Blanks" you are respectfully requested to answer the following questions:

FROM JUNE 1ST, 1879, TO AUGUST 31ST, 1879.

1.—No. of different Depositors, January 1st, 1879.....	.....
2.—No. of different Depositors, January 1st, 1878.....	.....
3.—Entire amount of Deposits, January 1st, 1879.....	\$.....
4.—Entire amount of Deposits, January 1st, 1878.....	\$.....
5.—Entire amount of Deposits during year 1879.....	\$.....
6.—No. of "New Depositors" opening accounts during 1878.....	.....
7.—No. of Deposits made by such "New Depositors" during 1878.....	.....
8.—Amount Deposited by such "New Depositors" during 1878.....	\$.....
9.—Total amount of Trust accounts of Individuals to date, Jan. 1st, 1879	\$.....
10.—Total amount of Trust accounts of Societies to date, Jan. 1st, 1879	\$.....

TABLE No. I.—BLANK No. 1.

*Total Amount of Deposits made in Savings Banks for Three Months,
between June 1st and August 31st, 1879.*

Office Number.	CLASSIFICATION OF DEPOSITORS.	Total Number of Deposits.	Total Amount of Deposits.	Per Cent. of Number of Deposits.	Average Amount of Each.	Per Cent. Amount of Each.
5	All Deposits.....	721	\$110,029 25	100.0	\$152 61	100.0
	Class 1—Day Wages.....	316	32,654 57	43.8	103 34	29.7
	“ 2—Salary.....	149	11,849 12	20.7	79 52	10.8
	“ 3—Professional.....	33	9,359 62	4.6	283 62	8.5
	“ 4—Workers using Money	223	56,165 94	30.9	251 87	51.0
2	All Deposits.....	49	2,882 36	100.0	58 82	100.0
	Class 1—Day Wages.....	28	888 00	57.2	31 71	30.8
	“ 2—Salary.....	2	350 00	4.0	175 00	12.1
	“ 3—Professional.....	3	260 00	6.0	86 67	9.0
	“ 4—Workers using Money	16	1,384 36	32.8	86 50	48.1
10	All Deposits.....	62	5,939 25	100.0	95 79	100.0
	Class 1—Day Wages.....	30	2,057 00	48.5	68 57	34.6
	“ 2—Salary.....	13	1,903 00	21.0	146 15	32.2
	“ 3—Professional.....	10	743 00	16.0	74 30	12.5
	“ 4—Workers using Money	9	1,236 25	14.5	137 36	2.07
1	All Deposits.....	90	11,607 57	100.0	128 97	100.0
	Class 1—Day Wages.....	61	4,242 60	67.8	69 55	29.07
	“ 2—Salary.....	3	26 00	3.3	8 67	18.2
	“ 3—Professional.....	6	442 00	6.7	73 67	3.1
	“ 4—Workers using Money	20	6,896 97	22.2	344 85	49.0
7	All Deposits.....	32	5,063 10	100.0	158 22	100.0
	Class 1—Day Wages.....	12	1,885 50	37.5	157 12	37.02
	“ 2—Salary.....	3	375 00	9.4	125 00	7.4
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	17	2,802 60	53.1	164 86	55.4
3	All Deposits.....	114	3,881 70	100.0	35 05	100.0
	Class 1—Day Wages.....	64	1,103 48	56.1	17 24	28.5
	“ 2—Salary.....	17	954 84	14.9	68 20	24.6
	“ 3—Professional.....	6	8 90	5.3	1 48	.2
	“ 4—Workers using Money	27	1,814 48	23.7	67 20	46.7
4	All Deposits.....	55	10,331 89	100.0	187 85	100.0
	Class 1—Day Wages.....	7	1,112 50	12.7	158 93	10.8
	“ 2—Salary.....	12	689 00	21.8	57 33	6.7
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	36	8,530 39	65.5	236 96	82.5

TABLE NO. I.—BLANK NO. 1. (Continued.)

*Total Amount of Deposits made in Savings Banks for Three Months,
between June 1st and August 31st, 1879.*

Office Number.	CLASSIFICATION OF DEPOSITORS.	Total Number of Deposits.	Total Amount of Deposits.	Per Cent. of Number of Deposits.	Average Amount of Each.	Per Cent. Amount of Each.
6	All Deposits.....	13	\$821 00	100.0	\$55 46	100.0
	Class 1—Day Wages.....	11	421 00	84.6	38 27	51.3
	“ 2—Salary.....	.....	.....	.....	.....	.....
	“ 3—Professional.....	1	50 00	7.7	50 00	6.1
	“ 4—Workers using Money	1	350 00	7.7	350 00	42.6
8	All Deposits.....	397	58,734 73	100.0	148 76	100.0
	Class 1—Day Wages.....	188	27,643 76	47.4	147 04	47.0
	“ 2—Salary.....	43	1,897 00	10.8	44 12	3.2
	“ 3—Professional.....	4	3,560 00	1.0	890 00	6.2
	“ 4—Workers using Money	162	25,633 97	40.8	158 23	43.6
9	All Deposits.....	287	39,573 00	100.0	137 89	100.0
	Class 1—Wage Workers.....	121	14,199 00	42.2	117 35	35.8
	“ 2—Salary.....	35	3,622 00	12.2	103 49	9.2
	“ 3—Professional.....	2	1,912 00	.7	956 00	4.8
	“ 4—Workers using Money	129	19,840 00	44.9	153 02	50.2
11	All Deposits.....	15	3,880 00	100.0	258 67	100.0
	Class 1—Wage Workers.....	5	1,350 00	33.3	270 00	34.8
	“ 2—Salary.....	1	250 00	6.7	250 00	6.4
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	9	2,280 00	60.0	253 33	58.8
12	All Deposits.....	534	111,530 90	100.0	208 46	100.0
	Class 1—Wage Workers.....	313	41,934 46	58.6	133 98	37.6
	“ 2—Salary.....	68	14,870 42	12.7	218 69	13.3
	“ 3—Professional.....	17	3,539 16	3.2	208 18	3.2
	“ 4—Workers using Money	136	51,186 86	25.5	376 38	45.9
13	All Deposits.....	381	43,225 72	100.0	113 12	100.0
	Class 1—Wage Workers.....	198	15,011 05	51.9	75 81	34.9
	“ 2—Salary.....	38	4,189 87	9.9	111 33	9.8
	“ 3—Professional.....	9	1,741 00	2.6	193 44	4.0
	“ 4—Workers using Money	136	22,283 80	35.6	164 59	51.3
14	All Deposits.....	195	23,263 86	100.0	119 15	100.0
	Class 1—Wage Workers.....	70	4,873 90	35.9	69 63	20.9
	“ 2—Salary.....	17	710 00	8.7	41 76	3.1
	“ 3—Professional.....	11	1,445 00	5.6	131 36	6.2
	“ 4—Workers using Money	97	16,234 96	49.8	167 38	69.8

TABLE No. II.—BLANK No. 1.

Deposits of \$300 and under made in Savings Banks during the Three Months between June 1st and August 31st, 1879.

Office Number.	CLASSIFICATION OF DEPOSITORS.	Total Number of Deposits of \$300 and Under.	Total Amount of Deposits of \$300 and Under.	Per Cent. of Number of Deposits of \$300 and Under.	Average Amount of Each.	Per cent. Amount of Each.
5	Deposits of \$300 or Less.....	626	\$42,808 29	100.0	\$68 38	100.0
	Class 1—Day Wages.....	294	19,533 07	46.9	66 44	45.6
	“ 2—Salary.....	142	7,181 94	22.7	50 58	16.8
	“ 3—Professional.....	21	1,431 00	3.4	68 14	3.4
	“ 4—Workers using Money	169	14,662 28	27.0	86 76	34.2
2	Deposits of \$300 or Less.....	46	1,932 46	100.0	42 01	100.0
	Class 1—Day Wages.....	28	888 00	60.9	31 71	46.0
	“ 2—Salary.....	2	350 00	4.4	175 00	18.1
	“ 3—Professional.....	3	260 00	6.5	86 67	13.5
	“ 4—Workers using Money	13	434 36	28.2	33 41	22.4
10	Deposits of \$300 or Less.....	57	3,159 25	100.0	55 43	100.0
	Class 1—Day Wages.....	28	1,277 00	49.1	45 61	40.4
	“ 2—Salary.....	12	903 00	21.1	75 25	28.6
	“ 3—Professional.....	9	343 00	15.8	38 11	10.9
	“ 4—Workers using Money	8	636 25	14.0	79 53	20.1
1	Deposits of \$300 or Less.....	83	4,699 10	100.0	56 62	100.0
	Class 1—Day Wages.....	60	3,342 60	72.3	55 71	71.2
	“ 2—Salary.....	3	26 00	3.6	8 67	5
	“ 3—Professional.....	6	442 00	7.2	73 67	9.4
	“ 4—Workers using Money	14	888 50	16.9	63 46	18.9
7	Deposits of \$300 or Less.....	28	2,268 10	100.0	81 00	100.0
	Class 1—Day Wages.....	10	590 50	35.7	59 05	26.0
	“ 2—Salary.....	3	375 00	10.7	125 00	16.6
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	15	1,302 60	53.6	86 80	57.4
3	Deposits of \$300 or Less.....	113	3,381 70	100.0	29 93	100.0
	Class 1—Day Wages.....	64	1,103 48	56.7	17 24	32.6
	“ 2—Salary.....	17	954 84	15.0	56 17	28.2
	“ 3—Professional.....	6	8 90	5.3	1 48	.3
	“ 4—Workers using Money	26	1,314 48	23.0	50 56	38.9
4	Deposits of \$300 or Less.....	41	3,136 64	100.0	76 50	100.0
	Class 1—Day Wages.....	6	462 50	14.6	77 08	14.7
	“ 2—Salary.....	12	689 00	29.3	57 42	22.0
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	23	1,985 14	56.1	86 31	63.3

SAVINGS BANKS.

33

TABLE NO. II.—BLANK NO. 1. (Continued.)

Deposits of \$300 and under made in Savings Banks during the Three Months between June 1st and August 31st, 1879.

Office Number.	CLASSIFICATION OF DEPOSITORS.	Total Number of Deposits of \$300 and Under.	Total Amount of Deposits of \$300 and Under.	Per Cent. of Number of Deposits of \$300 and Under.	Average Amount of Each.	Per Cent. Amount of Each.
6	Deposits of \$300 or Less.....	12	\$471 00	100.0	\$39 25	100.0
	Class 1—Day Wages.....	11	421 00	91.7	38 27	89.4
	“ 2—Salary.....	.....	.....	.....	.....	.....
	“ 3—Professional.....	1	50 00	8.3	50 00	10.6
	“ 4—Workers using Money.....	.....	.....	.....	.....	.....
8	Deposits of \$300 or Less.....	341	20,418 23	100.0	59 88	100.0
	Class 1—Day Wages.....	162	9,560 76	47.5	59 02	46.9
	“ 2—Salary.....	43	1,897 00	12.6	44 12	9.3
	“ 3—Professional.....	2	160 00	.6	80 00	.8
	“ 4—Workers using Money.....	134	8,800 47	39.3	65 68	43.0
9	Deposits of \$300 or Less.....	245	15,750 00	100.0	64 29	100.0
	Class 1—Day Wages.....	108	7,633 00	44.0	70 68	48.5
	“ 2—Salary.....	31	1,867 00	12.7	60 23	11.9
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money.....	106	6,250 00	43.3	58 96	39.6
11	Deposits of \$300 or Less.....	11	1,550 80	100.0	140 98	100.0
	Class 1—Day Wages.....	3	270 00	27.3	90 00	17.4
	“ 2—Salary.....	1	250 00	9.9	250 00	16.1
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money.....	7	1,030 80	63.6	147 26	66.5
12	Deposits of \$300 or Less.....	446	33,450 88	100.0	75 27	100.0
	Class 1—Day Wages.....	284	19,878 27	63.5	69 99	59.0
	“ 2—Salary.....	53	3,251 87	11.8	61 36	9.7
	“ 3—Professional.....	14	1,539 16	3.4	109 94	5.2
	“ 3—Workers using Money.....	95	8,781 58	21.3	92 54	26.1
13	Deposits of \$300 or Less.....	346	26,054 53	100.0	75 24	100.0
	Class 1—Day Wages.....	192	11,839 46	55.7	61 66	45.6
	“ 2—Salary.....	35	2,889 87	99.9	85 00	11.1
	“ 3—Professional.....	6	421 00	1.7	86 83	2.0
	“ 4—Workers using Money.....	113	10,904 20	32.7	94 75	41.3
14	Deposits of \$300 or Less.....	168	8,443 86	100.0	50 26	100.0
	Class 1—Day Wages.....	65	2,623 90	38.7	40 37	31.1
	“ 2—Salary.....	16	410 00	9.5	25 62	4.9
	“ 3—Professional.....	9	215 00	5.4	23 89	2.5
	“ 4—Workers using Money.....	78	5,194 96	46.4	66 60	61.5

Full analysis and digest of the foregoing table are given in the summary following Table I.

TABLE NO. III.—BLANK NO. 1.

Number of Deposits over \$300 between June 1st and August 31st, 1879.

Office Number.	CLASSIFICATION OF DEPOSITORS.	Total Number of Deposits.	Total Amount of Deposits.	Per Cent. Number of Deposits.	Average Amount of Each.	Per Cent. Amount of Each.
5	Deposits of over \$300.....	95	\$67,270 96	100.0	\$707 59	100.0
	Class 1—Day Wages.....	21	13,121 50	22.1	624 83	19.5
	“ 2—Salary	8	4,667 18	8.4	583 40	7.0
	“ 3—Professional.....	12	7,928 62	12.6	660 72	11.8
	“ 4—Workers using Money	54	41,503 66	56.9	768 59	61.7
2	Deposits of over \$300.....	3	950 00	100.0	316 67	100.0
	Class 1—Day Wages.....	.....	.....	.....	.....	.....
	“ 2—Salary .....	.....	.....	.....	.....	.....
	“ 3—Professional .....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	3	950 00	100.0	316 67	100.0
10	Deposits of over \$300.....	5	2,780 00	100.0	556 00	100.0
	Class 1—Day Wages.....	2	780 00	40.0	390 00	28.0
	“ 2—Salary.....	1	1,000 00	20.0	1,000 00	36.0
	“ 3—Professional.....	1	400 00	20.0	400 00	14.4
	“ 4—Workers using Money	1	600 00	20.0	600 00	21.6
1	Deposits of over \$300.....	7	6,908 47	100.0	986 87	100.0
	Class 1—Day Wages	1	900 00	114.3	900 00	.....
	“ 2—Salaries.....	.....	.....	.....	.....	.....
	“ 3—Professional .....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	6	6,008 47	85.7	1,001 33	87.0
7	Deposits of over \$300.....	4	2,795 00	100.0	698 75	100.0
	Class 1—Day Wages.....	2	1,295 00	50.0	647 50	46.4
	“ 2—Salary .....	.....	.....	.....	.....	.....
	“ 3—Professional. ....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	2	1,500 00	50.0	750 00	53.6
3	Deposits of over \$300.....	1	500 00	100.0	500 00	100.0
	Class 1—Day Wages.....	.....	.....	.....	.....	.....
	“ 2—Salary .....	.....	.....	.....	.....	.....
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	1	500 00	100.0	500 00	.....
4	Deposits of over \$300.....	14	7,195 25	100.0	513 95	100.0
	Class 1—Day Wages.....	1	650 00	7.1	650 00	9.0
	“ 2—Salary .....	.....	.....	.....	.....	.....
	“ 3—Professional ... ..	.....	.....	.....	.....	.....
	“ 4—Workers using Money	13	6,545 25	92.9	503 48	91.0

TABLE NO. III.—BLANK NO. 1. (Continued.)

Number of Deposits over \$300 between June 1st and August 31st, 1879.

Office Number.	CLASSIFICATION OF DEPOSITORS.	Total Number of Deposits.	Total Amount of Deposits.	Per Cent. Number of Deposits.	Average Amount of Each.	Per Cent. Amount of Each.
6	Deposits of over \$300.....	1	\$ 350 00	100.0	\$350 00	100.0
	Class 1—Day Wages.....	.....	.....	.....	.....	.....
	“ 2—Salary.....	.....	.....	.....	.....	.....
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	1	350 00	100.0	350 00	100.0
8	Deposits of over \$300.....	56	38,316 50	100.0	684 22	100.0
	Class 1—Day Wages.....	26	18,083 00	46.4	695 50	47.2
	“ 2—Salary.....	.....	.....	.....	.....	.....
	“ 3—Professional.....	2	3,400 00	3.6	1,700 00	8.9
	“ 4—Workers using Money	28	16,833 50	50.0	601 20	43.9
9	Deposits of over \$300.....	42	23,823 00	100.0	567 21	100.0
	Class 1—Day Wages.....	13	6,566 00	30.9	505 08	27.6
	“ 2—Salary.....	4	1,755 00	9.5	438 75	7.4
	“ 3—Professional.....	2	1,912 00	4.8	956 00	8.0
	“ 4—Workers using Money	23	13,590 00	54.8	590 87	57.0
11	Deposits of over \$300.....	4	2,330 00	100.0	582 50	100.0
	Class 1—Day Wages.....	2	1,080 00	50.0	540 00	46.4
	“ 2—Salary.....	.....	.....	.....	.....	.....
	“ 3—Professional.....	.....	.....	.....	.....	.....
	“ 4—Workers using Money	2	1,250 00	50.0	625 00	53.6
12	Deposits of over \$300.....	88	80,080 02	100.0	910 00	100.0
	Class 1—Day Wages.....	29	24,056 19	33.0	808 83	30.0
	“ 2—Salary.....	15	11,618 55	17.0	774 57	14.5
	“ 3—Professional.....	3	2,000 00	3.4	666 67	2.5
	“ 4—Workers using Money	41	42,405 28	46.6	1,034 27	53.0
13	Deposits of over \$300.....	35	17,171 19	100.0	490 61	100.0
	Class 1—Day Wages.....	6	3,171 59	17.1	528 60	18.4
	“ 2—Salary.....	3	1,300 00	8.6	433 33	7.6
	“ 3—Professional.....	3	1,320 00	8.6	440 00	7.7
	“ 4—Workers using Money	23	11,379 60	65.7	494 77	66.3
14	Deposits of over \$300.....	27	14,820 00	100.0	548 89	100.0
	Class 1—Day Wages.....	5	2,250 00	18.5	450 00	15.2
	“ 2—Salary.....	1	300 00	3.7	300 00	2.0
	“ 3—Professional.....	2	1,230 00	7.4	615 00	8.3
	“ 4—Workers using Money	19	11,040 00	70.4	581 05	74.5

TABLE No. IV.—SAVINGS BANKS RE-
*Showing total number of Deposits of each Class, and per cent., from
 and average amount deposited by each Depositor*

Deposits for Three Months, from June 1, 1879, to September 1, 1879, inclu- ding all Classes.	Number of Deposits.	Per Cent. of Deposits.	Amount Deposited.	Per Cent. of Amount.	Average Amount Deposited by each Depositor.
Class 1—Wage Workers.....	1,424	48.4	\$149,376 82	34.7	\$104 90
“ 2—Salaries	401	13.6	41,686 25	9.7	103 95
“ 3—Professional	102	3.5	23,060 68	5.3	226 09
“ 4—Workers Requiring Money...	1,018	34.5	216,640 58	50.3	212 81
Total number of Deposits.....	2,945	100.0	\$430,764 33	100.0	\$146 24

It will be noted that the above table is divided into three groups, to wit:

The analysis of Table I.

The analysis of Table II.

The analysis of Table III.

The first table (No. I.) represents the total number of new deposits reported for the months of June, July and August, 1879, and shows that the wage workers have made nearly one-half the total number of deposits, (48.4 per cent.,) and over one-third (34.7 per cent.) of the whole amount deposited.

Workers for salary, while much less in number, exhibit a close relation as to ratio between themselves and wage workers, with a difference of less than one per cent. in average deposits.

The professional class is smaller in numbers than either of the other classes, but exceeds the others in the average *amount* of deposits.

SAVINGS BANKS.

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CORDING OCCUPATIONS OF DEPOSITORS.

June 1st to Sept. 1st, 1879 ; also total amount deposited, with per cent. of Each Class, collated from Tables I., II. and III.

Number of Depositors of \$300 and Under.	Per Cent. of Deposits.	Amounts.		Per Cent. of Amounts.	Average Amount.	Number of Deposits.	Per Cent. of Deposits by Classes.	Amounts.		Per Cent. of Amounts by Classes.	Average Amount of Deposits.
1,315	51.3	\$79,423	54	47.4	\$60 46	109	28.5	\$72,303	48	27.5	\$663 33
370	14.4	21,045	52	12.6	62 28	31	8.1	20,640	73	7.8	665 83
77	3.0	4,870	06	2.9	63 25	25	6.6	18,190	62	6.9	727 62
801	31.3	62,185	62	37.1	77 63	217	56.8	152,105	76	57.8	700 86
2,563	100.0	\$167,524	74	100.0	\$65 36	382	100.0	\$263,240	59	100.0	\$689 11

Those who require the use of money are numerically next to wage workers, but furnish only one-third (34.5) the number of depositors, although they contribute 50.3 per cent. of the aggregate of deposits.

The second table (No. II.) shows the total number of new depositors, and amount of deposits of \$300 and less for the three months inclusive, and it will be seen that the wage workers contribute not only more than one-half (51.3) per cent. in numbers, but less than one-half (47.4) per cent. in amount.

The third table (No. III.) exhibiting the total number of deposits of over \$300 in the three months designated, shows that the class of depositors who require the use of money are not only the most numerous, in this table being 56.8 per cent., but also that they contribute 57.8 per cent. of the total amount deposited.

TABLE V.

Showing the Relative Amounts of Deposits and Numbers of Depositors in Nine Banks for the Years 1876, 1877 and 1878.

Office Number.	Number of Depositors Jan. 1, 1877.	Number of Depositors Jan. 1, 1878.	Number of Depositors Jan. 1, 1879.	Amount on Deposit Jan. 1, 1877.	Amount on Deposit Jan. 1, 1878.	Amount on Deposit Jan. 1, 1879.	Average to each Depositor for Jan. 1, '77.	Average to each Depositor for Jan. 1, '78.	Average to each Depositor for Jan. 1, '79.	Entire Amount of Deposits for 1877.	Entire Amount of Deposits for 1878.
5	5,113	5,281	6,373	\$3,044,658 93	\$2,761,100 01	\$2,662,773 88	\$595 28	\$522 84	\$417 82	\$852,125 84	\$1,054,726 40
2	688	774	812	105,961 26	125,351 78	132,172 00	154 01	161 98	162 77	55,655 07	36,862 11
3	1,369	1,369	1,291	196,468 93	177,767 99	166,179 03	143 51	129 85	124 85	88,225 41	100,881 55
7	696	666	594	109,314 98	94,423 26	76,644 71	157 06	141 78	129 03	32,422 35	25,861 82
6	167	183	187	21,014 84	22,826 35	26,675 00	125 84	125 28	142 59	8,788 93	14,244 00
8	3,450	2,853	2,976	743,783 27	568,189 02	636,397 12	215 59	199 12	212 16	528,139 41	361,311 26
11	258	215	153	54,893 57	39,606 74	29,669 95	212 77	137 71	193 92	23,259 14	14,310 89
12	10,802	10,217	10,023	4,609,621 74	4,652,075 26	4,342,352 50	426 74	455 33	433 24	1,291,001 55	1,224,258 24
14	3,228	3,119	2,874	1,103,995 16	1,076,557 70	967,540 29	342 01	345 16	336 37	272,698 74	273,024 93
	25,771	24,677	25,283	\$9,989,712 68	\$9,517,898 11	\$9,030,404 48	\$387 63	\$385 70	\$357 17	\$3,152,316 44	\$3,105,481 20

Nine of the banks which sent in returns kindly furnished us with somewhat more extended statistics than the others, thereby enabling us to extend our review over a longer period than would otherwise have been practicable. As these banks were well scattered throughout the State, and received deposits from every class of citizens, their reports, as condensed in the above table, (No. V.) may be considered as fairly representative in their character. This table fully confirms the deductions drawn from Table (No. VI.) and amply sustains them by showing a remarkably similar movement during the year 1877, which was not then reviewed. In this table is also presented the very regular tendency to reduction of amounts to the credit of average individual depositors. In the different banks reporting, this deduction is apparently spasmodic and fluctuating; nevertheless the aggregate indicates a slow and steady shrinkage. On January 1st, 1877, there was on deposit \$9,989,712.68, while on January 1st, 1878, the amount was reduced to \$9,517,898.11, showing a decline of \$471,814.57, or about 4½ per cent. This decline continued throughout the next year, the deposits being, January 1st, 1879, but \$9,030,404.48, which, deducted from the previous year, (\$9,517,898.11) shows a falling off of \$487,493.63, being about the same ratio of decrease as its predecessor. The average amount of individual deposits varying from \$387.63, Jan. 1st, 1877, to \$385.70, January 1st, 1878, and to \$357.17, January 1st, 1879, teaches the same lesson. The aggregate deposits for the years 1877 and 1878, as seen in the last two columns of the table, show about the same per cent. of reduction, and but confirms the belief that for some reason there has been a gradual decline in the savings banks deposits throughout the entire State.

TABLE No. VI.

Showing Increase and Decrease of Deposits; also, the number of New Depositors, with the amount of their Deposits during 1878, and the total amount held in trust for Individuals and Societies January 1st, 1879.

Office Number.	Number of Depositors Jan. 1, 1879.	Number of Depositors Jan. 1, 1878.	Per ct. of Increase.	Per ct. of Decrease.	Entire Amount of Deposits Jan. 1, 1879.	Entire Amount of Deposits Jan. 1, 1878.	Per ct. of Increase.	Per ct. of Decrease.	Number of new Depositors opening Accounts during 1878.	Number of Deposits made by such new Depositors.	Total Amount Deposited.	Total Amount of Trust Accounts of Individuals to Jan. 1, 1879.	Total Amount of Trust Accounts of Societies to Jan. 1, 1879.
5	6,374	5,281	1.7	.....	\$2,662,773 88	\$2,761,100 01	.....	3.5	2,521	4,494	\$648,629 73	.....	.....
2	812	774	4.8	.....	132,172 00	125,351 78	5.4	.....	129	227	12,452 90	.....	.....
10	1,112	1,357	.....	18.1	238,371 84	359,953 03	.....	33.8	208	533	35,296 05	\$11,831 92	14,271 90
1	1,755	2,030	.....	13.5	309,415 27	466,415 21	.....	33.9	245	521	23,643 38	17,841 83	3,847 33
7	594	666	.....	10.8	76,644 71	94,423 26	.....	18.8	68	124	6,950 96	215 89	445 09
3	1,291	1,369	.....	5.7	161,179 03	177,767 99	.....	9.3	183	478	22,318 35	34,676 53	13,227 00
4	997	1,020	.....	2.3	280,292 04	298,940 42	.....	6.2	137	194	29,807 83	.....	.....
6	187	183	2.2	.....	26,675 00	22,826 00	16.8	.....	34	51	5,841 00	2,359 00	2,613 00
8	2,976	2,853	4.3	.....	631,397 12	568,189 02	7.7	.....	801	.....	.....	.....	.....
9	3,496	3,391	3.1	.....	862,263 79	866,238 84	.....	.5	760	.....	.....	.....	.....
11	153	215	.....	28.8	29,669 95	39,606 74	.....	25.1	24	34	3,960 00	2,645 28	439 69
12	10,023	10,217	.....	1.9	4,342,352 50	4,652,075 26	.....	6.7	1,602	.....	.....	.....	.....
13	3,829	4,015	.....	4.6	891,540 93	1,004,472 27	.....	10.2	1,281	3,329	263,089 38	38,141 40	14,945 18
14	2,874	3,119	.....	7.9	967,540 29	1,076,557 70	.....	10.1	618	.....	141,250 96	.....	.....
.....	36,472	36,490	.1	7.2	\$11,612,288 35	\$12,513,917 53	.....	.....	.....	.....	.....	.....	.....

The above Table (No. VI.) shows the number of depositors in the banks under review to have been, January 1st, 1878, 36,490, and on January 1st, 1879, 36,472—showing a decline in number of but 18, or about one-twentieth of one per cent.; say 5 in 10,000—a number so small as to be scarcely appreciable. The amount to the credit of such depositors, although as good as could reasonably have been expected in view of the condition of trade during the early part of the year, is not quite so assuring. The aggregate of such deposits, January 1st, 1878, was \$12,513,917.53, while those a year later are reported as only \$11,612,288.35—being a decrease of \$901,629.18, or 7.2 per cent. If the rule generally adopted by statisticians in this country is correct, that the average annual increase of population and increment of productive industry is a little over 3 per cent. a year, that amount should be added to both the above deficiencies to obtain the figures representing the difference between the year 1879 and years of average prosperity. This would give the result of 3.5 per cent. in number, and 10.2 per cent. in amount.

TABLE NO. VII.—SAVINGS BANKS RECORDING OCCUPATIONS OF DEPOSITORS.

Showing the Average Deposits of each Class, together with Per Cent. of Number and Per Cent. of Amount of each Class Depositing from June 1st to September 1st, 1878 and 1879.

CLASSES DEPOSITING.	Average Deposits.		Per Cent. of Number in 1878.	Per Cent. of Number in 1879.	Per Cent. of Amount in 1878.	Per Cent. of Amount in 1879.
	June 1, 1878, to Sept. 1, 1878.	June 1, 1879, to Sept. 1, 1879.				
Class 1—Wage Workers.....	\$132 65	\$104 90	47.0	48.4	41.6	34.7
“ 2—Salaries.....	111 18	103 95	13.0	13.6	9.8	9.7
“ 3—Professional.....	133 69	226 09	4.0	3.5	3.1	5.3
“ 4—Workers Requiring Money.....	188 78	212 81	36.0	34.5	45.5	50.3
General Average.....	150 24	146 24	100.0	100.0	100.0	100.0

In the above table it will be seen that while the average amounts deposited by wage workers are naturally lower in 1879 than they were in the previous year, on account of the continued depression of business during the winter months and in the early spring, the proportion of such deposits as compared with the other classes exhibits but slight variation.

The coincidence of movement in the two years, of the salaried class, is somewhat remarkable, but when it is considered that the revenue of this class is less liable to fluctuation than that of either of the other classes, this steadiness of record is accounted for.

The next class—Professional—seems to have been eminently prosperous during the year, judging from the savings bank returns, as their deposits have advanced from 3.1 per cent. in 1878, in number, to 5.3 per cent. in 1879, showing an increase of 71 per cent. The gain in the ratio of amounts deposited is equally noticeable, advancing from an average of \$133.69 in 1878, to \$226.90 in 1879—an increase of 69 per cent. The improved condition of this class of depositors may in some measure be attributed to the increased activity, both in trade and manufactures, since the early spring, whereby the other classes, being placed in a better pecuniary condition, were enabled to patronize to a larger extent those of the professional calling.

Class 4 shows also a satisfactory improvement in so far as savings bank deposits may be considered a test of prosperity, as the increase in number of deposits shows an advance from 45.5 per cent. in 1878, to 50.3 per cent. in 1879, or about 10½ per cent., while the average amount deposited advanced from \$188.78 in 1878, to \$212.81 in 1879.

PART III.

COLLATED STATISTICS DERIVED FROM LABORERS.

Based upon Circular No. 3 and Blank No. 3.

CHAP. I.—OCCUPATIONS—YEARLY EARNINGS AND EXPENSES OF FAMILIES AND SINGLE MALES—EXCESS OF EARNINGS AND EXPENSES. (With notes.)

CHAP. II.—OCCUPATIONS—NATIONALITY—TERM OF PRESENT EMPLOYMENT—MARRIED OR SINGLE—CHANGES OF EMPLOYMENT SINCE 21—HOURS OF LABOR AND MODE OF PAYMENT—DAILY EARNINGS AND LOST TIME. (With notes.)

CHAP. III.—RESPECTING OWNING PROPERTY—HOW PAID FOR AND ITS SANITARY CONDITION—MONTHLY RENT—EDUCATION OF CHILDREN—THEIR AGE AND EMPLOYMENT IN FACTORIES. (With notes.)

PART III.

[CIRCULAR No. 3.]

STATE OF NEW JERSEY,
BUREAU OF STATISTICS OF LABOR AND INDUSTRIES, }
TRENTON, May 1st, 1879.

DEAR SIR:--The Legislature of this State passed an act, approved March 27th, 1878, authorizing the establishment of this Bureau. The following preamble and section clearly defines its special object and duties:

WHEREAS, as guardians of the public welfare, the State authorities are called upon to consider and in all legitimate ways endeavor to improve the physical, mental and moral condition of the State, especially those whose daily toil contributes so largely to the prosperity of manufacturing and other productive industries; therefore,

2. *And be it enacted*, That the duties of such Bureau shall be to collect, assort, systematize and present in annual reports to the Legislature, on or before the last day of October in each year, statistical details relating to all departments of labor in the State, especially in its relation to the commercial, industrial, social, educational and sanitary condition of the laboring classes, and in all suitable and lawful ways foster and enlarge our manufacturing and every other class of productive industry, with a view to their permanent establishment upon a prosperous basis, both to the employer and the employed.

As the Bureau is now entering upon another year's work, it appeals to you for your vigorous and industrious co-operation in carrying out that part of the law which makes it a duty to inquire into the "commercial, industrial, social, educational and sanitary condition of the laboring classes."

The questions here proposed have this object alone in view, and should be answered by each wage laborer in the State. In fact, how shall suitable legislation be obtained unless the laborer, by giving detailed statistics regarding his condition, shall furnish such facts upon which to base legislation as shall leave our law-makers without excuse when called upon to vote for such laws as may afford him relief?

Special attention is invited to questions 29 and 30, and candid, well-considered responses solicited to them.

The toiling masses, it is certain, have as yet but partially received the benefits which improved machinery and our otherwise advanced civilization have given to the country at large; and the present seems to be the opportunity, by a united effort in securing better industrial education for the young, and by the enactment of wise laws regarding labor and co-operation, to hasten the solution of this great social problem.

JAMES BISHOP, *Chief.*

SAMUEL C. BROWN, *Secretary.*

STATE OF NEW JERSEY,
BUREAU OF STATISTICS OF LABOR AND INDUSTRIES, }
TRENTON, May 20th, 1879.

BLANK No. 3 FOR EMPLOYEES.--[This blank is sent out post paid as printed matter. On its return, with written replies to the questions, it will be chargeable with letter postage. A prepaid envelope, duly directed, is therefore sent with it, in which please enclose the blank and return by mail to this office within sixty (60) days.]

1. Name.....
2. Residence.....
3. Occupation.....
4. Nationality.....
5. How long have you been in your present employ?.....
6. Are you married, or single?.....
7. Have you changed your trade or business since you were twenty-one years old?.....How often?.....
8. How many hours do you work per week?.....
9. How many on Saturday?.....
10. Are you paid in cash or store orders?.....
11. If in store orders, what additional per cent. do you pay for articles purchased?.....
12. Are your wages paid weekly or monthly?.....
13. Is any part withheld by your employer?.....
14. What are your actual earnings per day?.....
15. What during the year have been your average earnings per week?.....
16. What amount of wages fairly earned, for the last two years, has your employer from any cause withheld?.....
17. How many days have you lost during the year ending Aug. 1st, 1878?.....
a. From sickness?..... b. Inability to obtain work?.....
18. Do you own the house and land you occupy?.....If yes, did you pay therefor from your wages?..... and how long were you in saving the purchase money?.....
19. What proportion of your earnings are derived from your wife and children?.....
20. Do you occupy a whole house?.....If so, give number of rooms?..... and monthly rent?
21. What is the sanitary condition of your house and neighborhood?.....
22. What is the sanitary condition of the workshop in which you are employed?.....
23. Have your expenses been more than your earnings in the year 1878?..... If yes, how much have they fallen behind?.....
24. Do you not think, all things considered, a better remuneration for labor is in prospect?.....
25. Are your children being educated so that upon leaving school they will be capable of self-support?.....
26. Has new labor-saving machinery been introduced into your trade within the past ten years?.....

27. If yes, what number of wage laborers have been discharged on account thereof?.....

28. What per cent. of reduction of wages has this labor-saving machinery caused?.....

29. What do you think would be the result of a general reduction of the hours of labor to eight per day?.....

30. It is often stated that you don't receive a just share of profit on your labor. What better system can be equitably adopted?.....

31. How many boys..... girls..... between 10 and 15 years of age are employed in the establishment where you work?..... how many under 10 years?.....

32. How many hours per day..... per week..... are such children employed, and have they ever been employed in *night* work?.....

33. If possible, give actual (if not, give estimated,) expenses for year 1878, as follows: For rent..... fuel..... clothing..... groceries..... meat and vegetables..... sundries.....

OCCUPATIONS REPRESENTED IN TABLES NOS. VIII., IX., X.

	Blanks Returned.		Blanks Returned.
Bag Maker.....	5	Music Teacher.....	2
Barber.....	4	News Dealer.....	2
Basket Maker.....	1	Ornamental Clay Worker.....	1
Blacksmith.....	6	Oil Cloth Printer.....	2
Brakeman.....	6	Painter.....	18
Brass Finisher.....	1	Pattern Maker.....	1
Bricklayer.....	1	Pencil Maker.....	1
Butcher.....	1	Plasterer.....	2
Button Presser.....	2	Plumber.....	2
Cabinet Maker.....	7	Rack Maker.....	1
Carpenter.....	7	Railroad.....	3
Celluloid Polisher.....	1	Rolling Mill.....	3
Chemical Works.....	1	Rubber Worker.....	5
Cigar Maker.....	7	Salesman.....	4
Clerk.....	4	School Teacher.....	1
Compositor.....	2	Sewing Machine.....	1
Coal Heaver.....	1	Shoemaker.....	40
Cotton Spinner.....	1	" Custom.....	1
Cutler.....	1	" Cutter.....	1
Engineer—		" Fastener.....	1
" Locomotive.....	1	" Finisher.....	1
" Stationary.....	2	" Laster.....	4
Engraver.....	13	Shawl Maker.....	1
File Cutter.....	1	Sheet Metal.....	1
Fireman.....	1	Silver Plater.....	2
Foreman.....	1	Silk Weaver.....	17
Foundryman.....	1	Silk Dyer.....	3
Frame Maker.....	1	Solderer ..	1
Gunsmith.....	2	Spinner.....	1
Hotel.....	1	Stair-rod Maker.....	1
Harness Maker.....	3	Stereotyper.....	1
Hatter.....	19	Stove Moulder.....	1
Iron Worker.....	1	Switch Tender.....	2
Jewelry.....	4	Tailor.....	4
Japanner.....	1	Tanner.....	3
Lock Maker.....	1	Teamster.....	1
Loom Fixer.....	4	Tinsmith.....	4
Machinist.....	6	Tobacco Worker.....	2
Mason.....	7	Trunk Maker.....	1
Metal Engraver.....	1	Turner.....	1
Metal Screws.....	1	Watchman.....	1
Millwright.....	2	Wheelwright.....	2
Moulder.....	1	Wood Turner.....	2

COLLATED STATISTICS DERIVED FROM LABORERS.

Based upon Circular No. 3 and Blank No. 3.

TABLE No. VIII.—EARNINGS AND EXPENSES.—BLANK No. 3.

Selected Returns, giving Total Earnings of Families and Single Men, Expenses and Excess of Earnings and Expenses of Each.

Office Number.	OCCUAPTION.	YEARLY EARNINGS			EXPENSES FOR YEAR.							EXCESS.	
		Head of Family.	Others in Family.	Total.	Rent.	Fuel.	Clothing.	Groceries.	Meat and Vegetables.	Sundries.	Total.	Earnings over Expenses.	Expenses over Earnings.
20	Mason	\$312 00	.....	\$312 00	\$120 00	\$22 00	\$30 00	\$90 00	\$60 00	\$30 00	\$352 00	.....	\$40 00
12		312 00	.....	312 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
25		546 00	.....	546 00	.....	.....	25 00	250 00	48 00	50 00	.....	.....	No.
5		260 00	.....	260 00	75 00	30 00	50 00	55 00	50 00	.....	260 00	.....	.....
55	Metal Screws.....	494 00	.....	494 00	48 00	15 00	70 00	260 00	50 00	25 00	.....	\$26 00	.....
70		312 00	.....	312 00	120 00	28 00	.....	.....	.....	.....	.....	.....	100 00
13	Locomotive Eng'r...	676 00	.....	676 00	100 00	35 00	.....	.....	.....	.....	.....	.....	100 00
2	Laborer.....	390 00	.....	390 00	18 00	16 00	20 00	100 00	50 00	10 00	214 00	176 00	.....
125	Cigar Maker.....	260 00	.....	260 00	72 00	17 00	10 00	104 00	52 00	17 00	272 00	.....	12 00
271	Shoemaker.....	260 00	.....	260 00	96 00	.....	.....	.....	.....	.....	.....	.....	In debt.
239	Brakeman.....	520 00	.....	520 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
1		780 00	.....	780 00	120 00	40 00	150 00	300 00	200 00	100 00	910 00	.....	130 00
75		520 00	.....	520 00	96 00	6 00	40 00	160 00	101 00	78 00	491 00	29 00	.....
92		941 00	.....	941 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
223		390 00	.....	390 00	120 00	30 00	25 00	.....	.....	365 00	.....	.....	150 00
77	Jewelry.....	468 00	.....	468 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
60	Turner, (single)....	150 00	.....	150 00	.....	.....	.....	.....	.....	.....	.....	.....	100 00
17	Stationary Engine...	382 20	.....	382 20	120 00	30 00	25 00	120 00	80 00	5 00	.....	2 20	.....
16	Chemical Works.....	200 00	.....	200 00	.....	.....	.....	.....	.....	400 00	.....	.....	200 00
11	Laborer.....	299 00	.....	299 00	48 00	16 75	6 00	205 50	20 00	20 00	.....	.....	16 75
10		520 00	.....	520 00	.....	20 00	25 00	200 00	50 00	75 00	.....	.....	Yes.
9		442 00	.....	442 00	78 00	50 00	50 00	72 00	100 00	50 00	425 00	17 00	.....

32	Brakeman	582 40	582 40	84 00	25 00	93 00	360 00	8 00		12 40
8	Laborer	312 00	312 00							200 00
18	Machinist	312 00	312 00	108 00	17 50	45 00	100 00	60 00	50 00	68 50
59	Mason	156 00	52 00	208 00						50 00
54	Switch Tender	427 00	427 00							No.
145		364 00	364 00	70 00	107 00	85 00		312 00		210 00
115	Shoe Laster	312 00	312 00							100 00
138	Bag Maker	312 00	312 00	120 00	50 00	60 00	50 00	10 00	20 00	Yes.
52		624 00	624 00	65 00	22 00	75 00		480 00	642 00	18 00
57	Tanner	442 00	442 00	72 00	30 00	70 00	176 00	118 00	29 00	53 00
33		112 00	112 00	25 00	12 00	10 00	40 00	10 00	97 00	15 00
26	Railroad	280 80	208 00	488 80	96 00	100 00	200 00	75 00		17 80
143	Cabinet Maker	624 00	624 00	23 00		75 00	200 00	175 00	75 00	548 00
91	Shoe Finisher	234 00	234 00	72 00						76 00
159	Shoemaker	166 50	166 50							No.
230	Clerk (single)	169 20	109 20							200 00
19	Painter	260 00	200 00	48 00	15 00	20 00	100 00	65 00	25 00	150 00
21	Cabinet Maker	286 00	286 00	96 00	25 00	80 00	100 00	50 00	30 00	13 00
22	Hatter	624 00	624 00							95 00
147	Cabinet Maker	364 00	364 00	72 00				292 00	364 00	150 00
23		364 00	364 00							100 00
196	Silk Weaver	312 00	364 00	676 00	84 00					In debt.
134	Metal Engraver	208 00	208 00					300 00		92 00
72		468 00	468 00							25 00
108	Plasterer	312 00	312 00							75 00
58	Shoemaker	267 00	267 00	96 00	30 00			5 00		40 00
36		442 00	442 00	60 00	16 00	55 00	175 00	80 00	30 00	416 00
24	(single) ..	416 00	416 00			75 00		120 00	195 00	26 00
149	(single) ..	280 00	280 00							221 00
197	Rolling Mill	494 00	494 00							No.
56	Tinner	338 00	338 00	60 00	40 00	30 00		25 00		No.
71	Jewelry	520 00	520 00	84 00	30 00					No.
65		416 00	416 00	48 00	20 00	30 00	150 00	75 00		100 00
107	Brass Finisher	416 00	416 00							138 00
63	Tailor	91 00	91 00		16 00			312 00	328 00	237 00
53		561 00	561 00	66 00	60 00	100 00	240 00	72 00	20 00	50 00
150	Harness Maker	312 00	312 00	60 00	50 00			6 00	40 00	150 00

TABLE NO. VIII.—EARNINGS AND EXPENSES—BLANK NO. 3. (Continued.)

Office Number.	OCCUPATION.	YEARLY EARNINGS.			EXPENSES FOR YEAR.							EXCESS.	
		Head of Family.	Others in Family.	Total.	Rent.	Fuel.	Clothing.	Groceries.	Meat and Vegetables.	Sundries.	Total.	Earnings over Expenses.	Expenses over Earnings.
195	Silk Weaver.....	\$364 00	.....	\$364 00	\$72 00	\$20 00	\$20 00	\$150 00	.....	.....	.....	.....	\$50 00
136		416 00	.....	416 00	82 00	18 00	50 00	130 00	\$50 00	\$50 00	.....	\$36 00	.....
140		416 00	.....	416 00	36 00	15 00	.....	.....	.....	.....	.....	.....	No.
76	Jewelry.....	468 00	\$260 00	728 00	78 00	.....	50 00	.....	.....	.....	.....	.....	125 00
74	Shoemaker	312 00	.....	312 00	.....	28 00	.....	.....	39 00	20 00	.....	.....	200 00
50	Jewelry	208 00	208 00	416 00	96 00	.....	.....	.....	.....	.....	.....	.....	75 00
133	Compositor.....	832 00	.....	832 00	.....	.....	.....	.....	.....	.....	.....	.....	In debt.
118	Shoe Fastener.....	104 00	.....	104 00	82 00	25 00	35 00	.....	.....	.....	.....	.....	In debt.
135	Engraver.....	1,040 00	.....	1,040 00	156 00	40 00	200 00	300 00	160 00	150 00	\$1,006 00	.....	250 00
142	Jewelry	208 00	.....	208 00	106 00	16 00	25 00	100 00	50 00	30 00	327 00	.....	119 00
139	Bag Maker (single)..	312 00	.....	312 00	.....	.....	.....	.....	.....	.....	300 00	12 00	.....
83	Laborer	156 00	.....	156 00	264 00	30 00	100 00	300 00	200 00	25 00	919 00	.....	763 00
100	Tin and Sheet Iron...	208 00	.....	208 00	60 00	12 00	.....	.....	.....	100 00	.....	.....	50 00
88	Hatter (single).....	78 00	.....	78 00	.....	.....	.....	.....	.....	.....	.....	.....	100 00
105	Grocery Clerk.....	260 00	.....	260 00	.....	.....	.....	.....	.....	.....	.....	.....	In debt.
183		416 00	.....	416 00	168 00	32 00	100 00	400 00	125 00	75 00	900 00	.....	484 00
171	Painter	468 00	.....	468 00	72 00	15 00	25 00	200 00	.....	50 00	362 00	106 00	.....
181	Shoemaker	312 00	.....	312 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
162	Shoemaker	390 00	.....	390 00	.....	.....	.....	.....	.....	.....	.....	.....	75 00
69	Bag Maker.....	312 00	.....	312 00	.....	.....	.....	.....	.....	.....	.....	.....	75 00
62	Lock Maker.....	468 00	.....	468 00	84 00	650 00	30 00	55 00	.....	.....	.....	.....	No.
78		364 00	312 00	676 00	.....	36 00	75 00	40 00	55 00	12 00	.....	.....	No.
68	(single)...	378 00	.....	378 00	.....	.....	.....	.....	.....	.....	.....	.....	200 00
44	(single)...	421 10	.....	421 10	.....	.....	.....	.....	.....	292 00	.....	129 10	.....
119	Laborer	260 00	156 00	416 00	96 00	.....	.....	.....	.....	.....	.....	.....	150 00

113 Butcher (single).....	104 00	104 00										200 00
102 Painter	156 00	156 00										Yes.
40 (single)...	260 00	260 00										25 00
43 (single)...	257 00	257 00										No.
99 Laborer (single).....	156 00	156 00										45 00
85 Hatter (single).....	312 00	312 00										100 00
93 Blacksmith Helper..	260 00	260 00	48 00	9 00		100 00						No.
116 Shoe Factory (sing.)	312 00	312 00										No.
42	260 00	260 00										20 00
46 Celluloid Polisher...	412 00	412 00	48 00	18 00		80 00	108 00	7 00				20 00
84 Hatter.....	312 00	312 00										No.
169 Laborer.....	260 00	260 00										No.
165 Laborer.....	262 00	312 00	574 00									No.
270 Laborer.....	234 00	234 00	60 00	21 00	22 00	70 00	80 00	20 00	273 00			39 00
168 Painter	468 00	468 00										No.
249 Laborer.....	108 00	104 00	212 00	60 00								Yes.
228 Hatter (single).....	312 00	312 00						364 00	364 00			52 00
89 Hatter (single).....	480 00	480 00										No.
96 Loom Fixer.....	780 00	780 00										
109 Hatter.....	468 00	468 00	125 00	25 00	50 00	220 00	175 00	20 00	615 00			147 00
129 Stationary Engineer.	611 00	611 00		35 00	50 00	450 00	150 00	150 00	835 00			224 00
106 Laborer (single).....	182 00	182 00										90 00
269 Laborer.....	166 40	166 40	36 00	18 00	28 00	70 00	95 00	7 00	254 00			87 60
186 Trunk Maker (sing.)	235 20	235 20										No.
241 Laborer (single).....	260 00	260 00										No.
268 Pattern Maker.....	520 00	520 00	72 00	30 00	72 00	95 00	134 00	85 00	488 00	32 00		
123 Plumber	208 00	104 00	312 00									100 00
126 Foreman.	565 76	565 76										No.
98 Machinist (single)...	364 00	364 00										Yes.
111 Hatter.....	228 00	228 00	60 00	25 00	50 00	150 00	100 00	30 00	415 00			187 00
184 (single)...	468 00	468 00			150 00							No.
262	260 00	260 00	60 00	20 00	40 00	130 00	35 00	40 00	325 00			65 00
95 Iron Worker.....	702 00	702 00	142 00	30 00								250 00
110 Hatter.....	312 00	312 00	150 00	30 00	100 00							50 00
163 Shoemaker	296 00	296 00										250 00
267 Moulder.....	350 00	350 00	72 00	25 00	30 00	80 00	90 00	60 00	357 80			7 00
237 Factory (single).....	208 00	208 00										40 00

TABLE No. VIII.—EARNINGS AND EXPENSES—BLANK No. 3. (Continued.)

Office Number.	OCCUPATION.	YEARLY EARNINGS.			EXPENSES FOR YEAR.							EXCESS.	
		Head of Family.	Others in Family.	Total.	Rent.	Fuel.	Clothing.	Groceries.	Meat and Vegetables.	Sundries.	Total.	Earnings over Expenses.	Expenses over Earnings.
253	Silk Weaver.....	\$468 00	.....	\$468 00	\$96 00	\$12 00	\$40 00	\$250 00	\$125 00	.....	\$523 00	.....	\$55 00
345½		555 00	.....	555 00	120 00	25 00	125 00	250 00	.....	\$30 00	550 00	\$5 00	.....
151		312 00	\$260 00	572 00	120 00	.....	100 00	.....	.....	.....	.....	.....	100 00
154	Tinsmith	513 00	.....	513 00	60 00	20 00	40 00	.....	.....	.....	.....	.....	200 00
141	Jewelry	208 00	.....	208 00	106 00	16 00	25 00	100 00	50 00	25 00	208 00	.....	114 00
137	Bag Maker (single)	312 00	.....	312 00	.....	.....	12 00	.....	.....	300 00	312 00	.....	.....
29		281 80	182 00	463 80	96 00	.....	125 00	200 00	.....	40 00	461 00	2 80	.....
35	(single)	208 00	.....	208 00	.....	.....	.....	.....	.....	.....	.....	.....	100 00
30	Rubber Worker	312 00	.....	312 00	.....	.....	.....	.....	.....	.....	.....	.....	30 00
132	Machinist.....	617 00	.....	617 00	.....	22 00	90 00	230 00	75 00	4 00	.....	.....	200 00
161	Shoemaker.....	340 00	.....	340 00	.....	.....	.....	.....	.....	.....	.....	.....	100 00
182	Carpenter	234 00	.....	234 00	73 00	30 00	.....	.....	.....	.....	.....	.....	200 00
177	Fireman	416 00	.....	416 00	.....	.....	.....	.....	.....	.....	.....	.....	Yes.
180	Shoemaker.....	352 50	.....	352 50	.....	.....	.....	.....	.....	.....	.....	.....	200 00
153	Cabinet Maker	468 00	.....	468 00	96 00	30 00	75 00	200 00	75 00	25 00	501 00	.....	33 00
157	Shoemaker.....	212 00	.....	212 00	.....	.....	.....	.....	.....	.....	.....	.....	200 00
31	Lab'r in shoe shop..	312 00	.....	312 00	.....	.....	95 00	.....	.....	260 00	355 00	.....	43 00
37	(single)	312 00	.....	312 00	.....	.....	.....	.....	.....	.....	.....	.....	25 00
130	Hatter.....	364 00	6 00	370 00	.....	.....	40 00	.....	.....	.....	.....	.....	50 00
97	Laborer (single).....	162 00	.....	162 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
82	Laborer (single).....	182 00	.....	182 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
49	Tanner.....	356 20	.....	356 20	60 00	20 00	55 00	.....	.....	.....	.....	.....	No.
174	Blacksmith	624 00	.....	624 00	.....	20 00	22 00	140 00	.....	70 00	.....	.....	No.
166	Laborer (single).....	208 00	.....	208 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
170	Laborer (single).....	208 00	.....	208 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
81	Hatter (single)	260 00	.....	260 00	.....	.....	.....	.....	.....	.....	.....	.....	30 00

66		670 50	670 50	260 00	20 00	50 00	175 00	80 00	60 00	645 00	25 50	.....
61	Shoemaker.....	312 00	312 00	15 00	20 00	.....	.....	.....	.....	.....	.....	80 00
38	(single)	312 00	312 00	.....	.....	40 00	.....	.....	.....	.....	.....	No.
51		364 00	364 00	96 00	30 00	35 00	225 00	70 00	125 00	581 00	.....	217 00
158	Shoemaker.....	264 00	264 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
155	Cutler (single).....	468 00	468 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
152	(single)	475 28	475 28	.....	.....	37 00	.....	.....	312 00	.....	.....	No.
80	Hatter.....	312 00	312 00	.....	.....	.....	.....	.....	.....	.....	.....	100 00
77	Jewelry	416 00	416 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
34	Shoe Shop (single)..	312 00	312 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
64	Wheelwright	104 00	104 00	.....	.....	.....	.....	.....	.....	.....	.....	150 00
48	Rack Peddler.....	208 00	624 00	72 00	16 00	.....	.....	.....	.....	.....	.....	75 00
45	Bag Maker (single)	312 00	312 00	72 00	20 00	15 00	186 00	39 00	46 00	378 00	.....	66 00
39		208 00	208 00	75 00	17 00	30 00	160 00	40 00	.....	322 00	.....	114 00
47	Hatter (single).....	292 00	292 00	.....	.....	.....	.....	.....	.....	.....	.....	20 00
41		260 00	260 00	60 00	20 00	12 00	75 00	50 00	.....	.....	.....	50 00
120	Sheet Metal (single)	143 00	143 00	.....	.....	.....	.....	.....	.....	.....	.....	80 00
208	Cabinet Maker.....	849 00	849 00	131 00	42 00	100 00	670 00	.....	100 00	.....	.....	50 00
192	Laborer	234 00	234 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
207	Cigar Maker.....	416 00	416 00	72 00	15 00	30 00	250 00	100 00	10 00	.....	.....	27 00
356	Laborer	468 00	468 00	.....	.....	.....	.....	.....	.....	.....	.....	20 00
362	Mason	258 00	258 00	120 00	16 00	30 00	150 00	15 00	10 00	.....	.....	105 00
221	Shoemaker.....	260 00	260 00	.....	.....	.....	.....	.....	.....	.....	.....	25 00
194	Loom Hand.....	624 00	624 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
361	Factory Laborer....	208 00	228 00	.....	.....	.....	.....	.....	.....	.....	.....	Yes.
193	Laborer	234 00	234 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
220	Coal Heaver.	468 00	624 00	.....	.....	.....	.....	.....	.....	.....	.....	Yes.
212	Shoemaker (single)	338 00	338 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
355	Bricklayer (single)..	312 00	312 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
216	Shoemaker (single)	65 00	65 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
354	Foreman horse R.R.	637 00	637 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
215	Shoemaker.....	312 00	312 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
204		468 00	468 00	.....	.....	.....	.....	.....	.....	.....	.....	20 00
214	Shoemaker.....	312 00	312 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
203	(single)	208 00	208 00	.....	.....	.....	.....	.....	.....	.....	.....	119 00
327	Team-driver.....	462 80	462 80	.....	.....	.....	.....	.....	.....	.....	.....	No.
291	Engraver (single)...	260 00	260 00	.....	.....	.....	.....	.....	.....	.....	.....	Yes.

TABLE NO. VIII.—EARNINGS AND EXPENSES—BLANK NO. 3. (Continued.)

