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THE FIFTY-SIXTH ANNUAL REPORT

OF THE

MANAGERS AND OFFICERS

OF THE

NEW JERSEY STATE HOSPITAL

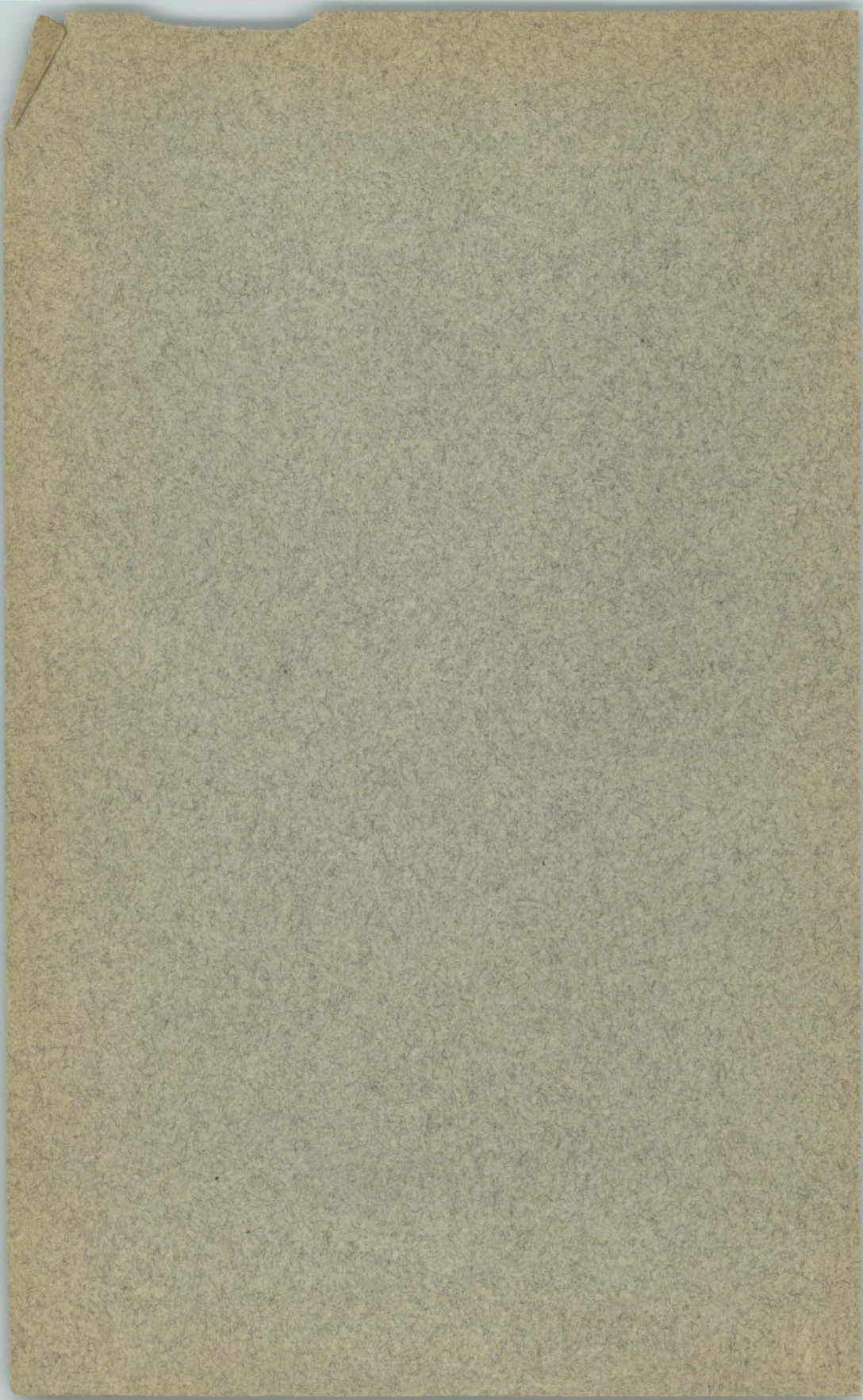
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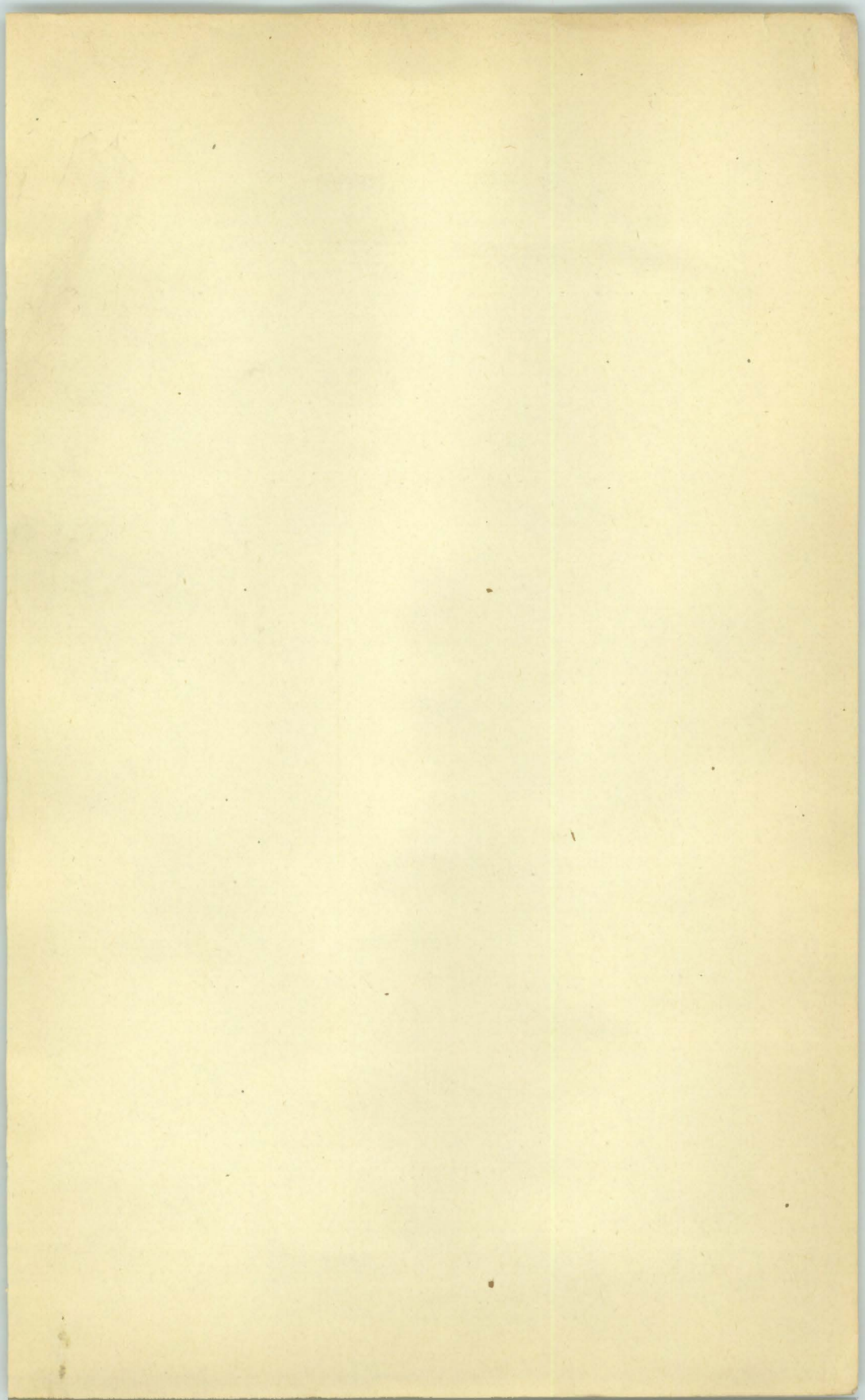
GREYSTONE PARK

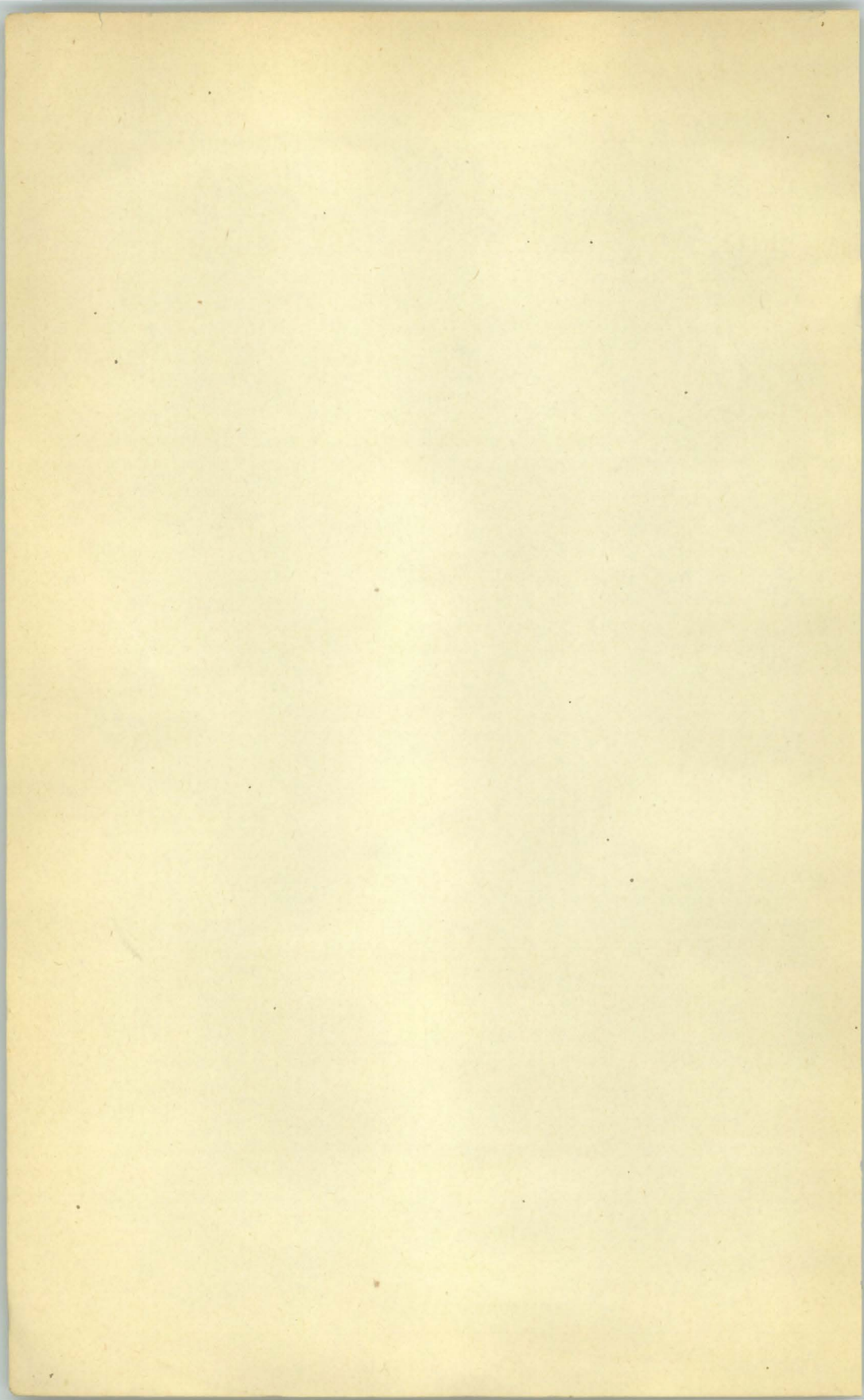
FOR THE YEAR ENDING JUNE 30th

1931

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**THE FIFTY-SIXTH ANNUAL REPORT**

OF THE

**MANAGERS AND OFFICERS**

OF THE

**NEW JERSEY STATE HOSPITAL**

AT

**GREYSTONE PARK**

**FOR THE YEAR ENDING JUNE 30th**

**1931**

**Compliments  
of  
Dr. Marcus A. Curry  
Superintendent.**

THE FIFTY-SIXTH ANNUAL REPORT

OF THE

MANAGERS AND OFFICERS

OF THE

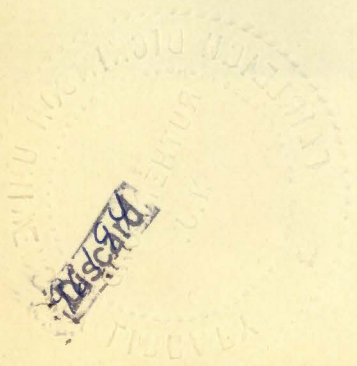
NEW JERSEY STATE HOSPITAL

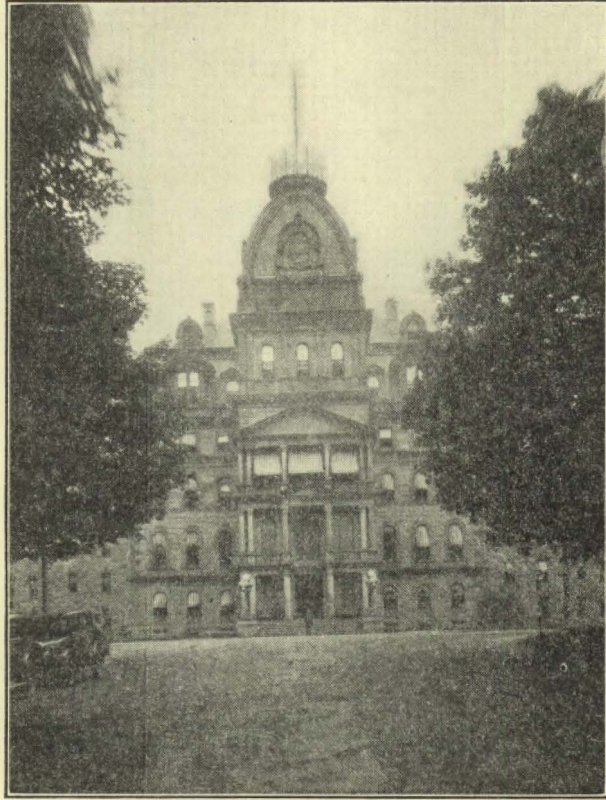
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GRYSTONE PARK

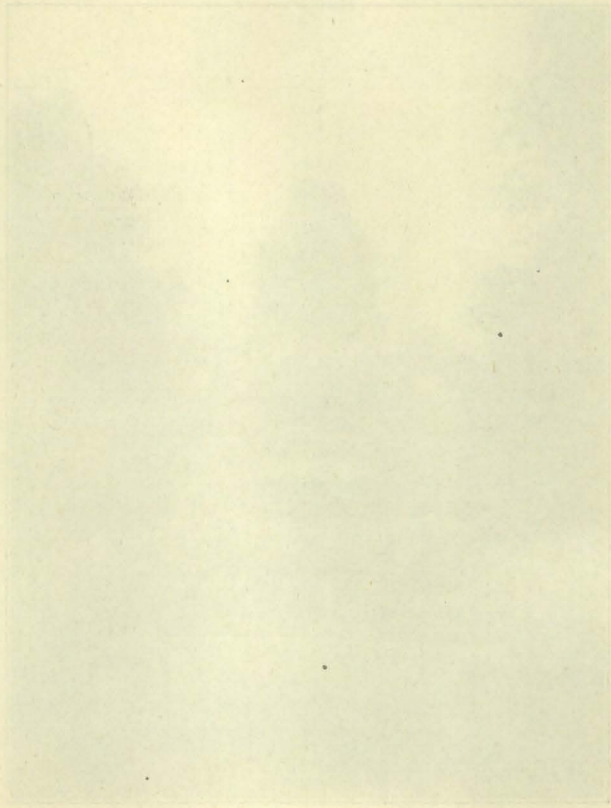
FOR THE YEAR ENDING JUNE 30th

1931





ADMINISTRATION BUILDING



ADMINISTRATIVE BUILDING

241  
N. J. State Hospital, Greystone Park  
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Monticello

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Business Manager

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GEORGE R. HAMPTON, M. D.....Senior Resident Physician  
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PERRY J. GAMBILL, M. D.....Senior Resident Physician  
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THEODORE GEBIRTIG, M. D.....Senior Resident Physician  
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MARGARET DOUGLAS, M. D.....Resident Physician  
\*ELSWORTH BAKER, M. D.....Resident Physician  
C. E. F. LAATSCH, M. D.....Resident Physician  
THOMAS G. PEACOCK, M. D.....Resident Physician  
W. H. MINFORD, M. D.....Resident Physician  
LAYMAN R. HARRISON, M. D.....Resident Physician  
JAMES M. LASLEY, M. D.....Resident Physician  
\*BERNARD GLICK, M. D.....Resident Physician  
\*FRED LILLY, M.D.....Resident Physician  
\*L. ARTHUR CRANDELL, M.D. ....Resident Physician  
ARCHIE CRANDELL, M.D. ....Resident Physician  
MARSHALL D. HOGAN, M.D.....Resident Physician  
HERBERT HYATT, M.D.....Resident Physician  
DANIEL GEORGE MELVIN, M.D.....Resident Physician  
CONRAD O. RANGER, M.D.....Resident Physician  
HARRY A. MOSCOE, M.D.....Resident Physician  
EDWARD B. RHEA, M.D.....Resident Physician  
GEORGE B. COON, M.D.....Resident Physician

OFFICERS

HAROLD S. HATCH, M.D. [ part time] . . . . Tuberculosis Specialist  
 EARL W. FULLER, M. D. . . . Director of Mental Hygiene Clinics  
 LINDSAY E. ROBINSON, M. D.,  
     Assistant to Director of Mental Hygiene Clinics  
 THOMAS R. PALMER, D. D. S. . . . . Senior Resident Dentist  
 \*HOWARD E. THOMPSON, D. D. S. . . . . Resident Dentist  
 JOHN MC CLUSKEY, D. D. S. . . . . Resident Dentist  
 ANNE HOW, R. N. . . . . Superintendent of Nurses  
 WILLIAM G. BEUCLER. . . . . Assistant to Chief Executive Officer  
 MILDRED H. HURLEY,  
     Directress of Mental Hygiene Clinic Social Service  
 PHYLLIS F. POINTON,  
     Directress of Hospital Psychiatric Social Service  
 STELLA A. MCCLURKIN . . . . Directress of Occupational Subjects  
 BEATRICE M. FORD. . . . . Directress of Physical Training  
 PHILIP B. ROBERTS, Ph. G. . . . . Pharmacist  
 EDWARD I. COURSEN . . . . . Assistant Business Manager  
 ARTHUR J. VAN WINKLE. . . . . Treasurer  
 HENRY LANDESMAN, C. E. . . . . Engineer-in-Charge

\*Resigned.

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Gastro-Enterologist and Proctologist  
FRANCIS C. BARTLEMAN, D. D. S.....Dentist

BOARD OF CONSULTANTS

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Gastro-Enterologist and Proctologist  
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CLIFFORD MILLER, M. D. . . . . Surgeon  
WILLIAM J. AULTZ, M. D. . . . . Neurologist  
CHRISTOPHER C. BELLING, M. D. . . . . Neurologist  
GEORGE H. LATHROP, M. D. . . . . Clinical Medicine

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**REPORT OF THE BOARD OF MANAGERS**

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REPORT OF THE BOARD OF MANAGERS

## REPORT TO THE COMMISSIONER

TO THE HONORABLE WILLIAM J. ELLIS,  
COMMISSIONER OF INSTITUTIONS AND AGENCIES:

The Board of Managers of The New Jersey State Hospital at Greystone Park presents to you herewith its fifty-sixth annual report of that institution, which covers the fiscal year ending June 30, 1931. We have included in this the report of the Superintendent and Chief Executive Officer, as submitted to us by Doctor Curry.