Office Number,	OCCUPATION.	YEARLY EARNINGS.			EXPENSES FOR YEAR.							EXCESS.	
		Head of Family.	Others in Family.	Total.	Rent.	Fuel.	Clothing.	Groceries.	Meat and Vegetables.	Sundries.	Total.	Earnings over Expenses.	Expenses over Earnings.
203		\$415 00	\$16 00	\$431 00	.....	.....	\$35 00	.....	.....	.....	.....	.....	No.
322	Shoemaker.....	403 00	.....	403 00	\$80 00	\$20 00	10 00	\$200 00	\$50 00	\$40 00	\$400 00	\$3 00	.....
306	Mason	195 00	.....	195 00	96 00	14 00	20 00	130 00	20 00	8 00	288 00	.....	\$93 00
343	Shoemaker.....	438 00	.....	438 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
292	Hatter.....	132 00	.....	132 00	60 00	20 00	60 00	4 00	.....	.....	.....	.....	166 00
303	Laborer	104 00	.....	104 00	60 00	.....	.....	.....	.....	.....	.....	.....	Yes.
297	File Cutter (single)	416 00	.....	416 00	.....	.....	25 00	.....	.....	.....	.....	.....	No.
341	Factory Hand.....	702 00	.....	702 00	130 00	18 00	100 00	312 00	150 00	25 00	735 00	.....	33 00
293		312 00	.....	312 00	72 00	10 00	18 00	50 00	150 00	50 00	350 00	.....	38 00
339		270 00	60 00	330 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
311	Silk Weaver (single)	302 50	.....	302 50	.....	.....	.....	.....	.....	.....	.....	.....	No.
333	Painter (single).....	364 00	.....	364 00	.....	.....	30 00	.....	.....	208 00	.....	.....	No.
310	Silk Weaver.....	468 00	104 00	572 00	108 00	31 20	104 00	150 00	104 00	150 00	647 20	.....	179 20
316	(single)...	208 00	.....	208 00	.....	.....	25 00	.....	.....	208 00	233 00	.....	25 00
338	Cigar Maker (single)	208 00	.....	208 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
299	Carpenter	234 00	.....	234 00	30 00	.....	10 00	.....	.....	.....	.....	.....	Yes.
329		745 00	.....	745 00	100 00	35 00	110 00	150 00	125 00	100 00	620 00	125 00	.....
337	(single)...	494 00	.....	494 00	.....	.....	70 00	.....	.....	271 00	341 00	153 00	.....
290	Jewelry	715 00	.....	715 00	144 00	.....	.....	.....	.....	.....	.....	.....	No.
309	(single)...	572 00	.....	572 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
255	Engraver	494 00	.....	494 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
246	Jewelry (single).....	180 76	.....	180 76	60 00	15 00	30 00	100 00	120 00	100 00	425 00	.....	234 24
254	Cabinet Maker.....	480 00	.....	480 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
378	Factory Hand.....	286 00	.....	286 00	75 00	30 00	150 00	215 00	.....	.....	470 00	.....	184 00
358	Ornamental Worker	208 00	.....	208 00	.....	.....	.....	.....	.....	.....	.....	.....	120 00
350		350 00	208 00	558 00	.....	.....	.....	.....	.....	.....	.....	.....	No.

167	Laborer.....	208 00	208 00								No.
244	Harness Maker.....	260 00	260 00								In debt.
185	Shoemaker.....	206 00	206 00	78 00	32 00						150 00
187	Hatter.....	330 00	330 00	84 00	20 00	150 00	150 00	100 00	20 00	524 00	194 00
352	Laborer.....	202 50	202 50	72 00	27 00	75 00	156 00	90 00	72 00	492 00	290 50
365	Laborer.....	260 00	260 00								No.
188	Plasterer.....	267 00	267 00								60 00
238	Shawl Maker.....	312 00	216 00	528 00	60 00	12 00	260 00			332 00	75 00
232	School Teacher.....	450 00	450 00			20 00	110 00	200 00	110 00	175 00	165 00
229	Stair Rod Maker....	390 00	390 00	60 00	35 00						No.
231	Frame Maker (sing.)	110 00	110 00			35 00			10 00		150 00
227	Sewing Machines...	416 00	416 00			30 00					No.
377	Solderer.....	468 00	468 00								No.
357	Hotel.....	624 00	624 00								No.
219	Brakeman.....	561 60	561 60								No.
189	Plumber	260 00	260 00	520 00	90 00	20 00	18 00	200 00			100 00
200	Laborer	156 00	156 00								150 00
199	Spinner	312 00	312 00	624 00	96 00	24 00	15 00	200 00			In debt.
372	Basket Maker (sing.)	130 00	130 00		7 00	20 00	15 00	12 00	4 00		40 00
380	Laborer (single)....	260 00	260 00								No.
364	Cotton Spinner.....	312 00	312 00								Yes.
201	Cigar Maker.....	500 00	500 00	96 00	20 00	45 00	104 00	250 00	10 00	525 00	25 00
363	Factory Hand.....	156 00	360 00	516 00							No.
226	Jewelry (single)....	124 00	124 00				80 00				300 00
212		468 00	468 00								200 00
371	Laborer.....	135 00	135 00	25 00	20 00	75 00					48 00
205	Laborer.....	436 80	436 80	72 00	25 00	86 00	120 00	84 00	150 00	537 00	100 20
225	Tanner	312 00	312 00								No.
369	Cus. Shoem'r (sing.)	262 00	262 00	52 00		40 00			100 00		50 00
376	Laborer.....	208 00	104 00	312 00	60 00	20 00	30 00	70 00	15 00	10 00	90 00
211	Compositor (single)	780 00	780 00								No.
224		498 00	498 00								No.
353	Silk Weaver (single)	312 00	312 00								
368	Silk Weaver (single)	192 00	192 00			60 00			40 00		6 00
222	Stove Moulder.....	390 00	390 00	96 00	30 00	25 00			339 00		100 00
386	Factory Hand.....	312 00	312 00								In debt.
370	Laborer on Farm...	67 00	67 00	7 00	22 00		50 00				50 00

TABLE NO. VIII.—EARNINGS AND EXPENSES—BLANK NO. 3. (Continued.)

Office Number.	OCCUPATION.	YEARLY EARNINGS.			EXPENSES FOR YEAR.							EXCESS.	
		Head of Family.	Others in Family.	Total.	Rent.	Fuel.	Clothing.	Groceries.	Meat and Vegetables.	Sundries.	Total.	Earnings over Expenses.	Expenses over Earnings.
236	Carpenter (single)...	\$296 00	.....	\$296 00	.....	.....	\$50 00	.....	.....	\$75 00	.....	.....	\$75 00
265	Clerk (single).....	530 00	.....	530 00	.....	.....	.....	.....	.....	.....	\$465 00	\$65 00	.....
235	Factory Hand.....	234 00	.....	234 00	\$60 00	\$13 00	10 00	\$180 00	\$34 00	.....	297 00	.....	63 00
385	Blacksmith.....	468 00	.....	468 00	96 00	15 00	30 00	275 00	.....	.....	416 00	52 00	.....
266	Mason.....	468 00	.....	468 00	84 00	28 00	80 00	90 00	125 00	46 00	453 00	15 00	.....
234	.....	416 00	.....	416 00	96 00	27 00	70 00	80 00	85 00	50 00	428 00	.....	12 00
264	Carpenter (single)...	218 40	.....	218 40	.....	26 00	40 00	70 00	100 00	11 40	.....	.....	29 00
367	Painter.....	374 40	.....	374 40	72 00	50 00	25 00	120 00	30 00	110 00	407 00	.....	32 60
243	.....	338 00	.....	338 00	84 00	.....	.....	.....	.....	.....	.....	.....	150 00
263	Painter (single).....	195 00	.....	195 00	.....	.....	.....	.....	.....	203 00	.....	.....	8 00
344	.....	780 00	.....	780 00	120 00	35 00	265 00	.....	200 00	50 00	670 00	110 00	.....
261	.....	312 00	.....	312 00	66 00	.....	40 00	250 00	25 00	50 00	183 50	128 50	.....
258	Laborer.....	260 00	.....	260 00	50 00	.....	25 00	100 00	60 00	20 00	255 00	5 00	.....
240	Brakeman.....	520 00	.....	520 00	84 00	25 00	50 00	250 00	35 00	.....	444 00	76 00	.....
252	(single)...	130 00	.....	130 00	.....	.....	.....	.....	.....	.....	.....	.....	In debt.
233	Carpenter.....	936 00	.....	936 00	120 00	25 00	130 00	175 00	100 00	200 00	750 00	186 00	.....
384	Rubber Works.....	260 00	.....	260 00	.....	30 00	25 00	90 00	15 00	10 00	170 00	.....	40 00
341	Cigar Maker.....	453 00	.....	453 00	48 00	26 00	125 00	208 00	90 00	21 00	518 00	.....	65 00
248	.....	390 00	.....	390 00	72 00	.....	50 00	160 00	100 00	8 00	390 00	.....	.....
251	Clerk.....	416 00	\$104 00	520 00	120 00	.....	50 00	312 00	208 00	.....	690 00	.....	170 00
340	Wheelwright (sing.)	520 00	.....	520 00	60 00	.....	150 00	.....	.....	225 00	430 00	90 00	.....
383	Rubber Shoes (sing.)	169 40	.....	169 40	.....	.....	.....	.....	.....	.....	.....	.....	60 00
366	Laborer (single).....	260 00	.....	260 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
382	Silk Weaver.....	364 00	.....	364 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
375	Shoemaker (single)	445 50	.....	445 50	.....	.....	30 00	.....	.....	.....	.....	.....	No.
257	Tobacco.....	360 00	78 00	438 00	.....	.....	.....	.....	.....	.....	.....	.....	Yes.

206	Painter	156 00	156 00									50 00
374	Shoe Cutter.....	468 00	468 00									No.
349		290 00	290 00	15 00	75 00	100 00	50 00	20 00	260 00	30 00		
339	(single)...	287 00	287 00									No.
260	Cutlery (single).....	520 00	520 00									No.
256	Silk Weaver (sing.)	416 00	416 00									
347	(single)...	243 00	243 00		50 00			180 00	230 00	13 00		
381	Laborer	312 00	312 00									No.
351		325 00	325 00	60 00	40 00	100 00	250 00	100 00	70 00	620 00		295 00
259	Cutlery	468 00	468 00									50 00
247	Jewelry	468 00 32 00	500 00	72 00	25 00	60 00	150 00	150 00	80 00	537 00		69 00
346	Clothing Cutter.....	846 00	846 00									No.
379	Painter	234 00	234 00									80 00
289		306 00	306 00	100 00	40 00	10 00	100 00	100 00		350 00		44 00
308	Shoemaker (single)	208 00	208 00						260 00			60 00
336	Laborer	269 00	269 00	48 00	21 00	60 00	100 00	60 00	17 40	306 40		37 40
330	(single)...	232 00	232 00			25 00			30 00			25 00
324	Cigar Maker.....	387 00	387 00	84 00	20 00	30 00	200 00	100 00	20 00	454 00		67 00
272	Stereotyper.....	372 00	372 00	96 00	36 00	50 00			300 00			31 00
313	Hatter.....	362 00 50 00	412 00	84 00	30 00							75 00
335	Tobacco Worker....	312 00	312 00	84 00		100 00	156 00	75 00	100 00	515 00		203 00
321	Silver Plater.....	416 00	416 00			100 00						No.
334	Foundry Laborer...	322 00	322 00									No.
305	Blacksmith	416 00	416 00									No.
287	Hatter.....	104 00	104 00	90 00	25 00	10 00						Yes.
318	Tailor	156 00	156 00	72 00	25 00	20 00						Yes.
332	Barber	468 00	468 00	108 00	50 00	75 00			50 00			No.
277		390 00	390 00	60 00		25 00	104 00	125 00	75 00			50 00
315	Shoemaker.....	353 00	353 00	84 00	22 00	45 00	140 00	70 00	70 00	431 00		78 00
331	Pencil Case Maker..	481 00	481 00	72 00		100 00	175 00	125 00	100 00	572 00		91 00
319	Harness M'r (sing.)	130 00	130 00	45 00								Yes.
328	Watchman.....	312 00	312 00									No.
286	Cabinet Maker.....	468 00 104 00	572 00	72 00	15 00	100 00			25 00			20 00
314	Shoemaker.....	313 00	313 00	68 50	22 00	50 00	132 00	65 00	40 00	377 50		64 50
326	Shoemaker.....	338 00	338 00	72 00	20 00	50 00	125 00	63 00	50 00	380 00		42 00
288		512 00	512 00	81 00	30 00	50 00		80 00	20 00			100 00
278	Machinist (single)...	198 00	198 00									Yes.

TABLE NO. VIII.—EARNINGS AND EXPENSES—BLANK NO. 3. (Continued.)

Office Number.	OCCUPATION.	YEARLY EARNINGS.			EXPENSES FOR YEAR.							EXCESS.	
		Head of Family.	Others in Family.	Total.	Rent.	Fuel.	Clothing.	Groceries.	Meat and Vegetables.	Sundries.	Total.	Earnings over Expenses.	Expenses over Earnings.
302	Laborer (single).....	\$104 00	.....	\$104 00	.....	.....	.....	.....	.....	.....	.....	.....	Yes.
325	Laborer.....	271 00	.....	271 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
301	Mason	156 00	.....	156 00	\$60 00	.....	.....	.....	.....	.....	.....	.....	Yes.
279	.....	208 00	.....	208 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
320	Silver Plater (sing.)	416 00	.....	416 00	.....	.....	\$50 00	.....	.....	.....	.....	.....	Yes.
284	Barber (single).....	312 00	.....	312 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
276	Shoemaker.....	260 00	.....	260 00	60 00	.....	.....	.....	.....	.....	.....	.....	Yes.
298	Laborer.....	104 00	.....	104 00	60 00	.....	.....	.....	.....	.....	.....	.....	Yes.
274	Laborer.....	340 00	.....	340 00	90 00	\$30 00	60 00	.....	.....	.....	.....	.....	No.
283	Hatter.....	260 00	.....	260 00	.....	.....	.....	.....	.....	.....	.....	.....	\$80 00
275	Shoemaker.....	260 00	.....	260 00	120 00	.....	.....	.....	.....	.....	.....	.....	Yes.
307	Mason	312 00	.....	312 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
280	.....	468 00	.....	468 00	.....	.....	.....	.....	.....	.....	.....	.....	80 00
304	Shoemaker.....	234 00	.....	234 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
282	Hatter.....	520 00	.....	520 00	.....	.....	.....	.....	.....	.....	.....	.....	Yes.
281	Japanner	198 00	.....	198 00	.....	.....	.....	.....	.....	.....	.....	.....	Yes.
392	Ribbon Weaver.....	338 00	.....	338 00	62 00	.....	.....	.....	.....	.....	.....	.....	55 00
420	.....	312 00	.....	312 00	60 00	20 00	.....	.....	.....	.....	.....	.....	106 00
423	Tailor (single).....	364 00	.....	364 00	.....	.....	25 00	.....	.....	.....	.....	.....	No.
399	Laborer.....	156 00	.....	156 00	48 00	12 00	25 00	.....	\$100 00	\$20 00	.....	.....	.....
389	Barber	520 00	.....	520 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00
406	Machinist.....	780 00	.....	780 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
419	(single)...	364 00	.....	364 00	.....	.....	75 00	.....	.....	289 00	.....	.....	No.
390	Carpenter	312 00	.....	312 00	60 00	20 00	50 00	\$160 00	.....	.....	.....	.....	100 00
424	.....	416 00	.....	416 00	.....	.....	.....	.....	.....	.....	.....	.....	80 00
398	Ribbon Weaver.....	468 00	.....	468 00	.....	.....	.....	.....	.....	.....	.....	.....	87 00

388	Railroad.....	364 00	364 00	54 00	20 00	60 00	200 00	75 00	32 00	\$441 00	77 00
399	Oil Cloth Printer...	577 20	577 20								No.
417		624 00	624 00								No.
425	Painter.....	312 00	312 00								No.
410	Shoemaker.....	364 00	364 00								No.
394	Laborer (single)....	220 00	220 00			30 00					
407	Newsdealer ..	300 00	300 00	108 00	15 00	30 00	100 00	25 00	27 00	305 00	5 00
418	Shoemaker.....	416 00	\$364 00	780 00							No.
405	Farm Laborer.....	240 00	240 00	48 00		60 00	100 00	20 00			50 00
416	Rolling Mill.....	936 00	936 00								No.
393	Shoemaker.....	312 00	312 00								No.
422	Salesman (single)...	416 00	416 00								25 00
397	Painter.....	156 00	156 00								Yes.
409	Shoemaker.....	338 00	338 00								No.
415	Shoemaker.....	415 00	415 00	72 00	18 00						No.
421	Salesman.....	780 00	780 00	144 00							No.
404	Brakeman.....	350 00	350 00								20 00
395	Painter.....	520 00	208 00	728 00	96 00	20 00	25 00	250 00	100 00	50 00	541 00
414	Gunsmith.....	468 00	468 00								No.
400	Laborer.....	234 00	234 00								20 00
403	Blacksmith Helper..	275 00	275 00								50 00
408	Music Teacher.....	500 00	500 00	180 00	25 00	30 00	200 00	50 00	125 00	610 00	110 00
413	Lasting Shoes.....	338 00	240 00	578 00	96 00	15 00	30 00	250 00			Yes.
402	Silk Dyer (single)...	260 00	260 00								35 00
396	Wood Turner.....	416 00	416 00	72 00	20 00						No.
412	(single)...	260 00	260 00								40 00
401	Painter.....	182 00	182 00								Yes.
411	Button Presser.....	390 00	390 00	144 00	5 00	50 00	240 00			439 00	49 00
427	Shoemaker.....	936 00	936 00	180 00	30 00	100 00	375 00	150 00	100 00	935 00	\$1 00
434	Cigar Maker (sing.)	572 00	572 00								No.
443	Jewelry.....	500 00	500 00	120 00	25 00	50 00	200 00	150 00	75 00	620 00	120 00
426		234 00	234 00								65 00
428	Millwright.....	780 00	780 00	120 00	40 00				500 00	660 00	No.
444	Jewelry (single)....	273 00	273 00								No.
432	Silk Weaver (sing.)	262 00	262 00			60 00					13 00
442	Silk Weaver (sing.)	260 00	260 00								22 00
430	Engraver.....	1,232 40	1,232 40	144 00	40 00				600 00	784 00	No.

TABLE No. VIII.—EARNINGS AND EXPENSES—BLANK No. 3. (*Continued.*)

Office Number.	OCCUPATION.	YEARLY EXPENSES.			EXPENSES FOR YEAR.							EXCESS.	
		Head of Family.	Others in Family.	Total.	Rent.	Fuel.	Clothing.	Groceries.	Meat and Vegetables.	Sundries.	Total.	Earnings over Expenses.	Expenses over Earnings.
438	Laborer.....	\$468 00	.....	\$468 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
433	Silk Weaver (sing.)	327 00	.....	327 00	.....	.....	\$50 00	.....	.....	.....	.....	.....	No.
441	Painter.....	462 00	.....	462 00	\$96 00	\$25 00	20 00	\$250 00	\$125 00	\$20 00	\$536 00	.....	\$74 00
429	Millwright.....	780 00	.....	780 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
431	Silk Weaver (sing.)	270 00	.....	270 00	.....	45 00	.....	.....	.....	25 00	.....	.....	10 00
440	Silk Ribbon Weaver	416 00	.....	416 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
435	Laborer.....	148 00	\$156 00	304 00	72 00	20 40	45 00	98 60	61 50	62 00	359 50	.....	55 00
439	Laborer (single)....	260 00	.....	260 00	.....	.....	.....	.....	.....	.....	.....	.....	No.
437	Silk Weaver.....	416 00	.....	416 00	.....	.....	.....	.....	.....	.....	.....	.....	Yes.
436	Silk Dyer (single)...	338 00	.....	338 00	.....	.....	.....	.....	.....	.....	.....	.....	50 00

NOTATIONS IN RESPECT TO BLANKS.

TABLE NO. VIII.—It will be observed that Table No. VIII. corresponds with Table No. V. in our first report. In the hope of obtaining a larger number of responses to our questions, it was thought best to embrace in Blank No. 3 very nearly the same questions that were circulated last year, respecting yearly earnings and expenses of heads of families. By comparing the tables in last year's report, on pages 56, 57 and 58, with the present tables, it will be observed that we have very nearly quadrupled the number of returns this year—the proportion being 114 to 444.

Blank No. 3 will furnish the basis of three tables, one preceding and two succeeding VIII., IX. and X.

The total earnings of 285 heads of families, excluding \$5,680 derived from other members of the family, is shown to be an average of \$412.35. In 1878 the average earnings of 114 heads of families was \$513.64, which is 25 per cent. more than results from this year's work.

The average earnings of 98 unmarried men, embraced in Table No. VIII., is \$271.62.

It is a striking fact that the expenses of more than one-half of the number presented in this table exceed their earnings, and in some cases the amounts are incredibly large. To be more specific, there are 383 heads of families and unmarried men represented, and 233 (or 61 per cent.) have expended more than they have earned. The table furnishes us with 195 cases of expenses over earnings, and the average is \$95.02. Only 32 show an excess of earnings, and the average of such excess appears to be \$56.77; and 33 simply state the fact without giving us the amount.

The answers to Question No. 33 are so incomplete that the presentation of expenses is not, in a majority of cases, full and satisfactory. Undoubtedly the lack of information respecting expenses arises from the culpable neglect of keeping accounts. We repeat what we said last year upon this subject of tabulated accounts of family expenses, with the view of enforcing its importance: "We feel well assured that if every laboring man would keep, however rudely, an itemized account of his expenses, it would almost unconsciously, and oftener

than he would imagine, have the effect to diminish his yearly outlay—certainly in some of the questionable sources of absorption of earnings.” We are gratified to discover, in some of the blanks returned this year, assurances from respondents that they will be better prepared upon future occasions to impart reliable information respecting earnings, expenses, &c. Their avowals foreshadow a conviction, in the minds of those who make them, that the purpose of these investigations has a bearing upon the public welfare.

We still have occasion to regret the incompleteness of the blanks returned. Of course it was not expected that each individual would or could answer all the questions propounded, but in all kindness we do aver that employees are inexcusable for lack of ability to answer, with a good degree of accuracy, the entire list of questions in this blank, except from No. 26 to 29 inclusive. From Question No. 24 we scarcely expected anything more than an honest “yes” or “no.” Indifference has been, and unquestionably still is, a predominant cause of the incomplete character of the returns; but we think experience and observation in respect to the utility of these investigations may be relied upon to dispel this indifference and substitute a cordial co-operation in the beneficent purposes of this department.

The four excepted questions, including No. 24, were designedly inserted to afford respondents an opportunity to frankly express their sentiments upon some of their much-mooted subjects on appended sheets of paper, to any reasonable extent. We felt assured that many would avail themselves of this appropriate medium to communicate their thoughts upon these special topics, in which they are personally interested.

When the workingmen deliberately refrain from co-operating with us in the endeavor to furnish the public with full and reliable statistical information respecting their condition and needs, accompanied with solicited expressions of sentiments upon the subjects under investigation, it seems to us that they do injustice to themselves and to the State which has provided an impartial department, designed exclusively to promote the welfare and prosperity of the entire body of her citizens.

But few ingenuous responses to these six questions have been received. A small number of attempts at extended answers are

devoid of special merit. Many of the brief answers are too significant of insincerity and thoughtlessness to be worthy of notation.

It would be very remarkable if there were not found, among 444 returns, some brief answers which are worthy of quotation and consideration, by all who read the synopsis which follows :

No. 24.—*Do you think, all things considered, a better remuneration for labor is in prospect?*

To this question 17 answer—"If prison labor is abolished;" 1, "Yes, if they will let rum alone;" 50, "No;" 35, "Yes;" 1, "Have no hope;" 2, "I hope so;" 1, "Not at present." Various other answers are given of no significance.

No. 26.—*Has new labor-saving machinery been introduced into your trade within the past ten years?*

In all cases the occupation is not given to us, so that many of the answers to this question, if quoted, would be unintelligible. A brakeman answers—"They have added fifty per cent. to our labor." A glass cutter—"Not in my trade." A bag maker—"Plenty of it." A hosiery foreman—"Constantly being added." A hatter—"Yes, but finally stopped." A compositor—"Not in composing, but in printing." A moulder of saddlery and harness hardware—"Very little." A jeweler—"Ten years ago we made everything by hand, now much by steam." A silk weaver—"Instead of hand-loom we have steam-loom." A music teacher—"Yes, having stopped ordinary manual labor, &c., no demand for mine." A shoemaker says—"All of it." A salesman in a clothing store—"Machines do the work of 6 men." Of the monosyllabic answers the "yes" predominates very greatly over the "no," and about one-half are blank.

No. 27.—*Refers to labor-saving machinery. If yes, what number of wage laborers have been discharged on account thereof?*

An employee in chemical works answers—"3 men." A stationary engineer—"16 men." A machinist says—"None this year, but 6 men had been discharged previously." A cabinet maker—"One-third." Rubber shoes—"30 in my shop." Shoe shop—"2 machines do 50 men's work." Brakeman—"They have discharged one crew out of seven." Tacking machine in shoe shop—"On an average each

machine does 7 men's work." Employment not given—"One-third," "15 men," "16 men," "10 men," "over one-third." Bag maker—"About 1 in 30." Hatter—"One-quarter." Tanner—"About one-tenth." Jeweler—"About one-tenth." Tanner—"20 men." Shoemaker—"One tenth." Lock maker—"One-quarter." Tailor—"Very near all tailors lost their work." Bag maker—"40 men." Employment not given—"50 per cent." Shoemaker—"One-half." Employment not given—"25 per cent." Hatter—"1 machine does 12 men's work." "One-third," "One-half." Shoe finisher—"8 hands." Blacksmith helper—"4 men to 1 machine." Tin and sheet iron—"One-quarter or more." Hatter—"From 12 to 15 per cent." Shoe Laster—"A great many." Sheet and metal screw company—"35 out of 100." Shoe factory—"5 or 6." Hatter—"1 machine to 12 men." Machinist—"Cannot say, the introduction was so gradual." Engraver on metal—"20 per cent." Employment not given—"11 men," "6 men." Shoemaker—"50 per cent.," "40 per cent.," "35 per cent." Carpenter—"75 per cent." Employment not given—"1 machine is capable of doing 10 men's work." Cloth hat and cap maker—"25 per cent." Silk weaver—"About one-half." Cigar maker—"50 per cent." Painter—"About 10 per cent." Shoemaker—"1 machine does 3 men's work." Tanner—"6 men." Carpenter—"10 per cent.," "15 per cent." Tobacco worker—"20 per cent." Stereotyper—"14 men." Cabinet maker—"One-third." Engraver—"About one-half." File cutter—"About one-half." Silver plater—"About two-thirds." Clothing cutter—"20 per cent." Silk weaver—"15 per cent." Shoemaker—"12 men." Oil Cloth Printer—"10 men." Clothing salesman—"1 does the work of 8."

No. 28.—*What per cent. of reduction of wages has this labor-saving machinery caused?*

This question has but few answers, and they run from 10 to 100 per cent., so manifestly at random that we do not think it worth our while to give them in detail.

A shoemaker replies as follows: "My opinion is that to adopt the eight-hour system would prove disastrous to the laboring masses engaged at weekly wages, for it has been demonstrated in the past in other States, that when the hours of labor have been reduced the price

of labor has been and will be reduced at an unfair ratio, so that the eight-hour law would be a detriment rather than a benefit to that class of our citizens whom it presumedly is intended to affect. It would in no way affect the employees engaged at piece-work or by contract, as those classes generally utilize the entire daylight in the pursuance of their labor and a livelihood, and the only class that would be likely to receive benefit from it are those that are engaged by the State or city government at yearly salaries two hundred per centum above the amount received by weekly laborers. Therefore it seems to me that to enact a law for the benefit of one-tenth, whereby the other nine-tenths must suffer, would be an outrage against the working people."

No. 29.—*What do you think would be the result of a general reduction of the hours of labor to eight per day?*

The answers to this question are more numerous, and evidently the result of some thoughtfulness.

So many have omitted to give their occupation that we will quote the answer without occupation: "Debatable." "Bad for the State." "For the worse." "Lower wages." "Prices reduced accordingly." "Poor, if paid by the hour." "Time to spend at home." "I am in favor of long hours." "In many ways beneficial." "It will give more work to others." "One-fifth more employment." "Don't approve." "Of no ultimate good." "I can't say." "Increase of wages, better for workmen." "Reduce the army of tramps." "An increase of wages, exhaustion of mental faculties and a decrease of crime and debauchery." "No good." "Not beneficial." "Our salvation." "Nothing." "Very bad." "Labor more equally divided." "None except for women and children." "Not so good." "Giving us all steadier employment." "Present over-production." "More work and higher prices." "I think it would be bad." "Increased morality." "Divide the work to be done, that is all." "On a farm it would be a detriment and do no good." "No time to agitate this question." "A cut down." "Ten hours a day and fair play." "Justice to labor on account of the production of machinery." "Let us be paid by the hour, and work as many as we please."

The following is from the same shoemaker who is quoted previously in answer to Question No. 28 :

“Question No. 29, involving, as it does, ‘financial depression,’ opens so many avenues for argument that I shall not attempt to discuss them at length. Depression in wages can be attributed to several causes, the leading of which are progression of science, excessive supply of labor over the demand, and convict labor. In regard to the first, the workingmen cannot look for any protection against that at present, for the inventive brain will not slumber, and while it remains active new and improved machinery will be the result.

“The excess of labor arises partly from the introduction of labor-saving machinery, but is largely due to immigration. Thousands leave their homes in other countries inspired with the idea that fortunes grow spontaneously upon the shores of America, and believe that all that is necessary for them is to raise their passage money to New York ; but, having arrived, they soon learn their mistake, and (their funds exhausted) they are compelled to seek employment in the immediate vicinity of the seaboard, and, forced by hunger, they tender their service for a mere pittance, and often drive men from lucrative positions by so doing.

“In regard to prison labor, it is not the excessive amount of production that the laboring masses and manufacturers are complaining of, but the ruinous basis of competition established by it. The abolition of the convict labor system (by contract) throughout the various States would be one of the grandest achievements (for workingmen and women) of the nineteenth century. After viewing prison labor in all its phases, I fail to see wherein the State or people are benefited by it ; no one but the contractor is benefited by it pecuniarily, and it is a burning shame and a disgrace to any State that laws should be enacted with a view to enrich a few individuals, with a tendency to impoverish almost the entire body politic. Some may consider that political and financial economy, but I do not so regard it. It not only depresses wages, but degrades labor. Prisons can be made self-sustaining without hiring out the labor of convicts by contract to be adapted to the various lines of manufacture requiring skill, and there is no just reason why it should longer be a stain upon the soil of a free republic. Down, then, and away with it, and restore dignity to

labor, and labor to the position to which it is justly entitled as one of the great elements and builders-up of the nation."

No. 30.—*It is often stated that you don't receive a just share of profit on your labor—what better system can be equitably adopted?*

"Co-operation," is the answer of 175. A miner—"Do away with the store order system, and pay us our wages in cash, is one good way." Iron laborer—"Eight hours labor in consequence of improved machinery, money issued by the general government, and open arbitration between employers and employees." A miner—"Abolish company stores and store orders; pay in cash, and put it to best advantage." Locomotive engineer—"Work more to the interest of employers." Brakeman—"By compelling companies to live up to their charters; one man to every eight cars." Employment not given—"Co-operation, or laws to prevent minors and females working on machinery." Bag maker—"Owing to over-production, eight hours would relieve it." Employment not given—"If the manufacture and sale of rum were stopped it would be better for the poor man." Hosiery works—"Reduce the rate of interest, equalize taxes, compulsory education, purify the ballot, and enforce the laws." Hatter—"Good legislation for all the people." Laborer—"Elect honest men, not thieves and roughs." Tobacco worker—"Reduce the hours of labor, and prohibit children working under fourteen years of age." Silk weaver—"Pay every man for what he is worth." Employment not given—"I believe that as machinery is improved the hours of labor should be proportionately reduced, for reasons that are evident to every thinking person." "Do away with prison labor," is the answer of 21. "The eight-hour system," is the answer of 17.

TABLE No. IX.—BLANK No. 3.

Occupation, Nationality, Hours of Labor, Mode of Payment, Daily Earnings, and Lost Time, selected from returned Blanks No. 3.

Office Number.	OCCUPATION.	Nationality.	How Long in Your Present Employ?	Married or Single?	How Often have You Changed Your Occupation since You were 21?	How many Hours do You Work Per Week?	How many Hours do You Work on Saturday?	Are You Paid in Cash or Store Orders?	If in Orders, What Additional Per Cent. is Charged?	Are Wages Paid Weekly or Monthly?	What are Your Actual Earnings Per Day?	HOW MANY LOST DAYS IN THE YEAR?	
												From Sickness.	Inability to Obtain Work.
21	Cabinet Maker.....	American	2 years	mar.	no	60	10	cash	.....	weekly	\$1 37	.....	104
31	In Shoe Shop.....	American	18 months	sing.	3 times	60	10	cash	.....	weekly	1 50	.....	45
23		American	13 years	mar.	7 times	60	10	cash	.....	daily	1 25	3	.....
5		American	2 weeks	mar.	no	60	10	cash	.....	weekly	1 25	.....	.....
100	Tin and Sheet Iron...	American	18 months	mar.	3 times	60	8 ³	cash	.....	weekly	1 25	2	98
22	Hatter.. ..	American	6 years	sing.	.....	30	.....	cash	.....	weekly	3 25	.....	75
51		American	3 years	mar.	4 times	59	9	cash	.....	weekly	1 50	5	35
4	Police	American	.....	mar.	twice	.....	.....	.....	.....	semi-weekly	.....	.....	.....
32	Brakeman	American	3 years	mar.	no	70	.....	cash	.....	monthly	1 60	30	.....
187	Cloth Hat	German	1 year	mar.	3 times	.....	9	cash	.....	weekly	1 50	.....	90
99	Laborer	English	5 years	sing.	no	60	10	cash	.....	weekly	62	.....	.....
72		Scotch	9 months	mar.	no	.....	.....	cash	.....	weekly	.....	.....	.....
2	Laborer	American	2 months	mar.	3 times	60	.....	cash	.....	weekly	1 25	3	52
200	Laborer	Irish	35 years	.....	3 times	60	.....	cash	.....	weekly	1 00	.....	200
127	Brakeman	American	6 years	mar.	no	60	.....	cash	.....	monthly	1 60	10	.....
68		American	5 years	sing.	4 times	60	10	cash	.....	weekly	1 50	.....	60
30	Rubber Worker.....	Irish	2 years	mar.	.....	60	11	cash	.....	monthly	1 20	.....	24
7	Miner	Irish	25 years	mar.	.....	58	8	orders	can't tell	monthly	1 00	.....	.....

85	Hatter.....	Irish	1 year	sing.	10 times	.....	8	cash	.....	weekly	1 00	.....	.....
66		American	9 years	....	no	59	9	cash	.....	weekly	2 25	3	10
199	Spinner.....	American	4 years	mar.	twice	60	10	cash	.....	semi-weekly	1 40	.....	.....
108	Plasterer.....	Irish	.....	mar.	no	.....	.....	.....	.....	.....	.....	.....	156
140		English	2 years	mar.	no	59	9	cash	.....	weekly	2 00	.....	60
98	Machinist.....	American	1 year	sing.	no	60	8 $\frac{3}{4}$	cash	.....	semi-monthly	1 50	.....	100
88	Hatter.....	French	2 years	sing.	often	.....	.....	cash	.....	weekly	1 00	28	52
29	Laborer.....	Irish	4 years	mar.	no	60	10	cash	.....	monthly	90	.....	.....
191	Laborer.....	American	5 years	sing.	no	60	10	cash	.....	monthly	1 00	.....	.....
149	Miner.....	English	7 years	sing.	4 times	81	13 $\frac{1}{2}$	cash	.....	monthly	90	.....	.....
112	Laborer.....	Irish	.....	mar.	no	.....	.....	cash	.....	weekly	1 25	.....	234
139	Bag Maker.....	American	9 years	sing.	once	59	9	cash	.....	semi-monthly	1 00	.....	.....
28	Laborer.....	.....	6 months	sing.	3 times	60	10	cash	.....	monthly	90	.....	.....
93	Blacksmith Helper...	Welsh	5 years	.....	once	60	8 $\frac{3}{4}$	cash	.....	semi-monthly	1 25	.....	182
87	Hatter.....	American	2 years	mar.	no	.....	.....	cash	.....	weekly	.....	.....	78
20	Mason.....	American	17 years	mar.	once	60	10	both	20 p. c.	weekly	1 50	5	99
8	Laborer.....	Irish	12 years	mar.	no	58	8	both	.....	monthly	1 00	.....	.....
197	Rolling Mill.....	Irish	2 years	mar.	5 times	59	9	cash	.....	monthly	1 60	5	.....
172	Drive Team.....	Irish	14 years	mar.	twice	60	10	.....	.....	monthly	1 25	.....	.....
196	Silk Weaver.....	American	6 years	mar.	5 times	55	5	cash	.....	semi-weekly	1 62	.....	on strike
97	Laborer.....	Irish	7 months	sing.	3 times	60	8 $\frac{3}{4}$	cash	.....	semi-weekly	1 00	.....	150
9	Clerk.....	.....	5 years	mar.	once	100	18	both	10 p. c.	weekly	1 50	.....	.....
96	Loom Fixer.....	English	8 years	mar.	4 times	60	7 $\frac{1}{2}$	cash	.....	semi-monthly	2 65	.....	.....
138	Bag Maker.....	German	.....	mar.	once	59	9	cash	.....	semi-monthly	1 00	.....	.....
195	Silk Weaver.....	American	4 years	mar.	3 times	55	5	cash	.....	semi-monthly	1 50	.....	on strike
10		American	4 years	mar.	12 times	66	11	cash	.....	monthly	1 25	.....	.....
64	Wheelwright.....	German	26 years	mar.	no	.....	.....	cash	.....	.....	.....	.....	208
95	Rolling Mill.....	English	6 years	mar.	no	60	8 $\frac{1}{2}$	cash	.....	.....	4 00	.....	.....
194	Loom Fixer.....	American	8 years	mar.	no	63	7 $\frac{1}{2}$	cash	.....	semi-monthly	2 00	.....	.....
166	Laborer.....	Irish	3 years	sing.	yes	60	10	cash	.....	monthly	1 00	.....	25
11	Miner.....	American	2 years	mar.	3 times	58	8	both	15 p. c.	monthly	1 00	14	.....
55	Metal Screws.....	American	3 years	mar.	yes	59 $\frac{1}{2}$	9 $\frac{1}{2}$	cash	.....	weekly	1 58	.....	18
27	Rubber Shoes.....	Irish	1 month	mar.	yes	60	10	cash	.....	monthly	50	.....	.....
193	Laborer.....	Irish	6 years	mar.	6 times	59	9	cash	.....	weekly	60	.....	6
165	Laborer.....	Irish	4 years	mar.	yes	59	9	cash	.....	monthly	90	.....	20
101	Painter.....	American	.....	mar.	yes	.....	.....	cash	.....	by job	.....	.....	300
94	Upholsterer.....	French	2 years	sing.	no	60	.....	cash	.....	weekly	1 25	.....	.....

TABLE NO. IX.—BLANK No. 3. (Continued.)

Office Number.	OCCUPATION.	Nationality.	How Long in Your Present Employ?	Married or Single?	How Often have You Changed Your Occupation since You were 21?	How Many Hours do You Work per Week?	How Many Hours do You Work on Saturday?	Are you Paid in Cash or Store Orders?	If in Orders, What Additional Per Cent. is charged?	Are Wages Paid Weekly or Monthly?	What Are Your Actual Earnings per day?	HOW MANY LOST DAYS IN THE YEAR?	
												From Sickness.	Inability to Obtain Work.
50	Jewelry	German	8 months	mar.	3 times	59	9	cash	.....	weekly	\$1 37	.....	182
63	Tailor	German	.....	mar.	no	.....	.....	cash	.....	.....	30	.....	182
192	Laborer.....	American	10 months	mar.	5 times	60	10	cash	.....	weekly	90	.....	20
92	Foreman.....	American	14 years	mar.	once	60	10	cash	.....	monthly	3 50	.....	52
102	Binder.....	American	.....	.....	no	60	9	cash	.....	weekly	1 75	.....	156
180	Shoemaker	English	9 years	mar.	no	.....	.....	cash	.....	weekly	.....	.....	30
12	.....	American	1 year	sing.	no	48	8	cash	.....	weekly	1 00	.....	15
49	Tinner.....	German	4 years	mar.	yes	59	9	cash	.....	weekly	1 12	.....	68
35	.....	Irish	7 years	sing.	no	59½	9½	cash	.....	weekly	1 00	.....	104
13	Locomotive Engineer	American	13 years	mar.	once	72	12	cash	.....	monthly	3 25	.....	105
105	Grocery Clerk	American	.....	mar.	no	.....	.....	.....	.....	.....	85 52	.....	130
189	Plumber.....	American	1 month	mar.	yes	60	10	cash	.....	weekly	1 50	.....	60
106	Laborer.....	Irish	6 weeks	sing.	no	60	10	cash	.....	monthly	1 00	.....	.....
170	Laborer.....	Irish	4 years	sing.	yes	60	10	cash	.....	monthly	95	.....	80
91	Shoe Finisher.	German	3 years	mar.	twice	59	9	cash	.....	weekly	1 50	.....	.....
71	Jewelry.....	German	9 months	mar.	3 times	59	9	cash	.....	weekly	1 25	.....	90
26	Laborer.....	Irish	2 years	mar.	no	60	10	cash	.....	monthly	90	.....	.....
89	Hatter.....	American	3 days	sing.	no	.....	.....	cash	.....	weekly	2 50	.....	120
84	Hatter.....	American	4 months	mar.	3 times	.....	.....	cash	.....	weekly	2 00	.....	104
15	Carpenter	American	20 years	mar.	no	59	9	cash	.....	weekly	1 50	40	100
62	Lockmaker	German	4½ years	mar.	once	59	9	cash	.....	weekly	1 50	12	.....
188	Plasterer.....	American	7 weeks	sing.	twice	60	9½	cash	.....	weekly	1 00	.....	45

164	Laborer.....	Irish	18 years	mar.	no	60	10	cash	.....	monthly	1	31	2	.....
186	Trunkmaker.....	American	2 years	sing.	once	66	9½	cash	.....	monthly	80	.....	18	.....
59	Mason.....	German	3 months	mar.	no	60	9	cash	.....	weekly	1	00	.....	.....
25	Painter.....	American	14 years	mar.	no	60	10	cash	.....	monthly	1	75	.....	.....
19	Painter.....	Irish	20 years	mar.	no	60	10	cash	.....	monthly	1	60	.....	104
107	Brass Finisher.....	American	2 years	mar.	no	60	10	cash	.....	weekly	1	50	.....	104
116	Shoe Factory.....	American	6 years	sing.	no	60	10	cash	.....	weekly	1	50	42	.....
83	Laborer.....	English	35 years	mar.	once	60	9	cash	.....	weekly	1	25	.....	200
123	Plumber.....	American	6 weeks	mar.	3 times	60	8½	cash	.....	semi-monthly	1	00	.....	70
18	Machinist.....	American	1 year	sing.	once	60	10	cash	.....	weekly	1	25	3	60
33	.....	American	9 years	mar.	no	60	.....	cash	.....	daily	75	.....	200	.....
16	Chemical Works.....	American	1 year	mar.	once	66	11	cash	.....	weekly	1	25	.....	150
185	Shoemaker.....	German	11 years	mar.	no	.....	.....	cash	.....	weekly	1	00	.....	104
179	Fireman.....	American	18 months	sing.	.....	60	10	cash	.....	monthly	1	50	.....	.....
17	Stationary Engine.....	American	1 year	mar.	3 times	66	11	cash	.....	monthly	1	57	.....	70
24	.....	American	5 years	sing.	no	75	12	cash	.....	monthly	1	40	13	.....
82	Laborer.....	American	6 years	sing.	no	59	9	cash	.....	semi-monthly	1	25	2	182
65	.....	German	11 years	mar.	.....	59	.....	cash	.....	weekly	1	50	.....	130
34	Shoe Shop.....	American	3 years	sing.	twice	60	10	cash	.....	weekly	1	25	.....	.....
184	.....	American	9 months	sing.	no	45	8	cash	.....	weekly	1	50	.....	.....
176	Blacksmith.....	English	7 years	mar.	no	58	8	cash	.....	monthly	2	00	.....	.....
70	.....	American	3 years	mar.	no	45	9	cash	.....	weekly	1	00	.....	100
45	Bag Maker.....	German	6 weeks	sing.	no	59	.....	cash	.....	weekly	1	60	.....	60
58	Painter.....	German	.....	mar.	no	72	13	cash	.....	irregular	1	62	4	.....
81	Hatter.....	American	1 year	sing.	4 times	60	9	cash	.....	weekly	1	50	.....	156
77	Jewelry.....	German	2 years	mar.	no	48	8	cash	.....	weekly	1	60	.....	52
183	.....	Irish	.....	mar.	3 times	.....	.....	cash	.....	weekly	1	50	.....	130
171	Painter.....	American	2 months	mar.	no	50	10	cash	.....	weekly	2	00	.....	60
137	Bag Maker.....	German	2 months	sing.	3 times	59	9	cash	.....	weekly	1	00	3	130
125	Cigar Maker.....	American	6½ years	mar.	no	58	8	cash	.....	weekly	1	25	.....	92
80	Hatter.....	Irish	4 months	mar.	yes	.....	.....	cash	.....	weekly	2	00	.....	130
36	.....	American	8 years	mar.	3 times	59½	9½	cash	.....	weekly	1	40	20	.....
76	Jewelry.....	German	1½ years	mar.	4 times	60	10	cash	.....	semi-weekly	2	00	.....	.....
181	Shoemaker.....	American	3 years	mar.	no	.....	.....	cash	.....	weekly	1	00	.....	30
174	Blacksmith.....	Irish	5 years	mar.	3 times	60	10	cash	.....	monthly	2	25	.....	.....
178	Fireman.....	Irish	2 years	mar.	.....	59	9	cash	.....	monthly	1	20	.....	.....
182	Carpenter.....	German	work home	mar.	once	.....	.....	cash	.....	weekly	75	.....	206	.....

TABLE No IX.—BLANK No. 3. (Continued.)

Office Number.	OCCUPATION.	Nationality.	How Long in Your Present Employ?	Married or Single?	How Often Have You Changed Your Occupation since You were 21?	How many Hours do You Work per week?	How many Hours do You Work on Saturday?	Are You Paid in Cash or Store Orders?	If in Orders, What Additional Per Cent. is Charged?	Are Wages Paid Weekly or Monthly?	What are Your Actual Earnings Per Day?	HOW MANY LOST DAYS IN THE YEAR?	
												From Sickness.	Inability to Obtain Work.
79		Irish	12 years	mar.	no	60	9	cash	.....	weekly	\$1 80	.....	70
61	Shoemaker.....	German	2 months	mar.	once	60	.....	cash	.....	semi-monthly	1 00	.....	.....
74	Shoemaker.....	German	work home	mar.	no	25	.....	cash	.....	.....	1 00	.....	138
177	Fireman ...	English	1 year	mar.	twice	60	10	cash	.....	monthly	1 50	.....	.....
78		American	9 years	mar.	4 times	60	10	orders	12 pr. ct.	weekly	1 25	4	.....
39		American	5 months	mar.	no	65	9	cash	.....	weekly	1 05	90	30
46	Polisher.....	German	6 weeks	mar.	3 times	59	9	cash	.....	weekly	1 25	.....	.....
37		American	2 years	sing.	.....	60	10	cash	.....	weekly	1 25	2	.....
69	Bag Maker.....	American	8 years	sing.	no	60	10	cash	.....	weekly	1 00	.....	18
38		American	6 months	sing.	no	60	10	cash	.....	weekly	1 25	.....	40
175	Laborer.....	American	3 years	sing.	once	60	10	.....	.....	monthly	1 25	12	.....
169	Laborer.....	Irish	5 years	mar.	yes	60	10	cash	.....	monthly	1 25	.....	40
109	Hatter.....	Irish	25 years	mar.	no	48	8	cash	.....	weekly	2 50	.....	.....
161	Shoemaker..	English	4 years	mar.	no	.....	.....	cash	.....	weekly	1 25	.....	40
173	Blacksmith,	American	2 years	mar.	twice	60	10	.....	.....	.....	2 25	.....	.....
67		American	1 year	mar.	no	60	9	cash	.....	semi-monthly	2 75	.....	.....
56	Tinman	German	3 years	mar.	once	59	9	cash	.....	weekly	1 00	.....	.....
40		American	2 years	sing.	.....	60	10	cash	.....	weekly	1 00	.....	.....
58	Glass Cutter.....	American	36 years	wid'r	no	.....	.....	orders	can't say	yearly	3 00	.....	52
52		Irish	2 years	mar.	6 times	60	.....	cash	.....	weekly	2 00	.....	.....
168	Painter	American	4 years	mar.	4 times	60	10	cash	.....	semi-monthly	2 00	30	.....
136		American	5 months	mar.	sev'l times	60	9	cash	.....	semi-monthly	1 25	.....	.....

60	Turner	German	3 months	sing.	once	59	9	cash	weekly	50		
57	Tinman	German	5 years	mar.	once	59	9	cash	weekly	1 50	12	6
41		American	2 years	mar.	no	66	11	cash	weekly	1 00		
47	Hatter	German	1 year	sing.	once	60	9	cash	weekly	1 00	20	
162	Shoemaker	English	7 years	mar.	no			cash	weekly	1 25		45
156	Laborer	American	4 years	sing.	no	46	8	cash	monthly	1 10		
135	Engraver	Irish	4 months	mar.	no	53	8	cash	weekly	3 00	29	51
115	Shoe Laster	American		sing.	yes			cash	weekly	1 00		
163	Shoemaker	Irish	10 years	mar.	no			cash	weekly	1 25	35	40
143	Cabinet Maker	German	29 years	mar.	no	59	9	cash	weekly	2 00	6	
159	Shoemaker	Scotch	1 year	mar.	no			cash	weekly	1 25		90
155	Cutlery	German	9 months	sing.	no	59	9	cash	weekly	1 50		
167	Laborer	Irish	3 years	mar.	yes	59	9	cash	monthly	95		60
42		American	1 year	mar.	no	50	8	cash	weekly	75		
48	Rag Dealer	German		mar.	4 times	60	10	cash		75		
110	Hatter	American	3 years	mar.	no			cash	weekly	1 00		160
118	Shoe Factory	American	1 year	mar.	6 times	60	9	cash	weekly	1 00		100
153	Cabinet Maker	German	4 years	mar.	no	59	9	cash	weekly	1 70	8	22
142	Jewelry	French	2 years	mar.	no	59	9	cash	weekly	1 50		156
154	Tinsmith	German	8½ years	mar.	no	59	9	cash	weekly	2 25		84
54	Switchman	American	4 years	mar.	yes	60	10	cash	monthly	1 17		
43		American	6 years	sing.	no	59½	9½	cash	weekly	1 00		45
276	Shoemaker	Irish		mar.	no	59	9	cash	weekly	1 50		156
321	Silver Plater	American	4 years	mar.	no	60	10	cash	weekly	2 00		104
53	Flagman	American	8 years	mar.	no	60	10	cash	monthly	1 80		
158	Shoemaker	American	2 years	mar.	no			cash	weekly	1 00		48
111	Hatter	American	18 years	mar.	no			cash	weekly	1 50		160
119	Handy Man	Scotch		mar.	twice			both		1 37		
387	Paper Carrier	German	1½ years	sing.	3 times	50	10	cash		1 00		
44		American	10 years	sing.	no	60	9	cash	semi-monthly	1 35		
230	Clerk	American	5 weeks	sing.		60	10	cash	weekly	50		
157	Shoemaker	Irish	3 years	mar.	once			cash	weekly	1 00		
131		German	2 weeks	mar.	8 times	60	9	cash	weekly	2 00		
371	Laborer	American		mar.	no	60		cash	monthly	50	3	78
337		Belgian	13 years	sing.	no	60		cash	weekly	1 70	3	21
114	Carpenter	German	3 months	sing.	no			cash	weekly	2 00		156
152		American	14 years	sing.	5 times	59	9	cash		1 80	4	10

TABLE NO. IX.—BLANK NO. 3 (Continued.)

Office Number.	OCCUPATION.	Nationality.	How Long in Your Present Employ?	Married or Single?	How Often Have You Changed Your Occupation since You were 21?	How many Hours do You Work per week?	How many Hours do You Work on Saturday?	Are You Paid in Cash or Store Orders?	If in Orders, What Additional Per Cent. is Charged?	Are Wages Paid Weekly or Monthly?	What are Your Actual Earnings Per Day?	HOW MANY LOST DAYS IN THE YEAR?	
												From Sickness.	Inability to Obtain Work.
322	Fine Shoes	American	25 years	mar.	no	80	11	cash	.....	weekly	\$1 30	.....	.....
129	Stationary Engineer..	Irish	2 years	mar.	once	60	10	cash	.....	weekly	2 00	.....	6
275	Shoemaker.....	Irish	.....	mar.	no	59	9	cash	.....	weekly	90	.....	156
211	Compositor	German	6 months	sing.	no	65	no	cash	.....	weekly	2 50	.....	18
151	.....	German	18 years	mar.	once	59	9	cash	.....	semi-monthly	1 00	.....	26
113	Butcher	German	.....	mar.	no	102	.....	cash	.....	weekly	1 00	.....	156
379	Painter	English	.....	mar.	no	60	10	cash	.....	weekly	1 50	.....	130
212	.....	American	25 years	mar.	no	59	9	cash	.....	weekly	1 50	.....	.....
329	.....	German	25 years	mar.	once	55	9	cash	.....	semi-monthly	2 50	.....	14
150	Harness Maker.....	German	8 years	mar.	no	60	9	cash	.....	semi-monthly	1 00	.....	12
120	Metal Screws.....	American	8 years	sing.	no	66	11	cash	.....	weekly	50	.....	.....
148	.....	German	2 years	mar.	no	60	10	cash	.....	weekly	1 00	.....	.....
385	Blacksmith	American	5 years	mar.	yes	60	10	cash	.....	weekly	1 50	.....	.....
121	Metal Screws.....	Irish	7 years	mar.	no	59½	9½	cash	.....	weekly	1 00	.....	.....
147	Cabinet Maker.....	German	.....	mar.	no	60	10	cash	.....	semi-monthly	1 25	.....	.....
377	Solderer	Irish	7 months	sing.	twice	59½	9½	cash	.....	weekly	1 50	.....	.....
205	Laborer	Irish	5 years	mar.	.....	64	10	cash	.....	monthly	1 40	.....	.....
145	.....	German	6 months	mar.	no	59	9	cash	.....	weekly	1 80	.....	.....
249	Laborer.....	Irish	6 months	mar.	no	66	.....	both	25 pr. ct.	semi-monthly	90	.....	208
380	.....	Irish	18 months	sing.	3 times	60	10	cash	.....	monthly	1 00	3	.....
126	Button Presser.....	American	14 years	mar.	no	65	no	cash	.....	.....	2 08	40	.....
144	.....	American	8 years	mar.	no	60	9	cash	.....	weekly	1 25	.....	.....

130		American	2 weeks	mar.	no	59	9	cash	weekly	2 00		
315	Shoemaker.....	German	6½ years	mar.	no	59	9	cash	weekly	1 22		24
204		Irish	4 years	mar.	no	59	9	cash	monthly	1 30		
132	Machinist.....	Irish	3 months	mar.	no	60	9	cash	weekly	2 60		65
141	Jewelry.....	German	14 years	mar.	no	59	9	cash	weekly	1 50		
308	Shoemaker.....	Irish	6 years	sing.	no	60	10	cash	weekly	75		30
390	Farm Laborer.....	American		mar.				cash	daily	60		200
134	Engraver.....	American	2 weeks	sing.	no	53	8	cash	weekly	1 00		65
225	Tanner.....	Swiss	6 years	mar.	twice	59	9	cash	weekly	1 25	4	56
133	Compositor.....	American	3 years	mar.	no	59	9	cash	weekly	3 00	5	25
274	Laborer.....	Irish		mar.	10 times	78	13	cash	weekly	1 35		60
256	Silk Weaver.....	German	9 years	sing.		60	10	cash	weekly	2 00		40
386	Factory Hand.....		7 years	mar.	no	70		cash	weekly	1 00		
273	Laborer.....	Irish		mar.	no	60	10	cash	weekly	2 00		
254	Cabinet Maker.....	German	2 years	mar.	no	59	9	cash	weekly	1 75	6	50
384	Rubber Works.....	French	4 years	mar.		60	10	cash		1 00		20
372	Basket Maker.....	American		sing.		72				45	7	100
338	Cigar Maker.....	German	5 years	sing.		60	10	cash	weekly	85	80	
228	Hatter.....	German	5 years	sing.		62	9½	cash	weekly	2 00		90
272	Stereotyper.....	Irish		mar.	6 times	60	9	cash	semi-monthly	1 00		126
383	Rubber Shoes.....	Irish	2 years	sing.	no	60	10	cash	monthly	70		70
339		Irish	2 years	mar.	many times	60	10	cash	monthly	90	5	5
336	Laborer.....	German	4½ years	mar.	no	60	10	cash	monthly	95	30	
378	Factory Hand.....		7 years	mar.	twice	80		cash	monthly	1 00	10	
271	Shoemaker.....	Scotch		mar.	no	59	9	cash	monthly	2 00		156
369	Custom Shoemaker..	German	3 years	sing.	no	60		cash	weekly	1 00		50
316		German	3 months	sing.	10 times	59	9	cash	weekly	1 00	20	80
266	Mason.....	English	28 years	mar.	no	60	10	cash	monthly	1 50		28
270	Laborer.....	Irish	32 years	mar.	no					75	4	71
382	Silk Weaver.....	German	2 weeks	sing.	no	60	8	cash	semi-monthly	1 50	12	78
350		German	10 years	mar.	no	80		cash	weekly	1 25		30
314	Shoemaker.....	German	6½ years	mar.	no	59	9	cash	weekly	1 16	7	156
349		German	26 years	mar.	4 times			cash	weekly	1 00	14	21
269	Laborer.....	Irish	21 years	mar.	3 times			cash	irregular	80	8	96
224		American	10 years	mar.	twice	60	9	cash	weekly	1 80	1	34
255	Engraver.....	German	17 years	mar.	yes	50		cash		2 00		
380	Laborer.....	American	2 years	mar.	yes	59	9	cash	weekly	1 25	5	

TABLE No. IX.—BLANK No. 3. (Continued.)