During the year the hospital was visited by two serious fires which added materially to the burdens of all responsible for the institution. With overcrowding in excess of 1,000 patients and reconstruction work already in progress in the North wards of the Main Building, following the first great fire in 1929, the institution has been forced to accept admissions to a number beyond any previously experienced. Considering these unfortunate conditions, we feel that the hospital has been excellently maintained and has achieved very creditable results in the way of recovered and improved patients.

The Managers have devoted much time to matters of construction and reconstruction. Upon two large structures, the Occupational Therapy Building for Women and the Tuberculosis Building, work has been in progress throughout the year. They are now practically ready for placing in service. Two new single cottages have been constructed for physicians since the beginning of the year and were occupied several months ago. Reconstruction on the Main Building has been continuous and the work on the first three floors of the North Side is now nearing completion. Additional reconstruction has included the completion of the remodeling of the toilets and water sections throughout the Main and Dormitory Buildings, which has been in progress for some years. The sewage disposal system has been given continuous study and attention; we feel that the work of Prof. Rudolfs has been productive of excellent results and that the system is now on a more satisfactory basis than at any previous time.

Plans and specifications have been gone over carefully for the construction work to be undertaken during the coming year. This includes housing for employees of the Dormitory Building group—the Dormitory, Senile and Tuberculosis Buildings—with the consequent removal and rebuilding of the farm stables and sheds. Plans were also studied for the lodge and gates at the Central Avenue entrance to the grounds. That this improvement has been granted to us at last is a source of considerable satisfaction, for it will make possible much needed regulation of traffic on the grounds and in the vicinity of the hospital buildings. The location of the new well which is to be added to the water supply during the coming year was discussed by the Board, as were the plans for alterations and reconstruction of the Administration Building, necessitated by the fire of November 26.

There have been a number of improvements in the plant and equipment during the year. The Senile Building, which had been opened to the extent of placing patients on one ward on the last day of the preceding year, was completely furnished and equipped and is now occupied by 156 patients. At the end of the year, twelve of the reconstructed wards on the North Side of the Main Building were occupied. The tier next to the Center is nearing completion and will soon permit opening four more wards to patients, thus finishing the reconstruction on the North Side with the exception of the fourth floor and roof. Furnishings and equipment are now being selected and installed so the Women's Occupational Therapy Building and the Tuberculosis Building will be ready for service in the near future. Alterations to the power and steam lines have been in progress throughout the year. A number of the buildings are now supplied with alternating current from our own plant, and the pump at the deep well in Morris Plains is also operated by hospital power. Several of the cottages have been placed on the steam lines from the central heating plant and have been supplied with hot water from the steam, making it possible to eliminate both the furnaces and the gas hot water heaters from these buildings. The water supply has met our necessities during the year, although at times it was necessary to curtail the amount used, and any failure of the equipment at the deep

well would have caused immediate shortage. This coming year, if the second well which is to be drilled meets expectations, the water supply should be ample for ordinary requirements and equal to almost any emergency demand, thus relieving the Board of a continual source of anxiety.

The administration of the hospital has been handled by the resident officers in a commendable manner throughout the year. Even during the stress of the two large fires, there was no panic or disorder; the patients were quietly removed from danger and the resident officers and employees were all at their posts of duty. Although many in the medical service, including physicians and their wives, social service workers and others, have been subjected to inconvenience, personal loss, and continued hardship of having to live in cramped quarters at the institution or in temporary accommodations in Morristown as a result of the destruction of the officers' apartments in the Administration Building by the fire, there have been few complaints.

Routine work in the medical and nursing fields has been rendered much more difficult this year by the overburdening of all services, the necessity of frequent transfers of patients, and the extra effort required to provide even the simplest requirements of beds, clothing, and food for numbers far in excess of the space and supplies. The fact that under such conditions there has been a fairly high percentage of recovered and improved patients discharged from the institution, while the number of those leaving the hospital on trial visit has been definitely increased, shows very creditable efforts on the part of the medical, nursing, social service, and other treatment divisions.

Various improvements have been made in the examination and treatment facilities this year. Routine examinations by a resident proctologist have been instituted, followed by medical and surgical procedures where necessary; colonic irrigation equipment has been installed and treatments given to selected patients. A physician especially skilled in the examinations and treatments of the tuberculous has been appointed to part-time duty on the medical staff and those patients who have active tuberculosis are now under his supervision. The staffs of nurses and attendants have been fully

maintained and improved; the number of student nurses taking the affiliate course has been limited only by our housing accommodations, since the opportunity for study here has been recognized with enthusiasm by the general hospital training schools. The Occupational Therapy Division has been utilized by the Philadelphia School of Occupational Therapy as a place to send students for practical experience in periods of six weeks each. The mental hygiene clinics have continued to render excellent services during the year; two of the finest training schools for social welfare work in the country, the one at Smith College and the New York School of Social Service, have sent groups of their undergraduate students for practical training under the clinic social workers and psychiatrists. From all of these evidences, it is apparent that the work at this institution, despite the present unusual handicaps, is of an exceptionally high standing.

The outside divisions have carried on their duties in an entirely satisfactory manner, although the farm and garden suffered from drought, and the dairy showed further invasion of abortus bacillus. Continued assistance has been rendered by Mr. Houston of the Central Office, by members of the Bureau of Animal Industry, and other consultants, while Dr. Dustan of Morristown has been in constant attendance as veterinarian. Mr. Coursen, assistant business manager, has supervised all the outside divisions and given most careful and faithful service throughout the year. Mr. Otto Koch, florist and landscape gardener, has maintained his former standard of excellent work with flowers, grounds, grading, and road building. His success in handling patient labor is unusual, and with certain advice from the construction office, and from Mr. Brinley, consulting landscape architect, he has carried out a great deal of constructive work which would have entailed the spending of large sums of money if done under outside contracts. His health has caused us some apprehension from time to time and in the winter, on the advice of his physician, he was given a month's leave of absence.

In the engineering divisions, the kitchens and bakery, the laundry, and the other divisions upon which the actual maintenance of the institution depends, the results have uniformly met

the requirements. Improvements have been made in many instances in the operation and equipment. One new piece of construction which should make possible further savings in the commissary is a cannery adjacent to the main kitchens. This is now nearly completed and should be ready for service in time to handle this season's produce.

After observing throughout the year his grasp on the work of his department and his successful results, the Board feels that no mistake was made in the appointment of Mr. George J. Holbig as Business Manager. He has not only carried on a quiet reorganization to improve all divisions in his department, but has relieved the Superintendent of a considerable amount of detail work.

Dr. Curry as Superintendent and Chief Executive Officer has been called upon to go through difficult times and carry a very heavy load this year. He has given the full measure of service to his position and the institution and the Managers feel that he is deserving of their high praise as an administrator as well as of their sincere personal esteem. In view of the continued strain incident to the superintendency, with the constant demands for adjustments to meet the growth of population, the loss of housing space, and the necessity for keeping within the limits of reduced appropriations, and added to all this the perpetual anxiety regarding the hospital plant, especially from the standpoint of fire hazards, the Board feared that Dr. Curry was exceeding his powers of endurance and early in the spring recommended that he take a leave of absence for a month or six weeks. He did not do this, however, insisting that he would do better to remain at the institution until after the close of the fiscal year.

At the close of the year covered by this report there remained on the records of the hospital, 4,344 patients—2,026 males and 2,318 females—an increase of 108 patients over the previous year. Of this total, 382 patients—180 males and 202 females—were outside of the institution but still carried on the hospital books and subject to return without medical or legal procedure. During the year there were admitted, including first admissions, readmissions, and transfers from other institutions for the insane in this State,

1,224 patients—687 males and 537 females—the discharges totaled 781 patients—564 males and 217 females; 207 were discharges as recovered, 202 as improved, 33 as unimproved, 23 as without psychosis, and 316 as transferred to other hospitals for mental disease in New Jersey; this includes 302 male patients who were transferred to the new State hospital at Holmdel during February and March. The deaths during the year numbered 335 patients—181 males and 154 females.

During the year the Board of Managers held eleven regular monthly meetings, no meeting being held in August. The total attendance was 60; committee meetings, conferences, inspections, and so on, made a total of 309 visits to the institution during the year by the individual members of the Board. Other conferences at the offices and homes of the members or at departmental offices in Trenton have not been recorded.

Certain recommendations have been included by the Superintendent in his report. The Board wishes to endorse these most heartily, and would call particularly to your attention the need of adequate funds for additional cottages for physicians, for the upkeep and improvement of roads, for the continuance of the reconstruction and fireproofing of the old buildings, and, if we may venture outside the actual bounds of Greystone Park, the need of a fourth State hospital.

In conclusion, the Board wishes to express to you personally, to the Central Office, and to the State Board of Control, its grateful appreciation of the close attention given to this hospital and its needs, and of the spirit of co-operation which has been continually manifested.

Respectfully submitted,

DANIEL S. VOORHEES, President

AUGUSTUS S. KNIGHT, M. D., Vice-President

JAYNE MILLARD DOYLE

MARIAN K. GARRISON

RIDLEY WATTS

FRANKLIN D'OLIER

GEORGE O'HANLON, M. D.

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**TREASURER'S REPORT**

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• TREASURER'S REPORT •

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1884

**TREASURER'S REPORT OF CASH RECEIPTS AND  
DISBURSEMENTS FOR THE FISCAL  
YEAR ENDING JUNE 30, 1931**

RECEIPTS

From Bergen County.....	\$110,208.17
" Camden County.....	439.33
" Essex County.....	38,835.53
" Hudson County.....	55,725.58
" Hunterdon County.....	348.17
" Mercer County.....	636.56
" Middlesex County.....	2,364.93
" Monmouth County.....	1,167.41
" Morris County.....	55,094.88
" Passaic County.....	166,038.99
" Somerset County.....	724.56
" Sussex County.....	16,376.36
" Union County.....	129,948.38
" Warren County.....	1,887.90
" Private Patients.....	150,209.28
" Individuals and Excess amounts collected by Counties for support of Indigent Patients.....	7,457.02
" Interest on Deposits.....	803.96
" Miscellaneous receipts.....	6,129.07
	\$744,396.08

DISBURSEMENTS

Amount of Collections deposited with State Treasurer..... 744,396.08

AMOUNTS RECEIVED FROM STATE TREASURER FOR PAY-ROLLS

Employees' Pay-rolls.....	\$949,815.98
Officers' Pay-rolls.....	16,598.18
	\$966,414.16

A. J. VAN WINKLE  
*Treasurer.*

**New Jersey State Library**



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**REPORT OF THE CHIEF EXECUTIVE OFFICER**

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REPORT OF THE CHIEF EXECUTIVE OFFICER

## REPORT OF THE CHIEF EXECUTIVE OFFICER

### TO THE BOARD OF MANAGERS:

In obedience to established precedent and the statutes of this State, I am submitting to you my eleventh annual report as Medical Superintendent and Chief Executive Officer of The New Jersey State Hospital at Greystone Park, which is the fifty-sixth report of the institution and covers the fiscal year from July 1, 1930, to June 30, 1931. In this are included in an abbreviated form statements from all branches of the medical and treatment services and from the business, production, and maintenance departments. Manifestly, with an organization of such scope it has been impossible to give full details regarding the work or even due credit to the officers and employees concerned, although I have endeavored to place before you sufficient data to show in a general way what has been done under the direction of each divisional head and something of the attendant circumstances.

In the realm of disasters and other conditions beyond immediate control, this has been the most depressing year experienced during the period of my connection with the hospital and probably in the entire history of the institution. Last year in my report to you I was obliged to refer rather frequently to the over-crowding and general stress which followed the great fire of May, 1929, and which had been further increased by the unparalleled admission rate. At that time I stated that we must be prepared to make even more difficult adjustments during the coming year, but of the actual extent of the trials in store for us I had no intimation.

Early in the fiscal year we had two serious fires in the old Main Building, one on October 30, in the roof above the men's wards which had just been reconstructed, and one on November 26, in the center tower portion of the building above the staff living quarters and administration offices. The origin of the first has never been definitely established; the second was undoubtedly due to a defect in the electric wiring. In both cases the water damage was greatly in excess of that by the flames, since both spread im-

mediately to the old wood construction under the roof and the water flooded all the floors below. In one respect neither of these fires approached in seriousness that of 1929, since both occurred in the daytime and in a location where the immediate danger to patients was slight. When the first fire of this year took place, the adjacent top floor wards were unoccupied, but the patients were promptly removed from the lower wards. During the fire in the Administration Building both men and women patients were taken from the tiers of wards nearest the center on each side and held in other parts of the institution.

The local fire division and various companies from the surrounding districts, including Morristown, Morris Plains, and Morris Township, did excellent service. The first fire was under control in an hour's time, thanks to the experience obtained during the fire of 1929 regarding the special problems involved in a conflagration spreading under the old mansard roof. The second fire was so high up, since it originated on the sixth floor and extended to the tower construction two stories higher, that only the water tower from Morristown was able effectively to reach the site of the flames from the ground. Our own men took a hose line up the stairs and put a stream of water on the fire, but were soon in danger from the smoke and also from the fire cutting off their retreat to the single stairway, which was not of fireproof construction. Another company working from the adjacent roof joined them, but eventually all were forced to leave the interior. Some were overcome by smoke and one or two had to be taken to the hospital ward for treatment, but all recovered promptly. The fire damage was confined to the tower and the sixth and fifth floors.

The financial loss was considerable, particularly in the second fire, where furnishings of value were destroyed, as well as injury done to the exterior and interior of the building itself. The first fire added to the overcrowding of patients, since the affected wards had to be thoroughly renovated again before they could be used. The second fire necessitated vacating several of the principal offices, with the attendant inconvenience for all concerned, and also made it imperative for all residents of the Main Building Center, including physicians, social workers, and teachers of occupational

therapy, to move to other quarters. For several of these it was impossible to find rooms in the institution and arrangements had to be made for them to live in Morristown. Many of these officers sustained considerable loss of personal belongings at the time of the fire. Beyond these definite physical handicaps, an emotional strain has been evident throughout the institution as a result of undergoing three major fires within a period of eighteen months. Everyone is still distinctly "fire conscious" to such an extent that an exaggerated reaction follows every sounding of the alarm or trace of smoke.

Next in importance to the fires and consequent reconstruction has been the steadily mounting admission rate. The total admissions for the year numbered 1,224 patients, which was an increase of 37 per cent. over that of the year ending in June of 1929, before the beginning of the present business depression. To complicate the situation further, there has been a decrease in the regular discharges and only a moderate increase in the number on parole, owing to the difficulty in finding employment for ex-patients and the reluctance of families already in financial straits to assume responsibility for the care of other non-wage earners. During February and March, however, a measure of relief was obtained in the transfer of 302 male patients to the new state hospital at Holmdel. The urgent need for such relief is shown by the fact that, even with this unusual reduction, our resident population was higher at the close of the year than at its beginning. Overcrowding, for years a major problem, has been more serious than at any time since the opening of the Clinic Building.

Adverse climatic conditions have also been added to our difficulties. The second year of diminished rainfall resulted in very poor crop production and depleted reservoirs. The new well, fortunately, continued to afford its usual supply, but as this is adequate for only about half of our requirements, it was necessary to reduce the use of water, particularly in the continuous baths. The well not only furnished more than 500,000 gallons daily, without which we should have been reduced to most serious extremity for actual routine needs, but probably was the means of saving the entire Main Building from destruction by fire. The drought situation was also

felt at the dairy, where milk production fell off with the reduction in green feed. Further complications arose with an increase in the number of cows afflicted with bacillus abortus.

To offset this list of difficulties and disasters, there have been brighter sides to the picture. Construction work has been in progress throughout the year. The process of fire-proofing the Main Building has been continuous and is now more than one-third completed. The Senile and Service Buildings on which the major construction was done last year, were completed in August and November, respectively. The Occupational Therapy Building for Women was under construction all through the year and is now practically completed. Similar conditions apply to the Tuberculosis Building. Two single cottages for physicians were begun in July and completed in February. Numerous other projects have been carried out, including extensive remodeling and redecorating in the different staff cottages, an addition to the hospital garage, further erection of unclimbable fence, and alterations in the power and heating systems. Many repairs have been made and the plant as a whole has been brought into a condition more serviceable and adequate to our requirements.

There have been certain innovations in the medical and treatment services this year. A division of proctology and colonic therapy has been established. It has been possible to procure the part time assistance of a specialist in lung diseases which has increased our facilities for tuberculosis work. In the hospital social service division a second historian was added to the force, in order to make possible more complete information about each patient. A comparison of the statistical tables will show this year a great decrease in the data listed as "Unascertained." In the nursing division the progress of the affiliated course for general hospital students has received favorable comment, and we were especially pleased at a flattering letter from Dr. C. M. Hincks, General Director of The National Committee for Mental Hygiene, after he had reviewed an outline of the work being done here.

In making up my report I have followed my usual custom of inserting a brief description of the special activities involved and some mention of the person responsible for the work as an intro-

duction to each divisional report, which is then given more or less as submitted to me, with only such cuts and alterations as necessitated by considerations of space and the difference in detail required in a statement to an officer in charge and one intended for publication. There is one officer in the institution, however, who has no division and submits no report, the assistant to the chief executive officer, Mr. William G. Beucler. His work is that of a detail man and he has constantly relieved both the superintendent and the business manager of a mass of duties and has proved efficient and valuable in a number of ways.

This year, on the whole, the entire institution has been exceptionally well manned, not in numbers, for in the interests of economy the list of employees has been held to a minimum, but in type and efficiency. The officers of the hospital have been the most satisfactory, individually and as a group, that I have ever worked with. Employees of the better grades have been readily available and the entire spirit of the personnel has been excellent in the face of unprecedented demands.

#### HEALTH

We have been spared any epidemic during the past year, a most fortunate circumstance in view of the existing overcrowding. The general health of patients and employees has been maintained at a high level. Forty-three new cases of pulmonary tuberculosis were reported, and one of tubercular meningitis—the latter in a member of an employee's family; erysipelas was reported in seven cases, with no deaths; one employee developed measles, but there was no further spread of the disease. The milk and water supplies have been tested at frequent intervals. New patients have been vaccinated against small-pox and typhoid fever, and routine health examinations have been made of patients and employees entering the institution.

#### STATISTICAL RESUME

The system of keeping records adopted by The National Committee for Mental Hygiene has been continued, and tables made up in the regular manner will be found in the statistical appendix.

Certain other tables have been added at the request of the State Department of Institutions and Agencies. As is customary at this point in my report, I am inserting a summary of the information contained in the statistical tables. This summary has been made up by Mr. Harold Prettyman, the hospital statistician and gives in a brief form the information most frequently in demand.

*General Data:* During the year ending June 30, 1931, there were admitted 1,224 patients—687 males and 537 females. This is an increase in admissions of 142 over last year. The admissions included 940 first admissions to any hospital for the insane—547 males and 393 females; 257 readmissions—118 males and 139 females and 27 transfers from other similiar institutions in New Jersey—22 males and 5 females. The number of patients discharged, including deaths, was 1,116—745 males and 371 females—leaving an increase on the books of 108 patients at the close of the year.

There were under treatment during the year 5,460 patients—2,771 males and 2,689 females, which was 381 more than the preceding year. The maximum census for the year was 4,455 obtained on February 6, and the highest number actually in the hospital at any one time was 4,071, which occurred on the same date. The average daily number in the hospital was 3,960. At the close of the year 364 patients—162 males and 202 females—were carried on parole, and 18 patients—all males—were carried as escaped. This is an increase of 45 over the number outside the institution at the close of last year, making the total increase of patients actually in the institution at the close of the year 63.