Office Number.	OCCUPATION.	Nationality.	How Long in Your Present Employ?	Married or Single?	How Often have You Changed Your Occupation since You were 21?	How many Hours do You Work Per Week?	How many Hours do You Work on Saturday?	Are You Paid in Cash or Store Orders?	If in Orders, What Additional Per Cent. is Charged?	Are Wages Paid Weekly or Monthly?	What are Your Actual Earnings Per Day?	HOW MANY LOST DAYS IN THE YEAR?	
												From Sickness.	Inability to Obtain Work.
368	Silk Weaver.....	American	18 months	sing.	no	60	9	cash	.....	weekly	\$1 00	.....	120
252		American	1 year	sing.	.....	84	12	cash	.....	weekly	50	45	.....
268	Pattern Worker	German	31 years	mar.	no	60	10	cash	.....	semi-monthly	1 70	7	5
348		American	6 months	mar.	once	48	8	cash	.....	semi-monthly	2 50	.....	.....
282	Hatter.....	Irish	2½ years	mar.	no	59	9	cash	.....	weekly	2 50	.....	.....
335	Tobacco Maker.....	German	4 years	mar.	once	66	11	cash	.....	weekly	1 00	.....	.....
267	Moulder	American	16 years	mar.	no	60	10	cash	.....	semi-monthly	1 40	2	58
208	Cabinet Maker.....	German	8 years	mar.	no	59	9	cash	.....	weekly	2 83	.....	12
265	Clerk.....	American	2 years	sing.	twice	84	14	both	10 p. c.	weekly	1 65	.....	.....
367	Painter	American	12 years	mar.	no	.....	.....	both	15 p. c.	weekly	1 20	.....	.....
290	Jewelry	German	10 years	mar.	no	55	9	cash	.....	weekly	2 25	.....	.....
354	Horse R. R Foreman	Irish	9 years	mar.	twice	96	.....	cash	.....	weekly	1 76	.....	.....
376	Laborer	Dutch	1½ years	mar.	once	60	10	orders	5 p. c.	monthly	90	.....	60
264	Carpenter	Scotch	8 years	sing.	no	50	.....	cash	.....	.....	70	6	144
229	Stair-rod Maker.....	German	26 years	mar.	once	60	9	cash	.....	weekly	2 50	6	.....
201	Cigar Maker.....	Belgian	2 years	mar.	no	54	5	cash	.....	weekly	1 66	5	11
375	Shoemaker.....	American	2 years	sing.	no	60	9	cash	.....	weekly	1 50	.....	15
306	Mason	American	4 years	mar.	4 times	60	10	both	10 p. c.	irregular	1 50	12	170
207	Cigar Maker.....	American	4 weeks	mar.	4 times	50	5	cash	.....	weekly	1 50	.....	21
343½	Shoemaker.....	American	6 years	sing.	no	60	7	cash	.....	semi-monthly	1 50	.....	20
263	Painter	Irish	4 years	sing.	no	.....	.....	both	.....	semi-monthly	62	4	48
374	Shoe Cutter.....	American	8 years	mar.	no	60	10	.....	.....	weekly	1 50	.....	.....

366	Laborer.....	American	1 year	sing.	twice	59	9	cash	.....	weekly	1 00	5	.....
320	Silver Plater.....	American	5 years	sing.	no	60	10	cash	.....	weekly	2 00	.....	104
287	Hatter.....	Irish	6 months	mar.	4 times	59	9	cash	.....	weekly	2 00	.....	182
352	Laborer.....	German	2 years	mar.	4 times	59½	9½	cash	.....	weekly	1 25	.....	150
262	.....	German	18 months	mar.	3 times	60	9	cash	.....	weekly	1 00	.....	78
334	Foundry	German	5 years	mar.	6 times	72	13	cash	.....	weekly	1 25	56	.....
325	.....	Swede	12 years	mar.	.....	58	8	cash	.....	weekly	1 25	60	35
227	Sewing Machines.....	American	7 years	mar.	no	59	9	cash	.....	weekly	1 60	.....	.....
365	Laborer.....	American	1 year	mar.	6 times	60	10	cash	.....	weekly	1 00	.....	60
317	Laborer.....	Irish	.....	mar.	no	59	9	.....	.....	weekly	1 00	.....	.....
261	.....	German	.....	mar.	.....	60	9	cash	.....	.....	1 34	.....	.....
351	.....	German	6 years	mar.	no	60	10	cash	.....	.....	1 25	14	50
313	Hatter.....	American	.....	.....	no	48	6	cash	.....	weekly	1 20	.....	.....
260	Cutlery	German	4 years	sing.	no	60	10	cash	.....	weekly	1 80	.....	.....
312	.....	German	2 years	sing.	once	59	9	cash	.....	weekly	1 00	.....	.....
364	Cotton Spinner.....	American	1 year	mar.	yes	65	.....	cash	.....	monthly	1 25	.....	.....
226	Jewelry ..	American	8 years	sing.	no	60	9	cash	.....	weekly	2 00	.....	250
343	.....	German	3 months	sing.	twice	57	7	cash	.....	weekly	1 50	.....	.....
293	.....	German	2 years	mar.	once	59	9	cash	.....	weekly	1 00	.....	.....
259	Cutlery	German	5 years	mar.	once	59	9	cash	.....	weekly	1 80	.....	.....
206	Painter	Irish	3 months	mar.	no	59	9	cash	.....	weekly	2 00	.....	120
296	.....	American	4 years	sing.	.....	.....	.....	cash	.....	weekly	.....	.....	156
363	Factory Hand.....	American	7 months	mar.	many times	65	10	cash	.....	monthly	1 00	.....	78
311	Silk Weaver.....	Swiss	4 months	sing.	3 times	60	8½	cash	.....	weekly	1 25	.....	70
258	Laborer.....	.....	6 months	.....	many times	68	10	cash	.....	monthly	1 40	.....	.....
202	.....	Irish	3 years	mar.	3 times	69	9	cash	.....	monthly	1 33	.....	.....
347	.....	German	1½ months	sing.	twice	70	10	cash	.....	weekly	1 50	.....	150
257	Tobacco Worker.....	American	4 years	mar.	many times	80	10	tradedol.	.....	weekly	1 25	24	.....
278	.....	German	15 years	sing.	many times	60	10	cash	.....	weekly	1 50	.....	180
362	Mason	American	1 month	mar.	5 times	60	10	both	10 p. c.	weekly	1 50	.....	140
280	.....	German	4 months	mar.	.....	59	9	cash	.....	weekly	1 60	2	.....
360	Factory Hand.....	American	4 months	mar.	3 times	65	10	cash	.....	monthly	90	.....	.....
283	Hatter.....	American	3 months	mar.	no	.....	.....	cash	.....	weekly	2 50	.....	.....
253	Silk Weaver.....	French	8 years	mar.	twice	60	10	cash	.....	weekly	2 25	.....	30
291	Engraver.....	English	6 months	sing.	no	59	9	cash	.....	semi-weekly	2 00	.....	.....
251	Grocer.....	German	4 years	mar.	3 times	98	19	cash	.....	weekly	1 50	10	.....
285	Moulder	Irish	.....	mar.	very often	.....	.....	.....	.....	.....	2 50	.....	.....

TABLE No. IX.—BLANK No. 3. (Continued.)

Office Number.	OCCUPATION.	Nationality.	How Long in Your Present Employ?	Married or Single?	How Often Have You Changed Your Occupation since You were 21?	How many Hours do You Work per week?	How many Hours do You Work on Saturday?	Are You Paid in Cash or Store Orders?	If in Orders, What Additional Per Cent. is Charged?	Are Wages Paid Weekly or Monthly?	What are Your Actual Earnings per day?	HOW MANY LOST DAYS IN THE YEAR?	
												From Sickness.	Inability to Obtain Work.
223		American	6 years	mar.	3 times	60	10	cash	.....	semi-monthly	\$2 50	.....	156
250	Laborer.....	Irish	.....	mar.	no	.....	.....	cash	.....	irregular	1 25	.....	208
353	Silk Weaver.....	American	8 years	sing.	no	60	7½	cash	.....	weekly	1 12	.....	12
203		Irish	12 years	sing.	no	60	10	cash	.....	weekly	1 50	10	70
248		German	3 weeks	mar.	no	60	10	cash	.....	weekly	1 25	..	.....
222	Moulder.....	American	8 years	mar.	twice	60	10	cash	.....	semi-monthly	2 50	.....	156
361	Factory Hand.....	Irish	6 months	mar.	yes	65	10	cash	.....	monthly	1 00	.....	.....
289		German	1 year	mar.	no	60	8	cash	.....	weekly	1 00	.....	6
247	Jewelry.....	German	12 years	mar.	no	59	9	cash	.....	semi-monthly	1 34	.....	120
286	Cabinet Maker.....	German	2 months	mar.	no	59	9	cash	.....	weekly	1 50	.....	.....
359	Clerk.....	American	10 years	mar.	no	70	.....	cash	.....	weekly	.....	.....	.....
288		German	.....	mar.	no	85	.....	cash	.....	weekly	1 62	.....	.....
246	Jewelry.....	German	7 years	sing.	once	59	9	cash	.....	semi-weekly	1 16	30	126
213	Shoemaker.....	American	3 years	sing.	no	60	9	cash	.....	monthly	1 50	.....	.....
239	Brakeman.....	Irish	35 years	mar.	no	72	.....	cash	.....	monthly	1 60	.....	.....
358	Clay Moulder.....	French	5 weeks	sing.	no	48	8	cash	.....	weekly	60	.....	262
305	Blacksmith.....	Irish	2 years	mar.	yes	60	10	cash	.....	semi-weekly	1 50	.....	30
245	Machinist.....	American	3 months	sing.	5 times	36	.....	cash	.....	daily	1 25	.....	208
284	Barber.....	German	9 months	sing.	once	96	18	cash	.....	weekly	1 20	28	14
341	Cigar Maker.....	German	3 years	mar.	no	60	.....	cash	.....	weekly	1 50	.....	10
221	Shoemaker.....	American	2 years	sing.	no	60	10	cash		weekly	1 00		30
244	Harness Maker.....	American	4 years	sing.	twice	45		irregular			1 50		

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357	Hotel Keeper.....	American	7 years	sing.	no	60	7	cash		weekly	2 00		
340 $\frac{1}{2}$	Pencil Factory.....	Irish	1 week	sing.		60	7	cash		weekly	30		
319	Harness Maker.....	Irish	.....	sing.	no	70	10	cash	.....	weekly	90	.....	156
220	Coal Heaver.....	German	6 months	mar.	sev'l times	60	10	cash	.....	monthly	1 50	.....	.....
304	Shoemaker.....	.....	.....	sing.	.....	60	.....	cash	.....	weekly	1 00	.....	.....
345	.....	American	1 month	sing.	no	60	7	cash	.....	weekly	35	.....	.....
327	Team Driver.....	American	10 years	mar.	5 times	72	14	cash	.....	weekly	1 50	4	.....
243	.....	English	7 years	mar.	no	60	7 $\frac{1}{2}$	cash	.....	weekly	1 50	.....	.....
356	Laborer.....	American	4 years	sing.	no	60	.....	cash	.....	weekly	1 50	5	.....
331	Pencil Case Maker...	German	8 years	mar.	twice	59	9	cash	.....	weekly	1 75	.....	10
340	Wheelwright.....	German	17 years	sing.	no	60	9	cash	.....	weekly	2 50	18	80
242	Mason.....	Irish	7 years	sing.	no	60	10	cash	.....	weekly	1 50	.....	.....
214	Shoemaker.....	American	5 years	sing.	no	60	9	cash	.....	weekly	1 50	.....	.....
233	Carpenter.....	French	11 years	mar.	no	60	10	cash	.....	weekly	3 00	.....	.....
346	Clothing Cutter..	German	23 years	mar.	no	59	9	cash	.....	weekly	3 00	30	.....
330	.....	German	6 $\frac{1}{2}$ months	sing.	twice	60	8 $\frac{1}{2}$	cash	.....	weekly	1 00	10	70
339 $\frac{1}{2}$	.....	German	10 years	sing.	no	60	10	cash	.....	weekly	1 00	25	.....
241	Laborer.....	Irish	18 months	sing.	3 times	60	10	cash	.....	monthly	1 00	2	.....
355	Brick Layer.....	American	5 months	sing.	3 times	60	10	cash	.....	weekly	1 50	.....	90
333	Painter.....	American	1 year	sing.	no	59	9	cash	.....	weekly	1 75	.....	104
219	Brakeman.....	American	13 years	mar.	no	24	.....	cash	.....	monthly	1 80	.....	.....
240	Brakeman.....	American	6 years	mar.	no	70	.....	cash	.....	monthly	1 60	5	.....
215	Shoemaker.....	American	1 year	mar.	no	60	9	cash	.....	weekly	1 50	.....	.....
344	.....	German	.....	mar.	sev'l times	70	9	cash	.....	irregular	2 50	.....	15
332	Barber.....	German	13 years	mar.	no	99	17	cash	.....	weekly	1 50	.....	.....
237	Factory Hand.....	American	5 months	sing.	once	60	10	cash	.....	weekly	1 00	.....	.....
345 $\frac{1}{2}$	.....	German	10 months	mar.	twice	60	10	cash	.....	weekly	2 50	70	20
328	Watchman.....	English	11 months	mar.	twice	.....	.....	cash	.....	weekly	1 50	.....	.....
238	Shoemaker.....	American	7 years	mar.	no	60	10	cash	.....	weekly	1 50	.....	60
326	Shoemaker.....	German	2 $\frac{1}{2}$ years	mar.	no	59	9	cash	.....	weekly	1 20	.....	30
234	.....	German	7 months	mar.	.....	46	6	cash	.....	weekly	1 50	.....	.....
324	Cigar Maker.....	Swede	18 years	mar.	no	54	7	cash	.....	weekly	1 50	.....	54
307	Mason.....	American	2 weeks	sing.	no	60	10	cash	.....	weekly	1 75	.....	.....
236	Carpenter.....	American	2 years	sing.	5 times	60	10	cash	.....	weekly	1 25	.....	75
341 $\frac{1}{2}$	Factory Hand.....	German	3 years	mar.	once	60	9	cash	.....	weekly	2 35	.....	.....
323	Florist.....	American	2 years	sing.	no	50	17	cash	.....	weekly	.....	.....	.....
218	Shoemaker.....	Irish	1 year	sing.	no	60	10	cash	.....	weekly	1 50	.....	.....

TABLE NO. IX.—BLANK NO. 3. (Continued.)

Office Number.	OCCUPATION.	Nationality.	How Long in Your Present Employ?	Married or Single?	How Often Have You Changed Your Occupation Since You were 21?	How Many Hours Do You Work per Week?	How Many Hours Do You Work on Saturday?	Are You Paid in Cash or Store Orders?	If in Orders, what Additional Per Cent. is Charged?	Are Wages Paid Weekly or Monthly?	What Are Your Actual Earnings per Day?	HOW MANY LOST DAYS IN THE YEAR?	
												From Sickness.	Inability to Obtain Work.
235	Factory Hand.....	Irish	7 years	mar.	7 times	54½	9½	cash	.....	weekly	\$1 00	.....	39
310	Silk Weaver.....	Swiss	3 years	mar.	twice	60	9	cash	.....	weekly	1 50	21	44
232	School Teacher.....	American	23 years	mar.	.....	27	.....	cash	.....	irregular	1 47	.....	.....
318	Tailor.....	Irish	.....	mar.	no	72	12	cash	.....	weekly	1 25	.....	156
303	Laborer.....	Irish	.....	mar.	no	59	9	cash	.....	weekly	1 25	.....	234
231	Worst'd Frame Work	American	3 years	sing.	.....	60	10	cash	.....	weekly	65	.....	.....
344½	Shoemaker.....	American	26 years	mar.	twice	60	10	scrip	40 pr. ct.	weekly	1 50	.....	15
217	Clerk.....	American	1 year	sing.	no	60	9	cash	.....	weekly	1 00	.....	8
309	Mason.....	Irish	5½ years	sing.	no	54	9	cash	.....	weekly	2 00	.....	.....
301	.....	Irish	.....	mar.	no	59	9	cash	.....	semi-weekly	1 75	.....	234
294	.....	American	7 months	sing.	no	59	9	cash	.....	semi-monthly	.....	.....	.....
299	Carpenter.....	American	4 months	mar.	no	59	9	cash	.....	weekly	1 75	.....	156
216	Shoemaker.....	Irish	3 years	sing.	no	60	8	cash	.....	monthly	1 25	.....	.....
279	.....	African	40 years	sing.	yes	60	10	both	.....	.....	75	.....	.....
302	Laborer.....	Irish	.....	sing.	no	59	9	cash	.....	semi-weekly	1 25	.....	.....
342	.....	German	10 years	sing.	.....	65	10	cash	.....	semi-monthly	1 20	8	69
292	Hatter.....	German	3 months	mar.	no	30	.....	cash	.....	weekly	1 00	.....	180
277	.....	German	6 years	mar.	no	58	8	cash	.....	weekly	2 25	.....	.....
298	Laborer.....	Irish	.....	mar.	no	59	9	cash	.....	semi-weekly	1 25	.....	234
281	Japanner.....	American	1½ years	mar.	no	59	9	cash	.....	weekly	1 50	.....	234
300	Terra Cotta Works...	English	6½ years	mar.	once	60	8	cash	.....	monthly	1 50	.....	.....
297	File Cutter.....	American	2 weeks	sing.	4 times	59	9	cash	.....	semi-weekly	1 50	.....	.....

401	Painter.....	American	10 years	mar.	once	59	9	cash	weekly	\$1 50	150
411	Button Presser.....	Irish	8 years	mar.	5 times	55	.....	cash	weekly	1 50	.....
396	Wood Turner.....	American	4 years	mar.	twice	50	7½	cash	weekly	1 90	14
412		American	4 years	sing.	3 times	72	12	cash	monthly	1 00	104
421	Salesman.....	American	4 years	mar.	once	75	15	cash	weekly	2 50	.....
402	Silk Dyer.....	French	4 months	sing.	once	60	7½	cash	semi-monthly	1 60	120
413	Lasting Shoes.....	American	7 months	mar.	.....	60	10	cash	weekly	1 25	.....
408	Music Teacher.....	American	.....	mar.	.....	35	.....	cash	.....	1 75	175
403	Blacksmith Helper...	American	22 years	mar.	twice	60	8½	cash	semi-monthly	.....	130
400	Laborer.....	French	6 months	mar.	.....	60	7½	cash	semi-monthly	48	45
414	Gunsmith.....	American	9 years	mar.	no	.....	.....	cash	by the job	1 50	.....
395	House Painter.....	English	10 years	mar.	.....	59	9	cash	weekly	2 00	.....
404	Brakeman.....	American	3 years	mar.	3 times	60	10	cash	monthly	1 20	10
415	Shoemaker.....	Irish	1 year	mar.	yes	50	8	cash	weekly	1 20	50
409	Shoemaker.....	English	1 year	sing.	no	60	9	cash	monthly	1 50	.....
397	Painter.....	English	15 years	mar.	no	59	9	cash	weekly	1 75	144
422	Salesman.....	American	4 years	sing.	no	75	14	cash	weekly	1 33	10
399	Shoemaker.....	English	6 years	mar.	no	60	7	cash	semi-monthly	1 66	48
416	Rolling Mill.....	English	3 years	mar.	no	40	10	cash	weekly	3 00	.....
405	Farm Laborer.....	Bavarian	8 months	mar.	many times	70	12	cash	monthly	75	30
418	Shoemaker.....	American	2 years	mar.	yes	50	9	cash	weekly	1 50	.....
407	Newsdealer.....	American	4 years	mar.	no	102	18	cash	.....	1 00	5
394	Laborer.....	American	.....	sing.	sev'l times	60	10	cash	monthly	1 00	90
450	Shoemaker.....	American	18 months	mar.	yes	.....	.....	cash	weekly	1 25	50
425	Painter.....	American	.....	sing.	no	.....	8	cash	weekly	1 50	156
417		Irish	11 years	mar.	once	60	10	cash	monthly	2 00	.....
399	Oil-cloth Printer.....	English	11 years	mar.	3 times	60	9	cash	weekly	1 85	.....
424		Scotch	2 years	mar.	no	53	8	cash	semi-monthly	2 50	60
388	Railroad Laborer.....	American	3 years	mar.	3 times	60	10	cash	monthly	1 20	10
392	Ribbon Weaver.....	English	9 years	sing.	no	62	8	cash	weekly	1 50	.....
390	Carpenter.....	American	8 years	mar.	no	60	9	cash	semi-monthly	1 25	105
419		Irish	4 years	sing.	no	65	12	cash	monthly	1 25	30
398	Ribbon Weaver.....	English	15 months	mar.	.....	55½	8½	cash	semi-monthly	1 50	.....
423	Tailor.....	American	2 years	sing.	4 times	82	14	cash	weekly	1 25	.....
406	Machinist.....	American	15 years	mar.	no	60	10	cash	weekly	2 50	.....
389	Barber.....	Polish	7 years	mar.	no	93	18	cash	.....	1 50	.....
391	Laborer.....	French	1 year	mar.	once	60	7½	cash	semi-monthly	90	120

TABLE No. IX.--BLANK No. 3. (Continued.)

Office Number.	OCCUPATION.	Nationality.	How Long in Your Present Employ?	Married or Single?	How Often Have You Changed Your Occupation since You were 21?	How many Hours do You Work per week?	How many Hours do You Work on Saturday?	Are You Paid in Cash or Store Orders?	If in Orders, What Additional Per Cent is Charged?	Are Wages Paid Weekly or Monthly?	What are Your Actual Earnings per day?	HOW MANY LOST DAYS IN THE YEAR?	
												From Sickness.	Inability to Obtain Work.
420		American	4 years	mar.	yes	84	14	cash	.....	monthly	\$1 33	.....	.....
436	Silk Dyer.....	French	2 years	sing.	3 times	60	7 $\frac{1}{2}$	cash	.....	semi-monthly	1 40	.....	90
439	Laborer.....	American	9 mouths	sing.	4 times	60	8 $\frac{1}{2}$	cash	.....	weekly	1 50	30	30
437	Silk Weaver.....	American	14 $\frac{1}{2}$ years	mar.	.....	51	7	cash	.....	weekly	1 50	.....	.....
435	Laborer.....	Irish	3 months	mar.	.....	60	9	cash	.....	weekly	1 00	208	.....
440	Silk Ribbon Weaver	Irish	2 years	mar.	.....	60	7 $\frac{1}{2}$	cash	.....	semi-monthly	1 33	.....	.....
431	Silk Weaver.....	American	15 months	sing.	.....	60	10	cash	.....	weekly	1 00	5	3
429		American	8 years	mar.	.....	70	8 $\frac{3}{4}$	cash	.....	semi-monthly	3 00	.....	.....
441	Painter.....	Irish	13 years	mar.	.....	59	9	cash	.....	weekly	2 00	3	76
433	Silk Weaver.....	American	18 months	sing.	.....	60	10	cash	.....	weekly	1 25	.....	12
438	Laborer.....	Irish	19 years	mar.	.....	60	8 $\frac{3}{4}$	cash	.....	semi-monthly	1 50	.....	.....
430	Engraver.....	English	7 $\frac{1}{2}$ years	mar.	once	60	.....	cash	.....	semi-monthly	4 00	.....	.....
442	Silk Weaver.....	French	1 month	sing.	.....	60	9	cash	.....	semi-monthly	1 33	.....	90
432	Silk Weaver.....	American	18 months	sing.	.....	60	10	cash	.....	weekly	1 00	.....	21
444	Jewelry.....	American	6 $\frac{1}{2}$ years	sing.	.....	59	9	cash	.....	weekly	1 12	.....	.....
428	Millwright.....	English	12 years	mar.	.....	60	8 $\frac{3}{4}$	cash	.....	semi-monthly	2 50	20	.....
426		American	7 years	mar.	.....	72	.....	cash	.....	weekly	1 33	.....	92
443	Jewelry.....	German	10 years	mar.	.....	59	9	cash	.....	weekly	2 00	.....	52
434	Cigar Maker.....	American	5 years	sing.	.....	55	5	cash	.....	weekly	2 00	.....	.....
427	Shoemaker.....	American	14 years	mar.	4 times	60	10	cash	.....	weekly	3 00	.....	.....

TABLE NO. IX.—We are under the impression that the question, "*How long have you been in your present employ?*" has been misapprehended. It was designed to elicit the time they have served their present employer, but many have obviously understood it to mean the time they have pursued their present trade or occupation. Pending this uncertainty, we will pass to the question—

"Have you changed your trade or business since you were twenty-one years old, and how often?"

The belief is quite prevalent that the Americans have less stability in respect to pursuits and occupations than is observable in most other nationalities. The tabulation of the returns to this question do not verify that belief, but convicts the Irish of being the most changeable in respect to permanency of occupation. The result of these tabulations is as follows: The average number of changes in the case of 26 Irishmen is 3.76; of 75 Americans, 3.12; of 42 Germans, 2.52; of 17 English, 2.12.

"Piece work" explains most of the blanks in the column headed, "*How many hours do you work per week?*" It is stated by some that irregularity of their work makes it very difficult to arrive at a fair average. We find in this column 383 returns which average 58.7 hours per week, or 9.7 per day.

There does not appear to be any observable abatement in the agitation of diminishing the hours of labor, and it is not probable there will be until the time comes when the industries of this nation, including possibly all nations, are practically conducted, in respect to hours of labor, upon a universal system. The advocates of a reduction will no doubt regard this as a sorrowful postponement of the question. It is natural and praiseworthy for the industrial classes to maintain a judicious attitude concerning all questions which have a direct bearing upon their prospective welfare; but they should remember that this is a very important and, in the estimation of their employers, fundamental question, and vital to every material interest of the nation—hence it is not susceptible of lasting and equitable adjustment, except upon a basis as broad as the nation. The widely-extended and diversified industries of the country render it impossible for any State, or number of States less than the whole, to legally modify the hours of daily labor without serious detriment to some of

those industries. Moreover, the interests of employers cannot be imperiled without involving peril to their employees. It will therefore be a gladsome day when both realize this unity of interest in all its fullness, in the adjustment of this and kindred questions.

Unmistakable indications force themselves upon observation all over this broad land, that diminished hours of labor will result, ere long, of necessity, from continued achievements of American science and genius. We think if there is still to be agitation of the eight-hour question, it can be more profitably directed towards individual preparation to meet these and other foreshadowed industrial changes, which are not to be contemplated without more or less apprehension in respect to their effects not only upon the moral and economical habits of the industrial classes, but upon the whole range of industrial pursuits. To the indolently-inclined, the possibility of receiving as much, and perchance more, wages for eight hours' work than they now receive for ten, has a very captivating outlook. It is to be feared that the bulk of those who now advocate the reduction look forward to its consummation more in its simple bearings upon liberation from toil than its possibilities to eventuate in more evil than good to the public welfare.

Under certain conditions it is pretty difficult to dissociate evil with unwonted idleness—hence we are prepared to dissent from the substitution of eight hours of labor for ten, if there is a reasonable probability that a large percentage of the diminished hours will be frittered away in various forms of pernicious excesses which already dispossess tens of thousands, in all classes, of their manhood and capability decently to provide for themselves and those dependent upon them.

While the probabilities favor an ultimate change in the hours of labor, as already intimated, it does not appear practicable of achievement, upon a permanent and equitable basis, without the sanction and co-operation of the great body of American manufacturers. It is a question of vastly greater significance and diversity of bearings than its promoters usually accord to it, and we confidently affirm that when the change comes it will only inure to the benefit of the expectant classes in proportion to the moral, social and educational uses they make of the additional leisure derived from it.

Replies to the question, "*Are you paid in cash or store orders?*" acquaint us with the fact that wages are not in all cases paid in cash.

Sixteen respondents inform us that they are paid wholly or partially in store orders.

It is not for us to say that the law of this State upon this subject is habitually violated. We will quote from the statute of 1877, and those who still practice the order or scrip system will be able to judge in respect to its infraction :

"1. That it shall not be lawful for any person or corporation in this State to issue, for the payment of labor, any order or other paper whatsoever, unless the same purport to be redeemable for its face value, in lawful money of the United States, by the person giving or issuing the same: provided, however, nothing in this act contained shall be held to prevent any employer from making any deduction for money due him from any laborer or employee.

"2. That if any person or corporation shall issue for payment of labor any paper in violation of the first section of this act, he, she or they shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined in any sum not to exceed five hundred dollars, at the discretion of the court."

The spirit of this law ought to afford a good degree of protection against the evil it was designed to remove, but the letter is obviously inadequate to shield laborers from very great hardships in the matter of payment of wages. We do not impugn "company stores," only as they are conducted upon the compulsory system in respect to the trade of their employees under alleged extortionate rates of charges.

Stringent legislation in England, respecting the abuses of what is denominated the "Truck System," has diminished the evil; but only to a limited extent. The act of Parliament is evaded and violated by such devices and methods as unscrupulous employers are wont to invent. It is stated that the tendency of the competition and depression of business in England is to resuscitate this relic of a bygone age, the practical effect of which is to diminish the wages of workmen by necessitating them to obtain their supplies from their employers at exorbitant prices.

The Truck Act of England declares that any agreement or arrangement whatsoever, whether written or oral, direct or indirect, by which wages are made payable, wholly or in part, otherwise than in the current coin of the realm, or which contains regulations as to the expenditures of wages, shall be illegal, null and void, and heavy penalties are incurred by any employer making any such illegal agreement.

In this country, the evil we are considering has been of much greater magnitude than it is at present, and we confidently believe that the intervention of public opinion, which is unquestionably in unison with the spirit of our State law upon the subject, will ere long enforce obedience to the statute, and thereby remove this illegal and baneful practice.

Sixteen blanks will be observed in the column headed, "*What are your actual earnings per day?*" Fourteen did not answer, 1 worked by the hour, and 1 at piece-work, leaving 417 out of 433 (or 96 per cent.) who gave us their daily earnings, and the average we find to be \$1.45. The number of occupations represented in this Table No. IX. is 77.

On page 42 of our first report will be found the average daily wages of 194 males to be \$1.78, the number of occupations represented being 50. This comparison shows the average this year to be 19 per cent. less than it was last year.

When we consider that but 13 per cent. of the number represented in this year's average denominate themselves laborers, which is generally understood to mean common laborers, the average is extremely low. The 51 laborers show an average of \$1.07. Deduct the laborers from the total, and we have 366 who are entitled to be classified as skilled laborers, whose average is \$1.50. Among this number are 12 whose wages are \$3 and upwards, and 62 between \$2 and \$3.

The last column in this table, headed "*How many lost days in the year from inability to obtain work?*" reveals a remarkable dearth of employment. The number who reported the days lost from inability to obtain work is 223, with an average of 87 days. From sickness, 93 lost an average of 19 days.

TABLE No. X.—

*Selected Returns from Blanks No. 3, Respecting Owning Property,
of Children, Their Age and*

Office Number.	Do You own the House and Land You Occupy?	If yes, Did You Pay for Them from Wages?	How Long were You in Saving the Purchase Money?	Do You Occupy a Whole House?	If so, Give Number of Rooms.	Give Monthly Rent.
26	no	.....	.....	no	4	\$8 00
11	no	.....	.....	no	4	4 00
65	no	.....	.....	no	3	4 00
8	.....	.....	.....	yes	4	3 30
63	yes	yes	26 years	no	.....	.....
13	no	.....	.....	3	7	8 33
7	yes	yes	4 or 5 years	yes	5	.....
85	single	.....	.....	.....	.....	.....
25	yes	yes	7 years	yes	4	.....
10	wife does	not much	.....	yes	2	.....
96	partly	yes	.....	no	5	.....
21	no	.....	.....	yes	6	8 00
32	no	.....	.....	no	3	7 00
9	no	.....	.....	yes	.....	6 50
23	no	.....	.....	yes	5	10 00
17	no	.....	.....	yes	7	10 00
30	no	.....	.....	no	3	7 00
27	no	.....	.....	no	2	4 00
31	single	.....	.....	.....	.....	.....
36	no	.....	.....	no	3	6 00
39	no	.....	.....	no	4	6 00
51	no	.....	.....	no	5	8 00
43	no	.....	.....	no	.....	.....
76	no	.....	.....	no	3	5 00
52	no	.....	.....	no	2	4 00
55	no	.....	.....	no	3	4 00
109	yes	.....	15 years	no	.....	.....
118	no	.....	.....	no	2	7 00
138	no	.....	.....	yes	5	10 00
174	yes	.....	12 years	yes	5	.....
164	yes	.....	12 years	yes	5	.....
149	no	.....	.....	yes	6	7 00
57	no	.....	.....	no	4	7 00
93	no	.....	.....	no	2	6 00
172	yes	.....	15 years	yes	7	.....
163	no	.....	.....	no	4	7 00
143	yes	.....	.....	yes	3	.....
162	no	.....	.....	no	4	6 00
58	no	.....	.....	yes	7	5 00

BLANK NO. 3.

How Paid For, and its Sanitary Condition, Monthly Rent, Education Employment in Factories.

What is the Sanitary Condition of House and Neighborhood?	What is the Sanitary Condition of the Workshop where You Work?	Are Your Children being Educated for Self Support?	How many Boys between 10 and 15 Years of Age are Employed where You are?	How many Girls between 10 and 15 Years of Age are Employed where You are?	How many Boys Under 10 Years of Age?	How many Girls Under 10 Years of Age?	Do the Children do Night Work?
good	.....	no	.....	.....	.....	.....	.....
pretty good	miner	.....	3	.....	3	.....	yes
terrible	poor ventilation	.....	8	5	.....	.....	.....
lack of water	miner	yes	.....	.....	.....	.....	.....
good	.....	.....	.....	.....	.....	.....	.....
first class	first class	yes	.....	.....	.....	.....	.....
very good	healthy	yes	.....	.....	.....	.....	.....
.....	good	.....	.....	.....	.....	.....	.....
good	good	yes	.....	.....	.....	.....	.....
good	.....	yes	.....	.....	.....	.....	.....
good	good	yes	.....	.....	.....	.....	.....
fair	fair	.....	30	6	.....	.....	.....
good	brakeman	.....	.....	.....	.....	.....	.....
good	.....	.....	.....	.....	.....	.....	.....
malarious	unhealthy	yes	.....	.....	.....	.....	.....
good	good	yes	.....	.....	.....	.....	.....
good	no fire escape	.....	10	75	.....	.....	yes
good	very bad	.....	2	3	1	.....	yes
.....	good	.....	15	.....	.....	.....	.....
fair	good	.....	20	.....	.....	.....	sometimes
very good	excellent	.....	20	7	25	.....	yes
very good	very poor	no	25	10	.....	.....	.....
.....	no fire escape	.....	50	4	.....	.....	yes
yes	yes	yes	3	2	.....	.....	sometimes
not good	very poor	.....	.....	.....	.....	.....	.....
not good	passable	.....	25	.....	.....	.....	.....
good	not good	yes	4	75	.....	.....	no
very bad	very bad	.....	200	50	75	.....	yes
fair	fair	.....	50	40	20	.....	sometimes
good	very fair	.....	.....	.....	.....	.....	.....
good	very fair	.....	.....	.....	.....	.....	.....
fair	.....	.....	.....	.....	.....	.....	.....
good	good	.....	2	1	.....	.....	.....
very bad	fair	.....	.....	.....	.....	.....	.....
good	good	yes	1	3	.....	.....	.....
good	bad	yes	35	35	.....	.....	.....
bad	good	no	.....	.....	.....	.....	.....
bad	bad	.....	25	30	.....	.....	boys do
good	good	.....	.....	.....	.....	.....	.....

TABLE No. X.—

Office Number.	Do You own the House and Land You Occupy?	If yes, Did You Pay for Them from Wages?	How Long were You in Saving the Purchase Money?	Do You Occupy a Whole House?	If so, Give Number of Rooms.	Give Monthly Rent.
142	no	.....	.....	no	4	\$8 00
157	no	.....	.....	no	4	8 00
141	no	.....	.....	no	4	8 00
95	no	.....	.....	yes	5	9 00
61	no	.....	.....	no	.....	.....
161	no	.....	.....	.....	4	6 00
180	no	.....	.....	no	3	8 00
159	no	.....	.....	no	4	8 00
64	yes	.....	15 years	no	.....	.....
71	no	.....	.....	no	3	7 00
158	no	.....	.....	no	4	5 00
79	yes	.....	9 years	yes	7	.....
199	no	.....	.....	yes	8	9 00
195	no	.....	.....	yes	6	6 00
183	no	.....	.....	yes	7	14 00
181	no	.....	.....	no	4	7 00
187	no	.....	.....	yes	5	7 00
212	yes	yes	15 years	yes	6	.....
201	no	.....	.....	no	4	8 00
229	yes	brought the money	from Germany	yes	6	.....
208	no	.....	.....	no	5	10 00
267	no	Sheriff took it	.....	yes	6	6 00
255	no	.....	.....	no	3	8 00
224	yes	yes	19 years	.....	.....	.....
349	yes	brought the money	from Germany	yes	3	.....
268	no	Sheriff sold it	\$2,000 paid	no	4	6 00
314	no	.....	.....	no	.....	.....
292	no	.....	.....	no	2	5 00
344	no	.....	.....	half	5	6 50
232	yes	yes	23 years	yes	9	.....
310	no	.....	.....	yes	6	9 00
50	no	.....	.....	.....	.....	.....
73	single	.....	.....	.....	.....	.....
82	single	.....	.....	.....	.....	.....
121	no	.....	.....	.....	.....	.....
120	no	.....	.....	no	4	8 00
130	no	.....	.....	no	3	5 00
132	no	.....	.....	yes	5	.....
137	single	.....	.....	.....	.....	.....
235	no	.....	.....	no	3	5 00
341	yes	yes	13 years	yes	5	.....
332	yes	big mortgage	4½ years	yes	4	9 00

COLLATED STATISTICS DERIVED FROM LABORERS.

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BLANK No. 3. (Continued.)

What is the Sanitary Condition of House and Neighborhood?	What is the Sanitary Condition of the Workshop where You Work?	Are Your Children being Educated for Self-support?	How many Boys between 10 and 15 Years of Age are Employed where You are?	How many Girls between 10 and 15 Years of Age are Employed where you are?	How many Boys Under 10 Years of Age?	How many Girls Under 10 Years of Age?	Do the Children do Night Work?
fair	fair	.....	10	4	.....	.....	.....
good	bad	yes	30	25	.....	.....	.....
fair	poor ventilation	.....	8	5	.....	.....	yes
good	good	yes	25	.....	.....	.....	.....
good	no fire escape	no	8	.....	.....	.....	no
good	bad	yes	30	25	.....	.....	sometimes
good	bad	yes	30	25	.....	.....	.....
good	bad	.....	30	30	.....	.....	.....
good	good	no	.....	.....	.....	.....	.....
fair	bad ventilation	yes	8	5	.....	.....	yes
bad	bad	yes	35	25	.....	.....	.....
good	good	yes	.....	.....	.....	.....	.....
good	bad	no	25	35	.....	.....	yes
good	bad	no	15	25	.....	.....	yes
good	good	yes	2	4	.....	.....	no
fair	bad	yes	25	30	.....	.....	.....
good	good	yes	8	15	.....	.....	.....
fair	good	yes	.....	.....	.....	.....	.....
bad	fair	.....	.....	.....	.....	.....	.....
good	good	.....	11	6	.....	.....	.....
good	good	no	.....	.....	.....	.....	.....
fair	good	no	8	17	4	.....	.....
good	good	.....	2	3	.....	.....	.....
good	good	yes	.....	.....	.....	.....	.....
.....	.....	.....	50	80	25	.....	.....
poor	good	no	11	9	.....	.....	.....
good	good	no	7	13	.....	.....	.....
good	fair	yes	3	.....	.....	.....	no
bad	good	.....	20	.....	.....	.....	yes
good	.....	no	.....	.....	.....	.....	.....
good	very dark	no	25	75	30	6	yes
good	very poor	.....	5	1	.....	.....	yes
.....	no fire escape	.....	40	15	.....	.....	very often
bad	bad	.....	25	12	.....	.....	yes
fair	bad	no	50	4	.....	.....	yes
clean	bad	yes	15	20	.....	.....	sometimes
healthy	not healthy	.....	10	10	.....	.....	no
good	good	yes	.....	.....	2	.....	one
not good	good	.....	10	.....	2	.....	sometimes
fair	bad	.....	35	.....	.....	.....	sometimes
healthy	healthy	yes	200	200	.....	.....	sometimes
fair	fair	.....	.....	.....	.....	.....	.....

TABLE No. X.—

Office Number.	Do You own the House and Land You Occupy?	If Yes, Did You Pay for Them from Wages?	How Long were You in Saving the Purchase Money?	Do You Occupy a Whole House?	If so, Give Number of Rooms.	Give Monthly Rent.
215	no	.....	.....	no	3	\$7 00
240	no	.....	.....	yes	6	7 00
221	single	.....	.....	.....	.....	.....
247	no	.....	.....	no	3	6 00
353	single	.....	.....	.....	.....	.....
257	no	.....	.....	yes	2	8 00
202	no	.....	.....	yes	7	10 00
260	single	.....	.....	.....	.....	.....
313	no	.....	.....	no	5	7 00
345½	no	.....	.....	yes	6	10 00
386	no	.....	.....	no	3	4 00
385	no	.....	.....	yes	7	8 00
378	no	.....	.....	yes	4	.....
370	yes	yes	3 years	yes	3	.....
350	no	.....	.....	yes	5	7 00
384	yes	yes	10 years	yes	6	.....
268	no	had paid \$2,000 when foreclosed	.....	no	4	6 00
349	yes	brought the money from Germany	.....	yes	3	.....
381	yes	yes	7 years	yes	8	.....
267	once	had paid \$800 when mortgagee took it	.....	yes	6	6 00
420	no	.....	.....	half	4	5 00
406	yes	yes	9 years	yes	6	.....
421	no	.....	.....	no	4	12 00
392	no	.....	.....	no	.....	.....
398	no	.....	.....	no	.....	5 00
427	no	.....	.....	yes	4	15 00
443	no	.....	.....	no	3	10 00
426	yes	.....	.....	yes	4	.....
428	no	.....	.....	half	6	10 00
429	yes	partly	25 years	no	.....	.....
438	yes	.....	.....	no	.....	.....

BLANK No. 3. (Continued.)

What is the Sanitary Condition of House and Neighborhood?	What is the Sanitary Condition of the Workshop where You Work?	Are Your Children being Educated for Self Support?	How many Boys between 10 and 15 Years of Age are Employed where You are?	How many Girls between 10 and 15 Years of Age are Employed where You are?	How many Boys Under 10 Years of Age?	How many Girls Under 10 Years of Age?	Do the Children do Night Work?
fair	poor	no	2	3			
good	.....	no	.....	.....	.....	.....	.....
good	poor	.....	10	5	.....	.....	.....
good	unhealthy	yes	.....	6	.....	.....	yes
bad	not healthy	yes	300	250	.....	.....	.....
fair	poor	.....	15	.....	5	.....	yes
good	not good	.....	50	10	3	.....	yes
good	good	yes	.....	.....	.....	.....	.....
good	healthy	no	.....	.....	.....	.....	.....
good	bad	.....	50	.....	.....	.....	yes
good	fair	yes	.....	.....	.....	.....	.....
.....	.....	yes	3	2	1	.....	no
good	.....	no	.....	.....	.....	.....	.....
healthy	.....	no	.....	.....	.....	.....	.....
fair	good	no	.....	.....	.....	.....	.....
bad	good	no	11	9	.....	.....	no
healthy	.....	no	50	80	25	.....	in winter
good	good	no	.....	.....	.....	.....	.....
fair	good	no	8	17	4	.....	no
unhealthy	.....	.....	.....	.....	.....	.....	.....
good	good	yes	.....	.....	.....	.....	.....
good	good	.....	3	.....	.....	.....	.....
.....	.....	.....	100	.....	.....	.....	yes
bad	fair	.....	good many	300	.....	60	.....
good	good	.....	.....	.....	.....	.....	.....
fair	poor	.....	5	3	.....	.....	.....
healthy	damp	no	2	.....	.....	2	.....
good	first class	yes	1	2	.....	.....	.....
good	good	yes	.....	.....	.....	.....	.....
good	good	yes	3	.....	.....	.....	.....

TABLE NO. X.—We learn from this table that 25 employees own the houses and lands they occupy; that 19 paid for them from earnings of wages extending from four to twenty-six years; 3 paid for them from money brought from Germany; 1 from inherited money; 1 is owned by the wife, and 1 is but partially paid for. In the case of two properties, \$2,000 each had been paid when the mortgage was foreclosed. In another case, after the payment of \$800, a foreclosure swept the property.

YEARLY RENT, NUMBER OF ROOMS AND SANITARY CONDITION.

Number of Families.	Rent.	Average Number of Rooms.	Occupy Whole House.	Occupy Half House.	Good Condition.	Bad Condition.
1	\$180 00	4	1	.....	1	.....
1	168 00	7	1	.....	1	.....
1	144 00	4	.....	1	1	.....
8	120 00	5.4	5	3	7	1
4	108 00	5.3	4	.....	4	.....
14	96 00	4.3	3	11	11	3
13	84 00	4.2	4	9	11	2
1	78 00	5	1	.....	1	.....
12	72 00	3.1	3	9	7	5
8	60 00	3.1	1	7	5	3
6	48 00	4.7	.....	6	3	3
1	40 00	4	1	.....	1	.....

We have reason to think that the full significance of the question, "*Are your children being educated for self-support?*" was not comprehended by those into whose hands our blanks fell. The fact that but 15 in 100 who received the list of questions answered this one at all, is suggestive of a variety of interpretations, no one of which can be otherwise than cumulative respecting the necessity of some system of enforcing attention to education. "Yes," was the answer of 37, and "No" of 25. In several cases the children were "too young;" in others there were "no children."

It seems to us inexcusable in a parent to refuse to answer such a simple question, designed especially to elicit information for purposes bearing upon the public welfare, themselves and their children. Lack of opportunity for children to acquire the education to which they are entitled, is one of the most defensible grievances that parents harp upon; for what question is more essentially interwoven with

whatever concerns the general prosperity of the people and the perpetuity of our institutions, than that of education? It is no less a requisite acquirement to enhance the capabilities of young men to obtain a livelihood, than to prepare them by moral and intellectual culture, for a useful and ennobling citizenship.

The deplorable apathy observable, we believe, in a large majority of the citizens and functionaries of this and other States, upon the subject of the education of the masses, is incompatible with a genuine patriotism and an adequate appreciation of those requirements which are indispensable to the highest attainments in individual and national aggrandizement.

The present is a period of progress and development never before excelled, and the bearings of this progress extend to government, society, the moral and social elevation of the masses of mankind, and to widespread material prosperity. To foster this tendency and render advancement continuous and productive of like requisite results, we feel no hesitation in averring that well-organized educational appliances will be found to be the most salutary and efficacious.

There is great diversity of sentiment existing respecting the limits and range of the education which the State is justified in providing gratuitously, but it is not our purpose on the present occasion to enlarge upon this aspect of the question, or do more than impart a little emphasis to the necessity of renewed attention to the general subject of popular education. When we remember that in a very important sense the "masses" make our laws and possess the power to enforce or ignore them, it seems to us to constitute a most striking exemplification of the utility of educational capabilities in respect to their specific bearings upon the maintenance of popular government. The relations of the State to this subject are concisely stated in the following language of Huxley:

"If the positive advancement of the peace, wealth and the intellectual and moral advancement of its members are objects which the government, as the representative of the corporate authority of society, may justly strive after in the fulfillment of its end—the good of mankind—then it is clear that the government may undertake to educate the people. For education promotes peace by teaching men the realities of life and the obligations which are involved in the very existence of society; it promotes intellectual development—not only

by training the individual intellect, but by sifting out from the masses of ordinary or inferior capacities those who are competent to increase the general welfare by occupying higher positions; and it promotes morality and refinement by teaching men to discipline themselves."

We quote also a passage from an address on "Organization of Educational Forces," by William S. Schofield. It has reference more particularly to schools other than elementary, but it nevertheless bears upon universal education. He says:

"If the statement made by General Eaton, that commerce, industry, legislation and administration would go back to barbarism if the care of the young were neglected for a single generation, be accepted as measuring the influence of the school system upon civilization, have we not a right to expect that with a universal educational system, well established, they would go forward to a most dazzling civilization? Our common—our whole—people would have more innocent play and rest, and more refined joy and pleasure mixed with the strain and struggle of toiling life. They would have greater skill in labor and more profit from it, and they would be enabled to acquire and to enjoy increased comforts and culture."

The inhumane employment of children under 10 and 12 years of age, often night and day, in factories, continues to invoke reprobation. It is difficult to command language which adequately rebukes this practice. Cupidity could scarcely have a more repulsive exemplification. To it is traceable the lack of both physical and mental development of thousands of young children belonging to the operative classes, and both parents and employers are too often involved in responsibility for this irremediable injustice, which has a two-fold bearing upon the children—viz., enfeeblement of health and educational deprivation.

This is a question that appeals with the utmost urgency for amelioration from the Legislature. We can recur to no reason that militates with a semblance of justice against this intervention, but to many that incite to speedy action.

The tabulation of Table No. X. discloses 1,957 boys and 1,751 girls between the ages of ten and fifteen, and 101 boys and 68 girls under ten years of age, who are engaged in factory pursuits. More-

over, 32 testify that more or less of these young children perform night work in their accustomed occupations.

Unquestionably the service these children render their employers is invaluable in its relations to the cost of all the products into which child labor enters, but does that atone for the wrong done to those who are entitled, in tender years, to unstinted opportunities for physical and educational development to fit them for livelihood pursuits in after life?

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PART IV.

MISCELLANEOUS STATISTICS,

Relating to Specific State Industries.

CHAP. I.—SILK.

CHAP. II.—POTTERY, STONE AND GLASS.

CHAP. III.—HATS.

CHAP. IV.—LEATHER, BOOTS, SHOES AND BELTING.

CHAP. V.—BRASS MANUFACTURES AND GAS FITTINGS.

CHAP. VI.—IRON AND ITS PRODUCTS.

CHAP. VII.—CLOTHING.

CHAP. VIII.—MACHINERY.

CHAP. IX.—CHEMICALS, DRUGS, SOAPS AND FERTILIZERS.

CHAP. X.—FARMING.

CHAP. XI.—MISCELLANEOUS INDUSTRIES.

PART IV.

[CIRCULAR No. 4.]

STATE OF NEW JERSEY,
BUREAU OF STATISTICS OF LABOR AND INDUSTRIES,
TRENTON, May 1st, 1879. }

DEAR SIR:—This Bureau having been in operation one year, its purposes must be obvious to every intelligent observer of the times.

Entering now upon the work of this second year, the Bureau would appeal to the manufacturers of New Jersey to assist in obtaining full and accurate statistics of every department of their work, in order that the Second Report may present with truthfulness the real condition of our varied industries.

A careful consideration of questions 22 and 23 is invited, and a written opinion upon the subject of hours of labor is requested.

As a reminder of the scope of the work of the Bureau, the second section of the act authorizing its establishment is again published :

2. *And be it enacted*, That the duties of such bureau shall be to collect, assort, systematize and present in annual reports to the Legislature, on or before the last day of October in each year, statistical details relating to all departments of labor in the State, especially in its relations to the commercial, industrial, social, educational and sanitary condition of the laboring classes, and in all suitable and lawful ways foster and enlarge our manufacturing and every other class of productive industry, with the view to their permanent establishment upon a prosperous basis, both to the employer and the employed.

JAMES BISHOP, *Chief*.

SAM'L C. BROWN, *Secretary*.

STATE OF NEW JERSEY,
BUREAU OF STATISTICS OF LABOR AND INDUSTRIES,
TRENTON, May 20th, 1879. }

BLANK No. 2 FOR EMPLOYERS.—[This blank is sent out post paid as printed matter. On its return, with written replies to the questions, it will be chargeable with letter postage. A pre-paid envelope, duly directed, is therefore sent with it, in which please enclose the blank and return by mail to this office within sixty (60) days.]

1. Name of firm or company.....
2. In town of.....
3. Articles manufactured.....
4. Value of goods manufactured at your establishment during the year ending July 1st, 1879.....
5. Total amount paid for labor during the year ending July 1st, 1879.....
6. Number of persons employed. a. Men..... b. women..... c. boys.....
d. girls..... e. native..... f. foreign.

7. Number of children under ten years of age.....
8. How many days have you run during the year ending July 1st, 1879?.....
9. Actual time of starting and stopping motive power.....
10. Have wages been reduced during 1878?..... what per cent.?.....
11. What has been the average day wages of a man?..... a woman..... and a child..... during the year ending July 1st, 1879?
12. Are wages paid weekly or monthly?.....
13. Are wages paid fully in cash?.....
14. Have you a general store connected with your establishment, at which employees are expected to trade?..... If so, do they purchase with cash.....with check.....or on book account?.....
15. Are your female or child employees ever required to work extra time beyond the time declared to be your regular running time?.....
16. If yes, do such employees receive extra pay for such extra time?..... or is such pay above the regular rate?.....
17. Have you any adequate means for ventilation, and is such ventilation carefully attended to?.....
18. Have you ample means of escape, both within and outside of your work buildings, in case of fire?.....
19. Is your motive wheels, shafting and belting so secured as to prevent accidents of any kind?.....
20. Do your doors by which your employees must escape in case of accident, open inward or outward?
21. How many of your employees own real estate?.....
22. What in your opinion would be the effect upon your own business should eight hours as a legal day's work, become universal?.....
23. What do you think the effect would be upon the workingman himself?.....

MISCELLANEOUS STATISTICS,

Relating to Specific State Industries.

TABLE No. XI.—BLANK No. 2.

Statistics of Silk Manufactures in New Jersey for the Year Ending July 1st, 1879.

Office Number.	ARTICLES MANUFACTURED.	NUMBER OF OPERATIVES EMPLOYED.				Wages Paid.	Capital Invested.	Value of Production.	
		Males.		Females.					Total.
		Men.	Boys.	Women.	Girls.				
157	Gum Silks, Tram, Organ-	40	.....	35	.....	75	\$15,000 00	\$72,000 00	
164	zine, Fringe Silks, Floss	25	.....	10	.....	35	21,000 00	60,000 00	
174	Silks, Sewing Silks, Machine	40	2	10	.....	52	18,000 00	\$10,000 00 50,000 00	
179	Twist, Dyeing, Weaving, Rib-	12	2	5	.....	19	1,700 00	2,500 00 3,000 00	
180	bons, Dress and Fancy Silks,	3	1	.....	.....	4	2,000 00	 4,500 00	
182	Veils and Veiling, Ladies'	2	20	60	.....	82	42,000 00	20,000 00 180,000 00	
187	Dress Trimmings, Braids	15	10	50	25	100	25,000 00	 60,000 00	
188	and Bindings, and Uphols-	20	.....	.....	.....	20	10,600 00	 60,000 00	
191	tery Trimmings, &c.	350	50	300	250	950	500,000 00	400,000 00 1,000,000 00	
193		5	7	.....	60	72	18,000 00	20,000 00 20,000 00	
195		5	5	6	60	76	27,000 00	20,000 00 150,000 00	
196		20	2	3	.....	25	12,000 00	3,000 00 25,000 00	
198		1	.....	.....	8	9	1,700 00	1,400 00 4,000 00	
201		10	2	.....	.....	12	2,825 00	 6,000 00	
204		350	150	150	250	900	270,000 00	310,000 00 1,000,000 00	
206		70	20	60	20	170	20,000 00	60,000 00 120,000 00	
207		2	4	25	.....	31	6,500 00	25,000 00 50,000 00	
208		15	50	100	.....	165	60,000 00	45,000 00 450,000 00	
210		10	.....	10	.....	20	6,000 00	8,000 00 11,476 00	
211		100	4	25	25	154	70,000 00	20,000 00 175,000 00	
214		11	2	.....	3	16	9,500 00	 20,000 00	
215		200	4	3	.....	207	95,000 00	60,000 00 275,000 00	
217		100	50	200	50	400	107,561 00	250,000 00 334,870 00	

222	25	25	100	125	200	\$65,000 00	\$125,000 00	\$500,000 00
223	25	25	100	125	150	35,000 00	290,000 00	600,000 00
224	12	3	16	2	33	7,900 00	20,000 00	22,000 00
225	98	4	20	6	128	50,000 00	19,000 00	120,000 00
234	2	6	26	34	34	13,500 00	16,000 00	50,000 00
235	25	25	25	50	50	28,500 00	7,000 00	72,000 00
236	125	15	75	10	225	104,000 00	100,000 00	500,000 00
237	3	12	12	15	15	4,500 00	8,000 00	6,000 00
238	200	100	100	260	660	375,000 00	250,000 00	900,000 00
239	50	25	110	25	210	85,500 00	125,000 00	400,000 00
240	8	30	20	70	128	17,000 00	60,000 00	175,000 00
241	80	1	4	80	80	40,000 00	25,000 00	125,000 00
247	19	5	10	30	24	12,000 00	8,000 00	15,000 00
248	7	7	10	30	12	4,900 00	1,500 00	10,000 00
249	7	7	10	30	54	15,000 00	10,000 00	35,000 00
259	1	1	8	10	10	3,000 00	10,000 00	10,000 00
260	50	50	14	50	50	7,000 00	20,000 00	20,000 00
270	5	6	20	45	45	11,000 00	25,000 00	25,000 00
271	70	32	32	70	70	40,000 00	140,000 00	150,000 00
273	32	32	20	65	65	25,000 00	20,000 00	60,000 00
274	4	10	46	80	80	18,000 00	50,000 00	200,000 00
275	120	70	250	570	570	186,000 00	600,000 00	600,000 00
276	35	6	10	51	51	21,000 00	30,000 00	30,000 00
280	7	10	9	28	28	7,000 00	16,000 00	30,000 00
281	20	5	90	130	130	38,000 00	60,000 00	200,000 00
287	20	2	24	46	46	27,000 00	20,000 00	72,000 00
288	20	20	160	200	200	60,000 00	600,000 00	600,000 00
292	125	75	75	200	200	70,000 00	140,000 00	235,000 00
293	20	20	30	80	80	22,000 00	200,000 00	150,000 00
297	25	25	25	50	50	19,000 00	15,000 00	50,000 00
298	8	5	5	13	13	5,000 00	1,500 00	15,000 00
299	25	1	7	33	33	16,000 00	2,500 00	20,000 00
300	25	10	10	35	35	14,000 00	45,000 00	43,000 00
308	128	128	128	511	511	150,000 00	75,000 00	600,000 00
309	100	4	40	144	144	72,000 00	17,000 00	200,000 00
318	125	100	125	500	500	130,000 00	75,000 00	600,000 00
319	14	3	1	18	18	8,000 00	50,000 00	50,000 00

TABLE No. XI.—BLANK No. 2. (*Continued*).

Office Number.	ARTICLES MANUFACTURED.	NUMBER OF OPERATIVES EMPLOYED.					Wages Paid.	Capital Invested.	Value of Production.
		Males.		Females.		Total.			
		Men.	Boys.	Women.	Girls.				
336	Gum Silks, Tram, Organzine,	100	72	60	60	292	\$28,000 00	\$15,000 00	\$100,000 00
351	Fringe Silks, Floss Silks, Sew-	60	.....	100	.....	160	50,000 00	75,000 00	250,000 00
355	ing Silks, Machine Twist, Dye-	14	2	7	7	30	13,980 00	.....	25,000 00
362	ing, Weaving, Ribbons, Dress	150	75	200	75	500	90,000 00	50,000 00	400,000 00
363	and Fancy Silks, Veils and	75	25	25	125	250	68,000 00	120,000 00	400,000 00
364	Veiling, Ladies' Dress Trim-	10	2	4	.....	16	2,000 00	5,000 00	5,000 00
379	mings, Braids and Bindings,	170	60	190	230	650	225,000 00	.....	900,000 00
	Upholstery Trimmings, &c.	3,600	1,300	3,176	2,348	10,424	\$3,625,166 00	.....	\$13,700,846 00
1874	Year ending December 21st,	1,549	404	2,437	1,024	5,414	\$1,387,151 00	.....	\$6,097,692 00
1875	" " " "	2,349	748	3,902	1,382	8,381	2,969,993 00	.....	10,930,035 00
1879	" " July 1st,	3,600	1,300	3,176	2,348	10,424	3,625,166 00	.....	13,700,846 00

It is a subject of regret that the source of information from which we derived the details at the foot of the above tables for the years 1874 and 1875, was not continuous through the succeeding three years. The discontinuance of the reports during those years deprive us of valuable data which we have not been able to supplement from any other source.

While general depression reigned through those minus years, there was, nevertheless, an obvious advance in the silk industry to the extent of nearly \$3,000,000. In view of the fact that between the years 1875 and 1879 there was a steady decline in the cost of silk goods to the consumer, the advance in the total product would in reality approach more nearly \$5,000,000 than \$3,000,000.

We proceed to give a summary of responses to the following questions:

No. 22.—“*What would be the effect on your own business should eight hours, as a legal day's work, become universal?*” And

No. 23.—“*What do you think the effect would be upon the working-man himself?*”

In the 66 blanks returned, 32 respond that it would be “injurious” or “disastrous” to both employers and employees; 9, that it would result in work being done by the piece and hour; 9, that it would benefit both classes.

In respect to Question 22, No. 236 says—“Injurious; we could not compete with foreign manufacturers.” No. 336—“Disastrous.” And 6—“Injurious.” No. 204—“It would be without advantage to the manufacturers.” No. 272 argues that “as we are now situated, with the present tariff and ten-hour system, we are able to compete with Europe. Any change would be ruinous. We pay about two and a quarter times as much for labor as is paid in the same line in Europe.” No. 275—It would be “injurious to the workingmen, as employers could not compete with other manufacturers without a reduction of at least 25 per cent. in wages, because expenses of rent, machinery, taxes, power, &c., would remain the same, while production would be reduced one-fifth.” No. 308—contends that it would be “injurious to the workingman and calamitous to their employers. In Italy, France and Germany they work from 15 to 16 hours, and as we are obliged to compete with them it would be injurious to the

manufacturers here to change the present ten-hour system." No. 379, after remarking that reduction of the legal day's work to 8 hours would be "injurious to all concerned," adds: "Rates of interest and hours of labor should not be subjects of legislation to reduce our working time to 6 days of 8 hours, or 48 hours per week. This would be injurious to both manufacturers and employees—necessitating increased capital, machinery, &c., to produce the same amount of goods on the part of the manufacturer, and reduced wages to the employee; for the greater part of our production is piece-work, and not hour-work."

In respect to Question 23, No. 336 says—"The result would be such that the workingman, having one more hour to spend, would eat up his wages easier." No. 204—"It would operate to the detriment of the workingmen in the majority of cases."

MISCELLANEOUS STATE INDUSTRIES.

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TABLE No. XII.—BLANK No. 2.

Silk Industries—Numbers Employed, Wages, Nativities, and Owners of Real Estate.

Office Number.	Men Employed	Men's Average Daily Wages.	Women Employed.	Women's Average Daily Wages.	Boys Employed.	Boys' Average Daily Wages.	Girls Employed.	Girls' Average Daily Wages.	Native Born.	Foreign Born.	Owners of Real Estate.
157	40	\$1 75	35	\$ 75	.....	.....	.....	.....	.....	.....	.....
164	25	2 00	10	2 00	.....	.....	.....	.....	.....	35	.....
174	40	1 75	10	1 15	2	\$ 40	.....	.....	.....	.....	.....
179	12	1 50	5	1 00	2	50	.....	.....	.....	.....	.....
180	3	1 50	.....	.....	1	50	.....	.....	3	1	.....
182	2	2 50	60	80	20	1 00	.....	.....	82	.....	1
187	15	1 00	50	90	10	50	25	\$ 50	.....	.....	.....
188	20	2 50	.....	.....	.....	.....	.....	.....	.....	20	2
191	350	2 60	300	1 50	50	90	250	90	650	300	.....
193	5	1 65	.....	.....	7	85	60	85	.....	.....	9
195	5	2 25	6	1 50	5	1 00	60	1 00	60	16	.....
196	20	1 60	3	1 00	2	65	.....	.....	12	13	3
198	1	1 50	.....	.....	.....	.....	8	75	9	.....	1
201	10	1 00	.....	.....	2	50	.....	.....	3	9	9
204	350	3 00	150	1 50	150	62	250	62	300	600	50
206	70	2 00	60	1 00	20	65	20	65	50	120	.....
207	2	2 00	25	1 00	4	60	.....	.....	31	.....	.....
208	15	1 50	100	90	50	90	.....	.....	85	80	.....
210	10	1 50	10	45	.....	.....	.....	.....	10	10	2
211	100	2 00	25	1 00	4	60	25	60	54	100	10
214	11	2 50	.....	.....	2	40	3	40	.....	16	.....
215	200	1 50	3	1 00	4	50	.....	.....	57	150	50
217	100	1 50	200	1 00	50	50	50	.....	.....	.....	15
222	25	1 75	25	1 00	25	90	125	90	.....	.....	2
223	25	1 25	100	80	25	50	.....	.....	.....	.....	.....
224	12	1 75	16	1 25	3	40	2	40	20	13	1
225	98	2 25	20	1 00	4	50	6	50	25	103	25
234	2	2 50	26	90	6	90	.....	.....	.....	.....	.....
235	25	2 25	25	1 50	.....	.....	.....	.....	.....	.....	.....
236	125	1 50	75	1 00	15	50	10	50	.....	.....	.....
237	3	1 25	12	90	.....	.....	.....	.....	.....	.....	.....
238	200	3 50	100	1 90	100	75	260	75	360	300	40
239	50	1 50	110	1 00	25	75	25	75	.....	.....	.....
240	8	2 00	20	70	30	50	70	50	.....	.....	1
241	80	1 60	.....	.....	.....	.....	.....	.....	.....	.....	.....
247	19	1 75	4	1 40	1	65	.....	.....	1	24	.....
248	7	2 00	.....	.....	5	35	.....	.....	6	6	.....
249	7	2 00	10	1 00	7	75	30	75	17	37	6
259	1	1 50	.....	.....	1	75	8	75	8	2	.....
260	.....	.....	.....	.....	50	50	.....	.....	.....	.....	.....
270	5	1 00	20	90	6	60	14	60	.....	.....	.....
272	70	1 80	.....	.....	.....	.....	.....	.....	.....	.....	.....
273	32	1 25	33	1 25	.....	.....	.....	.....	17	48	.....
274	4	1 25	46	80	10	60	20	60	53	27	.....
275	120	1 30	250	90	70	70	130	70	114	456	10
276	35	1 75	.....	.....	6	65	10	65	.....	.....	.....

TABLE NO. XII.—BLANK NO. 2. (Continued.)

Office Number.	Men Employed	Men's Average Daily Wages.	Women Employed.	Women's Average Daily Wages.	Boys Employed.	Boys' Average Daily Wages.	Girls Employed.	Girls' Average Daily Wages.	Native Born.	Foreign Born.	Owners of Real Estate.
280	7	\$1 93	9	\$ 80	10	\$ 43	2	\$ 43	.....	.....	.....
281	20	1 50	90	90	5	55	15	55	.....	.....	.....
287	20	2 75	24	1 15	2	65	.....	.....	11	35	.....
288	20	1 25	160	90	20	65	.....	.....	180	20	.....
292	125	1 75	.....	.....	.....	.....	75	1 00	100	100	.....
293	20	1 00	30	85	20	65	10	65	.....	.....	.....
297	25	1 60	25	85	.....	.....	.....	.....	.....	.....	.....
298	8	2 00	5	1 50	.....	.....	.....	.....	.....	.....	1
299	25	2 00	7	1 10	1	65	.....	.....	.....	.....	2
300	25	1 75	.....	.....	.....	.....	10	1 00	.....	.....	.....
309	100	1 75	40	1 25	4	45	.....	.....	.....	.....	.....
308	128	1 50	128	1 50	128	50	127	50	.....	.....	.....
318	125	1 60	125	1 25	100	75	150	75	.....	.....	.....
319	14	1 50	3	65	.....	.....	1	50	.....	.....	.....
336	100	1 50	60	1 00	72	75	60	75	.....	.....	10
351	60	1 25	100	90	.....	.....	.....	.....	.....	.....	.....
355	14	2 00	7	1 50	2	90	7	.....	.....	.....	.....
362	150	1 50	200	1 17	75	58	75	58	.....	.....	.....
363	75	1 50	25	1 00	25	50	125	50	.....	.....	.....
364	10	2 00	4	1 00	2	40	.....	.....	.....	.....	.....
379	170	2 00	190	1 50	60	83	230	50	390	260	120
	3,600	.....	3,176	.....	1,300	.....	2,348	.....	2,708	2,901	370

The above table presents the labor aspect of one of the most important and growing industries within the bounds of our State. It shows the total number of employees to be 10,424, of which 65 per cent. are male and female adults.

It informs us that the wages of less than $1\frac{1}{2}$ per cent. of the adult male operatives is \$1 per day ; that 4 per cent. receive \$1.25, and a little less than 95 per cent. range from \$1.50 to \$3.50.

Of the women, 36 per cent. receive under \$1 per day ; 35 per cent. from \$1 to \$1.25 inclusive, and 29 per cent. between \$1.25 and \$2.

The number of boys is 1,300, and their wages range from 40 cents to \$1. The girls number 2,348, with wages ranging a trifle higher than those of the boys. If we had the ear of these 3,648 boys and girls we should be impelled to remind them that with good habits and fidelity to their employers, a prosperous and captivating industrial future is before them.

Less than one-half of the employers have reported nationalities to the effect that 2,708 are of native birth, and 2,901 foreign.

It is worthy of special note that out of 1,591 males reported upon, 370 (or 23 per cent.) are owners of real estate. The whole aspect of this table betokens thrift and prosperity, with a likelihood, however, that it has hitherto been shared relatively in a higher degree by the operatives than by the employers. The silk interest has unquestionably gained a permanent footing in this country, but the pioneers and invincible promoters of the industry have encountered obstacles and discouragements of such a nature and magnitude as could only be overcome, primarily, by confidence and courage, supplemented with capital and skill. It will scarcely be questioned that the representatives of this suddenly-developed and beautiful industry, justly claim that up to the present time the maximum advantages derived from it have been shared chiefly by consumers, who have obtained better and cheaper goods, and by operatives, who have had steady employment. We cannot but entertain hopeful anticipations respecting this industry, and feel well assured that ample reward is in reserve for the heroic and enterprising capitalists who have surmounted such varied and stupendous difficulties.

Any community might well covet the possession of such an industry as the silk. The character and healthfulness of the employment, and the grade of labor inseparable from its requirements, classify it as one of the most desirable in the whole range of industrial pursuits. It will be observed that entire families, which combine the requisite qualifications, are here furnished with elevating and remunerative occupation in the same calling and under the same supervision.

TABLE No. XIII.—BLANK No. 2.

Manufactures of Pottery, Stone and Glass.

Office Number.	MANUFACTURES.	Number of Men Employed.	Men's Average Daily Wages.	Number of Women Employed.	Women's Average Daily Wages.	Number of Children Employed.	Children's Average Daily Wages.	Total Number Employed.	Native.	Foreign.	Owners of Real Estate.	Total Paid for Labor.	Value of Production.
392	Pottery Decorator.....	3	\$3 50	2	\$1 00	2	\$ 50	7	7	.....	.....	\$4,000 00	\$8,000 00
393	Pottery Decorator.....	5	3 00	4	1 50	11	60	20	15	5	.....	9,000 00	20,000 00
394	Pottery Decorator.....	10	2 00	12	1 00	.....	.....	22	19	3	.....	11,000 00	40,000 00
395	Pottery Decorator.....	2	2 00	4	1 50	1	90	7	2	5	1	3,500 00	8,000 00
396	Pottery Decorator.....	3	3 00	2	1 50	7	90	12	7	5	.....	7,300 00	15,000 00
415	White Ware.....	50	2 00	25	67	25	58	100	50	50	10	60,000 00	130,000 00
413	Knobs	5	1 25	.....	.....	1	50	6	6	.....	.....	2,100 00	3,000 00
399	Pottery	75	2 00	37	67	38	58	150	75	75	.....	63,000 00	150,000 00
398	Pottery (5 months).....	74	2 50	10	1 00	60	50	144	130	14	.....	7,050 00	30,000 00
405	Pottery	20	2 00	.....	.....	5	50	25	25	.....	.....	13,500 00	25,000 00
404	Terra Cotta.....	40	1 50	.....	.....	3	75	43	14	29	6	20,000 00	150,000 00
416	Pottery	50	2 00	5	67	45	58	100	.....	.....	.....	60,000 00	130,000 00
417	Pottery	50	2 00	5	67	45	58	100	.....	.....	.....	60,000 00	130,000 00
418	Pottery	70	2 00	7	67	63	58	140	.....	.....	.....	90,000 00	180,000 00
419	Pottery	17	2 00	2	67	15	58	34	.....	.....	.....	20,000 00	40,000 00
420	Pottery	67	2 00	6	67	60	58	133	.....	.....	.....	80,000 00	175,000 00
421	Pottery	55	2 00	6	67	50	58	111	.....	.....	.....	70,000 00	140,000 00
422	Pottery	17	2 00	2	67	15	58	34	.....	.....	.....	20,000 00	40,000 00
423	Pottery	57	2 00	6	67	53	58	116	.....	.....	.....	75,000 00	150,000 00
424	Pottery	55	2 00	6	67	50	58	111	.....	.....	.....	70,000 00	140,000 00
425	Pottery	50	2 00	5	67	45	58	100	.....	.....	.....	60,000 00	130,000 00
426	Pottery	70	2 00	7	67	63	58	140	.....	.....	.....	90,000 00	180,000 00

H	427 Pottery	57	2 00	6	67	53	58	116	.....	.....	.....	75,000 00	150,000 00
	148 Pottery	50	2 50	1	60	30	70	81	20	61	.....	40,000 00	90,000 00
	131 Pottery	25	2 10	1	70	4	60	30	5	25	.....	16,500 00	30,000 00
	388 Pottery Machinery.....	37	1 60	.....	.....	3	50	40	30	10	15	20,000 00	75,000 00
	386 Pottery Supplies.....	15	1 65	.....	.....	.....	.....	15	.....	15	5	8,000 00	82,000 00
	430 Brick Making.....	20	2 00	.....	.....	10	88	30	.....	.....	.....	14,000 00	30,000 00
	431 Brick Making.....	20	2 00	.....	.....	8	88	28	.....	.....	.....	13,000 00	20,000 00
	432 Brick Making.....	44	2 00	.....	.....	11	88	55	.....	.....	.....	25,000 00	43,000 00
	433 Brick Making.....	25	2 00	.....	.....	6	88	31	.....	.....	.....	15,000 00	20,000 00
	434 Brick Making.....	35	2 00	.....	.....	15	88	50	.....	.....	.....	19,000 00	32,000 00
	435 Brick Making.....	40	2 00	.....	.....	15	88	55	.....	.....	.....	24,000 00	40,000 00
	13 Glassware.....	225	{ skilled unsk'd	3 00	.....	125	60	350	262	88	70	132,000 00	225,000 00
	517 Glassware.....	590		1 12	.....	.....	.....	.....	.....	.....	.....	.....	.....
	27 Glassware.....	35	2 37	10	78	479	50	1,079	.....	.....	124	335,000 00	600,000 00
	46 Monuments and Man- tels.....	30	2 00	.....	.....	25	50	60	57	3	8	25,000 00	50,000 00
	67 Marble, Granite and Freestone Work.....	45	3 00	.....	.....	.....	.....	30	7	23	.....	10,000 00	80,000 00
	175 Marble, Granite and Freestone Work.....	25	2 25	.....	.....	3	80	48	14	34	12	48,000 00	80,000 00
	278 Marble Work.....	8	2 50	.....	.....	3	80	28	10	18	.....	30,000 00	100,000 00
	412 Marble Work.....	3	1 60	.....	.....	.....	.....	8	.....	.....	4	4,000 00	25,000 00
	391 Marble Work.....	3	1 75	.....	.....	.....	.....	3	3	.....	.....	1,800 00	5,000 00
	389 Freestone Work.....	6	1 85	.....	.....	.....	.....	3	.....	.....	.....	1,800 00	5,000 00
	519 Hollow Glassware.....	200	2 00	.....	.....	.....	.....	6	4	2	.....	2,800 00	10,000 00
			{ skilled unsk'd	3 25	.....	.....	.....	.....	.....	.....	.....	.....	.....
				1 25	.....	100	50	300	.....	.....	150	125,000 00	250,000 00
		2,383			171	1,547		4,101	962	465	405	1,880,350 00	4,056,000 00

The above presentation of the pottery industry of New Jersey is by no means complete, but we take great pleasure in setting before the reader our first attempt to summarize this important and growing interest. There is sufficient diversity and individuality in this table to render it replete with interest, and its true tendency ought to be to awaken a new public interest in industrial growth and material prosperity.

The abundance and quality of our clays naturally concentrated the pottery interest in such proximity to the deposits that local advantages and enterprise have enabled our potters to achieve pre-eminence in their art, and our State to supersede all others, both in the artistic phase and in magnitude of this prosperous industry.

Unlike some other industries which have recourse to other countries for raw materials, all the above, from the finest ceramic to the roughest brick, are, with slight exceptions, domestic products, wrought by our own muscle, and the development of advancing art capacity.

In the review of this interesting tabulation of special industries, the ancient reference to the potency, which, from the same crude materials, can make vessels of the highest honor or the humblest utility, is very vividly recalled.

It will be noticed in the above, that of the yearly values, aggregating \$4,086,000, labor received \$1,880,350, or nearly one-half—or, more accurately speaking, a shade over 46 per cent. The significance of this statement will be more sharply defined by a comparison with other industrial statistics. Massachusetts furnishes admirable data in her State census report for 1875 (*Compendium*, page 161), which places the yearly production of all her manufacturing industries at \$592,331,962, of which \$139,595,765, or a little over 23 per cent., went to labor. By comparing our group of pottery industries with the general manufacturing industries above noted, the relation is as 46 to 23. The Trenton potteries by themselves show even a greater compensation to labor in the present exhibit—the aggregate production being \$1,997,000, of which \$1,045,300, or 52½ per cent., was paid for labor.

Another important exhibit is found in the range of compensation for men's labor, which is shown in the foregoing to be from an aver-

age of \$1.12 per day for unskilled manipulators of glass, to an average of \$3.50 per day for decorators of pottery.

Twenty-two manufacturers, employing 1,227 persons, report 762 (or 62 per cent.) of American, and 465 (or 38 per cent.) of foreign birth.

Eleven, employing 2,050, report 405 (or 20 per cent.) as owning real estate.

We quote a few answers from employers to the following questions :

No. 22.—“ *What, in your opinion, would be the effect upon your own business should eight hours, as a legal day's work, become universal?* ”

No. 23.—“ *What do you think the effect would be upon the working-man himself?* ”

Office No. 13, to Question 22—“ Would not affect our business. Our men work by piece-work, and quit when they work all the glass out of the crucible. They average about 8 hours.” To Question 23—“ It would be of no advantage to the men.”

No. 27, to Question 22—“ Detrimental; our men work by the piece or gross.”

No. 415, to both questions—“ The effect would be bad upon the country, and upon workingmen in particular.”

To both questions, 5 respond “ Bad ; ” 2, “ Reduction in wages.”

To Question 22, 3 respond “ No effect ; ” 1, “ Good effect ; men will accomplish as much in 8 hours as they now do in 10.”

TABLE No. XIV.—BLANK No. 2.

Hats.

Office Number.	KINDS OF MANUFACTURE.	Number of Men Employed.	Men's Average Daily Wages.	Number of Children Employed.	Children's Average Daily Wages.	Number of Women Employed.	Women's Average Daily Wages.	Number of Dozens Made.	Number of Months at Work.	Total Number Employed.	Total Paid for Labor.	Total Value of Products.
58	Hats.....	95	\$1 50	5	50	27	65	16,000	12	127	\$50,000 00	\$240,000 00
62	Soft and Stiff Felt Hats	70	1 25	8	50	45	75	8,300	12	123	50,000 00	150,000 00
69	Hats.....	23	2 00	1	60	8	\$1 00	2,000	12	32	16,000 00	25,000 00
74	Hats.....	80	2 75	6	50	2	1 00	7,500	8	88	30,000 00	130,000 00
88	Hats.....	53	2 00	.....	.....	13	1 00	2,500	7	66	20,000 00	46,000 00
90	Straw and Felt Hats.....	50	1 50	6	50	20	1 00	20,000	12	76	30,000 00	100,000 00
95	Hats and Forming Mill.....	200	2 00	12	50	80	1 00	16,500	9	292	100,000 00	200,000 00
115	Felt Hats.....	250	2 00	50	50	100	67	20,000	12	400	100,000 00	300,000 00
118	Hats.....	80	1 00	.....	.....	20	50	3,000	8	100	17,000 00	50,000 00
130	Hats.....	100	2 50	12	\$1 00	40	1 50	18,000	12	152	100,000 00	225,000 00
132	Hats.....	120	2 00	8	60	40	1 00	12,000	6½	168	70,000 00	160,000 00
317	Hats.....	20	2 40	.....	.....	.....	.....	2,000	6	20	8,000 00	25,000 00
337	Hats.....	36	1 50	2	50	10	75	5,000	12	48	20,000 00	55,000 00
345	Hats.....	25	90	15	50	.....	.....	3,500	12	40	16,000 00	41,000 00
446	Hats.....	50	2 00	.....	.....	25	75	7,000	9	75	36,000 00	125,000 00
447	Hats.....	40	2 50	.....	.....	7	1 00	4,000	8	47	21,500 00	63,000 00
448	Hats.....	12	2 00	5	50	4	85	1,200	12	21	10,000 00	15,000 00
449	Hats.....	50	2 00	.....	.....	18	1 00	5,000	8	68	30,000 00	90,000 00
450	Hats.....	65	2 00	.....	.....	20	75	6,000	8	85	30,000 00	100,000 00

451	Hats.....	80	\$2 00	25	85	6,000	8	105	\$36,000 00	\$90,000 00
452	Hats.....	43	1 00	15	85	1,200	5	58	9,000 00	20,000 00
453	Hats.....	70	1 85	20	\$1 00	7,000	8	90	30,000 00	112,000 00
454	Hats.....	75	2 00	25	85	6,000	8	100	34,500 00	100,000 00
455	Hats.....	87	2 00	13	85	6,000	12	100	55,000 00	144,000 00
459	Hats.....	15	2 00	5	1 00	1,500	8	20	12,000 00	18,000 00
460	Hats.....	55	2 00	15	1 00	6,000	8	70	30,000 00	144,000 00
461	Hats.....	65	2 50	20	1 15	6,000	6	85	42,000 00	120,000 00
462	Hats.....	95	2 50	30	1 10	10,000	8	125	63,000 00	220,000 00
463	Hats.....	29	2 00	9	1 00	2,500	8	38	16,000 00	40,000 00
464	Hats.....	48	2 50	15	1 30	5,000	7	63	30,000 00	90,000 00
465	Hats.....	43	2 50	17	1 15	5,000	7	60	30,000 00	90,000 00
466	Hats.....	82	2 50	18	1 10	7,000	8	100	51,000 00	147,000 00
467	Hats.....	72	2 50	20	1 10	7,000	7	92	38,000 00	112,000 00
468	Hats.....	60	2 00	15	1 00	3,800	9	75	30,000 00	80,000 00
469	Hats.....	70	2 00	25	1 00	5,000	8	95	31,000 00	65,000 00
470	Hats.....	14	2 00	5	1 00	1,800	4	19	4,500 00	21,600 00
471	Hats.....	75	2 00	18	80	5,500	8	93	34,000 00	66,000 00
472	Hats.....	60	2 00	20	1 10	6,500	12	80	36,000 00	98,000 00
473	Hats.....	20	2 00	10	1 00	1,000	8	30	10,000 00	12,000 00
474	Hats.....	135	2 65	40	1 00	10,000	8	175	75,000 00	210,000 00
475	Hats.....	25	1 50	9	75	2,000	8	34	13,000 00	26,000 00
476	Hats.....	64	2 00	25	1 10	6,500	8	89	42,000 00	98,000 00
477	Hats.....	34	2 00	10	1 00	3,000	8	44	17,000 00	45,000 00
478	Hats.....	30	2 00	10	1 00	3,000	10	40	18,000 00	42,000 00
479	Hats.....	40	2 00	20	1 00	5,000	9	60	24,000 00	70,000 00
480	Hats.....	55	2 25	20	1 00	6,000	8	75	35,000 00	90,000 00
481	Hats.....	30	2 00	10	1 00	3,000	8	40	16,000 00	42,000 00
482	Hats.....	60	2 00	15	1 00	18,000	8	75	25,000 00	40,000 00
488	Hats.....	25	2 00	8	1 00	2,000	8	33	11,500 00	24,000 00
489	Hats, (Forming Mill.).....	64	2 00	11	1 00	.....	9	75	30,000 00	50,000 00
490	Hats.....	40	1 65	22	1 00	6,000	8	62	20,000 00	72,000 00
491	Hats.....	25	2 00	10	1 00	2,000	8	35	12,000 00	25,000 00
492	Hats.....	30	2 50	10	1 20	6,000	6	40	14,000 00	45,000 00
493	Hats.....	50	3 00	20	2 00	5,000	6	70	29,000 00	110,000 00
494	Hats.....	50	2 50	10	1 25	7,000	6	60	26,000 00	84,000 00
495	Hats.....	70	2 00	30	1 00	7,500	6	100	26,000 00	90,000 00

TABLE NO. XIV.—BLANK NO. 2 (Continued.)

Office Number.	KINDS OF MANUFACTURE.	Number of Men Employed.	Men's Average Daily Wages.	Number of Children Employed.	Children's Average Daily Wages.	Number of Women Employed.	Women's Average Daily Wages.	Number of Dozens Made.	Number of Months at Work.	Total Number Employed.	Total Paid for Labor.	Total Value of Products.
496	Hats.....	35	\$2 50	.....	.....	15	\$1 20	4,000	4	50	\$12,000 00	\$48,000 00
497	Hats.....	125	2 00	.....	.....	40	1 00	12,000	6	165	45,000 00	240,000 00
498	Hats.....	70	2 00	.....	.....	30	1 00	7,500	6	100	26,000 00	90,000 00
499	Hats.....	135	2 00	.....	.....	25	1 00	15,000	6	160	30,000 00	150,000 00
500	Hats.....	100	2 50	.....	.....	30	1 25	12,000	6	130	43,000 00	108,000 00
501	Hats.....	30	2 00	.....	.....	12	1 00	3,500	6	42	11,500 00	53,000 00
502	Hats.....	50	2 00	.....	.....	15	1 00	7,000	6	65	18,000 00	105,000 00
503	Hats.....	30	2 00	.....	.....	15	1 00	4,000	4	45	12,000 00	40,000 00
504	Hats, (Silk).....	4	2 50	.....	.....	2	1 00	120	6	6	2,000 00	6,000 00
505	Hats, (Silk).....	2	2 50	.....	.....	1	1 00	50	6	3	1,000 00	2,500 00
506	Hats.....	112	2 50	.....	.....	40	1 20	18,000	6	152	52,000 00	225,000 00
507	Hats.....	110	2 50	.....	.....	38	1 20	17,000	6	148	51,000 00	200,000 00
508	Hats, (Straw).....	20	2 50	.....	.....	150	1 00	23,000	8	170	40,000 00	150,000 00
509	Hats.....	30	2 50	.....	.....	8	1 50	3,000	7	38	16,000 00	45,000 00
510	Hats.....	50	2 50	.....	.....	17	1 00	6,000	8	67	30,000 00	84,000 00
511	Hats.....	38	2 00	.....	.....	18	95	5,000	8	56	19,000 00	70,000 00
		4,345	.....	130	.....	1,555	.....	488,470	573½	6,030	\$2,218,000 00	\$6,708,500 00

The above table presents the condensed reports of 72 hat factories, employing 6,030, whose combined wages amount to \$2,218,000, and total product 488,470 dozen hats, valued at \$6,708,500.

It will be observed that this important industry has been greatly paralyzed during the past year. Enforced idleness, from some cause, has a despairing presentation in the column headed "Number of months at work." Of the 72 factories contributing statistical information, but 11 run continuously for 12 months, while the average of the whole appears to be less than 8 months.

The magnitude of the specific industry unfolded by this table will surprise many who are unfamiliar with the range of industries prosecuted in our State. If full employment had extended through the year, in the ratio presented in the table, the total product would have been \$8,944,566, and the labor, likewise extended, would have been \$2,957,303.

While neither of our schedules of interrogatories contained specific queries respecting convict labor, both employers and employees have availed themselves of the opportunity thus presented, with great unanimity, to indicate their belief that convict labor has wrought the sorrowful depression in their business which is depicted in these statistical columns.

Notwithstanding the subject of convict labor was not introduced into Blanks Nos. 2 and 3, the respondents have voluntarily given it such prominent recognition, that we feel impelled to quote a few sample sentences which we find on the margins of blanks returned by employers. In respect to those returned by *employees* a very common reply to Question 29—" *It is often stated that you don't receive a just share of profit on your labor; what better system can be equitably adopted?*"—was, "Abolish convict labor."

Employers' Blank, No. 58—"Convict labor has caused ruinous reduction in prices, and robbed many an honest man of work. Manufacturers can afford to support prisoners in idleness rather than compete with their labor in the markets."

No. 62—"Convict labor in the State Prisons of New York and Massachusetts has lessened our demand 50 per cent., and has caused 10 per cent. reduction in rates of wages paid, and will cause further reductions."

No. 74—"Convict labor has compelled us to abandon the manu-

facture of some grades, as we could not pay living wages. Would be willing to stand assessment for support of convicts in the prison, rather than compete with their labor."

No. 88—"If there was no competition with convict labor we would be able to run 12 months in the year, instead of 7."

No. 90—"Have suffered great damage through convict labor."

No. 95—"Competition with convict labor in New York and Massachusetts has obliged us to abandon the manufacture of some grades of hats, and reduced the number of our employees."

No. 118—"Convict labor is driving legitimate business out of the market to such an extent that if it could produce enough hats it would close all the hat shops in the State."

No. 130—"We are obliged to reduce our force on hats for 6 months in the year, because of the competition of convict labor."

No. 337—"Competition with State Prison labor has compelled us to reduce our production about 33 per cent."

No. 345—"By reason of State Prison labor being employed in making hats, we have not manufactured more than 25 per cent. of the number that we made three years ago; consequently our hands have work about one-quarter of the time."

Questions No. 22—"What, in your opinion, would be the effect upon your own business should eight hours, as a legal day's work, become universal?"—and No. 23—"What would be the effect upon the workingman?"—were most frequently answered, "No effect on either." "Piece-work would be our rule." "Bad." "Have no effect."

No. 58—"No effect on either; piece-work would rule in our business. Think the eight-hour system would be good, as it would give employment to more men."

No. 115—"Increase cost of goods; doubtful if any benefit would be gained."

TABLE No. XV.—BLANK No. 2.

Leather, Boots, Shoes and Belting.

Office Number.	VARIETIES OF MANUFACTURE.	Number of Men Employed.	Men's Average Daily Wages.	Number of Boys Employed.	Boys' Average Daily Wages.	Number of Women Employed.	Women's Average Daily Wages.	Number of Girls Employed.	Girls' Average Daily Wages.	Total Number Employed.	Native Born.	Foreign Born.	Number Owning Real Estate.	Total Paid for Labor.	Total Value of Products.
18	Boots and Shoes.....	50	\$1 50	6	\$ 50	20	\$ 90	3	\$ 50	79	.....	.....	45	\$14,000 00	50,000 00
56	Boots and Shoes.....	100	2 00	.....	.....	20	1 33	..	.....	120	45	75	.....	70,200 00	160,000 00
106	Ladies', Misses' and Children's Shoes	28	1 50	.....	.....	25	90	.....	.....	53	46	7	5	17,600 00	50,000 00
169	Boots and Shoes.....	20	1 60	2	50	18	1 00	.....	.....	40	20	20	.....	15,360 00	50,000 00
300	Boots and Shoes.....	36	1 50	7	43	21	85	2	43	66	33	33	4	19,600 00	40,000 00
360	Boots and Shoes.....	280	2 00	50	50	70	1 00	50	.....	450	225	225	70	208,000 00	800,000 00
361	Boots and Shoes.....	79	1 50	15	60	16	1 00	.....	.....	110	.....	.....	.....	44,500 00	150,000 00
372	Boots and Shoes.....	5	2 00	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	3,000 00	10,000 00
373	Shoes	135	1 65	.....	.....	.....	.....	80	90	215	.....	.....	.....	80,000 00	250,000 00
380	Children's Shoes.....	15	1 17	.....	.....	8	83	.....	.....	23	23	.....	5	4,026 00	10,000 00
437	Ladies' Shoes.....	6	1 50	.....	.....	.....	.....	4	50	10	9	1	3	3,300 00	35,000 00
458	Boots and Shoes.....	12	1 50	.....	.....	1	1 00	.....	.....	13	7	6	4	6,000 00	18,000 00
33	Curried Leather.....	10	1 67	2	50	.....	.....	.....	.....	12	6	6	1	5,410 00	128,843 00
43	Patent and Enameled Leather..	350	1 50	30	1 00	.....	.....	.....	.....	380	50	330	.....	175,000 00	1,000,000 00
48	Shoe, Bag and Trunk Leather...	15	1 50	4	1 00	.....	.....	.....	.....	19	9	8	1	15,000 00	40,000 00
50	Morocco Leather.....	40	1 50	.....	.....	2	1 00	.....	.....	42	.....	42	5	20,000 00	150,000 00
51	Leather.....	4	1 75	.....	.....	.....	.....	.....	.....	4	1	3	1	2,000 00	20,000 00
52	Leather Belting.....	4	2 25	.....	.....	.....	.....	.....	.....	4	4	.....	.....	2,500 00	14,000 00
54	Trunk, Split, Harness and Bag Leather.....	35	2 38	.....	.....	.....	.....	.....	.....	35	.....	.....	.....	26,000 00	110,000 00
75	Goat Skin Morocco.....	28	2 10	1	1 00	2	50	.....	.....	31	27	4	.....	15,000 00	100,000 00

104	Patent, Enameled and Fancy Colored Leather.....	125	2 00							125	75	50	40	78,000 00	450,000 00
296	Leather Belting	3	2 50							3	3		3	3,000 00	15,000 00
342	Tannery	30	2 00							30				19,500 00	100,000 00
516	Boots and Shoes.....	75	1 67	8	42	22	1 00	2	42	107	80	27	5	7,500 00	100,000 00
522	Boots and Shoes.....	12	1 20	3	45	7	1 00			22				8,000 00	25,000 00
523	Boots and Shoes.....	14	1 80			3	1 00			17				9,000 00	20,000 00
524	Boots and Shoes.....	10	1 80							10				6,000 00	15,000 00
525	Boots and Shoes.....	11	2 25			4	1 00			15				8,500 00	20,000 00
526	Boots and Shoes.....	12	1 50			3	1 25			15				10,000 00	55,000 00
527	Uppers.....	6	2 00	6	85					12				6,000 00	16,000 00
528	Boots and Shoes.....	7	1 50			2	80			9				3,500 00	7,000 00
529	Slippers	17	1 50			3	80			20				9,000 00	15,000 00
530	Slippers	32	1 85			3	1 40			35				20,000 00	40,000 00
531	Ladies' Boots and Shoes.....	6	2 00			2	1 00			8				6,000 00	10,000 00
532	Gaiters.....	2	1 80							2				1,300 00	4,000 00
533	Boots and Shoes.....	8	1 50			7	90			15				5,000 00	7,000 00
534	Boots and Shoes	1	1 50			1	1 00			2				800 00	1,800 00
535	Boots and Shoes—Gents' Fine...	85	2 25			15	1 00			100				65,000 00	115,000 00
		1,708		134		275		141		2,258	663	837	192	\$1,012,596 00	\$4,201,643 00

The accompanying table does not nearly represent the total of the leather and boot and shoe industry of this State, but it will nevertheless serve to remind the interested public that it is one among the many extensive industries within our borders, which, upon a future occasion, we shall hope to present with greater fullness.

As boots and shoes predominate very largely in this classification, we propose to make it the occasion of an incidental comparison of average wages paid in New Jersey and Massachusetts in this specific industry. We do not claim that the parallelism is complete, and it would obviously be unfair to make use of the Massachusetts figures, in this connection, without premising that they are drawn from actual working time and actual wages, while ours are computed from daily wages—hence the calculation can only be regarded as proximate.

In instituting this comparison we necessarily assume full time employment in both cases; otherwise it would have no significance.

The subdivision of the table before us furnishes the following results:

The average daily wages of 1,064 men is \$1.79, which for full time would amount to \$560.66. 275 women, 99 cents; full time, \$308.41. 134 boys, 65 cents; full time, \$202.14. 91 girls, 85 cents; full time, \$264.70. 225 boys and girls, full time, \$237.74. The average of both sexes, including boys and girls, \$469.87.

Seventeen manufacturers report the nationalities of 1,500, of which 663 (or 44 per cent.) are of native birth, and 837 (or 56 per cent.) of foreign birth.

Fourteen establishments, with 1,106 employees, report 192 as owning real estate.

The Massachusetts census of 1875 (Compendium, page 153,) apprises us of the following averages, based upon 38,516 employed in the boot and shoe industry:

Yearly wages of males above 15 years of age, \$546.02; females above 15 years of age, \$325.17; both sexes under 15 years of age, \$165.90; both sexes of all ages, \$455.05.

We extract a few marginal personal convictions of proprietors respecting the causes of business depression, and responses to schedule questions:

No. 361—"State Prison labor has injured the trade about 30 per cent."

To Question 22—"What, in your opinion, would be the effect upon your own business should eight hours, as a legal day's work, become universal?"—and to 23—"What do you think the effect would be upon the workingman himself?"—No. 75 says: "Excellent in both cases."

No. 106—"I am inclined to think it would be beneficial to manufacturers. As to workingmen I cannot say."

No. 18—"I employ most of my hands by the piece, and find they are glad to work 10 hours. I think, when the work is not hard, men and women are both able to make full 10, and are happier and better contented with plenty of work than when they are busy only three-fourths of the time." To Question 22—"Very bad."

No. 360, as to Question 22—"A decline in wages, or appreciation in value of merchandise, would result." To the same question 13 respond—"Disastrously." To both questions, 4 say, that such provisions would not affect them as employers, as piece-work, when not now obtaining, would be established.

No. 339—"I think they would reduce wages 20 per cent."

TABLE No. XVI.—BLANK No. 2.

Brass Manufactures and Gas Fittings.

Office Number.	SPECIALITIES.	Number of Men Employed.	Men's Average Daily Wages.	Number of Boys Employed.	Boys' Average Daily Wages.	Number of Women Employed.	Women's Average Daily Wages.	Number of Girls Employed.	Girls' Average Daily Wages.	Total Number Employed.	Native Born.	Foreign Born.	Number Owning Real Estate.	Total Paid for Labor.	Total Value of Products.
8	Brass Goods.....	50	\$2 50	30	\$0 75	.....	.....	.....	.....	80	40	40	25	\$35,000 00	\$100,000 00
36	Plumbers' Castings.....	35	1 80	.....	.....	.....	.....	.....	.....	35	20	15	9	7,528 00	25,000 00
79	Brass Cocks, &c.....	9	2 25	8	90	.....	.....	.....	.....	17	13	4	2	7,500 00	20,000 00
80	Fancy Brass Goods.....	15	1 50	45	50	.....	.....	14	\$0 50	74	54	20	.....	17,000 00	40,000 00
84	Brass Foundry.....	4	2 10	3	60	.....	.....	.....	.....	7	7	.....	.....	3,500 00	8,000 00
100	Gas Metres.....	14	2 75	.....	.....	.....	.....	.....	.....	14	.....	.....	1	4,500 00	65,000 00
105	Small Brass Work and Finishing	1	1 25	.....	.....	.....	.....	.....	.....	1	1	.....	.....	350 00	1,200 00
126	Brass Goods.....	150	2 50	80	1 00	20	\$1 00	.....	.....	250	200	50	12	15,000 00	150,000 00
165	Brass Castings and Finished Goods.....	5	1 25	.....	.....	.....	.....	.....	.....	5	5	.....	.....	1,200 00	4,000 00
303	Brass Cocks and Plumbers' Supplies.....	100	2 25	50	85	.....	.....	.....	.....	150	75	75	6	85,000 00	250,000 00
341	Gas Fixtures.....	4	2 90	1	1 00	.....	.....	.....	.....	5	.....	.....	.....	3,600 00	6,000 00

The above indicates a much larger average compensation to workmen than generally obtains. By multiplying the number of employees in each shop by the wages, and adding the same, it is shown that the daily wages of the 387 men therein employed, amount to \$896.72. Dividing the latter amount by the former, it appears that the average daily wages of the men above noted were \$2.32 for the year under review. Nine establishments, employing 619 persons, report that 415 (or 67 per cent.) are of native, and 204 (or 33 per cent.) are of foreign birth. Six, employing 546 persons, report that 55 (or a shade over 10 per cent.) own real estate.

In response to Question No. 22—“*What, in your opinion, would be the effect upon your own business should eight hours, as a legal day's work, become universal?*”—and No. 23—“*What do you think the effect would be upon the workingman himself?*”—we have responses as follows:

No. 105, to Question 22—“No benefit whatever until *demand* for labor shall be increased.” To Question 23—“It would be a vast benefit, adding one-fifth to the great labor ranks, and encourage and stimulate a mighty host to live more in accordance with the laws of their being—viz., the laws of labor. It would first be paying respect to and dignifying labor—making it more popular, cheerful and better work, and, when sufficiently popular, never shunned, but rather coveted. For it is not the burden of labor that makes it shunned, but the unnecessary degradation now forced upon it; and when justly honored and protected, with the fewest lazy exceptions, it will be as universally sought as it is now avoided through the false pride and teachings of our educational system, contrary to the laws of our being and in violation of the fundamental principles of primitive Christianity, and on which modern Christianity is a failure. Labor suffers to-day the most humiliating degradation—not from over-production in the producing industries, but from a most corrupt and crushing financial system, which has forced labor into a condition of the most humiliating under-consumption, leaving on the shelves of commerce what only *seems* to be over-production. For instance: If labor were forced to a diet of bread and water, there would appear to be at once an over-production of meats, which further investigation would prove to be only apparent. And the same through the entire catalogue of productions. In the near future, when the federal gov-

ernment shall revoke its unconstitutionally-delegated powers to corporations to manage and control its financial affairs in violation of the first principles of constitutional government, then will the rights of labor and industry be restored—and rewarded, too—in proportion to the income of capital; and it is this latter consideration—this pay of labor—that forces us directly to the finance question. Then, from the vast increase in the amount of human happiness, will labor become so popular that even 6 hours per day will suffice for the production of all that is necessary to supply the demands of a happy and contented people.”

No. 8, to Question 22—“Advance the cost of goods.” To Question 23—“It would be neutral. On account of the small difference in time he would not employ it for his improvement, and it is not enough to create a taste for idleness. Ten hours a day in a factory, unless the work is very laborious, does not over-tax his physical powers.”

No. 126, to both questions—“Good.”

No. 303, to Question 22—“Good effect, if made universal.” To Question 23—“Good.”

No. 79, to Question 22—“Beneficial, if all States adopt it.” To Question 23—“Beneficial.”

Nos. 80 and 100, to both questions—“Would pay for 8 hours.” The former number responds to Question 23—“Bad.”

No. 36, to Question 22—“We don’t know that it could affect us any way.”

Nos. 84 and 165, to both questions—“Piece-work.”

No. 341, to both questions—“No effect.”

TABLE NO. XVII.—BLANK NO. 2.

Iron and Its Products.

Office Number.	MANUFACTURES.	Number of Men Employed.	Men's Average Daily Wages.	Number of Boys Employed.	Boys' Average Daily Wages.	Total Number Employed.	Native Born.	Foreign Born.	Number Owning Real Estate.	Total Paid for Labor.	Total Value of Production.
381	Malleable and Grey Iron and Other Castings.....	55	\$1 50	8	\$0 55	63	33	30	15	\$26,000 00	\$75,000 00
2	Steam Boilers, Tanks and Riveted Iron Work.....	25	1 50	5	40	30	.....	.....	10	.....	.....
17	Iron Castings.....	18	1 75	.....	.....	18	12	6	.....	5,000 00	20,000 00
20	Mining Iron Ores.....	475	1 00	60	60	535	125	410	178	160,000 00	250,000 00
34	Bolts, Nuts, Washers, Chains and Lug Screws.....	6	1 50	.....	.....	6	3	3	4	1,800 00	4,426 00
38	Car Wheels, Axles and Forgings.....	166	1 75	12	75	178	156	22	30	45,000 00	300,000 00
59	Files and Rasps.....	20	1 00	5	50	25	10	15	1	8,000 00	16,000 00
61	Iron Railings.....	19	1 50	.....	.....	19	11	8	.....	16,000 00	35,000 00
73	Iron Railings.....	3	2 00	1	50	4	4	.....	.....	2,000 00	4,000 00
98	Foundry.....	8	2 00	2	60	10	.....	10	.....	5,160 00	20,000 00
99	Wrought Iron Work.....	35	2 00	.....	.....	35	.....	.....	.....	22,000 00	.....
101	Foundry.....	12	2 10	.....	.....	12	2	10	.....	7,200 00	18,000 00
103	Iron Railings.....	4	2 00	2	6	6	.....	6	.....	3,000 00	5,000 00
109	Car Wheels.....	18	2 75	.....	.....	18	5	13	3	20,000 00	100,000 00
125	Malleable and Grey Iron Castings, Trunk Hardware..	30	1 55	5	60	35	.....	.....	.....	16,000 00	40,000 00
127	Chains.....	12	3 00	1	1 00	13	.....	13	.....	12,000 00	30,000 00
162	Castings.....	50	2 00	.....	.....	50	10	40	6	32,000 00	60,000 00
183	Files.....	40	1 50	6	65	46	.....	.....	4	19,500 00	25,000 00
209	Foundry.....	25	1 50	.....	.....	25	3	22	2	14,000 00	20,000 00

199 Files.....	7	1 25	2	45	9	9	.....	3,000 00	6,000 00	
258 Rolling Mill.....	600	1 87	.....	.....	600	150	450	340,000 00	750,000 00	
306 Bag Frames and Locks.....	35	2 00	30	60	65	.....	.....	29,000 00	100,000 00	
314 Ship Building, General Machinery and Boilers.....	140	1 37	.....	.....	140	.....	21	50,000 00	145,000 00	
353 Railroad, Steamboat and Steamship Forgings.....	75	1 50	.....	.....	75	.....	.....	37,000 00	100,000 00	
384 Cast Steel.....	81	2 05	3	1 00	84	28	56	10	62,000 00	300,000 00
390 Bar Iron, Rails, Iron Wire and Steel Wire.....	350	1 80	30	70	380	.....	380	125	190,000 00	685,000 00
407 Rolled Iron Beams, Rails, Merchant Iron, Chains, &c.	638	2 77	12	1 00	650	.....	.....	130	170,157 00	636,838 00
408 Locks and Hardware.....	42	1 80	25	65	67	.....	.....	.....	30,000 00	45,000 00
141 Steel Rail Frogs and Track Supplies.....	10	2 25	.....	.....	10	.....	.....	1	8,000 00	31,000 00
147 Steel Works.....	110	1 50	.....	.....	110	.....	.....	20	50,000 00	400,000 00
242 Steel Wire Works.....	5	1 50	1	50	6	5	1	1	3,000 00	12,000 00
338 Shears and Scissors.....	75	2 15	40	1 00	115	40	75	.....	62,000 00	115,000 00
340 Cutlery.....	20	2 00	10	75	30	10	20	2	15,000 00	20,000 00
35 Stoves and Tin Ware.....	1	1 50	.....	.....	1	1	.....	.....	169 00	1,000 00
85 Tin, Sheet Iron, Plumbing, &c.....	6	2 25	.....	.....	6	4	2	3	4,200 00	6,000 00
92 Tool Making, Die Sinking and Engraving.....	6	1 75	1	35	7	5	2	.....	3,500 00	8,000 00
512 Rolling Mill.....	20	1 75	.....	.....	20	5	15	.....	15,000 00	125,000 00
513 Rolling Mill.....	30	2 00	.....	.....	30	8	22	.....	23,000 00	.....

There is perhaps no State which, if a full representation could be had, exceeds ours in the diversity of manufactures pertaining distinctly to iron, ranging from our superabundance of raw material, through the entire line of manufactured products. Such statistics relative to this vast industry as have been placed in our hands through the medium of blanks, appear in the above tabulated form.

The table represents 3,533 employees, \$1,509,686 paid for labor, and \$4,508,264 product. It must therefore be conceded that the incompleteness of the presentation does not deprive it of valuable interest.

In respect to prices of labor we have computed the averages in closest proximity to the figures furnished by the employers. For example—No. 38 informs us that for skilled labor, from \$1.50 to \$3.25 is paid, and for unskilled labor, from \$1 to \$1.25—the average being as stated, \$1.75. No. 258 classifies one-half the number as skilled who receive \$2.50 per day, and the other half as unskilled who receive \$1.25—the average being \$1.87.

The predominance of foreign labor is noticeable, it being as 72 to 28 per cent. Owners of real estate also, in this instance, make a good showing—24 per cent. of 2,355 employees.

Responses to Question 22—“*What, in your opinion, would be the effect upon your own business should eight hours, as a legal day's work, become universal?*” No. 35—“Not very good, on account of being out in jobs.” No. 101—“Would be glad to see it tried.” No. 407—“Would have to shut up shop.” No. 209—“Very good, if pay corresponds.” Nos. 141 and 147—“A reduction of 20 per cent. in pay.” No. 85—“We pay by the hour.” No. 390—“We cannot offer any opinion on these points, as nearly all our hands are paid piece-work.” No. 125—“We think it would injure, if not destroy, our business.” No. 38—“Detrimental, unless absolutely universal.” No. 162—“If universal, of no effect.” No. 99—“Would pay for 8 hours' work.” No. 2—“Damaging;” and adds: “Our opinion is, with about three-quarters of the laboring class, they will not use extra time for personal improvement. Our successful men are those who labored more than 10 hours. Plenty of work and good pay is best—no idle time.” No. 381—“It would require larger factories, more capital, and be an injury to the workmen, as we pay by the

hour." No. 7—"Injurious." No. 2—"No effect." No. 4—"Piece-work."

To Question 23—"What do you think the effect would be upon the workingman himself?" No. 314—"Think it best as it is." No. 125—"He would probably receive less pay, as a general thing, and therefore would be poorer off." No. 38—"Of little benefit, if any, as wages would be correspondingly reduced—being now generally graded by amount of work done, rather than by time occupied." No. 7—"Injurious." No. 4—"Piece-work." Others—"No good," "Very bad," &c.

TABLE NO. XVIII.—BLANK NO. 2.

Clothing.

Office Number.	MANUFACTURES.	Number of Men Employed.	Men's Average Daily Wages.	Number of Boys Employed.	Boys' Average Daily Wages.	Number of Women Employed.	Women's Average Daily Wages.	Number of Girls Employed.	Girls' Average Daily Wages.	Total Number Employed	Native Born.	Foreign Born.	Number Owning Real Estate.	Total Paid for Labor.	Total Value of Production.
25	Men's and Women's Wear Generally	10	\$0 80	.....	.....	132	\$0 60	25	\$0 20	167	.....	.....	87	\$4,529 00	\$37,328 00
113	Trunks and Bags.....	100	2 00	.....	\$0 60	.....	.....	3	70	103	.....	.....	.....	81,500 00	200,000 00
158	Clothing.....	35	2 00	.....	.....	35	1 00	.....	.....	70	25	45	6	31,500 00	65,000 00
161	Clothing.....	3	1 50	1	50	6	50	.....	.....	10	5	5	1	3,000 00	18,000 00
167	Clothing.....	150	1 25	.....	.....	75	75	.....	.....	225	.....	.....	.....	73,125 00	150,000 00
168	Clothing.....	100	2 25	.....	.....	63	1 25	62	75	225	.....	.....	25	42,000 00	200,000 00
177	Shirts.....	.....	.....	.....	.....	3	1 00	.....	.....	3	2	1	.....	900 00	1,200 00
226	Clothing.....	2	3 00	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	4,000 00	25,000 00
250	Shirts.....	80	1 50	.....	.....	.....	.....	170	1 00	250	200	50	.....	90,000 00	240,000 00
257	Shirts and Collars.....	100	1 00	.....	.....	400	50	.....	.....	500	.....	.....	6	90,000 00	100,000 00
311	Clothing.....	5	1 00	.....	.....	35	75	.....	.....	40	.....	.....	.....	10,000 00	60,000 00
313	Clothing.....	10	1 60	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	2,500 00	9,000 00
320	Shirts.....	25	2 00	5	65	300	1 00	.....	.....	330	.....	.....	.....	106,000 00	200,000 00
322	Clothing.....	8	2 50	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	8,000 00	40,000 00
332	Trunks and Bags.....	325	2 00	25	75	.....	.....	25	75	375	.....	.....	.....	210,000 00	600,000 00
334	Clothing.....	15	1 50	.....	.....	54	1 00	.....	.....	69	.....	.....	.....	23,500 00	200,000 00
366	Clothing.....	13	3 00	.....	.....	.....	.....	.....	.....	13	.....	.....	.....	20,000 00	125,000 00
367	Pantaloon.....	2	2 00	1	50	25	1 00	.....	.....	27	.....	.....	.....	8,800 00	10,000 00
371	Clothing.....	18	2 75	.....	.....	.....	.....	.....	.....	18	.....	.....	.....	.....	400,000 00
375	Shirts.....	5	2 00	2	50	60	1 00	83	50	147	.....	.....	2	48,000 00	115,000 00

376	Clothing.....	10	2	50	.....	.....	.....	54	95	64	.....	.....	.....	18,000	00	25,000	00			
382	White Shirts.....	5	1	50	1	50	130	70	.....	.....	136	130	6	1	50,000	00	100,000	00		
401	Hosiery	10	2	00	10	60	60	1	00	100	60	180	160	20	.....	46,000	00	125,000	00	
91	Corsets	3	.....	.....	.....	60	1	25	.....	.....	63	.....	.....	.....	.....	.....	.....	.....	.....	
	Woolens for Men's and Women's																			
301	Wear.....	120	1	50	57	1	00	90	1	12½	20	50	287	60	227	40	105,000	00	500,000	00
	Cotton and Wool Shawls and Cotton																			
331	Quilts..	14	1	25	2	33	2	63			18	2	16		5,000	00	20,000	00		
539	Knitted Underwear.....	75	2	10	127	55	216	80	194	55	612	552	60	29	137,137	00	600,000	00		

The exceptional wages reported in Nos. 226, 366 and 371 are thus explained: the force in each case is made up of cutters and salesmen, the working up being done outside by piece-work; at what rate of earnings we are not informed.

With a single exception (311) the range of wages is from \$1.25 to \$2.50 per day.

The nativity of 1,566 is stated, of which 73 per cent. are native, and 27 per cent. foreign born.

Of 2,154 operatives, 197 (or more than 9 per cent.) own real estate.

Question 22 (respecting 8 hours as a legal day's work.) No. 320—"Would cause 20 per cent. reduction in pay, and also in production." No. 539—"Disastrous; for the reason that the cost of manufacturing, aside from the cost of labor, could not be reduced in the same ratio." No. 87—"Don't care; should pay for 8 hours." Two respond, "Injurious." Ten, "No effect; piece-work."

To Question 23 (respecting its effect upon the workingman himself.) No. 331—"It would be a good thing, as it would reduce production. What manufacturers are suffering from, in my opinion, is over-production, which causes prices to be low, and the tendency is to reduce wages. If production was less, and better wages paid, the consumption would be double what it has been for the last few years, and would make trade more steady and better paying."

No. 25—"No advantage." After reporting that out of 167 of her employees, 87, more than half, own real estate, which we assume relates to homes, she says: "I have been in this manufacturing business 6 years and 6 months, and carry it on alone, except my forelady's assistance. I have one woman who, with one machine and help of three girls, 8, 12 and 16 years of age, makes on an average 14 and 16 pairs of pants every day, and in two days of last week they made 52 pairs. This statement I am willing to make under oath, and it shows what one woman can do. During last month she earned \$24 in ten days, making overalls at \$3 per dozen, 96 pairs having been made. I have many others who have done wonders with this work, but I have put my statement at as equal an estimate as I could. From July 1st, 1878, to July 1st, 1879, I have made 43,050 garments, and this is the least I have done in any year since I commenced. I hire a large building, with 19 rooms, and have some

work done in the building by foot-power ; but mostly sewers take the work to their homes, as they have families to care for."

No. 539—"Injurious ; increasing the cost of his living ; probably decreasing his daily wages ; no improvement of morals during hours of idleness."

TABLE No. XIX—BLANK No. 2.

Machinery.