*First Admissions:* There were 571 patients of native birth, 332 males and 239 females; the foreign born numbered 368 patients—214 males and 154 females—or 39 per cent. of the total first admissions; the birth place of 1 male patient was not ascertained. Both parents of 313 native born patients were also of native birth, while in 57 cases one parent was born in this country and the other was of foreign birth. Of the foreign born patients, 79 were natives of Italy, 55 of Germany and 43 of Poland, these three countries furnishing 48 per cent. of the foreign born first admissions. The naturalized citizens numbered 182, the aliens 182, and the citizenship of 5 was unascertained.

Table 6, Psychosis of first admissions shows 221 patients diagnosed as suffering from psychosis with cerebral arteriosclerosis, 238 with dementia precox, and 124 with manic-depressive psychosis. These three groups comprised 62 per cent. of the total. Other psychoses showing high incidence were—general paralysis, 94; senile, 60; and alcoholic psychosis, 25.

In the classification according to racial origins, 98 were listed as German, 70 as Irish, 83 as Slavonic, 117 as Italian, and 88 as African, these five groups including 49 per cent. of the total. The mixed race furnished the largest single group, with 324 patients; the race of 3 was unascertained.

The age tabulation reckoned in five-year groups shows that the median line for admissions fell between the ages of 40 and 44, half of the total admissions being below this age and half above it. The greatest number of admissions were listed in the three five-year periods between 30 and 45 and included 32 per cent. of the total. Under 25 years there were 121 patients, and 109 were 70 years and over.

As to the degree of education, 462 patients or 47 per cent. had received a common school education, 106 were graduated from high school, and 32 had collegiate education; 231 were listed as having learned to read and write, and 106 were illiterate. The education of 3 patients was not ascertained.

There were 892 patients of urban environment, or 95 per cent. of the first admissions. The rural districts supplied 48 patients.

The economic condition of 678 patients—or 72 per cent. of the total—was listed as marginal; 101 were dependent, 160 comfortable, and the economic condition of 1 was not learned.

In regard to the use of alcohol, 552 patients were described as abstinent, 238 as temperate, and 142—132 males and 10 females—as intemperate. The habits of 8 patients were not ascertained.

The marital condition of the first admissions was classified as follows: Single, 328—218 males and 110 females; married, 383—209 males and 174 females; widowed, 143—71 males and 72 females; separated, 65—32 males and 33 females; divorced, 20—16 males and 4 females. The marital condition of 1 patient was not learned.

*Readmissions.*—The totals in this group were 257 patients—118 males and 139 females. In the classification according to psychosis, 85 were diagnosed as suffering from dementia precox and 70 from manic-depressive insanity, over 60 per cent. of the readmissions.

*Discharges.*—The total of those regularly discharged from the care of the institution during the year was 465 patients—251 males and 214 females. Of this number, 207 patients—108 males and 99 females—were considered to have recovered from their psychosis. This is 22 per cent. based on the number of first admissions, and is a very creditable rate, considering the exceedingly high number of admissions. The manner of discharge of the remaining patients was as follows: Improved, 202—106 males and 96 females; unimproved, 33—18 males and 15 females; without psychosis, 23—19 males and 4 females. In addition to those discharged, 316 patients—313 males and 3 females—were transferred to other institutions in New Jersey. Of those transferred, 302 males went to The New Jersey State Hospital at Holmdel during February and March. Of those discharged as recovered, patients suffering from manic-depressive psychosis constituted over 48 per cent, or 100 patients.

*Deaths.*—During the year 335 patients died—181 males and 154 females. This is a rate of only 6.1 per cent. based on the total number under treatment, and is slightly lower than last year. The largest single cause of death was endocarditis and myocarditis, which was certified in 162 cases or over 42 per cent. of the total number; other diseases of the circulatory system caused 25 deaths. General paralysis of the insane was given as the cause of death in 49 cases; tuberculosis of the respiratory system in 33; nephritis 10; and broncho-pneumonia in 6. The psychosis of those who died included psychosis with cerebral arteriosclerosis, 103; dementia precox, 51; general paralysis, 62; senile psychosis, 51; and manic-depressive psychosis, 23. The average age at death was 58.13 years.

At the time of death 168 patients, or over 50 per cent. had passed the age of 60 years; 102 patients were over 70 years of age. Of these 27 were in the 80's, 5 in the 90's and 1 had passed the century

mark.

The tabulation of the duration of hospital life showed that 71 patients had been in the hospital less than one month; more than half of these were suffering from psychosis with cerebral arteriosclerosis or general paralysis. Twenty-six patients had a hospital residence of 20 years and over at the time of death, and of these 17 were suffering from dementia precox.

#### CLINICAL WORK

Dr. Arthur G. Lane this year completed a decade of service to the hospital as clinical director. Throughout this period he has given conscientious and devoted attention to his large field, which includes the medical care and treatment of the patients, general oversight of the physicians and the social service division, and a large amount of educational work both in the institution and in the community. His constant aim has been the improvement of methods in the care of patients with a view to increasing the number returned to their places in the world outside the hospital. This year in addition to external handicaps he has been obliged to contend with considerable impairment of his own health, including a surgical operation. His report shows how much has been accomplished under difficult circumstances and runs as follows:

"From the clinical standpoint the outstanding feature of the year just closing is the tremendous increase in the admission rate, the total of 1,224 being 142 in excess of that of the preceding year, which at its close showed an increase of 193. The comments made at that time regarding the marked increase of admissions above the relatively less conspicuous increases of previous years seem to be still pertinent. During the past 10 years starting with the admission figure for the fiscal year closing June 30, 1921, which was 663, an increase of 58 over its preceding year, we find the ratio of increase indicated by the comparison of figures of yearly admissions as follows:

1922—717, an increase of 54	1925—700, an increase of 2
1923—658, a decrease of 59	1926—730, an increase of 30
1924—698, an increase of 40	1927—827, an increase of 127

1928—910, an increase of 83    1930—1,082, an increase of 193  
1929—889, a decrease of 21    1931—1,224, an increase of 142

It is very interesting to compare these figures with a standard chart in which the index of business activity is recorded showing the cycles of depression and prosperity over this period. In the last six months of the year 1920 and throughout the year 1921 business is recorded as in a pronounced depression, not showing signs of marked improvement until the beginning of 1922. Our figures for these years indicate a yearly increase of admissions of 58-54 respectively. The business improvement charted as beginning early in 1922 reached its maximum in 1923 when we find for the corresponding period a decrease of 59 in our admissions. According to the chart business activity again went into a depression of considerable proportions in 1924 and coincidentally our admissions increased by 40. At the close of 1924 and quite rapidly throughout 1925 business was on the upgrade, reaching its maximum at the close of the year, declining somewhat after that. Our admissions for corresponding time increased by only 2 patients. Throughout 1926 there was a marked decline in the business chart and our figures coincide with an increase of 30 admissions. The decline of business starting in 1926 was more precipitous in 1927, and it is found our admissions for that period were increased by 127. Throughout 1928 there was a very gradual recovery in the business status with 83 representing our increase of admissions. The year 1929 saw the business recovery reach its peak early in the year at about the time of the close of our fiscal year. This pronounced recovery was coincident with a decrease of 21 in our admissions. The present depression starting in the fall of 1929 and extending up to the present finds our admission rate increased in 1930 by 193 and in 1931 by 142. It would seem that this rather close comparison of trends cannot be a purely meaningless coincidence, nor can we overlook another rather significant finding which relates to the relative proportion of male and female admissions in the years of depression and prosperity. While there is usually a slight excess of male admissions over female, it is found that in the years of depression where an increase of admission is most conspicuous

that the proportion of male admissions is increased accordingly. Calling attention to the year 1923, which was one of prosperity, our admission rate declined 59 and of the total number of admissions 50.5 per cent. were men. In the year 1929 when our prosperity was at its height our admission rate declined 21; of the total number admitted only 48 per cent. were men. On the contrary, the year 1927, which showed the greatest increase for any one of these 10 years up to that time, was a year of depression with an increase of 127 admissions; of the total admissions 54 per cent. were male. In the years 1930 and 1931, both showing a marked increase in the admission rate corresponding to the period of depression, we find that the percentage of males of the total admissions was respectively 52.6 and 56.1.

As an etiological factor in the causation of mental disorders we would expect an economic crisis to account for an increase of patients suffering from the purely affective or emotional reactions comprising the functional group, by unsettling the adjustment of those individuals who function satisfactorily in situations providing comfort and security but who are unstable under adversities, in a direct manner and in a sufficient number wholly to explain the increase of admissions. A glance at the statistical tables indicates that it is not only in this purely emotional field but more prominently in the disorders accompanying the organic brain diseases that the effects are manifested in an indirect manner. This leads us to take into account the fact that the stress and strain incident to the loss of position, economic security and in many cases privation are sociological factors increasing the great tension of life in general and reacting oftentimes on the general physical health, insidiously undermining the constitution and aggravating a physical condition to an irreparable calamity which otherwise would have been avoided. The degree in which this is actually operating must to a certain extent be speculative, but that it is so operating our statistical tables give abundant evidence. There is hardly an individual in the community that has not been affected to some degree by the hard times now prevalent. That its devastating effect has not been brought directly to the doors of all our cases, does not remove the fact that the whole community atmosphere is

tainted with pessimism and with worry and anxiety over potential possibilities. Privation of the present may not be pressing but the lessening of the accumulated security for the future may, with its tension, contribute to a collapse of a nervous mechanism, which otherwise would have been adequate for the span of life in spite of lessening of organic capacity.

Throughout the period under consideration it has been noticeable that cases which ordinarily, in prosperous times, would have been kept in the home to be nursed and watched over are now being hospitalized from purely economic motives in the limitation of home facilities. As well, we notice the reluctance of families to make advances for the release of their patients on trial visit. In prosperous periods, this demand is almost an insistence in many cases who would be benefited by further hospital residence. On the other hand it is often very desirable in certain cases and frequently very advantageous where progress toward recovery up to a certain point is satisfactory but becoming sluggish or stationary, to have patients removed from institutional life to an extra mural environment, thereby hastening and completing a recovery which otherwise would be protracted or possibly lost with too long residence in the hospital. When economical conditions in the family environment are stringent it is quite noticeable that, unless a patient is in condition to return immediately to remunerative employment with such a position assured, at the time of leaving the hospital the prospect of an extra mouth to feed with other necessary expenses involved acts as a deterrent factor in prolonging a hospital residence which might otherwise have resulted favorably for the welfare of a patient who is progressing toward recovery and avoid the tendency sometimes evidenced of discouraging and institutionalizing the individual.