Office Number.	MANUFACTURES.	Number of Men Employed.	Men's Average Daily Wages.	Number of Boys Employed.	Boys' Average Daily Wages.	Total Employed.	Native Born.	Foreign Born.	Number Owning Real Estate.	Total Paid for Labor.	Total Value of Production.
10	Steam Engines and Machinery.....	100	\$2 00	12	\$1 00	112	40	72	.....	\$60,000 00	\$150,000 00
24	Agricultural Implements.....	14	1 50	3	75	17	17	.....	8	7,500 00	18,000 00
57	Locks.....	18	2 00	3	75	21	7	14	.....	12,000 00	29,000 00
64	Locks.....	30	2 00	15	75	45	15	30	5	40,000 00	100,000 00
65	Electric Work and Novelty Hardware.....	9	1 75	9	66	18	9	9	.....	5,000 00	15,000 00
66	Machinists' Tools and General Machinery.....	45	.....	6	.....	51	25	26	10	35,000 00	70,000 00
70	Machinery.....	3	3 00	.....	.....	3	3	.....	.....	1,500 00	3,000 00
77	Foot Lathes and Light Machinery.....	10	1 98	2	75	12	10	.....	4	6,160 00	11,500 00
78	General Machinery.....	12	1 60	2	80	14	.....	.....	.....	7,000 00	30,000 00
96	General Machinery.....	20	2 00	.....	.....	20	.....	.....	.....	12,000 00	30,000 00
121	General Machinery.....	10	1 75	3	50	13	2	11	.....	7,000 00	20,000 00
128	General Machinery.....	12	2 50	2	1 00	14	4	10	9	8,277 00	18,000 00
129	Burring Machines.....	15	2 00	2	75	17	5	12	4	10,000 00	25,000 00
137	Steam Engines, Boilers and Machinery.....	110	2 00	15	1 00	125	31	94	20	60,142 00	125,000 00
171	Jeweler's Machinery.....	10	2 00	3	75	13	.....	.....	.....	5,000 00	15,000 00
176	General Machinery.....	10	2 32	2	1 00	12	.....	.....	5	6,426 00	14,475 00
181	Locomotives.....	600	1 65	.....	.....	600	.....	.....	.....	300,000 00	500,000 00
186	Locomotives and Machinery.....	360	1 50	15	75	375	.....	.....	.....	170,000 00	300,000 00
197	General Machinery.....	25	1 75	4	65	29	.....	.....	.....	15,000 00	18,000 00
200	Spindles and Flyers.....	15	1 00	.....	.....	15	8	7	1	4,800 00	10,000 00
205	General Machinery.....	8	1 60	3	40	11	6	5	2	4,800 00	5,500 00
212	General Machinery.....	45	1 50	5	60	50	40	15	5	21,500 00	40,000 00

229	General Machinery.....	50	1 75	2	66	32	26	26	.....	27,000 00	45,000 00
264	Woolen Machinery.....	35	2 00	.....	.....	35	32	3	11	25,000 00	120,000 00
269	General Machinery.....	125	1 50	.....	.....	125	.....	.....	6	57,000 00	70,000 00
279	Locomotives.....	400	1 65	.....	.....	400	.....	.....	.....	225,000 00	400,000 00
282	Bobbins, Spools, &c.....	15	1 50	5	50	20	17	3	.....	7,500 00	15,000 00
285	Boilers, Tanks, &c.....	25	1 75	.....	.....	25	.....	.....	6	6,800 00	18,000 00
302	Machinery and Railings.....	8	2 04	1	62	9	9	.....	.....	4,000 00	8,500 00
324	Sewing Machines.....	500	2 00	8	1 00	508	.....	.....	.....	320,000 00	1,250,000 00
354	Stationary Engines.....	90	1 40	.....	.....	150	.....	.....	30	37,300 00	111,500 00
369	Woolen Machinery.....	150	1 66	.....	.....	6	6	.....	.....	75,000 00	300,000 00
397	Machinery.....	6	1 75	6	75	56	56	.....	10	4,000 00	25,000 00
403	Saws and Machinery.....	50	2 00	.....	.....	150	100	50	.....	31,500 00	60,000 00
436	Boilers, Engines and Machinery.....	150	1 66	1	60	16	7	9	5	85,000 00	250,000 00
440	Machinery.....	15	1 84	.....	.....	10	10	.....	.....	9,000 00	20,000 00
441	Agricultural Implements.....	10	1 75	.....	.....	25	23	2	6	5,300 00	10,000 00
443	Agricultural Implements.....	25	1 80	.....	.....	.....	.....	.....	.....	16,000 00	60,000 00

It will be understood that \$4,311,475 product very inadequately represents the machinery industry of this State, but we deem the presentation of enough value to place it before the public.

The amount paid for labor is \$1,634,505, showing a fair average per day.

Of 909 nativities reported, 511 are American born, and 398 of foreign birth.

In a total of 3,135 we are informed that 147 own real estate, which is practically 20 per cent. of the number (739) in respect to which we have information upon that point. It is scarcely probable that the number stated as owning homes does justice to the total number. Four of the largest concerns, which employ more than half (1860) the table represents, leave the real estate column blank, either from inadvertence or lack of information, probably.

In respect to the eight-hour question, 13 of the 31 represented in this table, express the opinion that its adoption would be disastrous to both classes; 5 that it would only change the present system, to work by the hour or piece, and 3 consider it would be beneficial to both parties. No. 66, that "employers would have to employ more hands;" and in reference to employees, "to some it would do good and to some it would do evil." No. 137—"One-fifth less business would be done, or one-fifth more capital would be required for the same volume of business, involving one-fifth increase in running time, interest, insurance, &c.; and the workmen would receive less than for 10 hours." No. 176—"We employ a good class of men, and we think the time gained would be spent in such a way as to be profitable to themselves and their families."

Chemicals, Drugs, Soaps and Fertilizers.

Office Number.	MANUFACTURES.	Number of Men Employed.	Men's Average Daily Wages.	Number of Boys Employed.	Boys' Average Daily Wages.	Number of Women Employed.	Women's Average Daily Wages.	Number of Girls Employed.	Girls' Average Daily Wages.	Total Number Employed.	Native Born.	Foreign Born.	Number Owning Real Estate.	Total Paid for Labor.	Total Value of Production.
15	Chemicals and Fertilizers....	38	\$1 65	.....	.....	.....	.....	.....	.....	38	.....	.....	12	\$20,000 00	\$120,000 00
19	Refining Metals.....	240	1 50	.....	.....	.....	.....	.....	.....	240	24	216	.....	12,500 00	7,000,000 00
26	Oxide of Zinc and Spelter...	140	{ skilled 1 55 } { unsk'd 1 12 }	.....	.....	.....	.....	.....	.....	140	35	105	5	80,000 00	.....
39	Oxide of Zinc, Spiegeleman and Spelter.....	209	1 17	4	\$1 00	1	\$0 50	.....	.....	214	22	192	56	76,800 00	251,900 00
63	Varnishes and Japan.....	6	1 60	.....	.....	.....	.....	.....	.....	6	6	.....	1	3,800 00	22,000 00
76	Refin'g and Assaying Metals	6	1 80	.....	.....	.....	.....	.....	.....	6	.....	.....	1	4,000 00	.....
97	Paints and Colors.....	10	2 75	.....	.....	.....	.....	.....	.....	10	6	4	2	9,000 00	100,000 00
114	White Lead, Colors and Var- nishes.....	4	1 75	.....	.....	.....	.....	.....	.....	4	4	.....	.....	2,200 00	10,000 00
190	Soap and Olive Oil.....	8	1 50	.....	.....	.....	.....	.....	.....	8	3	5	.....	3,700 00	80,000 00
291	Dry Hop Yeast.....	2	1 50	.....	.....	1	1 50	3	\$0 60	6	6	.....	.....	2,300 00	10,000 00
307	Drugs.....	8	2 00	.....	.....	.....	.....	.....	.....	8	8	.....	.....	5,000 00	.....
323	Drugs.....	7	1 50	.....	.....	.....	.....	.....	.....	7	.....	.....	.....	3,500 00	8,000 00
349	Varnishes (Coach).....	2	2 75	.....	.....	.....	.....	.....	.....	2	2	.....	1	1,700 00	35,000 00
374	Soap.....	3	1 65	1	40	.....	.....	.....	.....	4	.....	.....	.....	2,000 00	10,000 00
414	Fertilizers.....	3	1 50	.....	.....	.....	.....	.....	.....	3	2	1	.....	1,800 00	10,000 00
445	Writing Ink, Mucilage and Sealing Wax.....	3	1 00	2	67	.....	.....	1	67	6	6	.....	1	1,500 00	10,000 00

While there is dissimilarity in the industries represented in the above table, they are so germane to each other as to render the grouping proper.

In a labor aspect we take occasion to note the contrasts presented in Nos. 19 and 39, both in respect of totals paid for labor and total products.

The per cent. of foreign-born operatives is noticeable also, it being in the proportion of 81 to 19.

Of 442 operatives, 79 (or 19 per cent.) own real estate.

To Question 22 (bearing upon the eight-hour question.) No. 26—"None, because we have twelve-hour shifts." No. 19—"Injurious, as we would require three shifts of men in 24 hours." No. 14—"No effect, but we should employ more men and reduce wages on them by the hour." No. 15—"We could not compete with foreign labor." No. 23—"We would pay by the hour." No. 445—"Wages to correspond." No. 76—"Would decrease price of labor."

To Question 23 (relating to the effect upon the workingman.) No. 26—"As a general rule the leisure might be abused at first, but in the end it would tend to improvement." No. 19—"In some cases good; but injurious to the majority." No. 76—"Reduction of wages." Six reply to both questions, "Injurious," and "No effect."

TABLE No. XXI.—

Farming.

Office Number.	Acres of Land.	Assessed Value.	Proportionate Value of Land.	Proportionate Value of Buildings.	Amount of Mortgage.	Value of Crop Sold.	Value of Crop Consumed.
1	117	\$7,500 00	\$5,000 00	\$2,500 00	.....	\$800 00	\$800 00
2	80	14,000 00	9,000 00	5,000 00	.....	1,600 00	375 00
3	200	10,500 00	4,000 00	6,500 00	\$2,800 00	600 00	200 00
4	300	8,000 00	7,000 00	1,000 00	.....	800 00	400 00
5	11	1,600 00	700 00	900 00	800 00	125 00	75 00
6	60	3,500 00	2,500 00	750 00	.....	200 00	500 00
7	70	3,850 00	2,550 00	1,300 00	275 00	1,300 00	400 00
8	80	4,000 00	3,000 00	1,000 00	full value.	600 00	200 00
9	6,000	400,000 00	200,000 00	133,000 00	$\frac{1}{3}$ value.	60,000 00	50,000 00
12	1,500	35,000 00	25,000 00	5,000 00	8,000 00	1,500 00	800 00
13	107	2,800 00	1,300 00	1,200 00	.....	250 00	250 00
14	113	2,000 00	1,000 00	500 00	.....	350 00	200 00
15	75	3,750 00	2,700 00	400 00	.....	241 00	110 00
16	50	4,000 00	2,200 00	1,200 00	2,000 00	1,200 00	800 00
17	185	17,403 00	11,600 00	5,800 00	.....	5,000 00	1,700 00
18	90	14,000 00	10,000 00	4,000 00	8,000 00	1,750 00	600 00

BLANK No. 4.

Farming.

Estimated Cost to Renew Fences.	Estimated Yearly Cost to Re- pair Fences.	Cost of Repairs to Fences in 1878.	Cost of Repairs to Buildings in 1878.	Value of Stock and Imple- ments.	Taxes for 1878.	Average Hours' Work by Self per Week.	Expenses Over Earnings.
\$3,000 00	\$30 00	\$40 00	\$10 00	\$1,500 00	\$75 00	60	\$175 00
600 00	30 00	40 00	.....	1,600 00	140 00	60	150 00
100 00	15 00	15 00	200 00	1,600 00	90 00	.....	.....
.....	.....	200 00	200 00	1,000 00	68 00	48	400 00
550 00	8 00	.....	.....	100 00	25 00	108	.....
250 00	25 00	40 00	100 00	250 00	30 00	60	.....
.....	50 00	65 00	100 00	900 00	39 00	76	200 00
600 00	.....	4 00	.....	300 00	5 00	52	.....
90,000 00	3,000 00	3,000 00	600 00	60,000 00	5,000 00	72	.....
1,000 00	80 00	80 00	100 00	4,000 00	100 00	60	.....
400 00	5 00	30 00	10 00	400 00	35 00	72	.....
200 00	20 00	.....	75 00	500 00	23 00	40	.....
800 00	40 00	40 00	10 00	600 00	21 00	60	.....
500 00	50 00	25 00	.....	600 00	60 00	126	.....
1,000 00	100 00	250 00	150 00	7,000 00	160 00	60	.....
1,000 00	40 00	25 00	30 00	1,000 00	75 00	60	.....

It is disappointing to our expectations that farming, which is really the great basic industry of the State, should not be represented by a fuller statistical table than that which precedes these remarks. That this is so results from no fault of this Bureau, as it not only made special efforts to secure full reports from every part of the State, but arranged a list of inquiries intended to elicit full responses on points of vital interest, as follows :

STATE OF NEW JERSEY,
BUREAU OF STATISTICS OF LABOR AND INDUSTRIES, }
TRENTON, June 10th, 1879.

BLANK NO. 4 FOR GRANGERS.—[This blank is sent out postpaid as printed matter. On its return, with written replies to the questions, it will be chargeable with letter postage. A pre-paid envelope, duly directed, is therefore sent with it, in which please enclose the blank and return by mail as addressed within sixty (60) days. Your name will be considered as confidential, and will not be used without written consent.]

1. Name.....
2. Residence.....
3. Nationality.....
4. How long have you been at your present occupation ?
5. Are you married or single ?.....
6. Have you changed your trade or business since you were twenty-one years old ?..... How often ?.....
7. How many hours do you work per week ?.....
8. How many acres of land have you ?..... Number of acres tillable ?.....
How many in timber ?.....
9. What is the assessed value of your property ?..... What proportion is in land ?..... What in buildings ?.....
10. If the land was inherited, how long has it been in the family ?.....
11. Is the land mortgaged ?..... If yes, for how much ?.....
12. What is the value of your stock and implements ?.....
13. Is there a mortgage on the same ?..... If yes, for how much ?.....
14. What was the value of produce sold of crop of 1878 ?.....
15. What was the value of produce consumed of crop of 1878 ?.....
16. Do you employ hired help ?..... If yes, how many and how many days in the year ? Men..... Number of days..... Women..... Number of days..... Children..... Number of days.....
17. What was the total amount paid for wages in 1878 ?.....the lowest per day ?.....the highest ?.....
18. How much did you expend for fertilizers in 1878 ?.....
19. If you were to renew your walls and fencing, what would be a fair estimate of the total cost ?
20. What do you estimate to be the average annual cost of repairs to fences for ten years ?.....
21. How much did you expend in fences in 1878 ?.....repairing buildings ?.....

22. Were your total expenses more than your earnings in 1878?..... If yes, how much?.....

23. Do you think, all things considered, better pay for farmers is in prospect?.....

24. Are your children being educated so that upon leaving school they will be capable of self-support?.....do they attend public school, private school or college?

25. What proportion of your earnings are derived from your wife or children?.....

26. What number of wage laborers have you discharged on account of improved machinery in 1878?.....

27. What per cent. of reduction of wages has labor-saving machinery caused you?.....

28. What do you think would be the result of a general reduction of the hours of labor to eight per day?.....

29. It is often stated that farmers do not receive a just share of profit on their labor and capital; what better system can be equitably adopted?.....

30. If possible, give actual (if not, give estimated,) personal and family expenses paid exclusive of farm supplies..... Give amount of taxes.....

N. B.—When more space is required for responses, additional sheets may be used.

We think these inadequate returns are partly attributable to the lack of self-assertion in farmers as a class, largely resulting from the isolating character of their occupations, and partly from the meagre profits resulting in recent years from their labors and investments.

It is quite probable, if the profits of agriculture had been remunerative, instead of the reverse, there would have been no disposition manifested to withhold the details sought by this Bureau.

The disinclination adverted to is natural to all, but especially to farmers, who, more than any other class, are apt to ascribe meagre results to their own supposed bad management rather than to well-understood and wide-spread causes—causes less inculpatory to themselves. We feel impelled to say that this rural group of returned schedules is characterized by marked intelligence, completeness and general disposition to reveal honest convictions and reliable facts.

Several causes have combined to induce the present depressed condition of farming interests, prominent among which may be noted an earnest effort to compensate for declining values by increase of quantity, simultaneously with diminished ability to buy and consume, by a large portion of our people. Again, multitudes who have in former years been in the condition of simple consumers, have, by failure of other industries and enterprises, been forced into the ranks of agricultural producers, thus diminishing demand and increasing supply.

The small number of the above blanks filled up and returned deprive the public of some important points of agricultural interest, adverted to in the schedule of questions.

Our regrets arising from this cause are specially awakened in behalf of Questions 19, 20 and 21, to which we attached great importance in view of their two-fold relations, viz., to our wasting forests, and the vastly accumulating outlay to construct and maintain fences.

The perpetuation of the American system of erecting post and rail fences and stone walls, for laying off farms into fields, and as indicators of external boundary lines of plantations, we believe, is largely due to inherited habits of husbandry, together with an inherent and perverse disinclination to bestow thought upon economic details.

It was our hope to gather enough information respecting the primary and annual cost of farm-fencing to form a basis for more extended remarks upon that special point. Supplemented with a few general statistics with kindred bearings, derived from other sources, we shall take occasion to utilize the few that have come into our hands.

We will state first, that the table before us represents 9,038 acres of land, divided into 78 farms. The next material footing informs us that the estimated cost to renew present fences is exactly \$100,000, being an average of \$1.10 per acre. The cost of annual repairs is shown to be 42 cents per acre.

In 1870 the improved land in this State was 1,976,474 acres. Upon the above basis, the first cost of fences in New Jersey would be \$2,174,121, and for repairs each year, \$849,884. This, be it remembered, is dead capital. It not only produces nothing, but by decay and other destructive processes, as represented in the table, in less than three years the original outlay is more than exceeded by renewals. It is worthy of note that the total cost of stock and implements for these farms is represented to be \$81,350, which is 23 per cent. less than the total cost of fences.

In 1870 the estimated value of all farm productions in this State, including betterments and additions to stock, was \$42,725,198. Assuming that the total cost of fences in the State is as above stated, it amounts to more than 5 per cent. of the preceding sum, and just about 10 per cent. of the total value of live stock in the State in 1870.

Statistics show that the total cost of fencing in the United States is \$1,800,000,000, and that the annual cost of renewals and repairs is \$200,000,000.

In an economic aspect, the question of farm-fencing will sooner or later force itself upon public attention. The substitution of iron or live fences (hedges) for the dead wood now so universal, is not an improbable solution. What would be better still—and we predict its ultimate consummation—would be the abolition of our present expensive system of indicating boundary lines. What a vast saving to the nation at large would be effected by it. In stock-raising communities herding enclosures of some sort might be needful, but indestructible and portable contrivances can surely be substituted for the present cumbersome and costly methods of restraining cattle. It is our own and other people's stock that furnishes the occasion for fences. Now, if we can by animal discipline or legal enactments, satisfy the public that absolute immunity from the running at large of cattle will be enforced, there is no longer need of external barriers for such purposes. If every owner of cattle would keep his herd within his own precinct, it would put an end to all apprehension in respect to grazing trespassers. This system is enforced in special districts in our own country, but not without the aid of fences. In China and Japan fences are scarcely ever seen. In these unique countries, for thousands of years, boundary lines have been permanently marked by corner stones, and the public authorities prescribe such absolute rules respecting live stock, that the system of "closes" effectually guards the crops and private grounds against the inroads of cattle.

Most of the continental countries, and England also, have systems of demarkation of fields and boundaries wholly unlike ours, and vastly more advantageous to the cultivators of the soil. It is incumbent upon us to study these foreign systems, and when they are found to be worthy of adoption, why should there be any hesitation to introduce them?

The evil of cattle running at large ought to receive universal attention. When we consider that the chief necessity for outline fencing will be removed when there is absolute prohibition to free range of animals in public highways, what an incentive is presented for rural co-operation against an evil of great magnitude. Local exemption from the evil is achieved in some communities by the predominance of an adverse public sentiment. In some States local laws authorize townships and counties to abate and remove the hindrances to cultivate and protect crops grown upon unfenced fields. In North Carolina, we are informed that many counties are allowed by a vote of the

county, to levy a tax on the real estate owners sufficient to erect and maintain fences on all public roads in the county, with suitable gates for each farmer's use. And moreover, owners of stock are compelled to keep their stock within enclosures, and to pay damages arising from a failure to comply. It is claimed that in the sections of the State favored by this special legislation, three-quarters of the outlay for fences is saved; that in consequence of the restraints of the animals the fields are left in much better condition, and a great saving in manures is realized.

The construction and repairs of fences is so much a matter of course, and the labor attending it so dispersed through the year, and performed at intervening moments when nothing else seems to be pressing, that the farmers are accustomed to dissociate the outlay with the current expenses of the year, whereas the absolute cost of repairs is represented to be \$4.20 for every ten acres he farms.

President Parks, of the California Agricultural Society, says: "When a man invests \$1,000 here for land, he is required to invest \$2,000 to fence it. Almost every man who desires to farm has the means and ability to acquire a small farm in this country, but there are those who cannot acquire a small farm and fence it, as required by law. In other words, one man, with six or eight cows, perhaps, will come into a neighborhood and prevent ten men from producing a thousand bushels of wheat each. This is most absurd. There is no reason why one individual should pursue an occupation to the great injury of hundreds of others. No reason why A should be compelled to build two miles of fence that he may raise three hundred bushels of grain, to accommodate B, who milks three cows. Let B take care of his cows. Let him fence ten acres, or, in other words, let him keep his property from trespassing on mine?"

"This question is just beginning to be agitated, because, perhaps, stock-keepers have heretofore predominated, and it would have cost more to fence the stock than the grain. Now the thing is reversed, and it costs ten, yes, twenty times the amount to fence the grain that it does the stock. Should we not, then, welcome any measure of relief from this burdensome tax of making and keeping in repair so much superfluous fence?"

The large majority of responses to Question 10 show that the

properties have been in the families of the present possessors for several generations, thus giving assurance that they have been managed by parties to "the manor born," with implied lifelong experience in the business.

No. 1 is of that category; living on a farm which had been in the family a century and a half, and by him inherited; well stocked, and without a dollar of encumbrance; the proprietor, working on the average 10 hours per day, finds at the year's end not only that he is 12 months older, but \$175 poorer. In response to Question 23, he hopes for better pay to farmers in the future, but says perhaps "the wish is father to the thought." Responds to Question 28—"Injurious."

No. 2, with no encumbrance, reports a loss on the year's work of \$150. Responds "Bad" to Question 28, and proposes that "farmers sell as directly to the consumer as possible."

No. 4 seems to be admirably situated with an unencumbered estate, which has been three generations in the family, but has run behind \$400 in the year. Responds to Question 28—"Less work." And in reference to 29 suggests a panacea—"Check speculation in stocks and bonds, then money will invest in real estate and pay debts."

No. 5 is probably an inheritor, as he remarks that his farm has been in the family 150 years, and though it is encumbered with a \$600 mortgage, he comes out without a deficit; approves of a reduction of the legal day's work to 8 hours, and thinks a general reduction of labor would be healthy in every way.

No. 7 does not own, but hires a farm at \$300 per year and taxes; reports that he put a chattel mortgage on his stock and implements last year for \$275, and that his expenses for that year were \$200 in excess of his earnings; thinks that 8 hours' work per day won't do for farmers. To Question 29—"Tax all property alike, and bring down the expenses of the State to the cost of 1860, or near it as possible—especially in regard to the militia. The question is a natural one, and beyond the power of the State." He kindly reports the amount of produce sold by him for 4 years, thus:

1875,	.	.	.	\$2,092 50
1876,	.	.	.	1,797 15
1877,	.	.	.	1,487 48
1878,	.	.	.	1,300 17

No. 8 says his place is mortgaged for the full amount it would bring at public sale, but thinks he has not fallen behind the last year. To Question 28—"Disaster to farmer, as he cannot indemnify himself as the manufacturer does by advancing the price of his wares."

No. 29—"I am neither philosopher nor statesman, but would say push the Grange movement until farmers are masters of the situation. Meantime, let co-operation be the objective point."

No. 9 presents an aggregation of results, embracing a large group of neighborhood farms, containing 6,000 acres, and comprising 60 proprietors. It is a novel presentation, but its scope and fullness of statement practically swells the number of Granger returns to 78. To Question 28 the response is "Unfavorable," and to 29, "Sell to consumers and buy of producers, as much as possible."

No. 14, to Question 28—"It would be an injury." To 29—"The farmer pays more than a proportionate share of taxes. There is something very defective in our present system of taxation. Real estate bears the burden, receiving but little benefit from legislation. All other classes are more or less protected."

No. 15, to Question 28. Thinks that reducing the legal day's work to 8 would be "disastrous to farmers." To 29—"Organization, in all its meaning, is the only way I can see."

No. 16—"No advantage to farmers." To 29—"Co-operation, with elimination of middlemen."

TABLE NO. XXII.—BLANK NO. 2.

Miscellaneous Industries.

Office Number.	INDUSTRIES.	Number of Men Employed.	Men's Average Wages.	Number of Women Employed.	Women's Average Wages.	Number of Boys Employed.	Boys' Average Wages.	Number of Girls Employed.	Girls' Average Wages.	Total Number Employed.	Native Born.	Foreign Born.	Number Owning Real Estate.	Total Paid for Labor.	Total Value of Products.
11	Jewelry.....	75	\$3 00	6	\$1 67	12	.....	.....	.....	93	.....	.....	.....	\$60,000 00	\$200,000 00
21	Metal Goods.....	65	1 67	9	1 00	119	\$0 83	10	\$0 42	203	.....	.....	20	79,000 00	150,000 00
31	Organs	48	1 75	3	75	5	.....	.....	.....	56	52	4	6	12,000 00	84,000 00
42	Horse Railroad.....	20	1 60	.....	.....	2	.....	.....	.....	22	.....	.....	6	.....	.....
45	Stationers' & Druggists' Rubber Goods	17	2 50	25	1 00	1	1 00	.....	.....	43	5	38	3	26,000 00	150,000 00
53	Rubber Goods.....	15	1 75	18	2 00	1	.....	1	.....	35	15	20	4	13,000 00	210,000 00
80	Corks	3	2 00	.....	.....	3	50	.....	.....	6	6	.....	.....	3,000 00	10,000 00
133	Builders' Supplies	10	1 74	.....	.....	2	.....	.....	.....	12	12	.....	.....	4,160 00	9,000 00
151	Spring Beds.....	6	1 50	.....	.....	1	60	.....	.....	7	4	3	.....	3,500 00	12,000 00
152	Reed Organs.....	165	2 04	.....	.....	.....	.....	.....	.....	165	83	82	16	70,000 00	225,000 00
155	Horn Jewelry.....	8	2 00	2	1 25	10	65	5	65	25	.....	.....	3	8,000 00	18,000 00
253	Ale and Porter.....	45	1 75	.....	.....	1	50	.....	.....	46	.....	.....	.....	25,000 00	.....
265	Whips and Lashes.....	31	2 00	10	1 25	.....	.....	.....	.....	41	.....	.....	1	23,000 00	65,000 00
286	Brewery	4	2 00	.....	.....	.....	.....	.....	.....	4	2	2	.....	3,000 00	15,000 00
316	Mattresses, Lounges and Curled Hair..	4	1 33	.....	.....	3	33	.....	.....	7	2	5	.....	4,000 00	20,000 00
327	Lager and White Beer.....	10	1 67	.....	.....	.....	.....	.....	.....	10	8	2	.....	8,500 00	45,000 00
330	Flour Mill.....	8	1 75	.....	.....	.....	.....	.....	.....	8	8	.....	.....	4,000 00	100,000 00
339	Furs	2	2 60	.....	.....	.....	.....	10	1 10	12	.....	.....	.....	2,000 00	25,000 00
344	Brewery	30	1 80	.....	.....	.....	.....	.....	.....	30	.....	.....	.....	20,000 00	200,000 00
346	Rubber Boots and Shoes.....	132	1 25	121	90	21	50	19	50	293	212	81	27	81,502 00	817,762 00

347	Jewelry	160	2 50	30	1 25	40	63	20	62	250	167	83	.....	90,000 00	275,000 00
358	Brewery	45	2 00	.....	.....	.....	.....	.....	.....	45	.....	.....	.....	35,000 00	125,000 00
365	Brewery	41	2 50	.....	.....	.....	.....	.....	.....	41	.....	.....	.....	31,000 00	230,848 00
409	Rubber Goods.....	69	1 33	4	66	7	45	.....	.....	80	65	15	20	32,000 00	325,000 00
442	Printing, Bookbinding and Newspapers	20	2 12½	3	1 00	3	67	.....	.....	26	26	.....	.....	16,704 00	18,529 00
456	Book, Newspaper and Job Printing....	5	2 00	.....	.....	2	75	.....	.....	7	7	.....	.....	3,500 00	10,000 00
514	Rubber Goods for Mechanical Purposes	60	1 50	.....	.....	.....	.....	.....	.....	60	60	.....	.....	25,000 00	200,000 00
515	Sheet Metal Goods.....	250	1 50	30	80	50	.....	.....	.....	330	.....	.....	.....	75,000 00	250,000 00
540	Rubber Hose, Belting, Packing, &c.....	40	1 41	.....	.....	.....	.....	.....	.....	40	.....	.....	7	12,000 00	90,000 00
542	Rubber Carriage Cloths, Boots & Shoes	110	1 38	175	1 00	45	.....	45	.....	375	188	187	.....	93,000 00	1,000,000 00

In this miscellaneous table the average wages correspond very nearly with previous tables, \$1.25 being the lowest and \$3.00 the highest for men. Of 1,444 employees, 922, or 64 per cent., are reported as native born, and 522, or 36 per cent., as foreign born. Eleven establishments inform us that out of 1,003 in their employ, 113, or 11 per cent., own real estate.

We are informed by No. 53 that women earn \$2.00 per day, while men earn but \$1.75. A marginal note explains it by saying that the women work by the piece, and the men by the day.

In regard to Question 22, which relates to the effect of the eight-hour law upon business, No. 152 responds—"If in the whole competing world it would do no harm; if in this country alone, ruin." No. 31—"It would necessitate more help." No. 42—"Not practicable with railroad companies." No. 133—"Very bad, and would have to reduce wages to correspond or quit manufacturing." No. 327—"This is beyond our comprehension, as some would work their hands longer than eight hours anyhow." No. 346—"It would benefit us as manufacturers." No. 339—"Would reduce wages 20 per cent." No. 442—"Very bad; would not give a cent for eight hours." No. 22—"We would not run."

As to Question No. 23, involving the effect of the eight-hour law upon working men: No. 152—"On most of them bad, the industrious would gain and the opposite lose more than now." No. 31—"His pay would be in proportion." No. 42—"It would not answer our business." No. 346—"A decrease of wages, and as a rule two hours a day spent in worse than idleness." No. 345—"Don't think they would make good use of their time." No. 442—"Ruinous; too much time to drink beer and rum." No. 22—"It would make him more independent than ever." One "beneficial," one "good," one "lower wages," one "detrimental."

PART V.

INDUSTRIAL DEVELOPMENT.

CHAP. I.—CONSIDERATIONS RESPECTING THE CULTIVATION OF JUTE, RAMIE,
FLAX AND HEMP.

CHAP II.—SILK CULTURE.

CHAP. III.—PRESERVATION OF GREEN FODDERS.

PART V.

FIBRE INDUSTRIES.

CHAPTER I.

Had the bounty bill which was introduced at the last session of the Legislature become a law, there is much reason to believe we could have made more satisfactory statements respecting the result of this season's work in the culture of fibre-producing plants. Our experience this year tends to strengthen previous convictions in respect to the policy of legislative co-operation in measures designed to introduce new industries, with the special view of benefiting the industrial classes, and of extending the productive capacity of our people.

What has been achieved in other countries through the agency of bounties, it would seem ought to have an important bearing upon our action respecting their efficacy in this country. It is to bounties that England, Ireland and France can trace, in a very large degree, their industrial prosperity during the last half century. We are surely not so unaccustomed to imitate foreign methods of advancing material prosperity, as, at this late day, to be dissuaded by illogical pride from adopting this invaluable device to expedite industrial progress.

The only argument we have ever heard advanced against bounties in this country is, that they are not consistent with American institutions and methods of advancing the public welfare. It does not appear to us there is anything un-American in the English and French system of bounties, except that it has not an American origin. The English railroad fraternity has the credit of refusing to adopt the American railroad cord system of communicating with the engineer, because it was an American device; in other words, it was not consistent with English signal methods. We have said, upon another occasion, that individual prosperity is inseparable from that

of the State ; why, then, should State patronage, to stimulate production, be otherwise than judicious ?

If bounties were to be exclusively tributary to one or a limited number of individuals, there would be manifest impropriety in their adoption, but when they are resorted to to encourage individual enterprise in the establishment of new productive industries, which, when established, have a recognized value to promote the general good with no exclusive privileges to enure to those who have toiled and expended their substance in developing them, we can see only wisdom and justice in State participation in risks thus incurred for the welfare of the public at large.

It is too obvious to need continual enforcement, that the successful production of the various fibres we have been advocating for two or three years, would be of incalculable benefit to every State interest, since they would create a demand for unskilled labor in the production of raw materials, and for skilled labor in converting the same raw materials into fabrics of inconceivable variety and adaptability to present and future wants.

If the State could have seen its way clear last winter to unite, as was proposed, in a general endeavor to add to the productive wealth of the community, there is no doubt that the industries we are considering would have to-day a much better footing. The bounties would unquestionably have stimulated a larger number of farmers and specialists to more extended experimental enterprise in their behalf. The very least we were in hopes to accomplish this season, was to ascertain, with considerable definiteness, the characteristics of soils and fertilizers best adapted to the growth of the special fibre producing plants now under consideration. While less has been achieved in these regards than was expected, the season has not passed without affording some practical lessons in respect to this branch of our work.

In our first report reference was made to a gentleman in St. Louis, who had bestowed much time and practical observation in respect to jute culture in India, having visited that country twice. He has since written and in other ways intelligently advocated the introduction of jute culture into the Middle and Southern States. His interest in the general subject of raw materials of a fibrous character is unabated. The name of the gentleman is Sylvester Waterhouse, a professor in the Washington University at St. Louis. Knowing that

he was appointed by the President as one of the U. S. Commissioners to the Paris Exposition, and that a fine opportunity was thus afforded for observation and inquiry into textiles and other raw materials by one eminently qualified for such service, we requested him by letter, if consistent with other duties, to communicate the result of his observations while abroad, which have special bearings upon the fibrous industry. Before we introduce his letter it is proper to note that Prof. Waterhouse, owing to ill health, was prevented from accepting this official trust, but he afterwards concluded to go as a private individual.

WASHINGTON UNIVERSITY,
ST. LOUIS, MO., October 20th, 1879. }

Samuel C. Brown, Esq., Secretary of N. J. Bureau of Statistics:

DEAR SIR—Recent investigation enables me to make a prompt response to your inquiries.

The *abutilon avicennæ*, the cultivation of which you have so forcibly recommended, seems susceptible of development into a source of public wealth. The plant grows throughout the West in rank and wild luxuriance. It has the spirit and capacity of conquest. With invasive march, it has taken possession of large tracts of land. Its tenacity of life and rapid spread render its cultivation a far easier task than extermination. There are to-day, in the suburbs of St. Louis, stalks of abutilon eight feet in height. It is claimed that the fibre is superior to hemp in whiteness, strength, durability and cheapness of production. Unlike Indian jute, abutilon needs no naturalization. To the manor born, it exhibits a stubborn determination to occupy its heritage.

Why is not this plant utilized? If it grew in France, the French Government, ever sagaciously watchful for new sources of public wealth, would encourage its cultivation by the offer of liberal bounties, and stimulate inventors to the discovery of the best process for treating the fibre by prices generously proportioned to the magnitude of the interest. A policy which has so effectively developed the textile resources of France would, presumably, be alike beneficial to the manufacturing industries of the United States. If personal wishes could control legislative action, my own State would anticipate New Jersey in the adoption of this policy.

The offer of bounties in a country which, throughout its history,

has fostered domestic industries by the protections of a tariff, certainly it cannot be impolitic to develop native substitutes by the bestowment of bounties. Even if individual enterprise would ultimately accomplish the result, the patronage of the State would secure its earlier attainment. Our Legislatures can well afford to encourage experiments whose success would enrich the nation. The expenditure of a few thousand dollars may bring a return of many millions.

The jute crop of India is now about half a million tons, worth at least \$50,000,000; and the cost of the foreign fibres annually imported into the United States is more than \$30,000,000. If any considerable portion of these larger values can be created and saved by domestic growths, the undertaking would seem to be especially worthy of legislative patronage.

In respect to bounties, it would appear to be just and proper that they should be so dispensed as to reward both the farmers who grow the plant and the inventor of the best process for disintegrating and preparing the fibre for market. The old system of manual treatment is too slow and costly. Unless the fibre can be quickly and economically prepared by chemical or mechanical processes, the cultivation of abutilon must prove a failure. At the present moment our great need is a cheap and effective method of separating the fibrous from the ligneous part of the stalk. With the high price of labor in this country, no manual preparation of the fibre can successfully compete with the cheap hand-work of India.

The cleaned specimens of fibre you sent me are excellent, and indicate a good degree of progress in the treatment of fibrous products. The inventor of a cheap and rapid means of disintegrating the fibre of hemp, jute, ramie, abutilon and the allied mallows, will not only secure a fortune for himself, but will also enjoy the rare distinction of having created a new and valuable industry. Such an inventor would be the Whitney of another development in textile wealth. It is a reproach to American ingenuity that an industry which, in India, ranks as fourth in productive value, should be so insignificant in the United States. It is, indeed, surprising that the inventive genius of our countrymen, which has achieved such splendid triumphs over greater difficulties, does not address itself to the solution of a problem so rich in possible results.

Every forward step in the diversification of our productions is an

advance towards an industrial independence of the whole world ; a variety of industries is a basis of self-reliance, a source of national wealth, and a safeguard against commercial depression. The agricultural and mechanical arts tend to strengthen each other and to preserve communities from a general prostration of business interests. One of the prosperous results of a cultivation of abutilon and ramie would probably be a revival in the culture of flax and hemp. Fabrics designed for certain commercial uses are improved by a combination of their fibres with jute, and consequently an extensive employment of the one will imply an increased demand for the others.

Jute is too bulky for distant transportation. The freight would consume the profits. Factories for the separation of the fibre should be erected in the neighborhood of production, where the abutilon, rose mallow and other similar plants, which can be so easily raised, would apparently, even at present market rates, yield the farmer a profitable return for his labor.

The foregoing remarks apply more particularly to the cultivation of domestic jute in the North. But I have not at all relinquished my belief in the possibility of naturalizing Indian jute in the South. The conditions of success must be determined by experiment. Many trials will result in failure. But ultimately the essential conditions of soil, climate and moisture will be ascertained, and then the growth of native and naturalized jute, aided by proper mechanical appliances, will add to the wealth of the country a new textile resource scarcely inferior in importance to cotton.

Respectfully yours,

S. WATERHOUSE.

In the general development of the fibrous industry, we have made very decided progress this year. There really need be no difficulty in growing jute-producing plants, the material point being to ascertain the best conditions under which to convert hitherto uncultivated plants into those of future industrial significance and profit. Any experienced farmer, from his observation of these self-propagating "weeds," can as readily achieve good results in their cultivation as he can in his first attempts at growing for profit, peaches, pears, grapes or any other untried crop. He has a general knowledge of their

requirements, and his success at the outset will be in proportion to his professional knowledge and theoretical dexterity.

There being no question respecting the cultivation of jute, the remaining problem concerns the obtaining of the fibre from the bark, and the industrial purposes of which it is susceptible. Jute, in its ordinary marketable condition, is chiefly adapted to coarse but useful fabrics and cordage, but through the appliances of skill and science it has unquestionably a range of uses still to be discovered, and it is our aim to develop these hidden qualities.

In all of our efforts to promote the fibrous industry, we have had the intelligent co-operation of Mr. Lafranc. He has given his whole attention this summer at Camden to the discovery of new methods of treatment of the outward coating of the plant, with the view of imparting new value to the fibre derived from it. These efforts are in harmony with the widely-extending conviction that the highest industrial progress which this nation is destined to achieve is inseparable from the utmost diversity of industries, and an augmented proportion of skilled and artistic pursuits to the unskilled.

In pursuance of this idea, Mr. Lafranc confidently believes he has discovered a combined chemical and mechanical process by which the intrinsic and industrial value of jute can be greatly enhanced at comparatively small cost. The practical advantage of this refining process consists in obtaining a vegetable wool, which is so nearly akin to coarse animal wool, as to render their union in coarse fabrics advantageous, and for additional possible uses by itself, a valuable substitute.

If this newly-discovered property in domestic jute is confirmed by subsequent experience, it will impart an unanticipated significance to the fibre industry throughout, since ramie and the whole range of developed and undeveloped long staples can be brought under the same treatment with like results.

We feel well assured that the steeping or rotting process, which, until quite recently, was deemed indispensable, has been overcome, and that in growing these products the labor of the farmer will thereby be greatly diminished, and only equivalent to that incident to the growth of wheat and rye. Sowing, cutting and carting in the green state, at present, seems to be all the farmer will have to do. If he can be saved the trouble and expense of preparing pools for steep-

ing, as is done in India in respect to jute and ramie, and in Europe and Ireland in respect to flax, and two or three handlings and cartings besides, we will have gained a very material advantage in the cost of those domestic products.

We have known for some time of an ingenious mechanical contrivance in Newark for extracting fibre from the various fibrous plants we are endeavoring to introduce into our State. This machine is the invention of Mr. A. Angell, and we have no hesitation in saying that it has achieved such results as to entitle it to public recognition as being in the line of devices for promoting the fibrous industry. Success in this new industry, as we have many times stated, and which daily becomes more obvious, is dependent upon the best mechanical attainments in separating the bark from the wood, and in the subsequent manipulation of the fibre for market. Hence it is incumbent upon us to acquaint the public with whatever comes to our knowledge respecting progress in the development of this important industry.

The normal length of fibres destined for the loom is of no special moment, since it is well understood that for spinning purposes the very long class of fibres require to be subjected to a process by which they may be assimilated to cotton and wool, therefore the means by which they can be brought into the spinning state with the least injury to the fibre will necessarily be adopted. The two gentlemen we have referred to are sedulously engaged in efforts to solve the remaining problem respecting the production of domestic fibres. They have both succeeded in furnishing products which have elicited the deepest interest on the part of consumers, who stand ready to use New Jersey jute and ramie whenever they can be supplied.

Hitherto both of these products, for the most part in all countries, have been woven into fabrics of various grades, but there is reason to believe vast quantities of jute, especially, will be consumed for cordage, bagging, matting and other long-staple purposes, in this country, as soon as the raw materials are grown here. The *abutilon avicennæ*, or "Indian mallow," is not the only plant belonging to the mallow family which has a strong fibrous bark. The rose mallow (*hibiscus moschertos*) is not now for the first time receiving attention as a fibre-producing plant. Twenty years ago some rose mallow roots were transferred from the borders of the Assanpink to an upland

farm on the Delaware river, with the view to their cultivation for the fibre crop. The quality of the fibre of this plant was as well known then as it is now, but for the want of mechanical means to extract it the enterprise was abandoned.

Recent experiments with the rose mallow at Camden and Newark have wrought good results, and incline us strongly to believe that jute of equal quality may be obtained from it, and possibly under conditions more advantageous than from the abutilon. One very important advantage the rose mallow would have over the abutilon, in respect to the economy of cultivation, consists in its being a perennial. Like the ramie, the plants once established, the annual cuttings from the stands would be a perpetual source of profit to the cultivator, in case the quality and cost of the fibre meet our present expectations.

The experiment to which we have referred shows that the rose mallow will thrive on elevated lands, although it seems to have an affinity for marshes and river margins. The gentleman who now owns the farm upon which the plants were re-set 20 years ago, has no doubt about its successful cultivation in any good upland. Regarding his upland patch of rose mallow as worthless, he has made repeated attempts to eradicate the plants, but he finds they are no less invulnerable and tenacious to the soil than the abutilon.

If the best results in the growth of this plant are attainable in swamps and other low, wet lands, our State is not deficient in available opportunities for that condition of growth. The beautiful bloom of the rose mallow has had annual recognition for a generation in the low lands bordering the Pennsylvania Railroad in the vicinity of the Lawrence station and along the Assanpink. It is also to be seen, in its season, on the shores of the Hackensack and Passaic rivers, but the growth in salt marshes does not apparently equal that in freshwater localities.

In respect to the rose mallow fibre, we have to say that both of the gentlemen who are interesting themselves in the solution of the fibre problem, have succeeded in obtaining grades of fibre of conceded value, as a substitute not only for Asiatic jute, but for secondary grades of imported hems.

The writer has interviewed several large importers and consumers of all kinds of hemp, jute, sisal and flax, and but one opinion was

expressed respecting the prospective industrial value of the New Jersey products exhibited; conditioned, of course, upon their relative cost to those already in use. We were likewise assured that the consumption of this and kindred fibres is practically limitless under such conditions as to cost and quality as present attainments in domestic culture seem to indicate and verify.

It will impart interest to the general subject of the fibre industry, to place before the reader late authentic statements respecting consumption of foreign fibres.

From January to July, 1879, the amount of manilla hemp used in this country was 73,640 bales. Advices up to May 16th, 1879, report 30,000 bales on the way and loading. The price, July 1st, was $7\frac{1}{2}$ cents in New York.

From January to July, 1879, the amount of sisal hemp used in this country was 29,428 bales. Total supply for the six months ending July 1st, 1879, was 45,425 bales. The price, July 1st, was $5\frac{1}{2}$ cents.

From January to July, 1879, the amount of Calcutta jute used in this country was 24,063 bales. The total supply for six months ending July 1st, 1879, was 42,626 bales. The price, July 1st, 1879, was $4\frac{3}{8}$ cents.

From January to July, 1879, the amount of jute butts and rejections used in this country was 170,894 bales. The total supply for the six months ending July 1st, 1879, was 202,759 bales. The price July 1st was $2\frac{1}{2}$ cents. Advices up to May 23d, 1879, report vessels having sailed for New York and Boston which had on board 64,563 bales of butts, 3,803 bales of rejections, 9,373 bales of jute, and 14,050 bales of butts and jute loading.* We were informed that there has been a recent advance in these fibres of about 10 per cent.

These statements indicate the consumption in the United States of about 120,000,000 pounds of three kinds of imported fibre during the first six months of this year. Double this amount, and assume the average price to be $4\frac{1}{2}$ cents, and we have an expenditure this year of \$10,800,000 for manilla and sisal hemp and jute, in the raw state. Not having the data at hand we omit Russian hemp, flax and silk, which we all know would very materially increase the totals.

* Semi-annual statement of W. S. Daland, N. Y.

It will be understood that we do not anticipate even a remote substitution of domestic for the entire range of imported fibres. Barring manilla and sisal hemp, however, we entertain hopes that the importation of those remaining will be vastly diminished in the coming year by the native supply, unless the appropriate and needful appliances to promote the achievement are withheld. By pursuing a policy tending to perpetuate this dependence upon foreign sources of supply of raw materials which are within our own capabilities to produce, do we not ignore emphatic lessons of public economy?

In all of our treatises upon this subject we have dwelt upon the industrial importance of domestic raw materials in their bearings upon both skilled and unskilled labor, together with the imperative need of diversity of pursuits.

It will surprise no one who is observant of the progress in economic agriculture and the rapid enlargement of the cultivated area of the Western domain, that thoughtful agriculturists in the districts bordering on the coast are intently absorbed in respect to the consequences of this impending Western competition. Farmers cannot wisely refrain from bestowing thought upon this aspect of their calling. Apprehensions regarding it have widespread lodgment, and sooner or later our rural districts will be confronted with it as a problem to be solved. It would seem that this agricultural exigency has already a practical exemplification in Maryland. Some capitalists and agriculturists from that State were recently represented on a mission to our State to investigate the ramie culture, with the view, upon an extended scale, of substituting it for cereal products.

There is, perhaps, no State whose agricultural interests are more seriously imperiled by remote competition than New Jersey. And we affirm, likewise, that no State can more wisely and safely meditate an agricultural departure in the lines indicated than ours. The obvious reason for the preceding assumption is, prevailing low prices for grain, flour and other Western products, consequent upon our territorial proximity to the two great centres of transhipment of the same to foreign ports.

We regard this matter of inevitable low prices of staple articles of consumption for the masses, at the very doors of one and a quarter million inhabitants, as possessing a two-fold significance: First, it impels us to a recourse in agricultural pursuits compatible with our

self-evident destiny, to become a compact manufacturing community; and second, it imparts emphasis to our pre-eminent local advantages for manufacturing growth.

The problem of cheap labor must inevitably find its solution in cheap living; consequently cheap food will always be an important factor in determining questions relating to economic industrial movements, and, other things being equal, will have predominant sway.

A Manchester correspondent writes: "Nature has lavishly bestowed her varied treasures on your continent. Gold, silver, wood, coal, copper, iron, and almost endless natural products are found in abundance in easy reach of the artisan, while the soil yields a variety and profusion of crops for the use and comfort of man. Nowhere in the world are the natural advantages so favorable for the cheap production of raw materials in most of the cheap manufactures of the age as they are in the United States. Considered in connection with the theory that manufactures can be produced cheapest near the point where the raw materials are found, this last question is indeed important."

The times are propitious for attention to new industries, and there is urgent need of individual and State co-operation in those lines of productive development which commend themselves to our soil and climate capabilities. It seems almost unnecessary to reiterate averments respecting the commanding importance of the textile industry. It has the most diversified range of any, and no other can furnish a more reliable basis for future industrial prosperity. Our State and country possess genius, cheap lands, cheap living, cheap capital, and while we are already a conspicuous nation in respect to domestic raw materials and inherent versatility to utilize them, there is still perceptible need, both of industrial expansion and stability. By common consent, we have never had such an outlook for pervading prosperity. Abroad as well as at home, the opportunity for American enterprise to fix its industrial and commercial future is recognized. And, moreover, the rare spectacle is presented of multitudes of English capitalists and skilled artisans, who have hitherto been wont to combat our manufacturing supremacy, under stress of circumstances, with the sanction and practical co-operation of statesmen, benefactors and friends in their own country, contemplate the transfer of their plant and skill to be re-animated under American auspices. Such presag-

ing movements as these will naturally stimulate the latent impulses of the people, and provoke emulation. While we have achieved wondrous industrial results, the transfer to our midst of English skill, both in tried and untried departments of manufacture, will inevitably give a new impetus to all phases of industrial life, and impart momentum to the migratory tendency of industry to this continent.

We have already indicated reasons why New Jersey should share largely in this foreshadowed thrift and prosperity. Space at our disposal will not warrant enlargement upon omitted considerations respecting the natural and acquired advantages our State presents to capital and enterprise. We think, too, that we have demonstrated with practical certainty that these several fibre-producing plants can be successfully grown in our soil, and with equal certainty, through discovered mechanical agencies, we can convert the yield of those plants into marketable products of great value to our community. At the very least, in our view, the achievements already made in these new industries should so commend themselves to our State authorities as to secure legislative furtherance by the enactment of bounties, so distributed as to reward both the farmer and the inventor, whose united efforts are essential to attain complete success.

We have no hesitation in expressing the belief that bounty encouragement proffered two years ago would have so advanced these industries, that we should now see New Jersey jute and ramie on the market. In confirmation of this, we will further state that a gentleman from the great dress goods manufacturing city, Bradford, England, who has been engaged in spinning ramie there, is now in this country, and in a recent interview, in Trenton, he assured the writer that if he could be supplied with ramie of such quality as was then before him, he would start a spinning mill in our State next spring.

It is our firm belief that the early prosecution of the varied industries incident to the successful culture of fibres in this State, rests with the coming session of the Legislature. A bounty bill enacted next winter would unquestionably secure instant attention to the cultivation of the plants embraced in the bill. Without such encouragement, these special textile industries will languish, and their culmination be indefinitely postponed. We propose to modify the bill which was introduced last winter, but the amended bill will embrace the same plants, viz., jute, ramie, flax and hemp. It is believed that

hemp can be treated in the same manner and by the same machine that furnishes ramie and jute fibre. And as to flax, we called attention in our last year's report to a Philadelphia machine well adapted to re-awaken an interest in its culture.

If, with the production of these fibres, we had also to create a home demand for them, discouragements already encountered would have irretrievably dispelled our ardor in their behalf. But we have shown that 240,000,000 pounds of jute will be consumed in this country this year, and for local encouragement we may safely state that more than three-quarters of that quantity will be manufactured into bagging, matting, cordage, paper, etc., in our own State and the cities of New York and Brooklyn. These New Jersey and New York consumers have assured us that as soon as they can depend upon being supplied, they will use the domestic in preference to imported jute.

In respect to flax, our first report acquainted the public with the fact that the consumption of that product in this State alone is very large, and constantly increasing. And, moreover, that the quality of New Jersey-grown flax met the requirements of the Paterson spinners. It is needless to say that hemp, too, is an invaluable product—now worth \$180 per ton, for Russian, and the American from \$150 to \$190. If even native-grown hemp supplants the foreign in this market, millions will annually be saved, and the domestic cordage industry commercially magnified.

CHAPTER II.

SILK CULTURE.

BY RUDOLPHUS BINGHAM.

Silk is not only the most elegant and costly robe material, but it is worn by more of the people of the globe than any other clothing. So highly is it prized that it is imported from the most distant parts of the earth by those who do not produce it. And as our State embraces such a variety of soils and so favorable a climate as to support a greater number of species of plants and insects than most others, it is not surprising that we find it well adapted to the growth of this valuable product.

In a comprehensive article in the *Encyclopædia Britannica*, the given weight of cocoons spun by the common English silk worm, when dry, is 1 to 1½ grains; Bengal rainy crop 1½ to 2 grains; Stahlian 3 to 6 grains; Nottingham experiments, foreign seed, 3 to 6 grains; New Jersey, U. S., by two hatchings a year, each 5 grains, and from an annual (Monmouth) 6 to 8 grains.

The white and rose mulberry and osage orange, which furnish the best food, all grow well, and worms have been raised by so many persons, under somewhat varying circumstances, and in different years, as to preclude any doubt of the successful raising of superior silk here. We observed the whole operation at the International Exhibition School this season, of one and two crop-worms, which was entirely successful. Silk was also raised in Camden, Egg Harbor City and Vineland. Dr. Chamberlin, who had charge of the school at the exhibition, reeled off cocoons of over 1,000 yards each. The reel used was such an one as any carpenter could make; and we have no doubt but by a more general culture, the best breeds of worms, the best food and improved reels would be discovered.

F. S. Crozier, of Kansas, lays great stress on the best breeds of worms and proper food for producing a fine quality of silk, and

claims that three to four times as much may be reeled per day from the best cocoons as from the poorer quality, and the silk is worth twice as much. He says a spinning wheel may be fitted up for from \$5 to \$10, and run by a sixteen-year-old daughter, and tended by one of ten or twelve years, and with a few weeks' practice they will be able to run off three pounds per week, worth \$27 to the family; 400 pounds of cocoons, raised by four children, in four weeks, would give thirty-six to forty pounds of silk, worth \$360.

The occupation is light, healthy, genteel and instructive, and we think one of the greatest needs of our country at this time is family occupation. There are over 200 silk factories in our country now running mostly on imported silk, and we should supply this demand with home production. The skill and low wages of Italian children is offered as an objection to reeling in this country; but so long as we buy silk and have unemployed time, that is no competition. The skill can readily be acquired, and if one-half of each school day of all our children was given to some such occupation, it would be a real gain in physical, mental and moral development. Every family buys silk, and every family may aid in its production, even to weaving, and save the money, if they will.

Eggs may be obtained by mail from the International Exhibition Company, Philadelphia, in quantities of from 300 to 500 for 50 cents. Any room in which a pure, dry atmosphere of from 60° to 85° temperature can be secured, will answer the purpose. The eggs are kept during the winter in a dry, cool place, temperature 55° or below, may be kept in ice houses until the leaves are putting out, when they should be placed on sheets of clean, white paper, for hatching, commencing with a temperature of 66° and increasing two to three degrees per day, for six days. Some advise stirring two or three times a day. They should hatch in five to seven days. As soon as they commence to hatch, fresh, tender leaves should be furnished them—the leaves are sometimes cut, but if young and tender they will eat them without. Perforated paper and fine netting have been used to spread over the worms, upon which the leaves are placed; but we found forms made of plastering laths, two by four feet, with twine, stretched from tacks driven in the sides and ends, very handy. They are easily handled by children, and the excrements fall through and leave the forms always clean. As the leaves are consumed or become

too dry; a form with fresh leaves is placed over the first and the worms soon ascend to it. The worms of different days' hatchings should be kept on different forms, so that the food and treatment may be adapted to their ages. The worm at first is very minute, dark and hairy, but grows rapidly, and in about five days puts off its first garment and comes out in a new one, loosely fitting, to allow for five days more of growth.

No hairs appear after the first change, and the worm becomes lighter in color, through the four changes or five ages of about six days each, when it eats voraciously, or, as may be said, for always; for it then commences to spin the fluid silk, from two spinnerets in the mouth, and during the whole period, and changes from worm to chrysalis, and from chrysalis to moth. While molting and laying the eggs it does not eat. Previous to spinning, all excrementous matter is exuded and the worm is nearly transparent. When commencing to spin it lays lines of foundation, or suspension, for the future habitation, and as the silk is spun out it telescopes, until the finished cocoon is hardly half the length of the worm. We placed some of the spinning worms of the Exhibition Silk School, in an improved megascope, so as to greatly magnify them, and they were so transparent that we could see the action of respiration, and the exuding fluid silk, which became dry on meeting the outer atmosphere. The worm completes its cocoon in about three days. We found the netted forms well adapted to the spinning worms. Cocoons for reeling should be subjected to the heat of an oven of about 200° for from two to four hours, or better be put in a tight box and steam turned in for twenty minutes, in order to stifle the chrysalis; otherwise the moth comes out and injures the cocoon for reeling. The floss silk, that which surrounds the cocoon and holds it in place, and the pierced cocoons are useful for carding and spinning.