While the factors enumerated are operative in bringing more patients to the hospital and causing them to have more prolonged residence, a word must be said about the facilities for the care of this increased load. It is particularly unfortunate that throughout this period we have been deprived of the use of much of our ward space by the reconstruction activities necessitated by the modernizing and fireproofing of large ward areas which were

destroyed or damaged by the several fires of the recent past. Limitation of such ward space at the time when it is most needed has complicated treatment and care by an exaggerated overcrowding defeating, to a marked degree, the proper classification which is so desirable, and in many other ways complicating the administrative problems. Due to one of the recent fires we were deprived of housing facilities for certain of our personnel including some of the physicians' quarters and apartments for social workers and teachers. This circumstance has complicated our problems by further limiting our expansion of staff to cope with our added load. The opening of the new hospital at Holmdel allowed us to reduce our census by transfer of 302 male patients. The benefit obtained was largely in vacated bed space, as practically all these patients were physically strong and were otherwise not problem cases. The increase of admissions, however, has practically abolished the advantage which was thus secured. A consideration of all the factors outlined in the foregoing indicates in a general way the magnitude of the increase in clinical activities, the details of which are found in the individual reports of the various specialists and clinical departments, found printed elsewhere. As well, we may use these facts as explaining the drop in our recovery rate to 22.5 per cent. which figure under the circumstances would appear quite creditable.

In spite of the various handicaps it is gratifying to note that our mortality rate is lower than that of the preceding year. As a routine measure the whole patient population was revaccinated with anti-smallpox vaccine, the customary 3 year interval having expired. Although there was quite an outbreak of this disease in our hospital district we felt amply assured that it would not affect our population, for the routine administration of this protective measure is promptly given to each patient admitted and its benefits continued by regular interval application. This same procedure is carried out as a routine measure with anti-typhoid inoculations.

During the fall months a series of patients suffering from general paralysis were treated under the supervision of Dr. Currence of Bernardsville by medicated thermal baths. He made available to

us his experience with this measure of treatment in arthritic conditions and was most interested in its application to cases of general paralysis. The treatment consisted of allowing the patient to remain in a continuous bath for approximately an hour. The temperature of the water having been gradually raised from body temperature to 110 degrees—when this point was reached a mixture of essential oils was added to the bath. The immediate result was rather an intense hyperaemia of the skin and an elevation of body temperature. When the desired degree of fever was produced the patient was removed to a bed where dry packs continued the elevation of temperature for several hours. Several pounds in weight were lost by means of the excessive perspiration, an increase of leucocytes was produced. The weight was soon practically restored with administration of fluids. The conclusions arrived at were that the degree of temperature obtained had an effect comparable to that obtained with the malaria treatment. The disadvantages are apparent in the cumbersome manner in which the fever is produced and maintained, involving a great amount of detail which was time-consuming. It was not adopted as a regular measure of treatment.

We have had opportunity to add to our routine procedures the benefits of a regular proctological examination of recently admitted cases by the employment of a specially trained physician in this specialty. The advantages derived from such a routine examination and the application of medical and surgical measures directed toward the alleviation of symptoms due to pathology in this field are very important in the physical well-being. His employment has allowed us, as well, to direct more attention to colonic therapy in general, as he has taken under his supervision the rather complicated methods necessitated for the proper application of modern methods of irrigation and medication of the colonic tract. A male and a female nurse were given opportunity to acquire special training in the use of this apparatus in an institute in New York City, making possible a thoroughly scientific application of many medical measures beneficial directly to the physical health and indirectly to the mental health of patients suffering from complications of this order.

The clinical director has continued to act as a consultant for the local hospitals and community physicians in psychiatric matters. Talks have been given in psychiatry before interested groups including nurses' training class of Elizabeth General Hospital, Visiting Nurses of Elizabeth, Morristown Business Woman's Club, Morristown Current News Club and St. Elizabeth College class in Sociology. The rapid expansion of the nurses' training course has made increased demands on the medical staff in the nature of teaching and demonstrations. The medical staff was given its customary course in psychiatry during the winter months.

The regular hospital routine measures including staff conferences have been continued. In spite of our problems none of the measures that have been found of advantage in the past in providing every opportunity for the recovery or amelioration of physical and mental problems have been withdrawn. The members of the clinical force willingly exerted an added effort to surmount the difficulties and have cheerfully done their utmost to maintain our standards of care and treatment.

In closing, a word must be said of the outpatient clinic service. It is very gratifying that our efforts in this line have met with such approval by the public. The figures under the special report speak eloquently of the manner in which this endeavor has expanded until it has now reached the limit of its capacity. A much larger personnel would be required to meet the demands of communities desiring this service.

Appended is a summarized statement of the movement of non-resident and deportable patients during the year, which as usual has been handled through this division:

Cases transferred outside of the State.....	27
*Cases transferred within the State.....	19
Cases deported.....	14
Cases repatriated.....	1

26 cases were handled and reported who were removed by relatives, discharged on trial visit, discharged recovered or died."

\*This does not include 302 patients transferred to Holmdel, indirectly handled through this division.

## SURGICAL OPERATIONS, ACCIDENTS, BIRTHS, ETC.

All operative procedures in the hospital have been conducted under the direction of Dr. Laurence M. Collins, who is a highly skillful and successful surgeon, and also a student thoroughly informed in the general practice of medicine and of psychiatry. In addition to his specialty, he has acted as assistant to the clinical director and conducted staff meetings and carried on the routine duties in that division during any absences of Dr. Lane. Dr. Collins has submitted the following brief report of what has been accomplished and the results:

"Surgical work at the Clinic Building has still been handicapped, due to the fact that the building has been overcrowded with Main Building patients, who had to be accommodated while reconstruction was in progress. As a result, I have operated only on those patients who needed immediate surgical attention. There have been numerous hernia operations performed, many of them on cases who were in an enfeebled condition and poor surgical risks, but nevertheless, under spinal anesthesia they were operated upon without a death and all had a most favorable recovery. There were various operations of a minor surgical character performed on employees of the hospital and employees of the construction companies working on the different buildings which were not included in the following list:

<i>No. of Cases</i>	<i>Diagnosis</i>	<i>Operation Performed</i>	<i>Result</i>
1	Depressed fracture of skull.....	Treated symptomatically, no focal symptoms present.....	Recovered
1	Fracture of outer third of right clavicle.....	Fracture reduced.....	„
2	Fracture of surgical neck of left humerus.....	„ „ .....	„
3	Colles' fracture, left wrist.....	„ „ .....	„
4	Colles' fracture, right wrist.....	„ „ .....	„
1	Fracture at junction of upper and middle third of right radius...	„ „ .....	„
1	Compound fracture of little finger and terminal phalanx of second and third fingers, right hand....	„ „ .....	„

<i>No. of Cases</i>	<i>Diagnosis</i>	<i>Operation Performed</i>	<i>Result</i>
6	Fracture of the neck of left femur...	Fracture reduced.....	Recovered
3	Fracture of the surgical neck of right femur.....	„ „ .....	Improved
1	Fracture of both bones at middle third, left leg.....	„ „ .....	Recovered
3	Fracture of patella.....	Leg immobilized.....	„
1	Fracture lower end of right fibula...	Fracture reduced.....	„
2	Pott's fracture, left leg.....	„ „ .....	„
1	Dislocation of left shoulder.....	Dislocation reduced.....	„
1	Ankylosis of both knee joints.....	Adhesions broken up and splints applied....	Improved
1	Gangrene, large toe, right foot.....	Amputation at metatarsophalangeal articulation.....	Recovered
1	Traumatic amputation of terminal phalanx, index finger, right hand..	Tissues dissected, wound treated antiseptically...	„
1	Papilloma, index finger, right hand..	Tumor extirpated.....	„
1	Cellulitis of left hand.....	Incised and drained.....	„
1	Lacerated wound of left wrist, including nerves and tendons....	Arteries ligated, tendons and nerves sutured....	Improved
1	Contused lacerated wound of upper lip.....	Wound sutured.....	Recovered
4	Lacerated wound of scalp.....	„ „ .....	„
1	Concussion of brain.....	Treated symptomatically..	„
3	Cervical adenitis.....	Adenectomy.....	„
3	Sebaceous cyst of neck.....	Cyst extirpated.....	„
2	Sebaceous cyst of scalp.....	„ „ .....	„
3	Elongated prepuce.....	Circumcision.....	„
3	External hemorrhoids.....	Hemorrhoidectomy.....	„
1	Rectal fistula.....	Fistula curetted.....	„
10	Acute catarrhal appendicitis.....	Appendectomy.....	„
4	Chronic catarrhal appendicitis.....	„ .....	„
3	Acute suppurative appendicitis.....	Appendectomy with drainage.....	„
1	Acute suppurative appendicitis with foreign body (darning needle in lumen of appendix)...	Appendectomy with drainage.....	„
1	Acute intestinal obstruction.....	Adhesions broken up and bowel freed, together with appendectomy....	„