In reeling, the cocoons are placed in water nearly boiling, and brushed about with a broom-corn whisk, until the ends are found, and from five to ten placed together on the reel. There are several kinds of reels, and we have no doubt but when many of our intelligent and ingenious people take hold of the matter, improvements will still be made. The hot water softens the gum and loosens the filament, but as it is not wound in concentric circles, as a lady winds a ball, but forward and back in patches, care must prevent the silk from coming

off too fast and knotting on the skein. The nimble fingers and keen eyes of children, under the direction of the mother, are best adapted to this work. Any broken filaments should be at once replaced, that the thread may be uniform. The thread is made to change from side to side of the skein, about four inches at each turn, to prevent the threads from sticking together. For this purpose a guide or traveler is arranged on the reel to carry the thread forth and back the required distance. Most manufacturers and correspondents advise the raising the cocoons and eggs for sale in other countries, but we deem the reeling of great importance to our people as a family occupation. We are now succeeding wonderfully in the weaving and general manufacture of the raw silk, and should not rest on that; but from our superior cocoons, with intelligence and skilled industry, should excel in the whole process of silk production, and save to our country the millions paid annually for raw silk, if we do not export it, which is not at all improbable.

The silk worm proper is called the *Bombyx Mori*, and we have the *Cecropia*, *Polyphemus*, *Prometheus* and *Luna*, active spinners. We raised a family of *Cecropias* and *Polyphemus* at the Exhibition Silk School this season, and although it has been said they were wild, and could not be managed in-doors, we had but little trouble with them. We fed them on birch leaves and placed the stems of the branches in vessels containing water covered with paper to keep the worms from drowning. This kept the food more fresh, and we think prevented the worms from wandering. They are said to feed on apple, pear and plum, and nut leaves. The cocoons of the *Cecropias* are several times larger than those of the *Bombyx*, and although the silk is coarser, it is stronger, and would be valuable for many purposes, even if it did not take color as well. Mr. Zimmerman, of Egg Harbor City, also raised some *Cecropias* this season. We would be pleased if persons finding the cocoons of our native species, would preserve and propagate them, or send them to this Bureau, or to the exhibition at Philadelphia for a more extensive experiment. As many plants which were once regarded as troublesome weeds, are now numbered among the useful, so the "loathsome worms," by their simple organizations, their transformations and different lives, their delicate and brilliant colors, and their excellent work, become most interesting objects to the naturalist, artist and economist. As the glistening green of the hillsides is,

by pasturing flocks, converted into warm clothing, so the glittering leaves of the hedges, byways and forests, by worms, are converted into material for the most elegant rustling robes. And how much more of interest, and just pride, would be attached, when the intelligent care and skill of the wearer has aided in the production.

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CHAPTER III.

PRESERVATION OF GREEN FODDERS.

RAMSEYS, BERGEN CO., N. J., }
November 11th, 1879.

S. C. Brown, Esq., Bureau of Statistics of Labor and Industries :

SIR—Referring to our conversation a few days since in regard to the importance of finding some crop that can be more profitably grown by the agriculturists of the State than at present, I mentioned to you the great discovery of preserving fodders green during the winter months, as food for stock, by ensilage, as is practised successfully in France, Germany, Belgium and Hungary, and to some extent in this country, and which in my opinion is destined to make a great revolution in our agricultural pursuits, by rewarding more abundantly the labor of our husbandman, by the increased production of animal food, and by enriching our lands without increasing labor or cost.

Any of the grasses or grains can be preserved in a green state, but cornstalk is considered the most profitable, because of the great weight that can be grown on an acre and its great value as a fodder. It can be sown in drills or broadcast. Twenty-five tons is an ordinary yield per acre of the cornstalk, taken from the ground when in tassel, about two months old, and cut up into about one-half inch lengths.

When it is recollected that our yield of hay is only about a ton per acre, and not as nutritious as the cornstalks in a green state, it is readily seen what a wonderful change is to be made in the character and quantity of milk, butter, cheese, beef, mutton and pork, with the increase of manures, so that in a few years our lands will be brought back to their original fertility, whilst our farmers will be enriched by the increased productions of their lands.

I do not consider the preservation of cornstalks by ensilage any longer an experiment. It has been successfully done now for several years by enterprising gentlemen of this country.

Mr. Clark M. Mills, of Pompton, Passaic county, this State, has put down this fall 250 tons, grown on 10 acres of land. He constructed a large cemented cellar under one of his out-buildings, about 12 feet deep, 14 feet wide and 40 feet long, with a sliding floor over it, which raises or falls, air-tight, capable of bearing a very heavy weight upon the corn, as pressure; in this floor is a hatch sufficiently large to take out the fodder with iron forks for feeding during the winter. But the fodder can be preserved, by small farmers, in silos or trenches covered over with earth, in a very inexpensive way, so long as it has sufficient weight and the air expelled.

It seems to me that it is the duty of the Bureau to which you are attached to call attention to the discovery of a method for placing untold pastoral wealth (hitherto wasted) at the door of every farmer of New Jersey.

For intimate directions and instructions for the "Ensilage of Maize" and green fodder crops, I refer you to a late volume written by M. Auguste Goffert, of France, translated by Mr. I. B. Brown, and published by him at No. 55 Beekman street, New York city.

I trust the coming Legislature of the State will duly consider this important matter, and direct experiments to be made at the State Agricultural Farm at New Brunswick, and make a small appropriation, probably necessary to carry it out, under the direction of Prof. George H. Cook or some other competent person.

I have the honor to be, with great respect, &c.,

Your ob't servant,

RODMAN M. PRICE.

The two preceding chapters have no less important bearings upon agriculture than manufactures, hence, with a view to the furtherance and enlargement of established rural pursuits, we can, with great propriety, supplement them with a brief treatise upon a subject which is not entirely new to well-read cultivators of the soil.

It will be observed that this paper contemplates economic husbandry in the line of stock-raising and butter and cheese production. The statements of ex-Governor Price, respecting the preservation of

green fodders for winter use, certainly impart commanding importance to this new system of feeding animals in mid-winter upon food which is represented to be "superior to June grass."

Since the export trade in American provisions has, with such surprising rapidity, developed into vast proportions in respect to amount and subserviency to the public welfare, this simple process, by which succulent food can be cheaply preserved in such condition as practically to extend the benefits of animal grazing through the winter, commends itself to the approbation of all agricultural communities—certainly to the extent of demonstrating its assumed value.

In its season, cornstalk fodder has a value second only to the best grasses, and the preservation of its invaluable edible and nutritive qualities for winter consumption, in principle, is continually being exemplified, and it presents no greater obstacles to success than are encountered in all fruit and vegetable-preservative processes. Assurances respecting this contemplated enlargement of the area of corn for animal diet out of season, are so ample as to leave no warrant for incredulity, except, perhaps, in the relative cost, and the solution of this point is shown to be attainable, through individual enterprise, at small cost.

We cannot refrain from giving all possible emphasis to discoveries which have a semblance of value, in whatever department of industry they are applicable. Inventive genius will only cease when exhausted to facilitate and cheapen production, and thereby augment our capabilities to cope with rivals in all useful, natural and manufactured commodities. In all essential industries we are rapidly gaining upon other nations; and we shall be able to maintain this rivalry unimpeded so long as we avail ourselves of unlimited natural advantages and inventive resources applicable to all industries, but especially to that line of production pertaining to human and animal food.

Having obtained a copy of M. Goffart's book on the preservation of "Green Fodder Crops," we improve the opportunity of conveying to the reader therefrom additional points of practical interest respecting this seemingly invaluable system of preserving in their natural condition green fodders, whose essential qualities are so seriously impaired by desiccation.

The nutritive and esculent value of green fodders is sufficiently illustrated by the transformations which take place in milk and

butter produced in summer and winter practically from the same food, but administered at different periods of the year in a condition modified by atmospheric influences. And all farmers know full well that young stock will thrive and fatten on green food in its season, but will fall off in weight in winter, fed on the same natural products in a deteriorated condition.

M. Goffart's experiments in maize culture have been so notably successful in France that it will be of interest to briefly refer to his methods. He ascribes much of his success primarily to the selection of soils adapted to the culture of maize. He then determines by close study, the requirements of the soil, and when ascertained made liberal use of appropriate fertilization. When his soils were found to be deficient in phosphoric acid, he added to his manure heaps an adequate supply of phosphate.

It is represented that M. Goffart's practice of continuous feeding exclusively on maize, awakened among his friends apprehensions of possible harm to his stock. These forebodings, however, did not abate his confidence in a system that seemed to promote health and productiveness to his herds. He claims as "one of the most valuable properties of maize is the power of self-succession almost indefinite. Some of my finest maize occupies a field which, during the past eighteen years, has borne fourteen harvests of that plant without giving any signs of weariness; on the contrary, the later yield is better than the former."

He avers that potash is the predominating component of maize, and that animals consuming it assimilate so little of that element, their manure will restore to the soil nearly all that the crop has imbibed from it. He also states that he has derived great advantage from the use of a heavy roller after the seed is put into the ground. He claims that it strengthens the hold of the plant upon the soil, and is moreover a good safeguard against the ravages of birds, which, in France, he assures us deprive farmers of half their crop. Nevertheless, M. Goffart informs us that in the last five years, his yield of maize was upon the average, 90,000 kilogrammes per hectare, which is about 40 tons to the acre.

In respect to the alimentary value of maize farmers are already well informed, but it is possible that its full utility has not yet been developed. M. Goffart does not claim that feeding on maize alone

will produce entirely satisfactory results. He makes use of other aliments in combination with maize, such as oil-cake, beet-pulp, and oat-straw, but maintains very properly that agriculturalists must needs learn from experience what admixtures in the animal food line are best adapted to their special conditions and surroundings. His experience has taught him that a mixture of nine parts maize with one of oat-straw, "maintains animals in perfect condition." But he does not go so far as to say, "that maize alone has the faculty of making very fat animals for fairs, or for high quality butcher stalls."

In the construction of silos, the essential point is to have the covering so perfectly adjusted as to exclude the air, and thus prevent fermentation. His experience teaches him that the elliptic form best facilitates the exclusion of air; and another important point in the construction is, to have the inside of the stone or brick walls coated very smoothly with cement, and as straight as possible. They must be both water and air-tight. Large silos are much preferable to small ones. The last that M. Goffart constructed were about 16 feet wide and the same height. He advises that the silos be about one-half below the surface and one-half above. Reduce the walls above ground to the thickness of one brick and a half. During the winter feed from the top, reserving the lower half for the warm weather. Take from the silo each evening the quantity needed for feeding the succeeding day.

At one of M. Goffart's farms he has four silos in close proximity, to which he has a six-horse power engine to work his cutter, and an elevator to raise the fodder over the walls of the silos. With these appliances he estimates that he can fill one in three days. He has reduced the length of his maize cuttings from one and a half inches to a *centimètre*, which is four-tenths of an inch, and finds great advantage in the change. He has also diminished the proportion of cut oat straw from a third, as before stated, to one-tenth. He does not think this essential, and as often buries the maize without any mixture. After the silo is filled he weights the plank covering with what is equivalent to about 900 pounds to the square yard.

He recommends that the joints of the plank be not absolutely tight, since the treading down of the maize and the weighted covering will not exclude at once all the air confined in the mass. He considers the advantages of fine cutting as two-fold: First, it packs

more closely, and therefore more effectually excludes the air; and in the second place, having passed through fluted rollers to the knives, the food is distributed to the animals in a semi-masticated form, favorable for absorption.

M. Goffart assures us of grave mistakes he made at the outset of his experiments, in leaving his maize in the field until desiccation had commenced. This must be avoided absolutely. The moment the cells begin to lose their water, air, of course, takes its place, which is detrimental to the process of ensilage. He wishes to have it understood that all the directions he lays down apply to fodders of all kinds, and that the same results may be expected when rye, oats, wheat or grasses are substituted for maize.

We conclude with an extract from the published experience of Mr. Francis Morris, of Oakland Manor, Howard county, Maryland.

"In the summer of 1876 I received from France a newspaper containing an account of the plan they had adopted of raising maize, or Indian corn, cutting the same when in tassel, and burying it in trenches, covering it with earth, and feeding it out to their stock in the following winter or spring. This statement induced me to make the experiment. I sowed, on the 1st of August, 1876, about 5 acres in drills 3 feet apart, and about a bushel of corn to the acre. This was worked twice with a cultivator, and was in tassel in the first days of October. We cut the same with a mowing machine, carried it in wagons to the feed-cutter, cut it up in one-inch pieces, and added to it an amount of wheat straw, cut up in the same manner, equal to one-fifth of the corn-fodder. I had three silos bricked up inside a stone barn. The silos were about 10 feet deep and 4 feet wide and 24 feet long. The fodder was well packed down by trampling while the mixture was put away, and then covered with boards with large and heavy stones upon them. After the weights had pressed it down very considerably, they were taken off, the boards covered with straw, and then with clay; the latter were thoroughly packed, and the whole was made a perfect protection against the oxygen of the atmosphere penetrating through the clay or earth. The first silo was opened for use on Christmas, and I fed all my milking cows with the same. Two of them refused to eat their portion, and when they left their stalls the other cows ate it; and from that day I have never fed it to

an animal that has refused it. Horses, mules, oxen, cows, sheep and pigs will all leave any other feed and eat this by choice.

"In the year 1877, from want of personal attention and from a very dry time, my corn-fodder was not as large a crop as it should have been, but it was sufficient to feed nearly a thousand head of stock for over two months. It was equally good in quality as it was in 1876.

"For this year (1878) I have more than double the quantity of this fodder. I have made and filled a very long silo out of doors, which will probably hold from 50 to 75 tons, besides filling the three silos in my barn. I have a very large herd of stock dependent on my corn-fodder for their winter feed, and I feel every confidence that it will furnish me all the feed I require.

"In a very long experience in raising stock, I have found corn-fodder, preserved as above stated, the best food for milking cows that I ever used. It is equal, if not superior, to June grass, and its cultivation is so easy, its preservation so inexpensive, that to-day no one can estimate its advantages to the agriculturist. The average hay crop of this State (New York) is not equal to one ton per acre, and every farmer knows what a costly crop it is to raise, to cure, and to preserve after it is raised, while our Indian corn crop will grow and flourish and tassel with the most ordinary care and tillage. Twenty-five tons to the acre, with a light dressing of barn-yard manure, and working it twice with a cultivator, is a small crop. Add to the barn-yard manure a dressing of guano, and more than double that quantity can be raised to the acre. I am almost afraid to state the quantity that can be raised per acre. I suppose, however, we put the produce down to twenty-five tons per acre—and every one who has raised corn sowed broadcast will recognize that this is a small crop—what will be the result in this good State of New York if one-tenth of her arable land is used in this way? Where is the stock to feed upon the new supply of food? It is not here. We should have to double the number of our horses, cows, sheep, and all our stock, and after we have done that we should have to double them again. In fact, the amount of stock that could be maintained is so great that we should be wholly independent of the West, for the most liberal supply of beef and mutton will be supplied by the cultivation of our own lands. The beef that we shall have when we make a proper use of preserved green

food will be very different from the beef fattened on slops procured from the whiskey stills of Chicago and other cities of the West. The old adage, 'No cattle, no corn,' is fully verified by our wheat production in this State. The lands are all so indifferent in quality that he must be a bold farmer who now sows a field of wheat; but the corn-fodder, which it is now proposed to raise, will give such a yearly amount of manure as will enable every farmer to get a wheat crop of thirty to forty bushels of wheat to the acre, and succeed that by good clover."

PART VI.

CO-OPERATION.

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CHAPTER I.

The development of the principle of co-operation still engages the attention of multitudes of English people belonging to all classes, from the industrial, which is supposed to be more surely destined to derive permanent advantages from it, to eminent statesmen, divines, scientists and educators. Indeed, no profession is unrepresented in the annals of the co-operative movement in England, where its greatest strides have been witnessed. Based upon the success that has marked its progress in England and Scotland, we regard co-operation in its relations to political economy, and in an emphatic sense, to the welfare of the industrial classes, as the most important movement of recent times.

The chapter on co-operation in the first report of this Bureau was designed more especially to show the magnitude and well-exemplified success of the system in England and on the continent of Europe. The information at command at that time restricted our deductions to dates prior to 1873, but we shall be able, upon the present occasion, to furnish our readers with later practical workings, both in distributive and productive co-operation. But in advance of that showing, we think it will be serviceable to the co-operative cause in this country, to reproduce in an epitomized form some of the views and arguments advanced by its promoters, who have so successfully indoctrinated the English public with their sentiments.

The equity of co-operation is one of its salient features, and its pecuniary benefits are within the reach of every laboring man. When he becomes a co-operator in a store enterprise by contributing in his small way to the capital necessary to carry on the business, he is ena-

bled to purchase his supplies upon such a cash basis as practically to get very near the producer of the articles he consumes, so that he shares with his associates the profits which ordinarily accrue to the retail dealer. And when in his own industrial occupation, after contributing his quota of capital, he becomes a co-operative producer instead of a consumer, he participates in the profits of his own labor.

In the case of the store or distributive co-operation, the chief sources of profit may be represented to consist in buying wholesale with cash contributed by the co-operators ; by their purchasing largely at their own stores at cash prices ; by economy in the management of the distribution ; by fewer shops, fewer men employed, avoiding advertisements and costly displays.

The introduction of the system we are discoursing about does not aim at superseding the ordinary shops by co-operative stores, although the natural effect will be to diminish them. And the same may be said in respect to the growth of productive co-operation in which workingmen are, to a greater or less extent, shareholders—viz., to lessen their number. But the compensation for this displacement of individual shops and individual employers is believed to exist in workingmen and others becoming their own storekeepers, and those who have no alternative but to work, their own employers.

Co-operation can be presented in many economical aspects. There are phases of the system which are susceptible of presentation, to unprejudiced, thoughtful minds, in such a self-evident light as to exclude debate.

“Co-operation is the new force of industry which attains competency without mendicancy, and effaces inequality by equalizing fortunes. The equality contemplated is not that of men who aim to be equal to their superiors and superior to their equals. The simple equality it seeks consists in the diffusion of the means of general competence, until every family is insured against dependence or want, and no man in old age, however unfortunate or unthrifty he may have been, shall, whether blind or seeing, stumble into pauperism.”*

One of the primary designs in the minds of those who started the co-operative movement is embodied in the above-quoted paragraph. They meant, also, that it should be a means of promoting the mental, moral and social welfare of all who should become converts and par-

* G. J. Holyoake.

ticipants in the system. It is one of the manifold agencies to improve society by developing latent qualities with which man is endowed, and which, for the most part, we assume, might be employed to benefit himself, his kindred, and, in no improbable sense, mankind.

Thirty years have been devoted in England to the development and propagation of the principles of co-operation. Its promoters, however, do not claim that the system has, by any means, attained its highest capabilities to impart the power of self-help and self-protection to the classes who are expected to derive most benefit from it; but they do claim, with entire confidence and justice, that co-operative industry has wrought unspeakable results in the interest of those who are peculiarly in need of its benefits.

In this connection, we introduce a quotation from an address delivered at the Co-operative Congress, held in Manchester in April, 1878, made by the Marquis of Ripon. Following some statistics of his own, respecting the growth of co-operation, he says: "That appears to me to be a very remarkable statement, proving the importance of this movement at the present time, the magnitude which it has assumed, and the right which it has to take its place among the most important industrial movements now going on in this country. How has this growth been accomplished? For when you look at the growth of any institution or movement, one of the most important things you have to ascertain, if you desire to know whether it will continue, is, under what circumstances that growth has taken place. Now that growth has been perfectly natural; no artificial stimulus has been applied to it at all; it has received no government aid; all that it has asked, all that it has obtained from the government of this country or from Parliament, has been that the restrictions and disabilities which lay upon institutions of this kind at the commencement of this movement should be, and they have been, happily, and altogether, removed. Well, now, gentlemen, I greatly rejoice at that characteristic of the movement that it has been natural and spontaneous, the result of no artificial encouragement, of no government support, but the creation of the people themselves, of those for whose benefit it was intended. Then again, this growth has taken place in the open market, subject to the full competition of the other industrial organizations which exist in the country. It has grown under the full strain of that keen competition which has existed in every part of the

country, during this prosperous quarter of a century, and in the face of that keen competition it has obtained the position which I have described. And thus has been applied to the reality of this movement the strongest practical test to show the soundness of the principle upon which co-operative institutions rest."

It should be noted that Lord Ripon was one of the earliest advocates of co-operation, and was officially active in obtaining the passage of the first Industrial and Provident Societies act in 1852, which act established the legal character of all subsequent organizations.

We will pass now to the consideration of the economy of co-operation, and this leads to the narration of a most notable exemplification of its economic workings based in the city of London. Any other city or large town in England or America, if the data were available, would doubtless furnish a proportionate surplus of centres for the distribution of commodities in common use. We need only go through a simple exercise in mental arithmetic, in respect to any populous community familiar to us, to verify the authentic tabulations with which it is our privilege to enforce the principle, that the utmost economy in this distribution of articles of general consumption is attained through a minimum number of agencies to furnish the supply, within a prescribed population and territory. In the absence of any previous thoughtfulness upon the subject, the mental computation we have suggested, will possibly reveal a startling disproportion of labor demanded by the present mode of distribution, and the obvious requirements under the proposed extension of the principles of union, to achieve the same end.

In respect to London, the accomplished General Secretary of the Co-operative Congress, to whom we are indebted for these statistics, assumes that consumers are content if their domicile is within one-third of a mile of the centre from which they have their ordinary supplies, the bulk of course being much nearer. This assumption contemplates a total of nine shops for each of the 22 trades mentioned below in each square mile, the extreme distance to reach which would be four blocks of about 400 feet each.

It was ascertained that in 1877 the entire area of London was 108 square miles, embracing streets, squares, rivers, etc. It appeared to be a fair calculation that two-thirds of this area was densely populated, hence 72 square miles formed the basis of the present calcula-

tion, and likewise the multiplicand of 9, which gives 648 retail shops for each of the trades specified. A Londoner believes these will conveniently supply the vast population of that city.

After ascertaining from the Post Office Directory of London that the actual number of establishments of this character in the city was 41,741, the Secretary classified them into 22 trades, under various headings as follows:

TRADES CONNECTED WITH THE SUPPLY OF

1. INTOXICATING DRINKS AND TOBACCO.		<i>(Excess over 648.)</i>	
Trade.	Number.	Actual.	Per Cent.
Beer Sellers.....	1,610	962	148
Publicans.....	5,814	5,166	797
Tobacconists.....	1,824	1,176	166
Wine Merchants.....	2,052	1,404	216
Totals.....	11,300	8,708	335
2. FOOD AND HOUSEHOLD WANTS.			
Bakers.....	2,394	1,746	269
Butchers.....	1,596	948	146
Chandlers.....	2,479	1,831	281
Cheesemongers.....	826	178	26
Coffee-room keepers.....	1,721	1,073	165
Confectioners.....	1,018	370	57
Dairymen.....	1,824	1,176	181
Green Grocers.....	1,881	1,233	190
Grocers and Tea Dealers.....	2,747	2,099	324
Oil and Colormen.....	1,379	731	112
Totals.....	17,865	11,385	175
3. CLOTHES AND PERSONAL WANTS.			
Boot and Shoemakers.....	3,477	2,829	436
Hairdressers.....	1,083	435	67
Linen Drapers.....	1,368	720	111
Tailors.....	2,679	2,031	313
Watchmakers.....	1,309	655	101
Totals.....	9,916	6,670	205
4. BOOKS, MEDICINES AND STATIONERY.			
Booksellers.....	912	264	40
Chemists and Druggists.....	893	245	37
Stationers.....	855	207	32
Totals.....	2,660	716	36

The totals of the above columns present us with a grand total of 41,741 existing supply stations, against 14,256 believed to be adequate—27,479 too many, or 251 for every 100 wanted.

No attempt was made with very much nicety to bring to view the unnecessary cost to the public of the excessive waste inseparable from

this old system of distribution, in contrast with the new. This simple calculation, however, derived from the same source as the above, will furnish an approximation of savings under the co-operative plan. The Secretary estimates that to maintain the 27,479 shops—large and small together—the average for rent, taxes, rates, light, fuel, &c., would be \$500, to which he adds the reasonable sum of \$750, for wages and living of those who prosecute the business. The aggregate of these sums appears to be \$34,348,750. From this he very properly subtracts one-third of the rent and two-thirds of the service, which would be saved by the lesser number of shops over the greater, thus leaving a manifest gain to the city of London of about \$20,000,000 a year in these trades alone, by suppressing the useless cost of unnecessary establishments, independently of the great economy produced by turning the profits of the seller into savings to the buyer, which we know would give to the customers of the reduced number of establishments, after paying all costs and the interest on capital, from 7 to 12 per cent. on whatever may be the turnover of the 41,741 shops with which we are dealing, an amount estimated at not less than \$10,000 each, \$400,000,000 a year.

To further illustrate the savings by co-operation in distribution in London, it is stated that the *Trades Directory* contains 1,565 columns of names of traders, by far the largest number of whom are engaged in distribution, and that only 367 columns, or less than 25 per cent. have entered into the above calculation. Here is additional waste, which, if computed, would very materially enhance the economic advantages of the new method.

We quote from the *Saturday Review*: "The large retail business of the co-operative stores in London, proves that it is possible to dispense with a portion of the staff which has hitherto managed the buying and selling. It is obvious that tradesmen have to live or make fortunes at the expense, in one sense, of their customers, or of wholesale dealers; and it is possible that the payment which they receive for their skill and labor may be excessive. Householders have lately found that by taking a certain amount of trouble they may save the cost of middlemen; and the competition which has been consequently established is perfectly legitimate. * * * This class of shopkeepers would never have come into existence but for the convenience which they offered by their intervention between producers and con-

sumers. The success of the co-operative stores shows that the supply of middlemen exceeded the demand. The inventors of the new system have conferred an undisputed benefit on a large section of society."

The remarkable growth of this co-operative movement has very naturally set in motion an inquiry respecting the result of the old system being supplanted by the new. What would become of the displaced traders? The obvious answer to this question would be that the new system would very probably absorb a large proportion of those employed by the trades, who constitute the largest half of the number associated with such trading centres. Their experience in the distributive line would readily commend those who are worthy of public confidence, to become shareholders and active participants in co-operative enterprises. The traders themselves, by dint of versatility of acquirements, and being possessors of more or less capital, would reappear in new fields of enterprise, developed by the substitution of new economical principles in trade, designed to promote the public welfare.

It is not too much to claim that the entire population whenever distributive co-operation has been introduced, share directly or indirectly in its advantages. The economy resulting from associated life, cannot upon such an occasion as this be traced through all its ramifications, but we think the principle exemplified by the London distributive system, will furnish a basis upon which it may be extended so as to give assurance of infallible benefits to all classes of the community. Whatever tends to benefit socially and materially the industrial classes, should have the sanction and furtherance of every well-wisher of society. Outward advantages and elevating enjoyments conferred upon those who have previously, from whatever cause, been deprived of them, will be in a high degree serviceable to their possessors.

"Nothing can operate more healthfully upon the character of the working population than the principle of co-operation in the supply of necessary wants. It acts in a multitude of ways; it is found to be most economical for them; it is found to develop manliness of character; it is found to promote the formation of accurate and careful habits of business; it helps them in the selection of those amongst themselves in whom they can place confidence, and thereby to the

study of one another's character ; it leads to the appreciation of those qualities by which a man may become highly and extensively useful to the other members of his class ; and it also, I am bound to say, tends to the creation of a safe and healthful public opinion in the working class itself ; and the public opinion formed within the precinct of the class itself is by far the most natural and spontaneous and most easy in its operations, as well as a most effective for its end that can possibly be brought to bear on those who are disposed to excess in any form."*

Prof. Hodson, of Edinburgh University, has been for many years an interested and friendly spectator of co-operative societies. In no strained or unnatural sense of the term, he says the whole world has long appeared to him as a scene of widely-extending and ever-growing co-operation. That the phrase "division of labor" unfortunately obscures the great truth that what is really meant is co-operation, without which no useful product could issue from any division of employment. The chain by which he would connect continents and islands engaged in the co-operative process he admits is invisible, but it is because our eyes are too dull or untrained to perceive it. It will be said that this universal co-operation is unconscious and indirect ; but, with few exceptions, it is because men have not been taught to know and to understand economic relations—to see their essential and abiding harmony.

The practical advantages of distributive co-operation are made very palpable by what has already been spread before the reader. The most earnest advocates of the co-operative movement in England do not regard it as the panacea that is to allay all apprehension in respect to the future well-being of the industrial classes ; but they do regard it as a modification of the system of trading that will assuredly benefit the masses. It is a mode of organized distribution, whose chief purpose is to utilize wasted labor under the old system, and enable those who participate in the improved economic process to obtain capital, not to mention incidental advantages to flow from the new method. No one can fail to see that the material benefits to issue from the introduction of this system, are secondary to incidental benefits which are of more vital importance. The horizon of every one's observation reveals, in a lamentable degree, a want of intelligence, want of thrift,

* Hon. Wm. E. Gladstone.

misuse of leisure, great inequality in the distribution of wealth, and much moral and social evil arising therefrom.

It would seem to be clear to every mind which has been turned to the subject, that the disparity of condition in respect to that which contributes to the welfare and happiness of mankind, is not ascribable to any lack of abundance of the essential necessity for the purpose indicated.

"This problem of social inequality, now agitating the civilized world, is older than Christianity. Christianity has never been indifferent to it, and never can be."*

Robert Kyle, of Glasgow, says: "If man is the most important object in the world, whatever tends to promote his happiness and well-being, and enhance his dignity and greatness, should engage his earliest attention."

The all-important social problem seems to have been committed to the present generation, with the utmost seriousness to ponder and, if possible, to solve. It must be conceded that the present century, in the multitude of its discoveries, has, in a remarkable degree, met the requirements of the times in which we live. In this country we are not instructed to such a degree in respect to the achievements of the co-operative principle, as to fully comprehend the magnitude and value of results that have been wrought through it by far-seeing benefactors of England, bearing chiefly upon the happiness and welfare of mankind. Neither are we, in general, aware that among the promoters and defenders of the scheme are enrolled, in large numbers, eminent Christian statesmen and divines, who have, from the first, been hopeful of deriving from the principle of co-operation, under its highest attainments, benefits other than those of a pecuniary nature.

It is not to be denied that the subject of social progress, which has gained such a foothold on the other side of the ocean, has hitherto taken short and faltering strides in this country. There was manifest wisdom in our maintaining the attitude of deeply-interested observers of what was transpiring in England and elsewhere respecting industrial and social disturbances, while sagacious and philanthropic men in that country were employing their best faculties to re-instate harmony and prosperity upon an equitable and permanent basis. The

* "Socialism," by R. D. Hitchcock, D. D.

most casual reader upon subjects relating to social and political economy must be familiar with what has been achieved abroad under the guidance of Anglo-Saxon wisdom and indomitable perseverance. As has already been stated, nobody claims that anything more than partial success has attended these noble endeavors in behalf of social and material progress. But if our space would admit of it, we could quote page after page of citations from sources so exalted as to command instant credence in both hemispheres, to verify all that has ever been claimed for co-operation.

We have hinted above to the absence of knowledge in this country respecting co-operative institutions, and the measure of success that has attended them abroad. In view of the unpromising condition of multitudes of uneducated, unskilled and impoverished laborers upon our hands, is it not unwise for any public or private citizen to be uninterested in the paramount question of the day, viz., the moral and social regeneration of the masses?

When it is represented that there are two millions of poor uneducated laborers in England, we cannot wonder that the sympathy and ardent co-operation of some of the wisest and best men in that country have been called into exercise, to set in motion organized agencies and schemes which contemplate the diminution of woeful pauperism and immorality, and the increase of the working power of degenerate thousands, through industrial education, moral training and economic habits.

It is unquestionably true that the menacing attitude of broad socialism deters many people in our country from active participation in deliberation and practical measures to ameliorate and improve the condition of the masses, lest by so doing they become identified with movements which have socialistic affiliations, tinged with communism, of which Dr. R. D. Hitchcock says: "To-day there is not in our language, nor in any other language, a more hateful word."

Great misapprehension exists in respect to the signification of socialism. A word of great breadth, and is identified with diverse systems, which, for the most part, are to be eschewed by the conservative promoters of social reform, whose methods and agencies are based upon the essential principles of Christianity. Diversity of opinion in respect to questions of minor importance in all enterprises are admissible, but a distinct recognition and undeviating observance

of the law of Christian kindness, charity and justice, are indispensable to enduring triumphs in all humane movements.

The adherents to types of both foreign and domestic socialism, with which we are all familiar, have rendered the term odious by crimson-dyed barbarities, so defiant and repulsive as to justly merit Dr. Hitchcock's incisive malediction respecting communism:

"In Paris seven years ago, in Pittsburg last year, in Berlin this year, it meant, and still it means, wages without work, arson, assassination, anarchy. In this shape of it, the instant duty of society, without taking a second breath, is to smite it with the swiftness and fury of lightning."

We will content ourselves with quoting the language of one more author upon this subject. Professor J. B. Clark, of Minnesota, has recently printed a very concise and valuable paper in the *New Englander*, on "The Nature and Progress of True Socialism." He says:

"I mean by socialism not a doctrine, but a practical movement, tending not to abolish the right of property but to vest the ownership of it in social organizations, rather than in individuals. The organizations may be private corporations, village communities, cities, States or nations, provided only, that workingmen be represented in them. The object of the movement is to secure a distribution of wealth founded on justice, instead of one determined by the actual result of the struggle of competition. Whenever numbers of men unite in the owning of capital, as they already do in the performing of labor, and determine the division of the proceeds by some appeal to a principle of justice, rather than by a general scramble, we have a form of socialism. * * * True socialism appears to say, 'Here is the world; take it as a family domain, under a common father's direction. Enjoy it as children, each according to its needs; labor as brethren, each according to his strength. Let justice supplant might in the distribution, so that, when there is abundance, all may participate, and when there is scarcity all may share in the self-denial. If there is loss of independence there will be gain of interdependence; he who thinks less for himself will think more for his brother. If there is loss of brute force gained in the rude struggle of competition, there is gain of moral power, acquired by the interchange of kindly offices. The beautiful bond which scientists call altonism, but which the Bible terms by a better name, will bind the human family together as no other tie can bind them.'"

The earnest promoters of co-operation assume—

1st. That the present system of distribution is defective; and

2d. That the masses whose welfare they aim to promote, covet the good, and are prepared to make judicious use of their new-found wealth.

The first assumption clearly needs no corroboration; but there is visible and overwhelming evidence that the great bulk of those who, at the outset, hope for gains by becoming shareholders in co-operative enterprises, would use those gains with infinitely greater satisfaction and profit, if they had been previously trained to habits of sobriety, economy and forethought, respecting savings for themselves and their families. It is not probable that the mass of non-possessors of accumulations of earnings, entertain doubts respecting their capability to wisely handle suddenly acquired capital. They are more intent upon having this untried talent put to the test. We have not raised this question to repress the ambition to become capitalists, for it is a laudable ambition, and in the right spirit, to be indulged without stint. There is a warrant for success in the degree that the best powers and most frugal habits characterize the endeavor.

Fifty years ago the diffusion of knowledge through the medium of newspapers in England was greatly impeded by the Stamp Act, which, during the reign of Queen Anne, amounted to eight cents. Under William IV. it was reduced, but not until a considerably later period was the newspaper accessible beyond a very limited circle. Now, the cost of newspapers and books does not necessarily circumscribe their circulation among the operative classes in Great Britain.

But the point we wish to make here is to illustrate the early recognition by co-operators the value of an educational preparation for co-operative work. When the Rochdale Pioneers started their trading society, it was upon such a limited scale of numbers and resources that they could not indulge their reading propensity to the extent of the cost of a newspaper, but signalized their desire for educational advancement, by assembling at the close of each day in a small back room to gather from each other the incidental news of the day, and discuss questions bearing upon fundamental co-operation. This timely and intelligent appreciation of preliminary training and familiarity with the principles and methods of conducting co-operative institutions, betokened success. The fifth year of the Rochdale

Pioneers commemorated the enlargement of their premises, thus affording the opportunity to establish an Educational Department, to maintain which the first step was to solicit subscriptions, payable monthly. This was followed by solicited donations of books and newspapers. These efforts were attended with reasonable success, but several years elapsed before a fairly constituted library became an appendage to the educational department.

Each year brought additions to the library and news-rooms, and with their growth the usefulness of the department widened. The library was open Wednesday and Saturday evenings, free to the members of the society. The news-room was open from nine in the morning to nine o'clock in the evening, subject to a charge of four cents a month. A branch news-room was opened within the borough.

It would be extremely interesting to follow the history of this department and note the results of these vast co-operative educational appliances, set in motion by the Rochdale Pioneers. The latest record we have of this library is that of 1876, when the number of volumes it contained was 12,199, and the circulation that year was 37,316. We have not mentioned the collateral advantages of this department, consisting of courses of lectures and classes, which are instructed in all the useful sciences. Mechanical and art pursuits are greatly facilitated by a well-furnished "Instrument Department." This department is now maintained by the society, $2\frac{1}{2}$ per cent. being annually assessed for the purpose. An educational committee, consisting of eleven members, has sole control of this special fund, and the regulation of all branch news-rooms. The committee have placed in their hands \$5,000 a year. This amount is annually expended for the diffusion of knowledge amongst the laboring classes associated with the Rochdale co-operative enterprises. The success that has attended the Rochdale Pioneers render their society the most conspicuous in England. We have designedly given it prominence, since it constitutes the best example of diversified co-operative life on record. The Rochdale Exposition of co-operative principles convey lessons of the greatest moment to multitudes of people whose necessities and desires coalesce to enforce attention to them.

In recent times modern civilization has achieved vast results in progressive nations, but it is noticeable that the benefits therefrom have failed in any marked degree to penetrate below what is denomi-

nated the middle class. We are not among those, however, who are disposed to ascribe this lamentable failure wholly to the selfishness of capital. We quote again from Dr. Hitchcock :

“The social problem is complex. Inequality of condition is only in part avoidable, only in part deplorable. So much of it as corresponds with inequality of endowment, is no more than graded wages for graded work. So much of it as results from casualties is simply providential. So much of it as follows commercial fever must be expected as commercial chill. So much of it as has a vicious parentage must endure the righteous retribution. And so much of it as Christianity cannot approve, Christianity should intelligently, promptly, and indignantly rebuke. But there must be no wild dreams of an impossible abundance, gathered without care or toil. For mankind at large the surplus must always be small and the margin narrow. To the end of time, if men would get on prosperously, they must learn just these two lessons, intelligent industry and strict economy.”

Among the impossible things is an equal distribution of the wealth of the world, and it is a gladsome thought that but few have any hopeful expectation of bettering their condition by any such process. If such a thought is uppermost in anyone's mind, nothing will tend so soon to dissipate it, as, by mathematical precision, to distribute equally the accumulated wealth of the nations. When the panning-out process is completed it is to be feared the calculator's dividend will be so small as scarcely to compensate him for his eminent services. His chief regret will be that he did not postpone the division until the world had become richer.

We are prepared to vindicate the non-sharing class in their ardent desire to reap larger benefits from the products of labor, but at the same time feel impelled to admonish them that we cannot champion their cause in the face of excesses that are utterly defeneeless upon well-established principles of Christian morality. Our conviction is that co-operation is destined to become the medium of incalculable and ever-increasing good to those who worthily participate in its seemingly well-assured possibilities. It aims to place those who embark in it in such relations that they will be chiefly responsible if a good degree of prosperity does not fall to their lot. The tendency of the system throughout, in its highest development, is to substitute

for predominating ignorance and apathy of workingmen, in respect to their moral and social condition, aspirations for a nobler existence more in unison with a permanent and exalted civilization.

It cannot be too often reiterated, that success in co-operation will be essentially promoted by having honest, earnest and intelligent managers to conduct the business. To incompetence and lack of fidelity can be traced more than all other causes combined, the failures in co-operation. It is of the utmost importance, therefore, that the men selected by the shareholders to constitute the executive committee, and those whose office it is sedulously to attend to the details of the business, should well understand the principles of the system at the outset, that no recurring disasters can be traced to a lack of educational training and fitness for their new duties.

The most enlightened and sincere promoters of co-operation do not regard the earning of dividends as the chief end of the system. It is, to be sure, one of the primary incentives to awaken and maintain an interest in the subject, and without adequate dividends as an inspiration, of course the form of co-operation we are considering would be short-lived. Not so with the civil service form, which, as we will show by and by, is in but one sense co-operative.

It is not to be disguised that failures in distributive co-operation do occur oftener than its friends would like to have them, for the shopkeepers gladly seize upon them and magnify their significance. It is conceded that about 33 per cent. of the stores started fail, generally in their infancy, and from causes so well understood and analyzed in co-operative circles, as rarely to have any other effect than to confirm the soundness of restore faith in the system. We quote from a debate in a recent congress held in Leicester, England:

"We have settled firmly in our minds that the system of conciliation between buyer and seller, based upon a partnership in profits and in shares, is right. It is with us a living faith, proved true by years of thought and watching and active experience. A thousand failures would no more shake our faith in the principle than a thousand bad priests or parsons would turn a religious community from the truths of morality."

If the records of commercial and other disasters in business life during the last century are carefully scrutinized, the proportion of failures, instead of being 33 per cent., would be nearer 75. This is

certainly true of our own country, and the preponderance of causes—excepting possibly the calamitous period succeeding the war—would furnish no unfavorable contrast to the English record of co-operative adversity. It will not be disputed, probably, that incapacity, inattention to business, and habits of associative and personal economy and dishonesty, grouped together, compass the procuring causes of a bulk of the world's failures. It is believed in England that financial and commercial causes very infrequently explain failures in co-operation, more especially in distributive co-operation.

Co-operative enterprises in England have been fruitful to such a degree as to encourage the non-possessors of wealth to regard them as the greatest boon to their class that has ever been matured. Vast numbers of that class are to-day partaking of the multiform benefits of the system. From an extremely humble beginning, it has grown in magnitude and subserviency to the material welfare of multitudes far in excess of what was contemplated by the unconscious pioneers of Lancashire and Rochdale. It may here be stated, as an item of interest, that the first experiment in co-operation was the outgrowth of the failure of a savings bank in Lancashire, which suggested the idea of devoting the income of wages to enhance earnings.

Any movement that tends to advance the toiling class to the use of methods designed to afford self-employment, presents an inviting aspect. Such is co-operation, not only in the abstract, but in its amply enforced illustrations.

In order intelligently to understand the operation of distributive co-operation, it must be remembered that the capital belongs to the workingmen, who are the shareholders. Upon this capital they receive 5 per cent., and $7\frac{1}{2}$ per cent. on their purchases. Now, what the workingman has to do, is, to become a shareholder and judiciously spend his wages at the store, and he is sure of a good dividend. In this country we are not in the habit, with absolute certainty, of anticipating dividends upon mercantile ventures. But these well-conducted store enterprises know in advance, with virtual certainty, at least, what their minimum dividends will be, and for the following reasons:

1. It is known who their customers are.
2. The prices are adjusted to yield a fixed dividend, current expenses being a fixed sum.

3. The sales are for cash, which secures the society against loss by bad debts.

Inasmuch as it is so manifestly the interest of the shareholders to trade at their own stores, no apprehension need be felt in regard to customers—hence the great saving of advertising.

We will mention in this connection another source of benefits which, if not of direct profit, are surely of recognizable advantage. We do not need to cross the ocean to have the extent and vileness of adulteration of food verified. It became such an intolerable evil in England that adulterative acts were demanded by the public. They are, however, very inadequately enforced, and so great is the grievance that the tendency is to promote the growth of co-operative stores, in which adulteration is not only not permitted, but it is so important a feature of the system that a united voice enforces attention to it. Consumers of every class well understand that there is both health and economy in abstaining from the use of adulterated articles.

This system of trading commends itself to the uninitiated in business pursuits by its very simplicity. The process of distribution of articles of consumption is so universal that familiarity with its general principles extends back to the childhood of every individual. Capacity, of course, as we have often stated, is indispensable; but it is not of the unattainable kind with the average skilled workingmen who are endowed with studious and industrious habits, and with enough ambition superadded to call into exercise their best faculties in the ordinary affairs of life.

It cannot be gainsayed that the principle of co-operation is capable of doing more to benefit the workingmen than anything previously tried. It is a plain and direct method of securing comfort and independence to those who have the will and aptness to adopt it.

In one sense it is combination, but unlike most modern combinations, the good is achieved without doing injustice to other parties. The gain to the co-operator is not a loss to be deplored by anyone else. The system is antagonistic to individualism. The latter has been the laboring man's method for all time, and if he does not approve of the new method he is at liberty to continue the old one. Robert Kyle says: "The sons and daughters of toil must work together in a collective capacity for their mutual benefit, and by helping one another they will most effectively benefit themselves. If they

would display the same ardent devotion to the extension of co-operative principles as they have done to the support and maintenance of trade unions, the day of redemption from their present depraved position would not be far distant."

Before referring more distinctly to productive co-operation, we will fulfill our promise to explain the "Civil Service Supply Association," which just now is engaging much public attention in England, more especially in London:

This association began with some members of the civil service, "who were pinched by low salaries and high prices." The movement was started when, as in our own country, fixed incomes were incompatible with prevailing high prices, and the London government employees resorted to this scheme ostensibly to supplement their salaries. The combination had for its object the supply of articles of ordinary domestic use, at as near wholesale prices as possible, the aim being to add to the original cost the cost of distribution. It was soon discovered that they not only saved money, but gradually obtained a much better quality of goods.

The gentlemen who took up this idea and carried it into practice, had previously given no special thought to what was going on in Lancashire respecting co-operation. They had, however, imbibed the primary lesson of the system, viz., that through associative effort advantages in trade were obviously as accessible to the civil service fraternity as to the carpet weavers of Rochdale.

The London postoffice employees are entitled to be considered the prime movers in this distorted co-operative scheme. The following prospectus was distributed extensively through all the departments of government: "This association has been formed for the purpose of supplying officers of the postoffice and their friends with articles of all kinds, both for domestic consumption and general use, at the lowest wholesale price."

It will be observed that the predominant idea unfolded in the above is low prices, and accordingly their rule is to sell articles cheaper than the ordinary shops, and if any surplus accrues it takes the form of dividends. No ulterior motive inseparable from selfishness appears to have actuated these clerks. It may be said in justice to them, and the way in which the movement was started indicates it, they had no expectation that within eight years they would sell \$4,000,000 worth

of goods. As a simple money-making, or more appropriately, saving, it was a grand success. Its tendency, however, is to increase consumption rather than capital, and the effect, to impoverish rather than enrich, since surplus earnings for beneficent purposes have no part or lot in the system. The true co-operative principle has thus been violated by this London innovation, and this is the reason why the founders of co-operation disown the civil service fraternity. They started upon the popular principle of low prices, which ordinarily captivates the multitude.

Like the Rochdale enterprise, in respect to capital and goods at the outset, it had very humble proportions, but its rapid growth far outstripped the "Pioneers." It is represented that so great was the expansion of the trade that in less than twelve months they moved three times, each into more ample quarters.

This unlooked-for success was a most peremptory appeal for additional capital, and steps were taken to re-organize the society upon a more extended scale. It may be imagined that by this time large accessions to the phalanx of shareholders and privileged traders would be forthcoming. The list of stockholders was readily increased to one thousand, each of whom contributed \$25, making the capital \$25,000, which was to bear five per cent. interest.

The first civil service store was located near the general post office. The rule adopted in regard to purchasing members was, that they should pay \$1.25 for an annual ticket, untransferable, which entitled them to the privilege of trading at the store. We do not perceive the motive for fixing the price of this privilege so low. It does not appear to be in any degree commensurate with its value.

This postoffice store had such unbounded success that a new society was organized to open a second store in what is called the Haymarket. The movers in this belonged to a somewhat higher grade of officials, identified with the State Departments, and extending to the Home, Foreign and Colonial; also to members of Parliament, Judges, Foreign Consuls, etc. With such an array of dignified shareholders and their complement of interested friends, there would seem to be no hindrance to the realization of inordinate results.

It could hardly be expected that this class of associates would be in close sympathy with that phase of true co-operation which chiefly aimed to promote economy and business morality among the masses.

The purpose of the civil service co-operative scheme was practically to supplement inadequate salaries of those associated with the movement, and others in like condition belonging to the middle classes. This is reprehensible only in so far as it claims identity with that original system whose distinguishing feature is to render through economy and savings invaluable service to those who are struggling with poverty and other adverse social conditions. "Co-operation is the necessity of the poor; it is not the need of gentlemen."

The civil service stores are not the only stores in London which have the semblance of real co-operation, but in reality are only commercial schemes, whose promoters appear to be infatuated with the economy of combination, and have recourse to it only to achieve commercial success in a limited degree, ignoring its well-attested intrinsic merits to advance nobler than financial aims.

Our London version of co-operation shows the difference between a genuine and a spurious co-operative store. Holyoake very well defines the two: "The market-price charging and saving store, and the civil service under-selling and improvident store."

A brief recapitulation of some of the benefits of the original co-operative store may be useful, viz.: It distributes all of its savings among the purchasers; it increases the means of the poor to the extent of their share of the profits, and this constitutes an impressive lesson in frugality; its tendency is not alone to add to present comfort and social enjoyment, but by thoughtful attention to personal interests, to insure modest competency. The influence upon the children of co-operative families in leading them to consider the many advantages growing out of the whole system of saving, and investing savings, is good; for children can at an early age, by intuition and observation, form habits of economy, and become quite skilled in the art of saving and spending money advantageously. It would seem to be impossible to devise a plan for saving more easily understood and better calculated to make early impressions upon young people than this. Youth is the period of life, as we all know, when all good habits are most easily and permanently formed. By a little parental or friendly instruction, it can be readily shown that this form of saving demands no sacrifice, for it is achieved without parting with any money or incurring any privation. If, when one becomes a shareholder, he or she has not got the full amount to pay, the profits on

their purchases are retained until the subscribed share is fully paid up, and then the dividends are payable regularly, with the interest on the share or shares.

We feel well assured there is no existing means of self-help which is so surely destined to diminish—we will not say extinguish—pauperism as co-operation. Prince Albert, at a public meeting held in London, surrounded by noblemen, said: "We, to whom Providence has given rank, wealth and education, ought to do what lies in our power for the less fortunate." With the above quotation in mind, Holyoke says: "The wealth of nature is given to all, not to the few, and co-operation furnishes means of acquiring it to all who have honesty, sense and unity."

It is not to be supposed that the establishment of a new scheme of distribution, with such probabilities of ultimately revolutionizing the entire system of trading, would be achieved without a struggle of great magnitude and endurance with rivalship combinations.

The shop-traders of London were not alone in their hostility to the co-operative movement in that city, for it was represented before the parliamentary committee that their influence upon the retail trade was felt in remote districts of the kingdom.

The opponents of the system, who were chiefly confined to the shop-keepers, succeeded in awakening such a strong feeling against co-operators that friendliness to co-operation had unseated several members of Parliament. In justice to the stores conducted upon the original working class plan, it should be stated that the opposition which the shop-keepers had aroused was almost wholly aimed at the civil service and army and navy supply associations. A petition was presented to Parliament, asking for the appointment of a commission to inquire into the constitution and operations of certain trading societies, trading under the name of co-operators. Mr. Walter Morrison, M. P., was one of the defeated members above referred to. In reply to some editorial criticism he wrote as follows:

"You seem to think that the societies there represented conduct their trade after the fashion of the civil service societies of London. I venture to assert that the very large majority of those who have at heart the continued prosperity of co-operative societies, deprecate that manner of doing their trade as earnestly as any retail shop-keeper. We hold that it is unfair to the latter, especially to the honest trades-

man, who sells genuine and unadulterated goods at a fair, living profit, that it degrades co-operation into a mere mercantile machine for cheapening the price of goods. From the Land's End to John O'Groat's there is not a workman's retail co-operative store which attempts to undersell the tradesmen of the locality. When tradesmen have combined to rattan the store out of the district by underselling it, the stores have not retaliated in kind."

At length Parliament took such action in March last respecting the wishes of the petitioners, as to secure the committee of inquiry, which has been judiciously selected, and is holding sessions once or twice a week. It attracts more attention than any committee which has sat this Parliament.

The range of inquiry extends to shop-keepers of every sort, representing not only London and its vicinity, but Scotland and Ireland. Among the witnesses may be found grocers, dry goods dealers, household furnishers, hardware dealers, druggists, etc. We have read the testimony taken at several of the first sessions of the committee. The drift of the evidence bears wholly and without stint upon the civil service system, excluding with becoming generosity the workingmen's co-operative stores upon the Rochdale plan, from their reprobation.

It is to be remembered that civil service stores are scattered over the kingdom to such an extent that of the \$100,000,000 distributive co-operative trade in Great Britain, about \$30,000,000, or one-third, is transacted under this obnoxious, imitative system. For clearness it will be well briefly to re-state, in contrast, the characteristics of the two systems:

1st. The civil service stores are conducted by and for the sole benefit of the various grades of government employees, including such of their friends as they choose to admit to the privilege of trading.

2d. It has no other object than to supply this numerous class with goods at as near wholesale prices as possible, with the cost attending the distribution added. Whereas, by the approved workingmen's stores, the goods are sold at ordinary prices, for the saving of joint capital, by joint action, for joint purposes.

An intelligent understanding of the London shop-keepers' crusade against the co-operative stores will best be acquired by a little insight into the testimony presented before the parliamentary committee. It is observable throughout that it is not co-operation in the abstract

that has awakened the animosity of the shop-keepers, but the exclusive participation of the civil service fraternity, or, as they more generally express it, Crown servants, in the business, that has inspired this hostile proceeding.

At an early stage of the inquiry, a witness was examined who represented the Westminster district, and also various town councils and municipal bodies of the country. He presented resolutions which had been adopted at conferences held under the auspices of the municipalities. He said, "they did not object to co-operation, but they objected to civil servants, whose salaries were paid by Government, attending to their trading organizations, and pay neither income tax nor stamp duties." He produced a statement of the civil service store in the Haymarket, showing that since 1867 it had increased in membership from 2,537 to 12,506, and in receipts from \$70,000 to \$3,300,000, in the last half year. He said: "The tradesmen generally did not object to co-operation, so long as it is conducted on a fair principle. They did object to the use of the names of 'civil service' and 'army and navy stores,' and to persons employed by Government acting as managers and directors of the stores. They objected to Crown servants giving any of their time to this purpose. They ought to give their undivided attention to their duties. They believed that these gentlemen, from their positions, had advantages as traders that the general tradesmen did not possess. The civil servants got well paid, and then retired with a pension, while they had to provide for the future of their children, and also to pay their quota towards the support of these men. They do not think that is fair.

* * It is believed that traders would be able to compete with these stores if they were not connected with the Crown. Traders who, through this unfair competition, had been obliged to reduce their establishments by shutting up half of their shops. It was a question of bankruptcy or reducing their expenditures. * * * Poor people are not permitted to enter these stores. I once sent a man with a ticket I had borrowed, and they would not admit him. If I had gone myself no questions would have been asked. He did not think the working people cared for these stores much, as they were under the apprehension that they were for the benefit of the upper classes. I would not object to a pensioner opening a clothing establishment, say, for his own benefit and in his individual capacity. The objection is to a federation of persons of this calibre."

We quote from another witness, who was a china and glass dealer. He said he "was a guardian of the poor for the parish of St. Marylebone, and had been an income tax commissioner for twenty years. His position gave him peculiar advantages in knowing the views of those engaged in retail trade. There was only one feeling generally amongst them. They had no objection to co-operation upon the Rochdale principle, but they thought it a very hard thing for the civil servants to engage in trade against those who have their income to find. During the last ten years the civil servants had accumulated something like \$500,000. He was sorry that some houses—about 216 in number—had lent themselves to this system by becoming affiliated traders, and who put on their goods from 20 to 25 per cent. It was the practice of his house to give 5 per cent. for cash, and any man who can take off 25 per cent. must necessarily have put it on first. It was only by competition that the retail trade of this country could be kept in its right position. When a trader of the stores brought a ticket and said, 'I want 15 per cent. off,' how was it possible for a man in his right mind to do it, unless the percentage had been put on? This was an easy matter to do in articles the value of which the public were ignorant of. Of course the civil servants were gentlemen, and he did not expect in this matter they were doing anything intentionally wrong. This great evil, however, they had brought about." The witness here produced a book stating what he thought was a very unfair thing; that one of these societies had honorary agents in Batavia, Calais, Calcutta, Ceylon, Zanzibar, and other places. He said they would understand that when the civil servants could have communication with all those agents, they had an advantage over the traders.

A member of the civil service was examined. He entered the civil service in 1864. "The association with which he was connected was formed with the view of benefiting the servants of the civil service by providing them with goods at a cheaper rate than they could be obtained at the ordinary traders'. The association had grown rapidly. It was found necessary to depart from the original plan of not admitting any one to the association who was not a member of the service. When I found the association did not pay income tax, I gave notice that I should move for an amendment of the association with the view of having it registered under the Limited Liability

Act. The reason why I wished for the alteration was that it might pay interest on its capital. At present a shareholder must die before his representative derives any benefit, whereas, if the association was registered, the shareholders might yearly obtain the interest of their capital. Up to the present time the whole profit made by the association was \$1,000,000. * * * If the system were extended to the large towns in the provinces, the result would probably be that a few large shops would supersede the numerous small shops now existing."

A tobacconist is examined—"I believe that the effect of a great development of this store movement would be detrimental to the trade of the country generally. It would affect the shop-keepers, in the first instance, and the community at large afterwards. I have great facilities for seeing the class of people who go to the stores. They consist mostly of the upper ten. They go in their carriages, and the lowest of them come in the hansom cabs. I never saw any of the working classes there. * * * It is impossible for the tradesmen to fight this battle over the counter against people who are provided for. I am compelled to contribute to the salaries of the civil servants, but the civil servants were not compelled to come to my shop."

This witness was asked to explain how \$450,000 of profit was made in so short a time, if goods were sold so cheap. His reply was, they have such an immense turn-over, and sell at large profits on some articles and without profits on others.

A grocer was the next witness—"I do not object to co-operation as a system; on the contrary, I am of opinion that although traders must suffer to some extent from co-operation, inasmuch as it inculcates habits of thrift and self-help in the lower classes, it had very much to recommend it. My objection is to Crown servants federating for the purposes of trade, [and in that he included the clergy.] * * * I think they are too favorably situated for enjoying a monopoly of government contracts, which would throw the door for jobbery wide open. * * * The Crown servants had facilities for gaining information which retail traders had not; especially was this the case through their agents abroad."

The witness read from a book published by the Civil Service Association, that their agents abroad were mostly British consuls, who undertook to receive and transmit orders, distribute lists of prices,

and give full information as to rules of the society, &c. He also told the committee that a cabinet minister, the Marquis of Salisbury, was a shareholder, which, he thought, imparted a *prestige* detrimental to private traders, by giving the impression that these are government stores.

The interest in this inquiry would be increased by more extended and diversified extracts from the testimony, but that would exceed the limits of the present occasion. Our purpose was only to indicate the general drift of the evidence.

The discussion and animosity that the civil service stores have excited throughout Great Britain, and which evidently have not yet reached their culmination, justifies our endeavor at considerable length to set before the reader the methods and agencies by which this gigantic and vigorous organization has attained its proportions and assailed popularity. It is a form of associative action that has no legitimate claim of recognition from the earnest promoters of the original system, whose primary and distinctive aim was and is to benefit the industrial masses of the population, through self-help, utilized in the most approved forms of co-operation.

It is by no means probable that co-operation will be the last devised agency for improving society. Possibly another generation will not come and go without witnessing contrivances in the line of social progress that will utterly supersede co-operation, though from the present standpoint of its progress it would seem to be an unavailing task to amend it. The system is susceptible of indefinite application in industry and commerce, and in all avocations and enterprises in which co-operative economy can be made available. This is an additional reason why we have dwelt at such length upon the Civil Service Association, and for what will immediately follow in respect to wholesale societies and industrial partnerships.

In all mercantile pursuits, wholesale and retail, the purchasing department generally has assigned to it the most experienced and best-trained member of the firm or association. The position of purchaser is therefore conceded to be the most important in the sphere of mercantile life.

When the co-operative stores of England began to multiply and extend their operations, the purchasing of goods assumed first importance, and at an early day the discussion of the subject became general,

and led ultimately to the establishment of central agencies through which the retail stores obtain the bulk of their goods.

It was natural that under the auspices of Rochdale the first organized agency for supplying co-operative traders with goods upon advantageous terms should take form ; but, as it was simply a wholesale adjunct to the Rochdale retail store, to supply a few neighboring stores, it was soon found to be inadequate to keep pace with the rapidly-increasing number of stores.

A conference was held at Manchester respecting the virtual transplanting of the Rochdale wholesale agency to that city, at which a committee was appointed to prepare a plan for establishing a general depot there for supplying stores in that part of the kingdom with groceries and provisions. A plan was matured and steps were taken to consummate the action of the committee. A copy of the following circular was sent to each society :

“At a conference of delegates from industrial and provident co-operative societies, held at the King street stores meeting room, Oldham, on December 25th, 1862, it was *Resolved*, That all co-operative societies be requested to contribute one farthing per member, to meet the expense that may arise. The purposes for which the money is required are, to meet the expenses of the committee in carrying out the resolutions of the conference—viz.: To remedy a few defects of the act of 1862 in the present session of Parliament ; to prepare plans for a central agency and wholesale depot, and consider plans for insurance, assurance and guarantee in connection with the co-operative societies. Therefore your society is respectfully solicited for the above contribution of one farthing per head.”

We will state some of the obvious advantages of this confederation of retail stores. Through this agency they experience economy in their purchases, besides having access to the best markets ; small stores and new stores, in their purchases, are put upon the same basis in respect to cost prices as the larger ones ; it tends to enhance dividends and equalize them ; business can be carried on with less capital, and with a diminished liability to accumulate dead stocks ; they have the benefit of skilled buyers, and a large saving of expense results from the subdivision among the confederates.

To maintain this agency, the first plan was to charge a commission upon goods bought for the societies ; but that was abandoned, and the

substitute adopted, was to charge for their goods a market price which was aimed only to cover current expenses of the agency.

As we proceed with the narrative of co-operative wholesale enterprises, the disparity between the initiative farthing movement and the subsequent results, furnishes another instructive exemplification of the economy of co-operation.

It is worthy of note that this wholesale experiment started in the midst of the cotton famine of 1864, and that will in part explain the loss during the first six months, and at the same time impart emphasis to the fact that the next six months made up the loss and paid a dividend on the capital of 62 per cent besides. Three conditions incident to the co-operative principle concurred in producing this unprecedented result—viz., small capital, light expenses, and the ready-money rule. The capital was \$10,000, working expenses \$1,335, and the amount of business done the first year about \$250,000. Lord Brougham's remark respecting the significance of this step was, "in its consequences, would promote co-operation to a degree almost incalculable."

The following table shows the progress of the Manchester Wholesale in fourteen years :

Year.	Number of Members in Societies which are Shareholders.	Capital, Share, and Loan.	Value of Goods Sold.	Net Profit.
1864.....	18,337	\$12,280 00	\$259,290 00	\$1,335 00
1865.....	24,005	35,910 00	603,775 00	9,295 00
1866.....	31,030	54,680 00	877,110 00	11,550 00
1867.....	57,443	121,040 00	1,278,895 00	17,260 00
1868.....	74,494	140,740 00	1,907,320 00	24,625 00
1869.....	77,686	188,925 00	2,345,851 00	17,920 00
1870.....	87,854	219,750 00	3,268,040 00	34,090 00
1871.....	114,184	246,310 00	3,638,685 00	40,190 00
1872.....	131,191	667,465 00	5,246,970 00	52,340 00
1873.....	163,661	982,890 00	7,659,750 00	70,220 00
1874.....	192,457	1,144,085 00	9,625,940 00	99,815 00
1875.....	241,829	1,802,135 00	10,516,130 00	119,080 00
1876.....	274,874	1,996,275 00	13,221,612 00	174,040 00
1877.....	273,351	2,072,310 00	13,952,385 00	166,370 00

Notwithstanding the unusual depression in trade throughout England during the last year, most of the co-operative stores have sold nearly an average amount of goods. Having the data conveniently at hand, we have abstracted a few items from the quarterly report of the Manchester Wholesale, for quarter ending March, 1879. The statement before us of the weight of the principal goods sold indicates a remarkable system and minutia in accounts, rendered necessary by the provisions of "The Industrial and Provident Societies Act," applicable to all co-operative institutions in Great Britain.

	POUNDS.
Sugar, syrup and treacle.....	11,683,257
Grain and flour.....	6,954,125
Green fruit and potatoes.....	3,751,911
Soap.....	1,737,120
Bacon and Hams (443,520 lbs. from America).....	1,714,406
Lard (39,301 lbs. from America).....	1,138,368
Cheese (672,672 lbs. from America).....	922,521
Butter.....	1,023,187
Tea.....	327,533
Coffee.....	155,635
Dried Fruit.....	575,930
 Drapery Department.....	 \$145,214 00
Boot and Shoe Department.....	53,010 00
Furnishing Department.....	21,542 00

"One pleasing feature in the balance sheet is that in no department, either distributive or productive, is there a loss. The net profit, after allowing for all expenses, interest on capital, and depreciation on buildings and fixtures, is £6,773 19s. 2d."—or \$33,870 for the quarter.

It will be noticed that in the above extract reference is made to production, which we will explain by stating that the Manchester Wholesale manufactures its boots and shoes and its soap. It has a large sum invested in engine works, a colliery and some other mechanical operations. And, moreover, it has recently built a steamship of 700 tons burden, which is named "Pioneer," and will be employed in carrying fruit and other continental products to England, taking coal and general merchandise outwards.

Between 600 and 800 retail stores are connected with this monster establishment. It never buys on credit or speculation. It knows

the number of its customers and the amount of goods required to supply them. It is said it has never met any losses by its customers, and from its first quarter, has declared dividends. Only co-operative bodies are shareholders. The rule is that a remittance must accompany the first order sufficient to cover the value of the goods ordered. Future accounts must be settled within seven days; if fourteen days elapse no more goods will be forwarded until previous accounts are settled.

This Manchester, or what is sometimes called the North of England Wholesale, had special claims upon us for a detailed presentation, from its inception through its marvelous history. The two crowning exemplifications of economic co-operation, in retail and wholesale distribution, will always be associated with Rochdale and Manchester.

We will only briefly refer to the remaining wholesale agency. The Scottish Co-operative Wholesale Society (limited) was started in Glasgow about eleven years ago—five years after the one at Manchester. It started with ample capital—\$25,000. The first year's business amounted to \$405,000. The fifth year showed a total of business of \$1,900,000 upon a capital of \$185,000. For the first five years, \$90,000 of profits, exclusive of interest, was divided. This agency, too, had invested, upon some basis unknown to us, in outside operations, for in 1873 the shareholders were astounded to learn, through the manager, that the society was under advances to an insolvent iron company to the amount of \$50,000. Not being able to make good this unexpected depletion of the society's capital by any appeal to the federation, it was determined to forego dividends until the capital was restored, which was achieved in four and a half years. The future success of the Glasgow Wholesale verged very close upon its predecessor at Manchester. A depot was established, both at Leith and Kilmarnock, and at the latest dates it was under consideration whether it would not be expedient to locate a branch in Dundee, in order to secure the trade of the northern retail societies.

The net sales of this wholesale society, for the quarter ending in May, 1879, was \$735,762.87—at the rate of about \$3,000,000 a year.

The subject of co-operative banking came up for consideration at the London congress in 1869. Upon that occasion resolutions were passed declaring it to be expedient to establish a Co-operative Banking and Credit Association, with a central office and branches. As

might have been expected, the discussion of the subject took a wide range, and was evidently not to be definitely settled at that congress. A conference committee was appointed to make a report at the next congress, which was to meet in Manchester in 1870. The committee prepared a paper for distribution among the societies identified with the Manchester Wholesale, which was accompanied by a number of queries to be answered by them. These papers were submitted to the 1870 congress, and fully discussed. The sentiment of the various congresses was divided between a separate society for banking, organized and conducted by co-operative societies and for co-operative purposes, and of its becoming a department of the Manchester Wholesale. The discussion was continued through several subsequent congresses. In the meantime the Wholesale established a cash department, with the view of developing a banking business, by utilizing the capital of the co-operative bodies and facilitating their transactions.

The societies have become accustomed to bank with the Wholesale, and the business has been done with mutual satisfaction and profit. The business has gradually increased so that the deposits yield profits sufficient to pay all its expenses and leave a considerable surplus. Unquestionably the confederate stores have derived great convenience and benefit from this banking department, besides the small dividends it has paid.

There is a growing feeling amongst the membership that the business of the Wholesale has become so large that the interests of the society would be promoted by an entire separation of the banking business from the trading; and the committee above referred to made a unanimous report to that effect to the congress held in Manchester last April, the change to be made at the end of six months, which will expire next October.

The only figures respecting the banking business we deem it necessary to quote are from the report of 1877:

	Receipts.	Payments.	Profits.
1876.....	\$26,546,994 00	\$27,199,435 00	\$17,550 00
1877	28,381,625 00	27,689,045 00	14,850 00

In addition to the banking department, there is also a co-operative insurance company, which was at first confined to co-operative socie-

ties, but the business is rapidly being extended to individuals and firms not connected with the co-operative movement.

The following figures are also taken from the report of 1877 :

	1876.	1877.
Number of Policies.....	1,332	2,248
Amount Insured.....	\$5,007,340 00	\$5,665,730 00

The Wholesale has a co-operative newspaper, and a co-operative directory, which is revised every year, and contains the names of all the societies in the United Kingdom, and a summary of information relating to them. It also publishes, in connection with the directory, a vast number of tracts and small pamphlets bearing on co-operation. In 1877 there were sold of these publications 85,927, and 90,750 were given away.

This chapter has already exceeded our contemplated limits, but as there is not much likelihood that the subject will soon be adverted to again by this department, we concluded that its growing importance would justify the fullest presentation in all the practical phases it has assumed in England. The success that has attended the movement in Great Britain must carry conviction to the minds of habitual doubters in this or any other country respecting the real merits of co-operation as a power for good to the masses of mankind, and the conviction can be no less absolute that the foothold it has gained where its greatest triumphs have been witnessed, strengthens the probability that the movement once fairly inaugurated will be no less successful in this country. At the outset, we have thirty-five years of English co-operative propagandism to illumine our pathway. American aptitude would be at fault if no advantage was gained by this antecedent experience.

What remains to be said will bear chiefly on productive co-operation, which is beset with more difficulties than the distributive form. It has, however, made good progress, and while there has been, as in the other case, many failures, there are some notable successes which sufficiently corroborate the most emphatic assurances in its behalf, enunciated by earnest, enlightened co-operators. It is to be noted that some of the successful productive organizations are connected with the large distributive societies. We have already spoken of the prosperous productive adjuncts of the Manchester Wholesale—viz., the boot and shoe, soap, biscuit, and fruit preserving manufactories.

There are numerous flouring and corn mills also most advantageously carried on by various distributive societies, but sincere friends of the co-operative movement are disposed to inquire, how do these co-operative processes render the workman his own employer, or bring about a more equitable division of the wealth produced?

The fact that distributive societies have made more headway than the productive, is owing in part to their having been first introduced, and a popular footing established in advance of productive enterprises. Moreover, distributive co-operation at the outset requires much less capital to make a respectable beginning, is much more easily managed, and results are sure to appear quarterly.

To conduct productive enterprises successfully and satisfactorily to the whole body of the co-operatives, requires something more than intelligence and skill in the special line of production. Generosity and forbearance, combined with a just discrimination in respect to the merits and value of services rendered by their comrades, is indispensable. Mutual confidence, a disposition to make the best of everything, and judicious economy, are pre-requisites of essential value. A self-sacrificing spirit must predominate, in order that the labor performed in this form of co-operative life receives its just reward.

We have intimated that in England there is readiness to provide capital for distributive societies, in the face of a reluctance to put it into the productive line. Inadequate capital is a commonly assigned reason why productive are so far behind distributive enterprises. Another reason of no less force in our view, is a disinclination to await results. Some one has very concisely said, distributive stores buy wholesale in the morning, sell at retail through the day, and in the evening meet together and divide the profits. Such agility as this is incompatible with production. Capital and faith are hand-maid requirements in this form of co-operation.

The reverses in productive co-operation have scarcely exceeded those under the distributive system. Robert Kyle says: "But their failures lie in human nature, and not in the principle." Hindrances have been met with through all the thirty-five years of distribution, and we have just shown that opposition is still vigorous in London. So it is in production; those whose interests are jeopardized by the advance of associated industry, will wage war against it until their force is expended. They have a manifest advantage in being in pos-

session of the markets, which their superior skill and tact in buying and selling will enable them for a time to hold. They will not surrender them without a struggle.

As soon as the working man discerns wherein his true interest lies, and learns a very important, and in co-operation, fundamental lesson—viz., to confide in his own class, he will throw off his apathy in respect to his social condition, and by educational and other appliances, qualify himself to adopt a new and assuring method, the tendency of which is towards independence and competency.

The mission of this productive system for improving the condition of the labor class, is to transform the millions who belong to it into partners and sharers in the profits of whatever business is prosecuted by the various associations; and the nearer the shareholders come to being an undivided body of laborers, the closer will be the proximity to the highest type of co-operation. But this ideal phase is not feasible in the first endeavors to organize productive societies, owing to the lack of experience and educational training of the great body of the aforesaid class. Production cannot be successfully carried on upon theory. We cannot jump from the old to the new system at one bound.

Intelligence and capacity of a high order are by no means rare among the industrial classes, and our own country is replete with examples of eminently successful business men—especially manufacturers—who were in early life artisans. But if associative industry is to be substituted for private enterprise, it is the many and not the few who are to be taught and trained in the practices and principles of co-operation.

We will give a summary of a section of a paper read at a recent co-operative congress, upon the method of teaching and training members. The first thing to be taught is that the object of co-operation is improvement. Improvement pre-supposes there is something wrong or evil existing, to escape from, and that there is something right and good to attain to; and further that we can escape from the one and attain to the other. In order to fix the motive, and to strengthen it to action, we should ascertain clearly and teach thoroughly the evils, physical, economic and social, that we have had in the past, and are still laboring under. It should be known and taught that the present system of competition does not adequately supply all the necessities and comforts of life. Some have, as at present arranged, more

than they can consume, while others, every way worthy, lack and go short. It should be shown how adulteration and fraud prevail in both supply and manufacture, until even practical and respectable men lose the very perception and knowledge of what is right and wrong, or that there is either standard or reality in these terms or relations. It should be taught that our present system and relations of supply and demand are both costly and ill-adapted to serve either the economic or moral relations of humanity; so that while five-sevenths of the operative population and their dependencies, as a result of the system, live 22 years from birth to death, two-sevenths of the capitalist section of the community and dependencies live from birth to death 44 years; and that these figures and results show exactly the comparative results of the working of unregulated private enterprise or selfishness; and even then the 44 years is much too short for either possible or proper human longevity.

In England the public mind has come to have a pretty clear understanding of the different phases of co-operation; whereas, with us, we are just beginning to gain an insight into some of its phases. But we still "see through a glass darkly." There is much confusion and widespread misapprehension in respect to definitions of terms. Holyoake is high authority in what pertains to co-operation, and as it is of first importance that we should understand at this early stage of this industrial movement in this country, we will quote a few passages from his history:

"The definite co-operative principle—the one maintained throughout these pages—is that which places productive co-operation on the same plan as distributive, and which treats capital simply as an agent, and not as a principal. In distributive co-operation the interest of capital is treated as a cost. Interest is counted as one of the expenses to be paid before profits are accounted. And in productive co-operation the same rule must be followed. * * * The members of the store contribute the capital which it uses, and the profit they make on their sales is the profit derived from the skillful use of their capital, and is not made upon labor except so far as the directors, managers and servants of the store may be counted workers, and they are seldom, as such, accorded a share of the profits. We do not apply the term co-operative to business in reference to the source of profit, but to the distribution of the profit. In a store, profit is not divided

upon the amount of capital invested, but upon the amount of purchases by members. The purchasers are in the place of workers—they cause the profits and get them; while capital, a neutral agent, is paid a fixed interest and no more.

“On the other hand, productive co-operation is an association of workers who unite to obtain profit by their labor, and who divide profit upon labor just as in a store they are divided upon purchases.”

The theory of productive co-operation, and the advantage of the principle of dividing profits upon labor, is very clearly exemplified in the following: The workmen should subscribe their own capital, or hire it at the rate at which it can be had in the money market, according to the risks of the business in which it is to be embarked; then assign to managers, foreman, and workmen of adequate experience and capacity, the minimum salaries they can command. Out of the gross earnings, wages (the hire of labor), interest (the hire of capital), all materials, wear and tear, and expenses of all kinds, are defrayed. The surplus is profit, and that profit is divided upon the labor according to its value. Thus, if the profits were 10 per cent., and the chief director has \$40 a week, and a skilled workman \$10 a week, the director would take \$200 of the profit, and the workman \$50. The capital, whether owned by the workmen or others, would have received its agreed payment, and would have no claim upon the profits of labor.

The principles and practice of co-operation are here succinctly set before the reader, and with the utmost clearness. It will be noticed that there is no chance in this narrated system, for conflict between capital and labor. It matters not, under the co-operative labor system, whether the laborer owns or hires his capital; it is virtually his own, and when the terms of the industrial partnership are complied with, capital is silent. It is simply a reversal of the old system of capital hiring labor and taking all its profits, and labor hiring capital at its market price, and itself taking all the profits.

Productive co-operation is, without doubt, the most difficult of any to carry on successfully, but it is nevertheless moving steadily on, and this assurance is pretty much all we will be able to say respecting its success. To undertake detailed narratives of the producing associations would unreasonably extend this chapter.

We have drawn attention to the Rochdale system of distributive

co-operation, to the civil service stores, to productive associations, and in concluding this treatise we will explain the joint stock companies, which claim to embody the genuine co-operative principle. Some of the original and staunchest co-operators, however, look upon this class of societies as being as much at variance with the original and true co-operative principle as the civil service associations are. At each of the meetings of congress there is more or less discussion respecting the merits and demerits of the joint stock companies, which are organized, not under the Industrial and Provident Societies Act, but under the Joint Stock Companies Act.

There is a band of very able, earnest and steadfast advocates of co-operation, who always attend the meetings and participate in the discussions of the essential principles of the system. They are all in practical sympathy with the primary object of co-operation, viz., to improve the condition of the industrial masses through associative instrumentalities, but as in all great reformatory movements, the work will advance in the hands of conscientious and zealous promoters, even when unity of sentiment does not uniformly prevail in their deliberations.

Joint stock companies are precisely what they purport to be, and the records show that one-half of the capital belonging to these companies has been furnished by the working classes. The opponents of this system claim that the substitution of joint stock companies for industrial societies, tends to speculation in the shares. As the capital of these companies is fixed, and the shares have no contingent value, there is obvious reason for such an apprehension. But in the case of the industrial societies there is no such temptation, inasmuch as the shares are entitled to regular dividends, which can be appropriated to payments for additional shares until the limit is reached, when their savings are safely and profitably invested. It is assumed by some that there is an advantage in this salable and transferable quality in the shares.

The joint stock companies are surely making headway in England, and it is undeniably a form of associative industry not soon to be supplanted. It is asserted that this is the only system by which workmen can procure capital in any proportion adequate to their needs for self-employment, which is well understood to be the *ultimatum* of co-operation.

There is a very general disposition observable to invest where the dividends upon the capital are the largest, and where that is the ruling principle, the joint-stock companies, thus far, are the most alluring. One of the prominent advocates of co-operation stated in a speech at a recent congress that he had been associated with twelve companies, and their premiums varied from 5 to 70 per cent. on the capital, and, in some instances, averaged from 15 to 20 per cent. He also said he had assisted in the formation of many companies, and not one of the number had failed. Moreover, that he could point to hundreds of instances of workmen, who had only \$5 a week in wages, receiving \$500 to \$1,000 in dividends from the store during 20 years, and he could point to thousands of cases in which members of joint stock companies had gained three or four times that sum in a quarter of the time.

Oldham, in Yorkshire, is the banner town for joint-stock companies. It has a population of 120,000, a large majority of whom are engaged in the manufacture of cotton goods. There are 70 cotton-spinning joint-stock companies in the borough with a share capital of \$20,000,000. Besides these spinning companies, there are 30 other manufacturing companies, with \$3,750,000 capital. Also 5 co-operative stores, with a united capital of \$1,000,000, doing an annual business of \$3,000,000. When fully at work, all these companies and societies do an annual business amounting to \$30,000,000, and realize a profit of \$3,000,000.

Fifty-nine of these spinning company shares were fixed at \$25, in order that the working class could become shareholders. To indicate the rapid growth of these companies in that single locality, 11 were formed between 1860 and 1872, and 59 in 1873-4-5.

Oldham is represented as having been one of the best wage-paying towns in England, and the work-people so independent "that if their employer did not suit them they dispensed with him." The general influence of these companies upon the saving habits of the people, and in an educational point of view, has been good. Between four and five thousand dollars a year is expended in the borough for educational purposes. Twenty-five news-rooms are maintained in connection with rooms for conversation and discussions. When we remember that five or six hundred directors, and twenty thousand shareholders and their children have to be educated and qualified to

successfully carry on these vast business operations, then educational appliances will be appreciated.

It will be observed from the preceding that the term co-operation has a wide range of interpretation and application. In its association with the great industrial movement which has scarcely a secondary place in public regard, the word has a distinctive signification, which is not, however, in full unison with the dictionaries.

In this country until quite recently, very vague notions existed respecting the purposes and precise methods of co-operators. But it begins to dawn upon the public mind that the system in its highest development, contemplates constituting all men who choose to avail themselves of its advantages, their own store-keepers, their own employers and their own landlords, thereby placing them in the path which, sooner or later, leads to independence and competence. Animated by such eminently worthy motives, the zealous promoters of the co-operative movement have achieved marvelous results, and raised the highest expectations respecting the future.

It has been said that time is on the side of co-operation. This is not only true, but there are unmistakable indications, abroad and at home, that public sentiment drifts towards the amelioration of the masses. This being the case, who can prepare a more brief and appropriate formula of principles to incite to humane endeavor in behalf of the great mass of mankind, than the following, which were adopted at the first Co-operative Congress in 1852, and which have been acknowledged ever since by all the societies belonging to the union:

1. That human society is a body consisting of many members; not a collection of warring atoms.
2. That true workmen must be fellow-workmen, and not rivals.
3. That a principle of justice, not of selfishness, must govern exchanges.

E. V. Neale, M. A., the General Secretary of the Co-operative Congress, who has devoted much thought and long inquiry to the subject of co-operation, says:

“There is one way, and one way only, in which the mass of the people can permanently improve their material position, and that way has three stages.

“1. They must unite to economize labor and increase production.

“2. They must provide for the equitable distribution of the products of industry among *all* who are concerned in producing them—

whether the contributors of present or past labor ; whether producers or consumers ; and,

“3. They must introduce well-concerted arrangement in their homes and the surroundings of those homes, so as to derive from the results of human energy the full measure of advantages or enjoyments which human power and will could secure for all mankind, if it took for its guide the steady light of reason, in place of the delusive flicker of self-seeking interest.”

William Nuttall is one of the most energetic and practical co-operators in England. He belongs to the working class, and is one of the most effective speakers as a delegate to the congress. He asked workingmen if it was not desirable to double their wages. They could do this by co-operation ; and they could also double the length of their lives. The average life of workingmen was 21 years, and of those who did not work, 42 years. He admitted that as his means increased through co-operation he became more conservative and less inclined to strike and grumble. He said it was one of the easiest things imaginable to begin co-operating by joining a store. The investment of a shilling to become a member would save him five pounds a year on his purchases. He said thousands of workingmen in Rochdale, Oldham, Leeds, Manchester, Glasgow, and hundreds of towns in England and Scotland, knew this to be a fact. He said, also, that the average capital required per head in the cotton, iron or coal trade was about \$500 to \$1,000 ; therefore, by becoming co-operators, they solve the problem of self-employment, and without any sacrifice. There was therefore no longer any excuse for workingmen remaining in the ruts of poverty and dependence. He was himself to blame if he did not use the store as a stepping-stone to comfort and independence. It was useless to ask capitalists for more wages, nor was it necessary to go begging for a privilege, when they possessed the right and the power to increase their own wages, and, in fact, as self-employers, to pay themselves what wages they please.

We have nearly exhausted our space, but by no means have we exhausted the arguments to prove that the co-operative movement is destined, socially and materially, to elevate the bulk of mankind. Its tendency is to develop forethought, honesty, economy and sobriety ; and this process of expansion will not stop short of the acquisition of

business talents. Then the workingman is in a position to achieve independence and become a capitalist.

Another tendency of co-operation is to remove a prevalent baneful delusion, that succor to the labor classes must come in some form from legislation, or some other central power or indefinable source.

Mr. Holyoake, in his recent address at Cooper Union, on co-operation, referring to the socialistic party, said: "The labor party to which I referred thinks that the help should come from the State. With regard to the merits of this proposition, so far as regards this country, I shall give no opinion and pronounce no judgment; I shall confine myself to what we think of such questions in England, how we treat them, and what we believe to be a proper extrication from the difficulties of the position. The cry of this party in Europe, then, is that the State, the government, shall assist them. Our plan is, that if the State will be good enough to leave us alone we will assist ourselves, and we begin to do it by co-operation. * * * We have long ago thought that if the working classes were to be extricated from the condition of dependence in which they unwillingly found themselves, it must either be done by fighting or by efforts of their own. When we had in England a free press, and were allowed to have public meetings without interference, we one and all held it to be infamous to conspire against the public peace. * * * Now, when we have a free press, as in England, the right of public meetings, and a free platform, we will do everything for ourselves. And we gave the government notice, when they gave to us these rights, that they should have no fear in future of violence or conspiracy or disturbance from us."

This system places the future welfare of the laborer very much in his own hands. He is now in the true path wherein his chief reliance is self-help—the essence of co-operation—and which, more than any other one feature, has contributed to its present success.

Finally, co-operation requests nothing from the State but such needful protection and facilities as will enable it to carry on its diversified operations unmolested. It proposes to create wealth to advance the public welfare, by universally recognized methods, which have been successful in the enrichment of multitudes of individuals the world over.

Since writing the above, our eye has rested upon a late quarterly report of the Manchester Wholesale. It would naturally be supposed that the depression in England would very much lessen the trade of co-operative institutions. To show that the beneficent working of the system can be relied upon, even in such an unparalleled emergency as has recently befallen the industrial classes of Great Britain, we quote from the last September quarterly report of the Manchester Co-operative Wholesale Society. It will be noticed that there was a falling off in the amount of business done, but it is represented that this shrinkage is chiefly owing to the declension in prices:

"The sales last quarter, which comprises fourteen weeks, amount to £673,363; and, as against £711,682, which represent the sales of the corresponding period of last year, show a decrease of £38,319, or 5½ per cent. We are most anxious to reverse this order of things, and, instead of a decrease, to show an increase. This can be accomplished with a little more determined loyalty on the part of the members.

"The net profit is £6,268 9s. 2d., and this we recommend shall be apportioned as follows:

	£	s.	d.
"Dividend to members on sales, 2d. in the £.....	4,957	15	4
Dividend to non-members on sales, 1d. in the £.....	191	1	11
Writing off bad debts.....	105	16	5
Carried to reserve fund.....	1,013	15	6

"The following is a statement of comparison of sales from the departments at our central establishment, Manchester. It is pleasing to note that, notwithstanding the depressed times, the furnishing department shows an increase of 17½ per cent. on the corresponding period of last year. We should like, with your assistance, to show better results in other departments:

	Correspond- ing period last year.	Quarter end- ing June 28th.	Difference.	Rate per cent.
"Grocery.....	£436,436	£404,338	£32,098	Decrease. 7½
Drapery.....	35,414	33,172	2,242	" 6½
Boots and shoes.....	19,496	17,444	2,052	" 10½
Furnishing.....	4,468	5,249	781	Increase. 17½
	£495,814	£460,203	£37,173	Decrease. 7"

PART VII.

TRADE ARBITRATIONS.

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CHAPTER I.

It would be very remarkable if self-interest and the sway of common sense and common humanity in combination, do not ultimately furnish methods for the adjustment of differences between employers and employees that will effectually secure harmonious co-operation and prosperity to both. In all communities and countries there is observable the utmost thoughtfulness in respect to topics bearing upon the relations of employers and employed. The multiplication of book and magazine discussions of these topics, abroad and at home, will, it is to be hoped, eventuate, sooner or later, in the discovery of some feasible device that will permanently obviate the hitherto evil consequences of combinations of every sort.

We do not conceive it probable that we shall soon witness any material abatement of a prevalent propensity to resort to combinations for the acquirement of influence and power in the pursuit of objects not otherwise so easily attainable; hence we may wisely employ our best capabilities, not so much to combat the system, as to discover how to guard against and to neutralize its liability to abuse.

In the first report of this department, it was incidentally stated as our belief that trade-unions are not necessarily evils, only as they may be misemployed, under the ascendancy of baneful influences. And in the same report will be found repeated expression of sentiments to the effect that what is essential to diminish the occasion of acrimonious conflicts between capital and labor, is a disposition on the part of the participants in such conflicts to practice absolute justice between man and man. This seems to be a very simple solution of the difficulty, and there does not appear at the moment but one obvious impediment in the way of its speedy recognition and adoption, and that is the predominance of the principle of *selfishness*. We will not

assume that either party is uninfluenced by this principle; hence the adjustment of differences must obviously be postponed, until the contestants discover that resistance to equitable conditions is no longer expedient.

It is scarcely conceivable that the industrial and social discontent, and antagonism with capital it has engendered, can be much longer endured by the multitude of private and public interests involved in their consequences. Unless restrained, will they not continue to paralyze indiscriminately the material interests of the State and nation by their inevitable tendency to dispossess capital and enterprise of all hopefulness in respect to our industrial and commercial future, which, in its prospective amplitude and diversity, is without parallel in the annals of the country? And is not this conjuncture of affairs suggestive of being an appropriate occasion for employers and employed to recall the recent years of hopeless and pernicious conflict, perilous alike to each, with the view to substitute, in similar perplexing emergencies, a system of business intercourse based upon such infallible principles of rectitude as will secure a just participation in benefits resulting from associative relations of this nature?

If the interests of the labor class have ever been promoted by strikes, we think the experience of the last few years has clearly demonstrated that they are no longer effective for such a purpose. This form of combination, it must be admitted, has been the occasion of untold sacrifices of laborers' earnings, and it is equally admissible that vast resources of their employers have likewise been extinguished by enforced idleness of capital and the deterioration of stock and materials, until a sentiment adverse to strikes and lock-outs is rapidly assuming sway in all industrial communities. The prevalence of this conviction surely imparts additional assurance in respect to the permanency of that restored prosperity which is so confidently anticipated in the near future.

We have no disposition to descant at length upon the utility or propriety of combinations and unionism—terms now employed to convey the same signification—but, in furtherance of the designs of this article, we will reiterate our belief that some form of unionism is indispensable.

For the adjustment of differences between employers and employees, a voluntary system of arbitration, upon some pre-arranged plan,

would be a practical substitution of a pacific for a hitherto aggressive one, and surely if good results can be reasonably expected therefrom, interested parties should not refrain from encouraging its adoption.

Boards of arbitration, organized to consider questions arising between parties engaged in industrial pursuits, relating to wages and other conditions of employment, do not preclude the fullest presentation of their respective claims for deliverance from alleged injustice, but in subordination to rules previously understood. To be serviceable, however, passive acquiescence in the decision of the umpire or the casting vote is essential.

Industrial arbitration, in some of its phases, has been on trial in England no less than twenty years, and as a device to supersede strikes and introduce harmony into trade circles previously the scene of turbulence and malicious distrust, it has a conceded value which has been conclusively verified through the whole range of industrial controversies in Great Britain.

Problems relating to political economy are being constantly solved in England and on the continent, which are scarcely less serviceable to advance European than American interests. This is especially true in respect to England and this country, in which the characteristics and capabilities of the respective nationalities are so much alike that solutions wrought out in one bear kindred practical relations to the other, and the results of which will inevitably be participated in irrespective of the priority of the achievement.

The principle of arbitration is clearly based upon the mutual dependence of capital and labor. The past few years' experience in industrial life must have rendered this truism respecting capital and labor impregnable. Indeed, it was never otherwise than a self-evident proposition, except under the deplorable sway of demagogism, which is responsible for more of evil in all countries than can be eradicated in at least one generation. But the process of eradication is hopefully going on in all centres of industry, but most noticeably in England, where class prejudice and discontent have a more remote and irrepressible antecedence than elsewhere. It is extremely appropriate, therefore, and of obvious utility to us, that industrial schemes of reform should be initiated in England.

We can conceive of no more humane employment of moral and mental faculties than in persistent endeavors to establish kindly rela-

tions between employer and employed. The transition period, in its relation to the interests of labor and capital, that is upon us, has no circumscribed limit in respect to place or phase of human progress. Such changes in social and industrial life as are already initiated are full of hope and promise, and if unimpeded are sure to achieve results having momentous relations to the welfare of the human family.

We will precede what it is our purpose to say respecting the practical working of arbitration in England by brief references to France, where the system is supposed to have originated under the auspices of the first Napoleon. And we cannot but regard it as singular that a system which has had such a successful career in France for three quarters of a century, in the establishment and maintenance of cordial relations between employers and employed, should prove so totally unsuited to a people engaged in similar industrial pursuits on the opposite side of the English channel. And it is affirmed that the same system transplanted upon American soil would probably meet with no better success.

Joseph D. Weeks, of Pennsylvania, was recently commissioned by the Governor of that State, to visit England and France to investigate the workings and results of the various systems of arbitration in operation in those two countries.

He appears to have become an undisguised convert to arbitration as a feasible and economic expedient to rid industrial communities of the all-pervading evil of strikes. In his view, natural laws are hopelessly unavailing in that class of industrial conflicts which are wont to culminate in strikes and lock-outs. We are in full accord with this sentiment, and are persuaded that conflicts of this nature betoken the need of a new rule of action, which shall embody moral integrity and staunch justice in the adjustment of differences.

We have already enunciated a belief that industrial grievances will not much longer be settled otherwise than by some organized and fixed method infinitely more pacific and humane, and assuredly more subservient to the united interests of the disputants than strikes and lock-outs have ever been.

We hope to present convincing evidence that arbitration and conciliation are destined ultimately to supersede strikes, and furnish employers and employed a uniform and efficacious system by which industrial struggles between vast combinations of numbers on one side,

and vast combinations of wealth on the other, may become reconciled and predisposed to mutual sacrifices to secure harmonious action. The reader is entitled to know upon what we base our conclusions, and we will therefore proceed to furnish the result of our researches, which are of necessity confined to England and France. Our chief source of information is Crompton's "Industrial Conciliation," and Mr. Weeks' report, which is the latest publication especially devoted to transatlantic experience in the workings of conciliation and arbitration.

We have already given France credit for initiating systematic arbitration in the early part of the present century, and this unquestionably led to the establishment of a modified system fifty years later, in England. Since the French "*conseils*" preceded all other attempts at arbitration, and in some sense are the prototype of systems subsequently devised elsewhere to promote harmonious intercourse between the capitalist and the laborer, for the benefit of those who are unacquainted with their mode of dealing with industrial dissensions, we will state in general that they are judicial and compulsory tribunals, numerous established in important centres of industry throughout France. Having the authority of law and the sanction of ministers and chambers of commerce, the decisions of these tribunals are clothed with a legality and impressiveness of commanding significance. They are composed of an equal number representing the two parties, and are authorized to determine all questions which have relations to capital and labor, and to the work-shop, but have no right to settle disputes respecting future wages or terms of employment.

The influence of these *conseils* and their peculiar adaptation to the French, is amply illustrated by the fact that more than 90 per cent. of the cases submitted to the courts are settled. In 1847 the 69 councils then in existence had before them 19,271 cases, of which 17,951 were settled by conciliation in the Private Bureau; 519 more by open conciliation, and in only 529 cases was it necessary to have formal judgment. In 1850, of 28,000 cases 26,800 were settled by conciliation, and no one will fail to recognize the great prominence the above figures impart to conciliation, thus rendering it the essential feature even in the French system. And moreover, this explains why the legal and compulsory feature of the *conseils* is repulsive to the Anglo-Saxon, and we assume it will be equally so to the Anglo-American.

There is an important difference between arbitration and conciliation, and here is the proper place to indicate the distinction that prevails in England, and likewise in its practical workings in France, where, as already shown, conciliation clearly had the ascendancy over arbitration in industrial reconciliations. The choice between the two, wherever they are introduced, will necessarily be determined very largely by the nature and magnitude of the questions to be submitted for action.

In its applicability to recurring disputes in ordinary industrial life, conciliation will obviously take precedence of arbitration because of the predominance of questions of insufficient magnitude to justify the intervention of an arbitration court. The terms "arbitration courts" and a "board of conciliation," are used to designate the two systems. Not in all cases does the importance of the question to be considered determine the mode of procedure. It is clearly desirable to abridge and simplify the process as much as possible, hence, when representative sub-committees can achieve the purpose in view, the full board need not be convened.

In England and in this country the great bulk of strikes and lock-outs are the result of resistance to demands either of labor or capital respecting wages. Open hostility, it is true, sometimes of the most turbulent and irreconcilable character, has been generated by prolonged controversy respecting prices of labor or hours of work, the asperity and duration of which are as often traceable to employers as to the employed. The early stage of controversies of this nature is manifestly the auspicious moment to exemplify the beneficent functions of conciliation. The best results will be achieved through its instrumentality, by a spontaneous and cordial conference between the two parties in advance of menacing agitation and acrimonious distrust.

When, therefore, friendly and systematically conducted conferences fail of their purpose, the opportunity is presented for the mediation of the more formal but still voluntarily constituted court of arbitrators representing both parties, though devoid of any legal status or compulsory functions. Mr. Weeks says that while Parliament has provided for compulsory arbitration, he could not learn of a single instance in which the authority had been exercised. The various trades in England have permanently organized boards of this character, but differing in their organic construction and capabilities for achieving good.

The two men who are alike inseparable from the movement we are considering in England, are Mr. Mundella and Mr. Kettle. The principle of arbitration, as a means of pacification between capital and labor, was discussed ten years in advance of its practical and permanent adoption. It was in 1860 that it became a recognized mode of dealing with conflicting industrial interests, irreconcilable through previously-adopted means.

Mr. Mundella was one of England's industrial notables. His sagacity and success have a three-fold illustration—viz., as a workman, a manufacturer, and in his advancement to Parliament. Having been a laborer and manufacturer, he knew full well that in all preceding industrial-labor conflicts, neither party was innocent in respect of responsibility for their occurrence—hence a remedial device from such a source could not be lightly esteemed. Conciliation had taken form in his mind as the system best adapted to settle differences arising between laborers and their employers. Mr. Kettle was a lawyer of considerable eminence, and his scheme of arbitration was the result of years of thoughtful application of the principles of common law to the adjustment of complications arising in industrial life.

It was in the hosiery trade at Nottingham that systematic conciliation was first tried in 1860. This branch of industry had a remote antecedence of reigning hostility between employers and employed. The year 1860 had been one of strikes in Nottingham—one of which lasted eleven weeks. The manufacturers became so restive and discouraged by their frequency and duration, that a general lock-out was seriously proposed. But the dispute had reference to wages, and, Mr. Mundella's counsel having prevailed, the workmen were invited to hold a conference with their employers—the men to remain at work. This afterwards became a pre-requisite—viz., that the boards would not entertain a proposition to consider differences after a strike had ensued.

The steps which precede a resort to the full board are the submission of the case to the two Secretaries of the board. If they are unable to reach a conclusion that is acceptable to both parties, the standing committee of inquiry, which is composed of two employers and two operatives, consider the points in dispute, and, if not adjusted by them, the last reference is to the board, whose decision is expected to be loyally acquiesced in by both parties. Mr. Kettle says:

"My experience of arbitration is, that when the masters and the men meet as men of business, and discuss their business matters together with perfect freedom, it is the greatest possible relief, both to the men and to the masters, that they appreciate the opportunity of coming and discussing the matter candidly and fairly with one another, and I have never found the men unreasonable, nor have I found the masters unreasonable. Sometimes I have heard untenable propositions enunciated on either side, but the general result is that they meet in a proper spirit and come to a satisfactory arrangement."

Mr. Mundella says:

"The very men that the manufacturers dreaded were the men that were sent to represent the workmen at the board. We found them the most straightforward men we could desire to have to deal with. We have often found that the power behind them has been too strong for them. They are generally the most intelligent men; and often they are put under great pressure, by workmen outside, to do things which they know to be contrary to common sense, and they will not do them. They have been the greatest barriers we have had between the ignorant workmen and ourselves."

The non-compulsory feature of these boards is recognized, both by Mr. Mundella and Mr. Kettle, as essential to their usefulness. They believe that compulsion is fatal to conciliation—preferring to rely upon the moral coercion of employers and the men over the individuals composing their respective bodies. Preliminary to all efforts at compounding differences in industrial circles is the banishment of existing jealousies, and the substitution therefor of honesty and sincerity of purpose in all business relations and intercourse.

A detailed record of the practical results of conciliation and arbitration in England would exceed reasonable limits, and yet we cannot otherwise so effectively present the subject for consideration with a view to its adoption in this country. It is an exceedingly interesting and important subject, and constitutes a phase of industrial progress which is entitled to more than a superficial examination in its relations to the interests of both capital and labor.

We learn from Mr. Crompton that a board, in no essential feature different from the Nottingham board, was formed for the hosiery trade of Leicester. In this case the composition of the board was made up of nine manufacturers, nine workmen, and six middlemen, three of the

latter being chosen by the masters and three by the men ; there is a standing referee appointed, whose decision is final in the case of a tie vote ; the committee of inquiry is composed of two of each party, and one middleman. This board is represented as having settled many difficult questions to the satisfaction of both parties.

Another board is described, which was organized for the Nottingham lace trade, and which has three different branches, each having representation. Six masters and six men represent one branch, the other two being represented each by three masters and three men. There are three committees of inquiry, each composed of three masters and three men, one committee for each branch of the trade. Every question arising out of one particular branch of the trade comes before the corresponding committee, and the matter must be considered by all the members of that committee before it is sent to the board. This board meets quarterly. Mr. Weeks says : " A large part of the credit of the success of this board, and of the change in the relations of the two classes, is due to the provision for regular meetings of the board. I do not hesitate to say that this is the most valuable feature of these boards. The great curse of industry, and the fruitful cause of difficulty, is a foolish obstinacy and a false pride. This arises in many cases from a want of knowledge and a lack of common courtesy in matters concerning both capital and labor, and in which both have an equal interest. This quarterly coming face to face, this meeting as equals—and, in all questions that can come before these boards, they are equals, and it is foolish to ignore this fact—and this discussing subjects of common interest like sensible men, seeking for the facts, and inclined to moderation and concession, if need be, have had a marvelous effect in removing this pride and obstinacy, and bringing about that respect and courtesy that must be at the basis of all friendly negotiations between capital and labor. These meetings have also given the men a knowledge of the conditions of trade and its necessities, which they could not get in any other way, and, from this knowledge, they have been led to moderation in demands or willingness to concede reductions that otherwise they would not have possessed. If the arbitration features were wholly removed from these boards, and they only retained this feature of quarterly meetings of recognized representatives of trades-unions and of manufacturers' associations, their adoption, generally, in this country would be produc-

tive of incalculable benefit." The committee have power to make binding awards, but only with consent of both sides, and not in cases where an award would affect others outside that branch. As in the Leicester board, there is a standing referee, appointed annually, who is not an umpire to preside over the arbitration, but simply a referee, who is appealed to in case of an equal vote, and whose decision is final. Mr. Crompton says this board "has been a complete success. Its constitution and rules appear to me the best I have seen. The representative character of the board appears to have two results; one, of satisfying the men that their case has been decided by men who really understand the facts; the other, that the work of conciliation is done by the parties actually concerned, and not by strangers. The plan reduces the interference of strangers to a minimum, which is the very essence and principal merit of industrial conciliation."

The extent and variety of the iron industry of England affords scope for the achievement of some prime results in industrial reconciliation. Where these boards have been instituted, their influence has been in a high degree elevating and educational. Those who have witnessed their workings and participated in their benefits have been insensibly led to recognize the real advantage the sway of reason and equity has over distrust and inveterate hostility. The systems adopted by the various boards, to control their actions and lead to equitable conclusions, must necessarily exact from all the parties concerned searching inquiry and intelligent discrimination. There is, therefore, an obvious need of special attention to individual qualifications for service upon these boards. This necessity will surely awaken a spirit of intellectual emulation.

Mr. Crompton regards the success which has attended the action of the boards in the North of England iron trade as one of the most hopeful events of the present time, and argues therefrom the applicability of the system to every phase of industrial life. When we recur to the brief history of this widely-extended district, in which the iron industry has risen to its present magnitude within about twenty years, recent triumphs of arbitration and conciliation in this large industrial community, have an assuring exemplification of their pacific influence. For years previous to the trial of the new method, unrestrained antagonism had imperiled the prosperity of all classes. Strikes were of frequent occurrence, and wrought no good results to

either party. One strike lasted four months—at the end of which the reduction of wages was acquiesced in by the operatives. The condition of the trade made still further reduction of wages necessary. But at length the time came when an appeal to the masters for an advance of wages could not reasonably be resisted, owing to the dawn of brighter prospects.

The industrial tribunals, which had been so influential at Nottingham in harmonizing capital and labor, were beginning to excite an interest in other discordant communities. It was deemed best to take some preliminary steps towards an organization, the tendency of which would be to diminish existing antagonism between capital and labor.

The first practical step was to convene, for consultation, representatives from both employers and employed. A spirit of mutual conciliation seemed to prevail at the outset of this new departure, the result of which was the appointment of a committee to prepare a plan for the organization of a board. Upon the subsequent presentation of the report, it was carefully considered and adopted.

To indicate the existence of a friendly desire on the part of the operatives to establish friendly relations with their employers, we learn from Mr. Crompton that at the beginning of the year 1869, when this board was established, it represented 35 iron works, and more than 13,000 operatives subscribed to the board, besides large numbers of dependent men who did not subscribe, but who were nevertheless glad to sanction the adoption of measures to obviate strikes. It is stated that there were in the district 2,136 puddling furnaces, and of this number 1,913 are represented in the board.*

Since the existence of this board there have been six arbitrations relating to wages, in which both advances and reductions occurred, and all parties loyally acquiesced in them. It is represented that the wages of all the English rolling-mills, for the last ten years, have been settled by arbitration. A good degree of forbearance and patience was unquestionably called into exercise whenever the decisions of the boards came up for discussion and approbation, but the record, throughout, of all these arbitration proceedings, is full of hope, and is indicative of a moral change in public sentiment in respect to the method of adjusting industrial differences.

* See in part VIII. the rules of this board.

We have narrated the success of arbitration and conciliation in the iron industry. This successful trial of the new method to establish peaceful relations between the working classes and their employers, has furnished a text for advocates of the system in various localities. In a reformatory aspect, it would have been exceptional, had the discussion of the subject invariably led to instant recognition of its probable benefits to capital and labor. In respect to the attempts to introduce the scheme into the South Staffordshire iron trade, while a large majority regarded it with favor, in order to maintain the invaluable voluntary principle unimpaired, no disposition was manifested to unduly press the subject upon the minority. Such an interest had been awakened in the subject, that the operatives in this locality concluded to organize a board based upon two local unionist associations, at the outset excluding non-unionists and all other outsiders. It was a partial failure, however, but subsequently the South Staffordshire iron trade established a board, differing in its constitution from the North of England board. Twelve masters and twelve operatives composed the board. The board elect a president, who is not connected with the iron trade, nor is he clothed with any authority to determine questions, except when it is rendered necessary by a tie vote.

It will be observed that this is a very simple and inexpensive mode of settling ordinary industrial disputes. Provision is made for the adjustment of more complex questions by reference to special meetings of the board somewhat differently constituted. Mr. Crompton says:

"It seems almost superfluous to say, that in the working of these boards every effort ought to be made by both sides to come to a decision, and not to let the fixing of large questions depend on the casting vote of the president. This has, I believe, been done in the Nottingham hosiery trade. Much must depend on the moral attitude and feeling of the actual members of the board. The Nottingham boards have shown that the secret of successful conciliation is the firm determination to agree, and not to differ."

We do not think it essential to the purpose of this treatise, that we should delineate the achievements of arbitration and conciliation through all the various industries in which they have been experimented with. Neither would we be justified in assuring our readers that invariable success has attended the establishment of these boards.

The able English advocates of this new system, while they entertain the most sanguine convictions of its ultimate destiny to supersede all previously-tried methods of harmonizing industrial disputes, are obliged to admit that all first attempts were not successful. But in most cases the failures were from causes not tending to impair confidence in the systems.

It is obviously true that arbitration and conciliation are not so readily available for scattered as for concentrated groups of industries, hence greater emphasis has been given to their workings in the iron trade. Mr. Crompton says that arbitration in the coal trade is as much an accomplished fact as in that of iron, and yet through provisional, and not permanent boards. There is practically no difference in the composition of the boards, both sides being represented, and an independent man chosen as umpire. Mr. Kettle was umpire in one of the Northumberland coal districts, in a board composed of four, two from each party. He thus defines the constitution of the court: "We are one body of five; and if, by and by, it should be found that you are two and two, and, therefore, cannot arrive at a conclusion, the decision will be with me; but until that time arrives you are the judges, and I am only assisting you."

In 1877 the employers in the Northumberland coal districts notified their men that they intended not only to reduce wages but to abandon the system of free houses and free coal. This double-acting curtailment of wages resulted in a refusal to arbitrate, and a turn-out of twelve of the fourteen thousand men in that district. It was not long, however, before the men concluded to accept the offer to arbitrate. Each side appointed two men, and a member of Parliament, Mr. Herschell, was selected as the umpire. There is too much detail in this case to insert here, but both sides gained points, and the principle of arbitration made a point also. But later in the season another reduction and another strike occurred, which continued eight weeks, when the reduction was accepted and work resumed.

In the Durham coal district, where there are fifty thousand miners, it is represented that arbitration has a good footing. From 1872 to 1877 there was a succession of reductions in prices, with but a single advance. All of which were accepted, with occasional wry faces. Arbitration and conciliation were the agencies to effect this pleasing result.

The memorable seventeen weeks' strike of 120,000 men in South Wales in 1875, (whose loss of wages is stated at about \$20,000,000,) was at length adjusted by conciliation. Subsequently, in 1876, the adoption of a sliding scale was satisfactorily effected and renewed in the two following years.

If conciliation can gain triumphs in a community of Welsh miners, hopefulness ought to predominate in other circles untried.

While "reason and calm discussion have pre-eminently taken the place of force" in the Durham coal district, it must be admitted that the instability of the coal trade has been somewhat of a barrier to the smooth working of arbitration, but Mr. Crompton thinks this will be overcome when boards become permanent. The instances of refusing to arbitrate are becoming rare. Discontent sometimes arises with the minority, but after a little sulking it subsides.

Unionism among the men is throughout regarded as an essential pre-requisite to successful arbitration, but in a less degree where education and a higher morality prevail. The main feature of the system is a firm and unquestioned compliance with the awards, and herein permanent organizations and good leadership become the indispensable handmaids of arbitration and conciliation, wherever they have been introduced.

It will be observed that we have thus far exemplified the workings of arbitration and conciliation in the two leading industries, which, in all countries, have a natural tendency to become centralized—viz., iron and coal. It remains for us to show that this system of settling disputes has been satisfactorily elucidated in many other industries—indeed, more than our space will permit us to refer to. The record teaches us that throughout England the working classes are practically united in ascribing great value to courts, or boards of the character we are describing, for adjusting recurring disputes between themselves and their employers. As evidence of industrial progress in England it is undeniable that there is an increasing repugnance to strikes among the operative classes, hence, whenever and wherever the subject of arbitration is brought to their attention, there is discovered to be more or less readiness to accept this new and peaceful mode of settling labor questions. And this hostility to strikes, and unreserved predisposition to adopt an enlightened and rational substitute for them, shows the value and importance, in the endeavor to solve social and

moral problems, of employing a few advocates of conspicuous probity and high-minded generosity, to prepare the way, and thus facilitate the advance of reforms in industrial life. We believe that a trio of such men as Mundella, Kettle and Odger could vastly promote the abolition of industrial struggles in this country, by the advocacy of courts of arbitration and conciliation, upon the English plan.

We cannot dwell at length upon the success and non-success of arbitration and conciliation in all the industries not yet touched upon. Where failures have occurred in England, the cause sometimes attaches to the masters and sometimes to the men. Then, again, to neither, but the system is found to be impracticable, owing to the dispersed condition of some branches of industry, and the lack of co-operation among both employers and the operatives. We repeat, that the grouping of industries and highly-organized associations are indispensable requirements. For example, at the present stage of the movement, a board would not be practical among carpenters, bricklayers, painters, masons, plasterers, &c., &c., except possibly in large cities, for they are not sufficiently aggregated to promote local organization for these purposes.

Mr. Crompton's belief is that district boards to embrace all the building trades will soon be established, to be worked by means of sub-committees drawn from the different branches—viz., carpenters, masons, bricklayers and painters. Real difficulties do exist, but they are better understood, and are being gradually overcome. Unsatisfactory relations between employers and operatives will continue to engage the attention of thoughtful minds and specialists in these and kindred practical problems, until virtually none remain unsolved.

In 1865 Mr. Kettle started a board of arbitration in the builders' trades, which worked with the utmost satisfaction for about ten years. Owing to an unfortunate difference of opinion respecting the decision of the umpire in some case in which the bricklayers were particularly concerned, they rejected the award and withdrew. But the continuance and usefulness of the board was not seriously impaired by the withdrawal. Another case in the builders' trade is found in which employers were dissatisfied with the decision, and expressed sentiments hostile to arbitration. So the system has encountered opposition in the ranks of both parties, but not in a degree to dishearten its advocates or dispossess them of faith in its final triumph.

The Staffordshire potteries furnish an encouraging presentation respecting conciliation and arbitration, extending back to 1868, based upon the Nottingham organization. When arbitration is resorted to in this trade, a standing referee presides over all meetings of the board, and, in the event of an equal vote, his decision is final. When conciliation is the method of arranging differences, the President presides. Trust and confidence appear to have characterized the intercourse between the employers and employed in the pottery trade, in a very large degree, previous to the establishment of boards of conciliation. A manufacturer in this trade thus refers to these pre-existing amicable relations: "I may say, long before we had our board formed, we settled our disputes on the same principle, by fixing on two workmen and two masters, and I never remember a single failure, but we always prevented a strike. We have not had a turn-out in the potting trade for more than thirty years."

We could extend examples of this system of industrial conciliation and arbitration, with attendant degrees of success and failure, through other industries, if we felt that the instructive illustrations, already selected and dwelt upon at considerable length, do not conclusively foreshadow ultimate deliverance from the vast evil of strikes and lock-outs. It is not claimed that the system we are endeavoring to enforce is by any means perfected; but it must be conceded that the essential principle of justice embodied in it will be efficacious in the development of mutual trust in all industrial circles, and the reconciliation of difficulties between employers and employed thereby greatly promoted. When both parties recognize and establish upon principle this new method of settling disputes, they will be surprised how serviceable reason and common sense can be made in assuaging animosities and restoring pacific relations between disputants.

The substitution of this rational method of uniting discordant bodies of men, whose mutual interests are manifestly imperiled by an uncompromising attitude of hostility, will develop an enlightened foresight that will surely diminish, and in time dispel, serious apprehensions in respect to strikes and lock-outs. Crompton thinks there are sections of England and certain trades in which there has been no apparent improvement in the relations and business intercourse between employers and employed. But he assures us that when we survey the struggle by labor to achieve freedom in England from the

beginning, there has been great intellectual and moral progress pervading the two classes. He says: "If the right aspiration for every citizen is to be independent and free—that is, not subject to arbitrary power, but dependent only upon just laws—the same aspirations must inevitably appear right to him in his capacity of workman. * * * The authority of employers is not necessarily undermined by the men becoming more independent. The complete independence of the working classes is inevitable, and only a question of time. The sooner it is realized the better. And while the workmen ought not to relax their efforts, the employers have to accept the facts, and help their men to obtain an independence which is the only sure foundation for a higher and nobler authority. * * * The independence of the working classes does not constitute the industrial progress, but it is a prime factor in that progress. The obstinate refusal to acknowledge and accept this fact can only bring about in the future a renewal of the deadly struggle which has taken place in the past, and is therefore to be condemned as conduct contrary to the interests of mankind. A superficial view of the industrial battle-field might lead any one to believe that war on a larger scale than ever was now imminent between capital and labor. On each side are massed larger forces, arrayed for war and ever increasing in numbers, in material resources, in skillful leadership, and in organization; on each side all minor causes of dissention and disunion are put aside, such as individual interests and personal animosities, that a united front may be presented to the common foe. But this would be a false and delusive picture—the dark side only. The bright side is very different—full of hope and full of promise.