<i>No. of Cases</i>	<i>Diagnosis</i>	<i>Operation Performed</i>	<i>Result</i>
14	Left inguinal hernia.....	Bassinni.....	Recovered
12	Right inguinal hernia.....	„ .....	„
15	Double inguinal hernia.....	„ .....	„
1	Incarcerated left inguinal hernia....	„ .....	„
1	Left inguinal hernia and old post-operative return hernia, right side.	„ .....	„
1	Double inguinal hernia, with chronic catarrhal appendicitis.....	Bassinni with appendectomy.....	„
1	Right femoral hernia.....	Sac resected and hernial walls repaired.....	„
1	Right omental hernia and tumor mass in right testicle.....	Omentum resected and orchidectomy performed.....	„
1	Post-operative ventral hernia.....	Tissues dissected, and walls repaired.....	„
1	Post-operative abdominal hernia with hydrocele.....	Tissues dissected, walls repaired and Bottle operation.....	„
3	Hydrocele.....	Bottle operation.....	„
1	Umbilical hernia.....	Mayo.....	„
1	Fibroid uterus.....	Supravaginal hysterectomy.....	„
1	Fibroid uterus, left cystic ovary, left salpingitis.....	Supravaginal hysterectomy, left salpingo-oophorectomy.....	„
1	Fibroid uterus and chronic catarrhal appendicitis.....	Supravaginal hysterectomy and appendectomy.....	„
1	Mucous polyp of cervical canal.....	Polyp extirpated.....	„
3	Chronic endometritis.....	Curettage.....	„
1	Chronic salpingitis.....	Double salpingectomy.....	„
1	Chronic cholecystitis.....	Cholecystectomy.....	„
1	Chronic cholelithiasis.....	„ .....	„
1	Acute empyema of gall bladder.....	Cholecystectomy with drainage.....	Died
1	Osteosarcoma, right hip.....	Mass removed.....	„
1	Carcinoma of left breast.....	Breast amputated.....	Improved

During the year there have been no accidents to patients sufficiently serious in character to cause death. One male patient, colored, who escaped and could not be located after most careful search, was finally discovered dead by drowning in a reservoir; from the mental condition of the patient this was regarded as accidental rather than suicidal. A male patient suffering from cerebral arteriosclerosis and employed in painting beds in a basement room, in some manner obtained possession of an insecticide and drank it with suicidal intent; when observed he was in a serious condition and death occurred from cresylic acid poisoning. A woman patient committed suicide by drowning in a bathtub.

There were four births at the institution during the year, as follows:

Patient admitted April 2, 1930; female child born November 16, 1930. Child was illegitimate and was removed to the Morris County Children's Home on December 10, 1930.

Patient admitted November 4, 1930; male child born December 17, 1930. Child was illegitimate and was removed to the East Side Day Nursery, Newark, on January 9, 1931.

Patient admitted December 12, 1930; male child born March 17, 1931. Child was illegitimate and was removed to the State Board of Children's Guardians, Newark, on June 12, 1931.

Patient admitted October 13, 1930; male child born June 2, 1931. Child still in the hospital."

#### DIVISION OF PROCTOLOGY AND COLONIC THERAPY

Early in the fiscal year Dr. Marshall D. Hogan, a graduate of Chicago University and formerly connected with the Hillman Hospital of Birmingham, Alabama, was added to our staff. He had received special training in diseases and disorders of the lower intestine, and on January 15, began active work in colonic therapy. A number of rooms had been fitted up in the Clinic Building including reception room, nurses' office, sterilizing room, and treatment rooms for men and for women; six colonic tables had been installed, three for men and three for women, and a man and a woman nurse had been sent to New York for special instruction in the technique of colonic irrigations. Dr. Hogan has submitted the following report of the work in this section:

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Number of irrigations.....	2,948	2,536	5,484
Number of patients treated.....	258	220	478
Number of patients completed.....	178	108	286
Average number of irrigations each patient received... 11	11	11	11

On March 3, routine work in proctology was begun. An examination room was equipped in the Reception Building; the main operating room in the Clinic Building has been used this year, but a smaller and more desirable room for this particular surgery is being equipped and should be in service early in the coming year. Routine proctologic examination has been made of incoming patients and consultations held with staff physicians on resident patients, with corrective rectal surgery when indicated. Since work was begun in this section, the following has been accomplished.

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Number of rectal examinations.....	171	124	295
Operations, hemorrhoidectomy.....	2	3	5
Operations, rectal polyp.....	1	-	1
Consultations with examination.....	25	10	35

#### GYNECOLOGICAL DIVISION

As for several years past, the gynecological work of the hospital has been carried on by Dr. Margaret Douglas, assisted by a graduate nurse. Routine examinations have been made on all women patients soon after admission, and employees and resident patients have been referred by other members of the staff for examination. Dr. Douglas has given the following report of the year's work in this division:

##### EXAMINATIONS

New admissions.....	537
Referred patients.....	126
Employees.....	43
Total.....	706

##### TREATMENTS

Total number of treatments.....	2,137
Number patients referred to surgical division for consultation.....	63

SMEARS

Number of smears.....	608
Number positive for Neisserian diplococci .....	11

Six patients were pregnant on admission to the hospital; of these four were delivered at full term, as reported in the surgical division, and two are not yet at term. Among the gynecological operations listed in the work of the surgical division, seven were referred by the gynecologist.

EYE, EAR, NOSE AND THROAT DIVISION

The eye, ear, nose and throat work has been continued, as for seven years past, by Dr. P. J. Gambill. By special arrangement, including the permission of the Board of Managers, Dr. Gambill was permitted, in lieu of regular vacation this year, to spend certain days each week in Philadelphia working with Dr. Clerf in the Bronchoscopic Clinic of Jefferson Hospital, where he obtained valuable training and experience, personally performing over three hundred bronchoscopies. The time and expense incurred by Dr. Gambill in commuting between this hospital and Philadelphia were considerable, but he felt that they were profitably spent. The work at this institution has been maintained at the usual high standard, and the amount accomplished is shown in the following tables, which I have condensed from more complete data furnished me by Dr. Gambill:

EXAMINATIONS

Patients:	<i>Eye</i>	<i>Ear</i>	<i>Nose</i>	<i>Throat</i>	<i>Total</i>
Routine.....	1,224	1,224	1,224	1,224	4,896
Special.....	281	193	204	270	948
<b>Employees:</b>					
Special.....	79	51	40	132	302
<b>Total.....</b>	<b>1,584</b>	<b>1,468</b>	<b>1,468</b>	<b>1,626</b>	<b>6,146</b>

TREATMENTS

<b>Eye:</b>	<i>Patients</i>	<i>Employees</i>	<i>Total</i>
Number treated.....	435	118	553
Number treatments.....	703	165	868

## TREATMENTS (Continued)

	<i>Patients</i>	<i>Employees</i>	<i>Total</i>
<b>Ear:</b>			
Number treated.....	306	62	368
Number treatments.....	907	139	1,046
<b>Nose:</b>			
Number treated.....	407	61	468
Number treatments.....	1,490	102	1,592
<b>Throat:</b>			
Number treated.....	160	95	255
Number treatments.....	374	180	554
<b>Total:</b>			
Number treated.....	1,308	336	1,644
Number treatments.....	3,474	586	4,060

## SURGICAL OPERATIONS

Operation Performed:	<i>Patients</i>	<i>Employees</i>	<i>Total</i>
Adenoidectomies, general anesthesia.....	..	1	1
Cataract extractions.....	12	..	12
Curettement, middle ear.....	22	..	22
Emergency tracheotomy.....	..	1	1
Enlargement naso-frontal duct.....	23	..	23
Ethmoidotomies.....	33	..	33
Incision and drainage peritonsillar abscess.....	9	11	20
Intra-nasal antrum window.....	..	2	2
Iridectomies.....	14	..	14
Ligation of internal jugular vein.....	1	..	1
Mastoidectomies.....	1	1	2
Myringotomies.....	11	14	25
Opening and draining cerebellar brain abscess ...	1	..	1
Opening and removing clot, lateral sinus of brain	1	..	1
Radical antrum (modified).....	8	..	8
Removal aural polyps.....	12	2	14
Removal nasal polyps.....	10	4	14
Removal chalazion from eyelid.....	2	..	2
Removal lingual tonsil.....	16	..	16
Resetting and splinting fractured nose.....	8	..	8
Sphenoidotomies.....	18	..	18
Submucous resection of septum, local anesthesia.	4	..	4
Tonsillectomies, general anesthesia.....	41	1	42
Turbinectomies (anterior).....	16	..	16
<b>Total operations performed.....</b>	<b>263</b>	<b>37</b>	<b>300</b>

## DENTAL DIVISION

The usual program has been followed in the dental work of the hospital. Each incoming patient has been given a dental examination soon after admission and a chart with recommendations placed on file in the case record. A statement as to the dental work required, with an estimate of the cost, has then been sent to the correspondent in the case; if the correspondent was able and willing to pay the amount requested, it was collected. In any case, however, the necessary work was done, in order that the patient's physical and mental condition might not be permitted to suffer. The amount collected in this division was \$1,298.00.

Dr. T. R. Palmer has continued in charge of the work, and has shown great interest and energy; the amount accomplished in all sections runs considerably higher than last year. Dr. Palmer has submitted the following report:

"There have been some changes in the personnel of the division this year. Dr. H. E. Thompson, junior resident dentist, resigned in December to enter private practice, and Dr. John F. McClusky, who had served a year as dental interne, was appointed to the vacancy. Dr. Paul M. Hart, dental interne, also resigned to enter private practice. Both these young men have been more than ordinarily successful. Two new internes, Dr. George B. Slattery and Dr. James V. Gartland, have been employed. Mr. P. R. DeNapoly has continued to serve as mechanical dentist, and Dr. F. O. Bartleman as consulting dental surgeon.

The entire body of patients, following the program of former years, has been inspected and all septic mouths put in as normal a condition as possible. The oral condition of the patient population of the hospital has shown a steady improvement since the institution of an annual survey in 1928-29.

The Tri-County Dental Association held its spring meeting at this hospital, the principal address and clinic being given by John Jacob Posner, A. B., L. L. B., D. D. S., of New York City, author and lecturer. After a survey of the dental activities of the institution all seemed much impressed, Dr. Posner in particular being quite outspoken in praise of the division and the work being done. We have also been visited during the year by numerous other dentists who have shown much interest in our methods and

what is being accomplished.