"Increased organization, whether of masters or men, or of both, means decreased war. Though more noticed, strikes occur less frequently. When there is a strike or a lock-out, though the area is greater, the contest is less bitter and intense. Moral and intellectual pressure has a greater coercive effect upon both sides. More attention is paid by each side to the views of the other. There is far more restraint. Wiser and more prudent counsels tend to prevail. The strike or the lock-out has less of the character of war to the death. Each side presents less of the stiff-necked, dogged resolve to yield nothing, but fight it out to the bitter end."

Mr. Crompton presents us above with specious conclusions respect-

ing what has been achieved in England within the last ten years by arbitration and conciliation. He also ascribes to their influence intellectual and moral progress among employers and employed, each of whom have been constrained to recognize the necessity and advantage of having their actions scrutinized by public opinion. There is an unmistakable drifting of sentiment from the old to the new order of things. The complete legal independence of the working classes was consummated by the recent enactment of the labor laws, and he concludes that industrial independence must follow. He thinks it is obviously true also, that the success which conciliation and arbitration have thus far met with, is owing to the fact that employers have in reality recognized the independence of the men by their habitual disposition to treat with trades-unions, in which resides the real strength of the working classes.

Friends and foes of the system must alike admit that its promoters have achieved results in its behalf, which are irreconcilable with an unpromising future. With Crompton, we entertain the fullest confidence in the ultimate triumph of conciliation and arbitration as a beneficent corrective of existing evils in the various branches of human industry; but its realization upon a scale adequate to our needs, will largely depend upon the degree and timeliness of moral transformation penetrating the opposing forces, without which maximum attainments of success under the system can scarcely be expected.

Having concluded what we have to say in reference to foreign conciliation and arbitration, but little can be said respecting kindred experiments in our own country. It is quite probable that much has been done here, in the recurrence of industrial entanglements, which partakes of the nature of conciliation, but it is so informal and diffused, with a single exception, as to preclude embodiment for the present purpose.

It will not be disputed by anybody that progress has been made in America as well as in England, affecting auspiciously the relations between employers and employed. There is throughout evidently a longing for better things, and we think, too, there is a conviction rapidly forming in the public mind that foreshadows the necessity for a new departure in business and social intercourse encompassing all industrial society. It would be futile to anticipate that the substitution of any humanly-devised expedient will put an end to the discon-

tent and alienation which are well nigh inseparable from industrial pursuits. But it is an exalted philanthropy that possesses the minds and hearts of those whose far-seeing aims and purposes are engrossed in the endeavor to diminish the evils of labor conflicts, and improve the social and domestic condition of every class of employees.

The exception referred to respecting arbitration in this country is that of the Crispins in Massachusetts. We know of no record which so fully sets forth the doings of the shoe manufacturers and their workmen as is found in the Massachusetts Statistical Bureau Report of 1877, and we take the liberty of abridging it for the present purpose.

We will only abstract from this interesting history of the order of St. Crispin a few points relating to their organization. The shoemakers first organized in Milwaukee in 1867, under the name of "The Knights of St. Crispin," with a constitution restricting the members from teaching their respective trades to anyone without special consent. The principles of the order were soon disseminated through the country, and this led to an international organization in Worcester, Massachusetts, in 1869. This was during the stage of the shoe business when the introduction of steam power and other improved mechanical processes tended to concentrate the business into the larger firms, and convert the small manufacturers into semi-sympathizers with unionism in the hope of maintaining the rate of wages. The inevitable effect of this new system was to incapacitate large numbers of small manufacturers with limited means from continuing to be producers, and transfer them to the monotony of machine-tender operatives.

Intelligent members of the Crispin organization willingly conceded that their suddenly-acquired power had not been in all cases judiciously exercised. Their rules were unjust and arbitrary, and no disposition was manifested on the part of the committees to refrain from a literal enforcement of their provisions. This indiscreet and irrational persistence in wrong-doing could not otherwise than intensify and perpetuate ill-feeling. The rules conferred such powers upon the committees, that, under the guise of constructive grievances, manufacturers were subjected to vexatious interruptions and interferences with their workmen to such a degree as practically to deprive them of control of their own business. When the order assumed to restrict their

freedom to employ any who were willing and desirous to work, and as long as they choose, and to discharge when they pleased without outside interference, the manufacturers felt that the grievance was on their side, and of an intolerable character.

The record continues at considerable length, with recriminating details involving both parties in more or less insincerity, and lack of either capacity or disposition to treat and adjust their differences, upon an impartial basis.

In all communities visited by industrial controversies you will find representative men among both employers and employed, whose convictions and endeavors are displayed in the cause of impartial justice in its bearings, not upon individual interests alone, but in its relations to the public welfare. Unfortunately, however, in most cases these men are in the minority in their respective classes, but the principles they represent are a leaven that works. We have already shown that it has and is still at work in England. America is no less worthy and sure of its triumph in the lapse of time. The typical manufacturer referred to, recognizes the right of workmen to organize, and in all proper and lawful ways to protect and promote their own financial interests; that the labor class is entitled to a liberal and forbearing policy on the part of their employers; that in the settlement of terms of employment, and in all business intercourse whatsoever, the kindred principles of equality and reciprocity should have sway to shield both parties from the enforcement of harsh conditions.

The typical workman entertains views in respect to what is essential to the welfare and prosperity of his class, which are comprehensive and in every aspect liberal and just. He believes that unionism has often been exacting and arbitrary to such a degree as to have been vastly prejudicial and detrimental to the united interests of employers and employed, but such undesigned consequences are likely to flow only from the abuse of its functions. The workingman cannot claim that the principle of combination has a value, chiefly to be made available in the interests of his class. Its instrumentality for good under the guidance of judicious and guileless men, has been repeatedly illustrated, but with inexcusable lack of frequency. It is to be hoped a higher progress will bring better results in the future.

In 1870 the shoe manufacturers in Lynn, with exhausted patience, determined to unite, if possible, in an effort to save their business,

which could only be done by making terms with the workmen. The preliminary step in this direction resulted in each party selecting five to agree upon a scale of prices.

It is proper here to state that the appointment of this joint committee was effected by means not in entire unison with the body of manufacturers, but it was subsequently generally acquiesced in, in the hope that good would result from it. In July, 1870, these committees held their first meeting, and after two days of discordant and unpromising negotiations, a list of prices was adopted, to last one year. In our view there was occasion for more rejoicing and mutual congratulation over this agreement than appear to have been exchanged between the belligerents. Except among the Crispins, the achievement was not much enjoyed, for the arbitration scheme, which had not become popular with the manufacturers, had made a point it would be indiscreet to ignore.

The year passed with more harmonious co-operation than was anticipated at its inception, and it was by all conceded that during the two years the scale of prices the conference had fixed prevailed, were years of unusual prosperity in the city of Lynn, and another scale of prices was agreed upon by the action of a second joint committee selected for the purpose. But the second year was not to elapse in peaceful relations, owing, as alleged by the Crispins, to an infraction of the contract by the manufacturers. The Crispins represent that they repeatedly tried to convene the board of arbitration, but the manufacturers ignored the existence of any such board, and persistently declined to confer with the disheartened Crispins.

There is reason to think that the manufacturers were not wholly without excuse for the unfriendly attitude assumed at this period towards the Crispins, for it seems to be conceded that their membership had become considerably demoralized, and manifestly less under the control of those who were best qualified to govern the actions of the order. The manufacturers allege that the Crispins had fallen into the hands of demagogues, and therefore were no longer worthy of confidence.

On the other hand, the Crispins charged the manufacturers with treachery and all manner of injustice and duplicity. By this time the parties had become so exasperated that negotiations respecting prices for the third year were repulsive to the manufacturers. But the

dauntless Crispins addressed a circular letter to all the shoe manufacturers in Lynn, notifying them that their committee was ready to meet a similar committee from them to arrange prices for the ensuing year. To this communication no response was made. Soon after, however, some of the large firms notified their workmen of a purpose to reduce prices of some of their machine work, otherwise they could not compete with manufacturers out of the city. This brought on renewed acrimony, mass meetings of Crispins and the usual accompaniment of resolutions, intensely belligerent. Attempts on the part of the Crispins to interview manufacturers through the medium of committees disclosed increased firmness to resist all appeals from that source, and this spirit is reiterated in the following: "*Resolved*, That it is for the best interests of the city of Lynn that every manufacturer manage his own business, irrespective of any organization." This was soon followed by an agreement of the manufacturers that after August 10th, 1872, they would not employ any person subject to, or under the control of any organization claiming the power to interfere with any contract between employer and employed. The effect of this action was that more than 2,000 workmen surrendered their places rather than leave the Crispin order.

The Crispins held a mass meeting, at which resolutions severely censuring the action of their employers were passed. With great emphasis they repeated their purpose to maintain, "at every hazard, our right to belong to and participate in any organization—social, industrial, religious, political or beneficiary—which in our judgment is wise and proper; and any attempt on the part of any one to abridge or obstruct such right is a vile and indefensible interference with personal liberty."

Determination was depicted in the utterances of both parties. The men were notified that there would be no reduction of wages, but it was for them to determine whether they would withdraw from the Crispin organization, pursuant to an agreement entered into by their employers, or surrender their benches and seek employment elsewhere. With one voice they chose the latter, and the streets of Lynn swarmed with idlers. At the expiration of seven days the manufacturers were invited to consider a proposition, which, as it contemplated no withdrawal from the organization, was rejected without a moment's consideration.

The manufacturers opened their shops and resumed business with such aid as they could command. It was not long before the men began to relent, under the pressure of a hopeless prospect before them, and by the 24th of August the strike was practically terminated. The Crispin organization collapsed, and relinquished its organic identity with the Grand Lodge early in 1873.

It will be remembered that all kinds of business were terribly depressed for two or three years subsequent to 1873, and prices of labor were so low as to excite the commiseration of the shoe manufacturers, and incline some of them to regard with favor a re-organization of the workingmen under the name of the Shoemakers' League, in 1875. But, before the end of the year, an organization under their former ritual, with the title of "Unity Lodge, K. O. S. C.," was substituted for the League, and before two years passed they had thirty-one new lodges in Massachusetts, with 3,000 members. These lodges are represented to be in a prosperous condition, and, having been shorn of their most objectionable features, the manufacturers were kindly disposed towards the order. A board of arbitration is provided for in the by-laws, to consist of eleven members, one to represent each branch of labor, and to continue in office one year. As a matter of course, men of skill and integrity are selected to compose the board.

The following sections of the by-laws indicate the mode of proceeding and the authority committed to the board in respect to arbitration:

"Sect. 2. At the first meeting of the board, they shall organize, by electing a President, Secretary and Treasurer. It shall be the duty of the President to convene the board, on the written application of any five members of the lodge working in a shop, or on application of a manufacturer who has cause to think he is aggrieved. The Secretary shall keep a true and correct record of the proceedings of all meetings of the board, and all subjects referred to them for decision, and shall report the doings of the board to the lodge at the first meeting in every month.

"Sect. 4. The board shall have power to settle all difficulties that may arise between any member or members of the lodge and their employers, by arbitration; and it shall be the duty of the board, when such case has been referred to them, to carefully examine all the circumstances connected with it, and endeavor to effect a settlement by

arbitration, before giving their consent to a strike. It will not be the duty of the board to give aid or encouragement to a strike begun without their consent, by any member of the order.

"*Sect. 5.* When any matter has been referred to the board for arbitration, it shall be their duty to appoint a committee from the board, who shall meet a committee appointed by the employers. If the committee agree upon any plan of settlement, any decision they may make shall be final. An appeal may be made to the lodge from all decisions made by the board, except in cases referred to them for arbitration. This section shall never be repealed.

"*Sect. 6.* The board shall meet once in two weeks, or oftener if necessary, and shall require at all times a majority of its members to transact business.

"*Sect. 7.* The board shall have power to call a special meeting of the lodge at any time they may deem it necessary."

The first year of its organization, about one hundred cases of difficulties in the shops came before the board, and for the most part were satisfactorily settled.

The Pennsylvania commissioner, J. D. Weeks, Esq., is fresh from direct contact with industrial arbitration and conciliation where the principles they embody have their most extended and practical elucidation. His mission was to investigate the operation of these principles with the special view, under State authority, to report upon their adaptability to industrial life in this country. We deem it conducive to the purpose of this chapter, to conclude it with a few pertinent quotations from his report:

"In the course of this report, I have incidentally referred to the difficulties that stand in the way of the successful workings of arbitration, and some of the objections to the same. It may not be amiss to group together some of these, and consider others, selecting those that may be regarded as typical rather than taking up each objection in detail."

"The chief obstacle encountered in the formation of boards of arbitration and conciliation, as well as in the earlier operations of the same, is suspicion and prejudice. These are the sources of some of the most bitter and ill-advised strikes and lock-outs that the history of the industry has known, and it is this tendency to quarrel upon

what Judge Kettle so aptly terms 'matters of sentiment,' that stands in the way of arbitration. Happily, these feelings are passing away; a more intimate knowledge and a more generous estimate of the acts of each other are removing this suspicion and prejudice. Once boards are established, their very existence, as we have shown, tends to the removal of all sources of strife founded upon passion or ignorance." * * *

"A most interesting and important study in connection with this subject is its relations to trades-unions; that is, how do these societies regard arbitration and conciliation as a means of settling industrial questions? What part should they have in the formation of boards, the conduct of cases, and the enforcement of awards? Whatever may be one's views of trade-unionism, it is a fact, and will doubtless continue to be one. It is more than probable that, not only in England, but in all countries, labor will tend more and more to combinations, at least until there is some radical change in the relations of capital and labor, and the decisions, as to rates of wages and other economic questions, will be largely controlled by these combinations. I am aware there are certain economic laws, the action of which no union can prevent however much it may hinder, and these laws will, in spite of unions, prevail; but even the outcome of many of these may be very much modified, and of others entirely moulded by combinations. It is not germane to my purpose to enter into a discussion of how far unions can affect the rewards of labor. It is a fact that they do, and so great an authority as the Duke of Argyle, in his 'Reign of Law,' states that combinations of workingmen for the protection of their labor, are recommended alike by reason and experience."

"Such combinations cannot fairly be objected to. They are but unions of the workingmen's capital-labor, and it is a question if, after all that has been said about the evils of unionism, is it not better to have organized labor, which is always somewhat conservative, than disorganized labor, which is radical, and which, when it unites, becomes a mob, with no past to conserve and no future for which to provide?"

"These unions have been a large factor in freeing labor in Europe from the industrial slavery of the feudal system, and in bringing about industrial independence under the restraint of an enlightened intelligence, and equitable customs and laws. Notwithstanding some

of the black pages of the history of English unionism, it has been a benefit to English labor, and an important means of its advancement. It is destined largely to rule it and direct its future, and, in proportion as it surrenders its indefensible practices, will be its value."

Mr. Weeks proceeds to show that trades-unions have for years been the warmest advocates of arbitration, and cites in proof of it the adherence to the principle of the unions connected with the two largest industries of England—coal and iron—and refers to the Trades Union Congress, or Labor Parliament, which, at the 1876 convention, adopted the following resolution: "That this meeting, recognizing the benefits conferred on many of our great industries by the adoption of the principles of arbitration and conciliation, pledges itself to use every endeavor to extend the application of those principles to cases of dispute in which there may be a prospect of peaceful settlement by such means."

When we remember that this body represented a constituency of about six hundred thousand, the approbation of arbitration thus expressed, has great significance. At the session of the congress the following year (1877) the President, in his opening address, used the following language respecting arbitration: "It is a rational arrangement, and it would be a good thing if all would adopt it. I think, too, arbitration boards should be open to the press and the public. Workmen have nothing to fear from either the one or the other. We want right and justice to rule, and we are not afraid of publicity. When men and employers gather round a board to talk over differences, and try to adjust them, they give evidence of their manhood. Beasts and reptiles fight and tear each other, and carry out the law of the strongest; but men reason and think, and by this means show their dignity, and arrive at much better conclusions and far less costly. Boards for settling disputes would not do away with unions, they would still be needed, and under increased necessity to enforce the decisions of the board when given in favor of the workmen. * * *

As has already been stated, arbitration and conciliation in their practical workings in England have been purely voluntary. Not only is this true of the submission of the dispute or difference, but of the acceptance and carrying out of the awards. The very nature of conciliation precludes the idea of legal sanctions for its awards, or a legal enforcement of the same. With arbitration it is

different; its methods are nearer those of a court of law, and its decisions somewhat of the nature of a verdict based on testimony, and it is possible to give them the force of judicial decisions, capable of enforcement, with penalties in case of evasion. Some of the warmest and most intelligent advocates of arbitration have insisted that arbitration should have this legal aspect, while others, equally friendly and intelligent, have argued that to take away its purely voluntary character would be to destroy its usefulness."

Referring to the three acts relating to arbitration at present in the statute books of Great Britain, he says: "Notwithstanding the existence of these laws, I was unable to learn of any recent cases of their use, if, indeed, they have ever been used. Moral coercion, in case of any attempt to repudiate the awards, and what Mr. Kettle so happily terms that aggregate honor of individuals, which our French neighbors call '*esprit de corps*,' have generally been sufficient to secure the enforcement of an award. The love of justice and fair play, which has led the parties to agree to submit their disputes to arbitrators, has also led them to act in good faith when the award has been made. Still it would not be without its effect if some simple, inexpensive legal method were provided for enforcing such of the awards of arbitration as in their nature are capable of such enforcement. I am aware of the impossibility of enforcing an award that relates to a future rate of wages, the prolific source of disputes. In the very nature of the award, when it includes working rules or rates of wages, these rules or the contracts for hiring must be subject, so far as the individual is concerned, to terminate on short notice, and therefore the award in its action, must be bounded by this notice; but it seems just and right that until such notice has been given and the contract ended in accordance with its terms, it should be conformed to, or penalties provided for its non-observance.

"There is another obstacle to legal arbitration. An employee cannot be compelled to work unless he chooses, nor a manufacturer to run at a loss. The advocates of the Wolverhampton system do not claim nor propose that this shall be done, but they wish to provide that one party shall not, on a moment's notice, discharge the other, nor shall the latter cease work without a moment's warning. This does not in any degree detract from the voluntary nature of arbitration. It simply is carrying out the evident truth that whilst one

remains a party to an agreement, he is bound to abide by the terms. If he does not like the terms, his remedy is to free himself in the proper way. Legal arbitration, in the sense in which Mr. Kettle advocates it, only proposes to secure by legal means the performance of honorable obligations."

PART VIII.

MISCELLANEOUS.

BOARD OF ARBITRATION AND CONCILIATION FOR THE NORTH OF ENGLAND
MANUFACTURED IRON TRADE.

RULES FOR THE FORMATION AND GOVERNMENT OF A BOARD OF CONCILIATION
AND ARBITRATION FOR THE COAL MINES OF WESTERN PENNSYLVANIA.

MANUAL OF INSTRUCTION FOR THE PRODUCTION OF SILK.

RISE AND PROGRESS OF SILK MANUFACTURE IN NEW JERSEY.

LAWS OF OHIO IN REFERENCE TO THE PAYMENT OF WAGES.

LABOR LEGISLATION IN NEW JERSEY.

MISCELLANEOUS

PART VIII.

Board of Arbitration and Conciliation for the North of England Manufactured Iron Trade.

RULES.

1. The title of the board shall be "The Board of Arbitration and Conciliation for the Manufactured Iron Trade of the North of England."

2. The object of the said board shall be to arbitrate on wages, or any other matters affecting their respective interests, that may be referred to it from time to time by the employers or operatives, and, by conciliatory means, to interpose its influence to prevent disputes, and put an end to any that may arise.

3. The board shall consist of one employer and one operative representative from each works joining the board. Where two or more works belong to the same proprietors, each works may claim to be represented at the board.

4. The employers shall be entitled to send one duly accredited representative from each works to each meeting of the board.

5. The operatives of each works shall select a representative by ballot in the month of December in each year the name of such representative and of the works he represents shall be given in to the Secretaries on or before the 1st of January next ensuing.

6. The operative representatives so chosen shall continue in office for the calendar year immediately following their election, and shall be eligible for re-election.

7. If any operative representative die, or resign, or cease to be qualified, by terminating his connection with the works he represents, a successor shall be chosen within one month, in the same manner as is provided in the case of annual elections.

8. Each representative shall be deemed fully authorized to act for

the works which has elected him, and a decision of a majority of the board, or of its referee, shall be binding upon the employers and operatives of all works which have joined the board.

9. At the meeting of the board, to be held in January in each year, it shall elect a President and Vice-President, one from the employers and the other from the operatives, also a Deputy President and a Deputy Vice-President in like manner, and two Secretaries, who shall continue in office till the corresponding meeting of the following year, but shall be eligible for re-election. The President and Vice-President shall be *ex-officio* members of all committees.

10. At the same meeting of the board a standing committee shall be appointed, as follows: The employers shall nominate ten of their number, (not more than five of whom shall be summoned to any meeting of the committee,) and the operatives five of their number; the President and Vice-President shall be also *ex-officio* members of the committee.

11. All questions shall, in the first instance, be referred to the standing committee, who shall investigate and endeavor to settle the matter so referred to it, but shall have no power to make an award, unless by consent of the parties. In the event of the committee being unable to settle any question, it shall, as early as possible, be referred to the board.

12. The President shall preside over all meetings of the board, and in his absence the Vice-President. In the absence of both President and Vice-President a Chairman shall be elected by the meeting.

13. All votes shall be taken at the board by show of hands, unless any member calls for a ballot. The Chairman and Vice-Chairman shall not be entitled to vote, but the works for which the Chairman and Vice-Chairman respectively were elected shall be entitled to nominate another representative in each case. If at any meeting of the board the employer representative or the operative representative of any works be absent, the other representative of such works shall not, under the circumstances, be entitled to vote.

14. In case of an equality of votes at the board, it shall appoint an independent referee, whose decision shall be final and binding; but whenever such equality of votes arises on the choice of independent referee, the original question shall be referred to and finally decided by the award of three indifferent persons, or a majority of them, one

of such persons to be named by each section of the board, and the third by the two persons so named by the board, within fourteen days of such meeting.

15. The board shall meet for the transaction of business twice a year, in January and July; but on a requisition to the President, signed by five members of the board, specifying the nature of the business to be transacted, and stating that it has been submitted to the standing committee, and left undecided by them, he shall, within fourteen days, convene a meeting of the board. The circular calling such meeting shall specify the nature of the business for consideration.

16. All questions requiring investigation shall be submitted to the standing committee or to the board, as the case may be, in writing, and shall be supplemented by such verbal evidence or explanation as they may think needful.

17. No subject shall be brought forward at any meeting of the standing committee or of the board, unless notice thereof be given to the Secretaries seven clear days before the meeting at which it is to be introduced.

18. The standing committee shall meet for the transaction of business prior to the half-yearly meetings, and in addition as often as business requires. The place of meeting shall be arranged between the President and Secretaries in default of any special direction.

19. Any expenses incurred by this board shall be borne equally by the employers and operatives, and it shall be the duty of the standing committee to establish the most convenient arrangements for collecting what may be needed to meet such expenses.

20. The sum of ten shillings for each member of the board or standing committee shall be allowed for each meeting of the board or standing committee, together with such percentage addition as is for the time being made by order of the board to the standard wages. This sum shall be divided equally between the employers and operatives, and shall be distributed by each side in proportion to the attendances of each member. In addition each member shall be allowed second-class railway fare each way, and when an operative member is engaged on the night shift following the day on which a meeting is held, he shall be allowed payment for a second shift.

21. If any works desires to join the board at any other time than is contemplated in rules four and five, such desire shall be notified to

the Secretaries, and by them to the standing committee, who shall thereupon admit such works to membership, on being satisfied that representatives have been chosen in the manner prescribed by the rules.

22. No alteration or addition shall be made to these rules, except at the first meeting of the board, to be held in January in each year, and unless notice in writing of the proposed alteration be given to the Secretaries at least one calendar month before such meeting. The notice convening the annual meeting to state fully the nature of any alteration that may be proposed.

BY-LAWS.

RULE 5. In the month of November in each year, the Secretaries shall issue a notice to each firm connected with the board, requesting them to elect representatives in the month of December, and shall supply them with the requisite forms.

RULE 10. The committee shall have power to fill all vacancies that may arise during the quarter.

RULE 11. An official form shall be supplied to each representative, on which complaints can be entered. Either Secretary receiving a complaint shall be required to forward a copy of the same to the other Secretary, and the complaint shall be considered as officially before the board from the date of such notice.

RULE 17. This rule to be interpreted to mean that no case in which the committee are called upon to deal finally with a complaint from any member of the board, shall be taken up without seven days' notice has been received; but this not to apply to routine business, or to such preliminary investigation of complaints as may be necessary.

RULE 19. The sum of 3d. per head, per quarter, shall be deducted from the wages of each operative earning 2s. 6d. per day and upwards (in case he does not object in writing to such deduction), on the first pay in the months of January, April, July and October. Each firm shall pay an amount corresponding to the total sum deducted from the workmen. The contributions shall be forwarded on official forms, to be supplied by the Secretaries, to the bankers (the National Provincial Bank of England,) within one week from the pay when the money is deducted from the operatives.

RULE 20. If any member be compelled in the service of the board

to attend meetings on two or more days consecutively, the sum of 3s. 6d. each be allowed per night. This is not to apply to any members living in the place where the meeting is held. Members attending meetings on any day except Mondays or Saturdays, and being that week employed on the night turn, to be paid for two days for each sitting.

The board earnestly invites the attention of all who belong to it, either as subscribers or as members, to the following instructions:

If any subscriber of the board desires to have its assistance in redressing any grievance, he must explain the matter to the operative representative of the works at which he is employed.

The operative representative must question the complainant about the matter, and discourage complaints which do not appear to be well founded.

If there seems good ground for complaint, the complainant and the operative representative must take a suitable opportunity of laying the matter before the foreman or works' manager or head of the concern, (according to what may be the custom of the particular works.) An official form on which complaints may be stated can be obtained from the Secretaries.

The complaint should be stated in a way that implies an expectation that it will be fairly and fully considered, and that what is right will be done.

In most cases this will lead to a settlement without the matter having to go further.

If, however, an agreement cannot be come to, a statement of the points in difference must be drawn out, signed by the employer and the operative representative, (and, if possible, by the employer also,) and forwarded to the Secretaries of the board, with a request that the standing committee will consider the matter.

It will be the duty of the standing committee to meet for this purpose as soon after the expiration of seven days from receipt of the notice as can be arranged.

It is not, however, always possible to avoid some delay, and the complainant must not suppose that he will necessarily lose anything by having to wait, as any recommendation of the standing committee or any decision of the board may be made to date back to the time of the complaint being sent in.

Above all, the board would impress upon its subscribers that there must be no strike or suspension of work. The main object of the board is to prevent anything of this sort; and if any strike or suspension of work takes place, the board will refuse to inquire into the matter in dispute till work is resumed, and the facts of its having been interrupted will be taken in account on considering the question.

It is recommended that any changes in modes of working requiring alterations in the hours of labor, or a revision of the scale of payments, should be made matters of notice, and, as far as possible, of arrangement beforehand, so as to avoid needless subsequent disputes as to what ought to be paid.

The Formation and Government of a Board of Conciliation and Arbitration for the Coal Mines of Western Pennsylvania.

The following correspondence gives the official announcements of the adoption of the within rules by miners and operators :

PITTSBURG, October 21st, 1879.

JOS. D. WEEKS, *Secretary* :

DEAR SIR—Per instructions from Miners' Arbitration Convention of this date, I hereby transmit to you an official copy of the rules for the government of a Board of Arbitration, with changes and amendments as adopted by the delegates after a considerate and an exhaustive discussion of the same. The concurrence of the operators to them is respectfully requested on or before Friday evening, October 24th, 1879.

Very respectfully,

D. R. JONES, *Gen. Secretary*.

PITTSBURG, PA., October 24th, 1879.

D. R. JONES, *General Secretary* :

DEAR SIR—I am instructed to inform you that at the convention of coal operators held this day, the changes and amendments made by the Miners' Convention in the rules of the Board of Conciliation and Arbitration were concurred in.

I am also instructed to call a meeting of operators to elect members of the board on the same day that the miners meet for the same purpose, and would thank you to inform me of the date of the miners' meeting at your earliest convenience.

Very truly,

JOS. D. WEEKS, *Secretary*.

RULES.

1. The title of this board shall be "The Board of Conciliation and Arbitration for the Coal Mines of Western Pennsylvania."

2. The object of said board shall be, First, to settle all questions of wages. Second, to determine such other general matters affecting the interests of either party as may be submitted to it from time to time by operator or miner, and by conciliatory means to use its influence to prevent disputes and put an end to any that may arise; local questions may be referred to the board by either the miner or operator for adjustment.

3. The board shall consist of eighteen members, four from the railroad miners, four from the river miners, four from the railroad operators, four from the river operators, and a miners' Secretary, and an operators' Secretary, at large.

4. The operators and miners shall each select their own representatives in such a way as shall seem to them best. Provided only, that with the exception of the Secretaries, the representatives so selected shall be actively engaged in mining or in operating mines.

5. The members of the board shall be chosen the second Tuesday in January, and shall hold office for one year and be eligible for re-election. The board so elected shall meet for organization, at the call of the President, within two weeks succeeding such election.

[*Note.*—It is understood the members of the board and officers elected at the adoption of these rules shall serve until the time of the regular election in January.]

6. If any representative die or resign, or cease to be qualified by terminating his active connection with coal mining, a successor shall be chosen within one month, in the same manner as is provided in the case of an annual election.

7. Each representative shall be deemed fully authorized to act for the parties which have elected him.

8. At the meeting of the board, to be held in January of each year,

it shall elect a President and Vice-President; one from the operators, the other from the miners, who shall continue in office for one year and be eligible for re-election. The President, Vice-President and Secretaries shall be *ex-officio* members of *all* committees.

9. At the same meeting of the board a Conference Committee shall be chosen, to consist of one representative each of the river and railroad operators, and of the river and railroad miners, and the Secretaries. The operators and miners shall each elect their own representatives on the committee.

10. All questions shall, in the first instance, be referred to the Conference Committee, who shall investigate and endeavor to settle the matters so referred to it, but shall have no power to make an award, unless by consent of the parties. In the event of the committee being unable to settle any question, it shall, as early as possible, be referred to the board.

11. The President shall preside over all meetings of the board, and in his absence the Vice-President, and in the absence of both President and Vice-President, a Chairman shall be elected by the meeting.

12. All votes shall be taken at the board by a show of hands, unless a ballot is called for by any member. The President and Vice-President shall be entitled to vote on all questions, but shall have no casting vote in case of a tie. If at any meeting of the board the operator and miner representatives are unequal, all shall have a right to discuss any questions that may arise, but only an equal number of each shall vote, the representative of the same section as the absent member not being entitled to vote. The decision of the majority of the board shall be final and binding on both parties.

13. In case of a tie vote in the board, it shall appoint an independent referee, whose decision in the matter in question shall be final and binding; but said referee shall be the unanimous choice of the board, and his selection and decision shall not occupy more than five working days.

14. Immediately upon the organization of the board it shall proceed to fix a scale of prices to be paid for digging coal.

15. All questions requiring investigation shall be submitted to the Conference committee or to the board, as the case may be, in writing, and shall be supplemented by such verbal evidence or explanation as they may think needful.

16. No subject shall be brought forward at any meeting of the Conference Committee or of the board, unless notice thereof be given to the Secretaries five clear days before the meeting at which it is to be considered.

17. The Conference Committee shall meet for the transaction of business prior to the half-yearly meetings, and, in addition, as often as business requires. The place of meeting shall be arranged between the President and Secretaries in default of any special direction.

18. In case of any difference or dispute arising having reference to the river or railroad interest exclusively, it shall be the privilege of the interest involved to ask that the difference or dispute be settled by the representatives of the river or railroad mines, together with the Secretaries.

19. The board shall meet for the transaction of business twice a year, in January and July; but on a requisition to the President, signed by five members of the board, specifying the nature of the business to be transacted, and stating that it has been submitted to the Conference Committee and left undecided by them, he shall, within five days, convene a meeting of the board. The circular calling such meeting shall specify the nature of the business for consideration.

20. Pending the discussion and decision of any difference or dispute there shall be no lock-out on the part of the operators, or strike on the part of the miners.

21. Neither operators nor miners shall interfere with any man on account of his being a union or non-union man.

22. Any expenses incurred by this board shall be borne equally by both parties; the operators paying one-half and the miners paying one-half; and it shall be the duty of the Conference Committee to establish the most convenient arrangements for collecting what may be needed to meet such expenses.

23. Parties may at any time join this board by filing with the two Secretaries an agreement to be bound by these rules.

24. If any miner representative or operator representative shall become incapable of serving on this board, by reason of negligence or crime, the party whom he represents shall have power to censure, suspend or expel him by a two-thirds vote of the party aggrieved.

25. No alteration shall be made in these rules except at the half-

yearly meeting of the board, nor then, unless notice in writing of the proposed change be given to the Secretaries at least one calendar month before such meeting.

Attest:

JOS. D. WEEKS,
Operators' Secretary.

D. R. JONES,
Miners' Secretary.

MANUAL OF INSTRUCTION FOR THE PRODUCTION OF SILK.

[From the "Manual of Instruction for the Production of Silk," prepared by Prof. C. E. Riley, of Washington, and published by the Department of Agriculture.]

That the children and more feeble persons in a household may find profitable employment in raising cocoons to be shipped abroad is proved by the case of Mr. E. Trasnack, of Raleigh, N. C., who has for several years been in the habit of thus shipping the cocoons reared by his family. He sends in bales 5 by 6 feet in size, and averaging about 40 pounds of stifled cocoons, for which he has obtained as high as \$2.50 per pound, net, the freight costing only \$3 per hundred pounds between Raleigh and Marseilles. Mr. B. A. Weber, of Rockford, Ill., last year raised 40 pounds of cocoons, and also shipped to Europe through New York brokers; and others have done likewise. But I would advise no one to invest capital on this basis.

Under existing circumstances, more money has been made by the sale of eggs than by either of the other means, and silkworm-growers in this country have gradually drifted into this branch of the industry. Eggs raised in this country are free from disease, and the fact that as high as \$6 and \$8 per ounce have been paid for them, and that France paid, in 1876, 114,000 francs, and in 1877, 1,691,400 francs for eggs exported from the United States,* is as eloquent in showing the remarkable adaptation of our country to silk culture as that other fact, not generally known, that the chief of the French commission to our Centennial confessed that there was no silk in France superior to some that was there on exhibition, and grown in North Carolina. The production of a certain number of eggs does not necessarily prevent the production at the same time of choked cocoons or reeled silk; and the pierced cocoons that have been used for breeding purposes

* These figures are on the authority of the *Moniteur des Soies* for January 18th, 1879, but they may include also those received from China through the United States.

have also a certain market value, commanding about \$1 per pound at Paterson, N. J. This egg-producing branch of the industry can, however, only admit of a limited expansion.

As a means of indicating the profits in silk culture I have prepared the subsidiary estimates. Optimistic theorists have done much harm in the past by making fabulous calculations as to the profits of silk culture. The figures here given are based on data furnished by men like Messrs. E. V. Boissière and L. S. Crozier, of Silkville, Kans., E. Fasnach, of Raleigh, N. C., T. N. Dale, of Paterson, N. J., &c., and on the current prices as quoted in the *Moniteur des Soies*. They are in every sense moderate estimates, but it must not be forgotten that they do not include capital invested in the shape of food plants. As yet, and until Congress gives the necessary encouragement, it were safest for those only to embark in this culture who have mulberry trees to use, or who decide to feed Osage orange.

PROFITS OF PRODUCING COCOONS: ESTIMATES FOR TWO ADULTS, OR MAN AND WIFE.

Average number of eggs per ounce, 40,000.

Average number of fresh cocoons per pound, 300.

Average reduction in weight for choked cocoons, 66 per cent.

Maximum amount of fresh cocoons from one ounce of eggs, 130 to 140 pounds.

Allowing for deaths in rearing—26 per cent. being a large estimate—we thus get, as the product of an ounce of eggs, 100 pounds of fresh or 33 pounds of choked cocoons.

Two adults can take charge of the issue of from 3 to 5, say 4, ounces of eggs, which will produce 400 pounds of fresh or 133 pounds of choked cocoons.

Price per pound of fresh cocoons (1878), 50 cents.

Four hundred pounds of fresh cocoons, at 50 cents, \$200.

Price per pound of fresh cocoons (1876), 70 cents.

Four hundred pounds of fresh cocoons, at 70 cents, \$280.

Actual sales in Marseilles, December, 1878, of choked cocoons, 15 francs per kilogram, or \$1.66 per pound, which, for 133 pounds choked cocoons, would be \$220.78.

Price per pound of choked cocoons (1876), \$2.25; 133 pounds of choked cocoons at \$2.25, \$299.25.

Freight, packing, commissions, and other incidental expenses, say \$25, making as the return for the labor of two persons for six weeks, at the present low prices, \$195.78.

Calculating on the basis of \$1.50 per pound of choked cocoons, which, as shown in the following estimates, a reeling establishment in this country could afford to pay, we get approximately the same amount, viz., \$199.50. As already stated, the capital invested in food for the worms is not included in these estimates, nor is the first cost of the ounce of eggs deducted. The silk grower should raise his own "seed," and the time required for this purpose is more than compensated for by the time

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saved in feeding during the first and second ages of the worms, when the whole time of two adults is not required as it is subsequently.

APPROXIMATE PROFITS OF REELING.

One pound of reeled silk requires $3\frac{2}{3}$ pounds of choked cocoons.

An expert can in six days reel $4\frac{1}{2}$ pounds of raw silk.

Price of best raw silk in French market, 1878 (market very low), \$8.50 per pound.

Nine pounds of raw silk, at \$8.50, \$76.50.

The discount for cash, commissions for selling, and transportation would reduce this to \$65.42.

To produce 9 pounds of raw silk would require the labor of two reelers for six days, at \$1 per day, or \$12; adding to this \$2.50 for indirect labor, we get \$14.50 as the cost of labor in reeling 9 pounds.

Thus the labor to reel 1 pound of raw silk will cost \$1.70, or that to reel 1 pound of choked cocoons, approximately, 50 cents.

Deducting the cost of reeling from the \$65.42 obtained, we have \$50.92 with which to buy the necessary cocoons; say 33 pounds of choked cocoons for the 9 pounds reeled silk. If we use \$49.50 of this sum for this purpose it will enable us to pay \$1.50 per pound for our cocoons and we still have \$1.42 as a profit on every 9 pounds of raw silk manufactured. This, if we employed two hundred reelers, would be a yearly income of \$7,384.

It is safe to say that the process of reeling just about doubles the value of the product, and if the silk-raiser can reel his own cocoons he may safely count on this increase of its value, provided it is *well* reeled.

What the actual profits are that accrue to the owners of the large filatures in Tarascon, and other parts of South France or Italy, it would be impossible to state without having access to the books of the companies.

ESTIMATE OF PROFITS IN RAISING EGGS.

Average number of eggs in an ounce, 40,000.

Maximum number of cocoons from one ounce of eggs, 40,000.

One-half of these, or 20,000, are females.

Number of eggs laid by each female, say 300.

Quantity of eggs from one ounce, 6,000,000, or 150 ounces.

Deducting, as probable loss from all causes combined, one-half, we have 75 ounces.

Price of eggs in Europe, \$2 to \$5, say \$3, per ounce.

Amount realized on 1 ounce, \$225.

On the basis of the first estimates two adults could take charge of the issue from 4 ounces of eggs. These would yield the sum of \$900, and, even after allowing for the first cost of eggs, trays, commission, freight (which is light), extra time and labor (say another month), and incidental expenses, it leaves a very excellent return.

RISE AND PROGRESS OF SILK MANUFACTURE IN NEW JERSEY.

The history of the manufacture of silk, whether considered in connection with or apart from silk culture, is almost co-extensive with that of the human race, and some writers confidently assert that it existed very largely before the deluge. The object of the present paper, however, is not to make such profound researches into past ages and different localities; not even to collate the experience of this continent, whether colonial or republican, but briefly to note its rise and progress in the State of New Jersey.

Shortly before the revolutionary war the British government, true to its traditional policy of stimulating the production of raw material in its colonies, that its manufactures at home might profit from the manipulation thereof, stimulated the production of cocoons in this State, in which they were aided by the powerful influence of the London Society and Dr. Franklin. We find no record of any attempt being made to manufacture or even to reel the same, the small quantities produced being doubtless sold to the merchants in the original packages as delivered from the worms, or sent to Philadelphia, where as early as 1770 a filature (or reelery) was established.

Some idea of the business aggregate can be formed from the record, which somewhat boastfully asserts that from "June to the middle of August, 1771"—which can be estimated at anywhere from two to three months, the said filature received 2,300 pounds cocoons. As this quantity probably included about all there was produced in both New Jersey and Pennsylvania, within accessible distance of Philadelphia, it shows that in this connection it was essentially the day of small things.

But sanguine as were the hopes of our fathers, notwithstanding the very modest results obtained, those hopes and results were destined to an abrupt termination, as when early in the revolutionary war the British obtained possession of "The Jerseys" they made short and

thorough work in destroying the mulberry trees, and consequently the possibility of silk culture.

Shortly after the return of peace nurseries of the Italian mulberries were started at Princeton and elsewhere, and the culture gradually extended, until it culminated about forty years ago in the *Morus Multicaulis* excitement, after which, as with a too-highly stimulated person, a reaction set in, and the object so recently and fervently pursued with almost the ardor of insanity was as generally and assiduously avoided with unconcealed aversion.

The above narrated unsatisfactory experience, it must be remembered, was but very little, if any, connected with manufacturing, but was resultant from attempts to grow the raw material thousands of miles away from facilities for proper reeling, spinning and weaving. *Now the conditions are exactly reversed.* Ample manufacturing facilities are at hand, but manufacturers are forced to bring their raw material many thousands of miles to be "made up" among us. With these changed and improved conditions, with ample market and hungrily competing purchasers at our doors, is it not possible that success in sericulture only awaits our grasping it; that the new factors constitute elements fully potent enough to inaugurate success, when without them it was impossible?

But sericulture is not our present theme, although germane to it. That will be treated elsewhere in this report.

Early in this century, before the spinning jenny had banished our grandmothers' little wheels and big wheels to exile in the garret, farmers' wives and daughters, after patiently and impatiently awaiting outside aid to reel and spin their home-raised cocoons, applied their own skill and energies to the task, and with their rude appliances actually produced quantities varying from five to fifty pounds of silk thread yearly, and in some exceptional instances eighty and even one hundred pounds were produced by an exceptionally enterprising and industrious spinner. The little wheel above noted was propelled by treadle, and was mostly used to spin linen after the fibres had been "hetcheled" straight. The foot power left both hands at liberty. The big wheel was propelled by one hand, and was used for wool, the manipulation being done by the other.

It would be natural to infer that the little wheel, with the correlative assistance of both hands, would have been the better adapted for

the long and delicate fibres of silk; but truth compels us to report that it was but seldom used for that purpose, but the big or wool wheel almost, if not entirely, monopolized the function, the thread having been run off the cocoons by the ancient yarn reel, and very clumsily fed to the spindle.*

Of course the thread thus produced would be very rough and uneven, and the cloth woven on the family loom would be correspondingly so, but what was lacking in delicacy was made up in bulk, and gowns and petticoats made therefrom seemed to be eternal in their wear.

Rude as were these contrivances, and the results thereof, they were in no way much dissimilar to the conditions then obtaining with the manufactures of cotton and wool. They were in every way analogous,

* A very interesting history of "The Silk Industry in America," collated by L. P. Brockett, M. D., of Brooklyn, New York, published 1876, tells us, page 34:

"The culture of silk was attempted in the latter part of the eighteenth century in New Jersey and New York, but did not obtain very great magnitude in either State.

* * * During the period from 1780 to 1820 the amount of silk made in the United States was not very great; it had become a domestic manufacture. In some considerable districts many families made their five, ten, twenty, thirty or fifty pounds of silk annually, and very rarely an enthusiastic worker brought her product up to eighty or one hundred pounds. This domestic production and manufacture was, perhaps, more common in Connecticut than elsewhere, though there were numerous instances in New Jersey, &c., &c., &c. The silk was reeled on the ordinary hand reel. It was spun upon the ordinary large wheel used for spinning wool. The floss and waste, and probably the pierced and imperfect cocoons also, were carded and spun, and, being mixed with wool, cotton or flax, made very durable, though not very elegant stuffs for every-day wear."

From a pamphlet, the title of which reads: "The Silk Industry of the United States, from 1766 to 1874, by A. P. Lilly:" "From the Bulletin of the National Association of Wool Manufacturers," we abstract as follows:

"The silk obtained by a single family sometimes amounts to one hundred and thirty pounds in a season. The labor required was light, as the processes were simple and invariably successful, and women and children performed all the work, except during the sixth or last week of the life of the worms, when the men usually gave assistance. The silk was reeled from the cocoons by a process of the most primitive description; and so crude was the product thus obtained that it could only be spun by hand. It may well be doubted whether silk so reeled could be used by a manufacturer, if aided by all the ingenious machinery of the present day. The *hand wheel* on which, previous to the year 1800, all spinning was performed, was exceedingly simple. A band carried the motion directly from a large wheel turned by the operator to the 'whur' on the spindle; and many revolutions of the wheel were required to give the needful twist."

and in many respects similar. About as great a difficulty existed in the first decade of this century in preparing *cotton fibre* for the spindle as now obtains as to properly reeling silk. In fact it was so great as largely to prevent its culture, and it was so tedious and exhaustive of time that from 1801 to 1810 the price of cotton ranged from fourteen to twenty-three cents per pound, and even at those figures was not as remunerative to the planter as in later years when machinery had simplified its manipulation, and the product sold for half the money.

The earliest period to which we can trace back any attempt to organize this beautiful industry with decent conditions in this State, is somewhere previous to 1840, when Christopher Colt, Jr., established a factory, in a small way, at Paterson, but, if we are rightly informed, very soon abandoned the undertaking. In 1840 it was sold, and placed under the superintendence of Mr. John Ryle, who was an educated expert in the business.

The new management evinced so remarkable a combination of enterprise and good judgment, that what had heretofore been deemed insurmountable obstacles were speedily overcome, and the success of the factory soon attracted many with ample capital, and the little town of Paterson rapidly became a remarkably industrious, enterprising and well-endowed city.

To trace the steps by which, from very obscure beginnings, this State has rapidly progressed until, from almost the smallest in this respect, she, as compared with her size and population, is proudly pre-eminent above her sister States, would give this brief sketch too much the character of a biographical essay to comport with its position as a State report.

So congenial did the new enterprise find the climate and accessories of New Jersey to its growth and development, that even as early as 1858 it was deemed necessary for the manufacturers of one city to combine, which they did under the name and title of "The Silk Industry Association of Paterson, New Jersey." So influential did this body soon become, that we find it on the 12th day of June, 1872, issuing a call to silk manufacturers throughout the country to meet in convention for the purpose of forming a national union. At that meeting but forty-four firms and companies responded to the call, and it was shrewdly suspected that even that small number was not

entirely composed of *manufacturers*. The result of that convention was the organization of the "Silk Association of America," which, by its researches, compilations and publications, has very widely educated the nation as to the importance of this industry. It is encouraging and gratifying to note that although thirty-seven years have passed since but *forty-four* persons, including both manufacturers and sympathizers, could be got together to form the "Silk Association of America," at the writing of this, after six years of depression in commerce and parsimony in consumption, we have *sixty-seven* reports of successful silk factories in this State alone, or more than fifty per cent. more than the number reported at the national convention above named.

It is very much to be regretted that the Silk Association of America has discontinued the collection of detailed statistics regarding the total amount of silk goods manufactured in this country, for their tables, as furnished up to the year 1875, inclusive, formed one of the most interesting and instructive features of their annual report. It will be observed, however, that New Jersey, up to the date when the last official tables were made up analytically, which, was to the year 1875, inclusive, as above noted, held a proud position in this manufacture among her sister States, as there had been manufactured within her bounds more than *two-fifths* or over *forty per cent.* of the quantity made in the whole United States. That is to say, New Jersey produced \$10,930,035, while the total production of the entire nation aggregated but \$27,158,071. In other words, while New Jersey, even at that comparatively early date, produced as above \$10,930,035, the *rest of the Union* only produced \$16,228,036, thus mathematically demonstrating that the production of our own State in this industry was two-thirds as large as the aggregate of her sister States. It is true that the reports of the National Silk Association report the aggregate of silk manufacture for the next year, 1876, at \$26,593,103, and for 1877 at \$21,411,436, a sharply marked and progressive decline, but that decline is doubtless ascribable to reduction of prices and not of production.

Comparing the last reported national aggregate—to wit., that of the year ending December 31st, 1877, at \$21,411,436, with a declining tendency, with the footing of our table, elsewhere presented of the silk production of this State, with every prospect of a steady and rapid

increase, it is but fair to assume that the aggregate production of New Jersey is now very largely in excess of that of all the other States combined. The aggregate of silk production of New Jersey, ending July 1st, 1879, as given in our table, is \$13,700,846. The aggregate for the whole country as above noted, for the year ending December 31st, 1877, is \$21,411,436, only \$7,710,590 excess of the whole nation over New Jersey, showing a production by New Jersey of nearly 64 per cent. of the aggregate of the whole country. In other words, New Jersey producing \$13,700,846, and the other States but \$7,710,590, it follows that the production of New Jersey is $43\frac{7}{10}$ in excess of all the other States combined.

To exemplify the wondrous growth of this industry in our State and nation, it is in order to quote from the speech of Mr. John Ryle, ex-Mayor of Paterson—perhaps the first successful pioneer in this industry—upon the present subject matter, April 8th, 1876, before the Paterson Board of Trade. He said that “in 1839 he went to New York to purchase stock, when he was forced to travel all over the city, and at last only succeeded in finding a half bale of raw silk in a back street, the other half of which had gone to Philadelphia.” Thus and on this occasion only one-half a bale of raw silk was to be found in the nation’s commercial metropolis, the other half having gone to Philadelphia. One bale divided between the sovereign States of New Jersey and Pennsylvania!

Only forty years have passed since then, but the custom-house records of the two ports of New York city and San Francisco show the importation of raw silk for the last five years, thus:

	Bales.	Value.	Aver. Price pr. Bale.
1874.....	7,452	\$3,627,367 00	\$487 03
1875.....	10,552	5,327,742 00	504 90
1876.....	11,237	5,600,877 00	498 33
1877.....	9,913	5,591,084 00	564 02
1878.....	13,734	6,807,725 00	423 60
Total for five years.....	52,888	\$26,954,795 00	\$509 60

The exact amount of the importation of raw silk for 1879 has not yet been ascertained, but we are warranted in stating that it will foot up over 13,000 bales, with a value of more than \$9,000,000, showing the unprecedented growth of this manufacture. It will also be seen by an examination of the table presented elsewhere in this report,

that the compensation for labor in this industry stands conspicuous among all the other industries of the State, inasmuch as it presents for skilled adults better prices for labor not over-tasked, and for boys and girls fair compensation for work which is both attractive and elevating in its tendency.

LAWS OF OHIO IN REFERENCE TO THE PAY- MENT OF WAGES.

The following laws were enacted by the General Assembly of the State of Ohio at its session in 1878 :

AN ACT to punish certain offences therein named.

SECTION 1. *Be it enacted by the General Assembly of the State of Ohio*, That it shall be unlawful for any person, firm or corporation to pay the wages of labor in goods or supplies, through the intervention of scrip, or any other evidence of indebtedness, or otherwise, at higher prices than current cash rates for like goods and supplies at the nearest retail market ; *provided*, that the actual cost of the transportation of such goods and supplies, from such nearest market to the place of sale, may be added.

SECTION 2. It shall be unlawful for any person, firm or corporation to sell goods or supplies to laborers on orders, or other evidences of indebtedness issued to such laborers by their employers, or to sell to laborers by any arrangement with their employers, by which such laborers are to receive such goods or supplies on their wages at higher prices than current cash rates for like goods and supplies at the nearest retail market ; *provided*, that the actual cost of the transportation of such goods and supplies, from such nearest market to the place of sale, may be added.

SECTION 3. Any person, making any sale in violation of this act whether as principal, agent, clerk, or otherwise, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined not less than five dollars nor more than fifty dollars.

SECTION 4. This act shall take effect and be in force from and after its passage.

Passed April 27th, 1878.

AN ACT supplementary to an act "to amend, revise and consolidate the statutes relating to crimes and offences, and to repeal certain

acts therein named, to be known as title one, crimes and offences, part four of the act to revise and consolidate the general statutes of Ohio," passed May 5th, 1877, (vol. 74, p. 240.)

SECTION 1. *Be it enacted by the General Assembly of the State of Ohio*, That it shall be unlawful for any person, firm, company or corporation to issue or use any scrip, token, check, draft or certificate of indebtedness, payable otherwise than in money in the payment of or accounting to any person for the wages of work and labor.

SECTION 2. It shall be unlawful for any person, firm, company or corporation to issue, use or circulate, or cause to be issued, used or circulated, any check, token, promise in writing, or evidence of indebtedness, designed, intended, or calculated to be circulated or issued as money, or in lieu of money, other than lawful money of the United States.

SECTION 3. Any person or persons offending against any of the provisions of this act, shall be held guilty of a misdemeanor, and upon conviction thereof before any court of competent jurisdiction, shall be fined in any sum not less than ten dollars nor more than one hundred dollars.

SECTION 4. This act shall take effect from and after its passage.

Passed May 10th, 1878.

AN ACT supplemental to an act entitled "An act to punish certain offences therein named," passed April 27th, 1878 (vol. 75, p. 124,) and also supplementary to an act entitled "An act supplementary to an act to amend, revise and consolidate the statutes relating to crimes and offences, and to repeal certain acts therein named, to be known as title one, crimes and offences, part four, of the act to revise and consolidate the general statutes of Ohio, passed May 5th, 1877," passed May 10th, 1878 (vol. 75, page 141.)

SECTION 1. *Be it enacted by the General Assembly of the State of Ohio*, That it shall be unlawful for any person, whether as principal, agent, superintendent, clerk, or otherwise, to compel, or seek to compel, in any manner whatever, or in any manner attempt to coerce any employee of any person, firm or corporation, to purchase goods or supplies from any particular person, firm or corporation, and any such principal, agent, superintendent or clerk who shall violate the pro-

visions of this section, shall be deemed guilty of a misdemeanor, and upon conviction thereof before any court of competent jurisdiction, shall be fined in any sum not less than twenty dollars nor more than one hundred dollars, or imprisoned not more than sixty days, or both.

SECTION 2. To enforce the provisions of this act and the above recited acts, it is hereby made the duty of the prosecuting attorney, upon complaint to him made of the violation of any of the provisions of said acts, to cause the same to be investigated before the grand jury.

SECTION 3. This act shall take effect from and after its passage.

Passed May 3d, 1879.

T

LABOR LEGISLATION IN NEW JERSEY.

The following supplement was passed by the Legislature since our last report, which refers directly to the question of labor :

A further supplement to the act to secure to mechanics and others payment for their labor and materials in erecting any building, approved March twenty-seventh, one thousand eight hundred and seventy-four.

WHEREAS, It is the practice of owners of lots or tracts of land to dispose of the same to a builder or builders, taking therefor a mortgage or mortgages in excess of the purchase money price of said lot or tract of land, the mortgagee agreeing to pay such excess to the aforesaid builders from time to time, as the building or buildings progress, such mortgages being known as advance money mortgages ; therefore,

1. *Be it enacted by the Senate and General Assembly of the State of New Jersey*, That in all such transactions the building or buildings so erected shall be liable for the payment of any debt contracted and owing to any person or persons for labor performed or materials furnished for the erection and construction thereof, which debt shall be a lien on such building or buildings, and on the land whereon they stand, including the lot or curtilage whereon the same are erected, and that the lien for labor performed or materials furnished for the erection and construction of any such building or buildings, shall be a prior lien to the lien of any mortgage created on such building or buildings and lot or tract of ground, to secure either in whole or in part any advances in money to be used in and about the construction of such building or buildings, (except only so much of the amount of said mortgage as shall be for the purchase money of the lot or tract of land whereon the said building or buildings shall be erected); *provided*, that nothing in this act shall interfere with a mortgage or mortgages to secure *bona fide* loans of money not advanced as aforesaid, such *bona fide* loans to be paid in full, anything in this act to the contrary notwithstanding.

Approved March 4th, 1879.

FACTOR LABORATION IN NEW JERSEY

The following report is based on the investigation conducted by the New Jersey State Library, in cooperation with the New Jersey State Department of Labor, during the year 1917.

The purpose of this investigation was to determine the conditions of labor in the various industries of the State, and to ascertain the causes of the labor troubles which have recently occurred.

The investigation was conducted by the New Jersey State Library, in cooperation with the New Jersey State Department of Labor, during the year 1917.

The following is a list of the industries in which the investigation was conducted:

- 1. Textile Industry
- 2. Iron and Steel Industry
- 3. Coal Industry
- 4. Lumber Industry
- 5. Brick and Tile Industry
- 6. Glass Industry
- 7. Paper Industry
- 8. Food and Drink Industry
- 9. Clothing Industry
- 10. Miscellaneous Industries

The following is a list of the causes of the labor troubles which have recently occurred:

- 1. Low wages
- 2. Long hours
- 3. Poor conditions of work
- 4. Lack of security of tenure
- 5. Lack of opportunity for advancement
- 6. Lack of union representation
- 7. Lack of knowledge of labor laws
- 8. Lack of organization
- 9. Lack of solidarity
- 10. Lack of leadership

The following is a list of the remedies which have been suggested:

- 1. Increase wages
- 2. Reduce hours
- 3. Improve conditions of work
- 4. Secure tenure of employment
- 5. Provide opportunity for advancement
- 6. Secure union representation
- 7. Educate laborers in their rights
- 8. Organize laborers
- 9. Develop solidarity
- 10. Develop leadership

The following is a list of the conclusions which have been reached:

- 1. The conditions of labor in the various industries of the State are generally poor.
- 2. The causes of the labor troubles which have recently occurred are generally the same.
- 3. The remedies which have been suggested are generally the same.
- 4. The labor troubles which have recently occurred are generally the result of the same causes.
- 5. The labor troubles which have recently occurred are generally the result of the same remedies.

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