#### EXAMINATIONS

New patients.....	1,224
Survey, ward patients.....	1,204
<b>Total.....</b>	<b>2,428</b>

#### X—RAY

Number of patients x-rayed in dental division.....	576
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#### TREATMENTS

Dental treatments given.....	9,502
Oral prophylaxis.....	1,778
Vincent's infection.....	54
<b>Total.....</b>	<b>11,334</b>

#### FILLINGS

Gold.....	129
Amalgam.....	1,840
Silicate enamel.....	867
Oxphosphate zinc cement.....	487
<b>Total.....</b>	<b>3,323</b>

#### EXODONTIA

Septic teeth removed.....	6,374
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#### ORAL SURGERY

Impacted teeth removed.....	170
Cysts removed.....	12
Fibroma.....	1
Papeoma.....	3
Chondroma.....	1
Fractured of mandible, compound.....	2
<b>Total operations.....</b>	<b>189</b>

#### REPLACEMENTS

Full dentures.....	131
Partial dentures with gold clasps.....	43
Partial dentures with gold clasps and lingual bars.....	30
<b>Total dentures.....</b>	<b>204</b>

NEW JERSEY STATE HOSPITAL 51

Dentures repaired .....	102
Cast aluminum interdental splint .....	1
Bridges, fixed and removable .....	14

As usual, the dental division has given attention to the wards of the Morris Country Children's Home during the past year. The following work has been done:

Treatments .....	126
Prophylaxis.....	21
Extractions .....	120
<b>Fillings:</b>	
Amalgam .....	83
Cement.....	63
Silicate .....	21
Total fillings.....	167

PATHOLOGICAL DIVISION

The work of the pathological laboratory is interwoven with that of the entire medical service of the hospital and is an invaluable adjunct to accurate diagnosis and treatment. Dr. Thomas B. Christian this year completed ten years as head of the laboratory in this hospital. He has established a reputation for sound technique and thorough knowledge of his specialty. The pathological division functions rapidly and accurately, and the volume of work required has steadily increased with the growth of the institution. Dr. Christian has submitted the following report of the work accomplished during the past year:

"The laboratory has continued the same schedule of routine examinations on all newly admitted patients, including complete urinalysis, vaginal smears for women and urethral smears for men, complete blood counts, and complete blood chemistry with calcium quantitative determination and Wasserman and Hecht-Gradwohl tests. In addition we have this year found it to our advantage to have a routine examination of the spinal fluid performed on all newly admitted male cases. All patients showing any pathology found through laboratory examination have been put under treatment for their condition and repeated laboratory

tests made in order to determine the results and the type of further treatment required.

All cases of general paralysis, cerebral syphilis and tabes dorsalis have been placed on malaria inoculation treatment. All patients with neuro-syphilis who did not react to the malaria treatment were given foreign protein intravenously, usually in the form of a mixed typhoid vaccine, in order to raise the temperature. The inoculation of patients suffering from tabes dorsalis with malaria has not been generally performed in other institutions, probably for the reason that comparatively few cases of this disease reach the State hospitals. However, I am giving malaria treatment to a number of our patients with tabes and have advised and given inoculations to a number of cases not in the institution. In general, I have received very favorable results and will have in the near future a tabulation showing the actual degree of improvement in the physical condition brought about in cases of tabes dorsalis by inoculation with malaria.

We have practically discontinued the use of arsphenamine and neoarsphenamine in general paralysis. During the past ten years I have given large quantities of these drugs without very gratifying results. In place of arsphenamine during the past year I have been using tryparsemide ranging in doses from one to six grams a week. This has been given to all patients with general paralysis following the termination of malaria treatment. My records show better improvement and longer remissions with tryparsemide than with any other drug. All cases of general paralysis and syphilis who have left the hospital, whether on parole or by outright discharge, have been advised by the social service division to continue their anti-syphilitic and periodic blood and spinal fluid examinations, either at the clinic in this hospital or at some clinic in their locality. All cases showing four plus Wasserman or other evidence of general syphilis but with no other clinical, physical or laboratory symptoms, have been given routine treatment in which the following drugs were used: Neoarsphenamine, sulpharsphenamine, intramuscular and intravenous bismuth compounds and sodium iodide. We have discontinued the use of mercury preparations for the past year, as we have

have had the same experience with this drug which other syphilographers have reported. Bismuth takes the place of mercury in practically every respect and at the same time is less toxic and irritating to the kidneys and gives better therapeutic results.

We have added to our division a special type of research laboratory work in connection with the new colonic irrigation section. Chemical and bacterial examinations have been made of fecal matter received through high irrigation. Whenever any bacteria of the pathogenic group, such as staphylococci or streptococci were found, cultures were made and a compliment fixation test given the patient to determine whether or not he was damaged by this bacteria. If positive results were obtained a vaccine was made and the patient treated with it. This work on intestinal toxemia is still in progress and no definite report can yet be made regarding the results.

We have also been doing research work on the following subjects: sodium iodide intravenous injections in cases of general and cerebral arteriosclerosis; larger doses of sodium thiosulphate intravenously on Wasserman fast cases; sugar tolerance tests of blood and spinal fluids in cases of encephalitis lethargica; and foreign protein inoculations of cases of dementia precox and stuporous manic types.

The following table shows the regular treatment for syphilis:

	Male	Female	Total
No. of cases under treatment. ....	131	31	162
No. of doses neo-arsphenamine administered.....	1,396	296	1,692
No. of doses mercury and other drugs administered...	2,401	350	2,751

The free clinic for venereal disease for those not patients in this hospital has been maintained. It is open to all indigent persons in the hospital district and is held every Friday, between the hours of 2:00 p. m. and 4:30 p. m. The patient for treatment must be referred by a physician and must be an indigent case. All drugs used in the clinic such as neo-arsphenamine, mercury and also the apparatus are furnished by the United States Public Health Service. The following gives a summary of the work during the past year:

CASES TREATED

	Male	Female	Total
Syphilis.....	226	123	349
Gonorrhoea.....	170	73	243
Chancroid.....	36	12	48
Total.....	432	208	640

SUMMARY OF THE WORK OF THE  
PATHOLOGICAL LABORATORY

URINE	Male	Female	Total
Chemical and microscopical .....	2,037	2,878	4,915
Quantitative for albumin .....	433	772	1,205
Quantitative for sugar .....	165	364	529
Quantitative for chlorides .....	16	12	28
Cultures for types of bacteria .....	12	9	21
Microscopical examinations of stained smears .....	92	64	156
Phenolsulphonephthalein functional tests .....	19	11	30
Positive casts .....	344	322	666
<b>BLOOD:</b>			
Enumeration of red blood cells .....	1,018	921	1,939
Enumeration of white blood cells .....	1,508	1,215	2,723
Estimation of hemoglobin .....	252	346	598
Differential leukocyte counts .....	1,508	1,215	2,723
Examination for plasmodium malaria .....	47	36	83
Widal tests .....	68	46	114
Cultures .....	18	26	44
Examination for pneumococcus .....	12	10	22
Determination for blood groups .....	98	62	160
Sugar .....	995	969	1,964
Non-protein nitrogen .....	1,003	913	1,916
Urea-nitrogen .....	1,005	902	1,907
Creatinine .....	1,001	890	1,891
Uric acid .....	19	32	51
Cholesterol .....	6	4	10
Chlorides .....	12	19	31
Total nitrogen .....	6	4	10
Tests for CO <sub>2</sub> in the blood .....	9	2	11
Calciums .....	678	569	1,247
Wasserman tests .....	1,203	1,125	2,328
Hecht-Weinberg-Gradwohl tests .....	1,203	1,125	2,328
Estimations of coagulation time .....	104	75	179
Color index .....	204	224	428
Bleeding time .....	8	12	20
<b>SPINAL FLUID:</b>			
Wasserman tests .....	951	229	1,180
Cell counts .....	951	229	1,180
Globulin .....	951	229	1,180
Protein .....	951	229	1,180
Collodial gold curve .....	951	229	1,180
Microscopical examination of stained smears .....	67	36	103
Cultures .....	14	8	22

SPINAL FLUID: (Continued)	Male	Female	Total
Quantitative sugar estimations.....	9	6	15
Quantitative chlorides .....	9	6	15
Non-protein nitrogen .....	9	6	15
Urea nitrogen .....	9	6	15
Creatinine.....	9	6	15
<b>SPUTUM:</b>			
For tubercle bacilli .....	80	46	126
For bacterial flora.....	51	36	87
Cultures .....	18	15	33
For types of pneumococci .....	21	19	40
<b>FECES:</b>			
For parasitic organisms .....	311	225	536
For tubercle bacilli .....	52	49	101
For typhoid bacilli .....	47	32	79
For bacterial flora.....	309	220	529
For occult blood .....	327	213	540
<b>SMEARS:</b>			
For gonococci .....	213	608	821
For treponema pallidum .....	7	6	13
From diphtheriae cultures.....	48	36	84
From eyes.....	6	4	10
From pus from ears .....	2	4	6
From pus from wounds .....	6	8	14
Examinations of gums for Vincent's angina .....	69	49	118
Examination of throat for Vincent's angina .....	40	42	82
<b>STOMACH CONTENTS:</b>			
Total acidity .....	19	12	31
Free HCl .....	19	12	31
Combined HCl .....	19	12	31
Salts .....	19	12	31
For Oppler Boas bacillus .....	19	12	31
Cultures .....	6	2	8
Occult blood .....	19	12	31
<b>MISCELLANEOUS:</b>			
Patients inoculated with plasmodium malaria.....	67	17	84
Autogenous vaccines .....	19	12	31
Cultures from teeth.....	6	4	10
Examination of granulomas .....	14	7	21
Basal metabolism estimations .....	23	52	75
Sugar tolerance tests .....	4	2	6
Examinations of tissues .....	73	49	122
Autopsies.....	10	6	16
Typhoid vaccine (doses) .....	2,265	1,818	4,083
Total number.....	24,192	20,046	44,238

WATER:	
For colon bacilli .....	48
For typhoid bacilli .....	48
Bacterial counts .....	48
Quantitative chlorine estimations .....	16
MILK:	
Specific gravity .....	49
Fat contents .....	213
Total solids .....	42
Proteids .....	42
Sugar .....	42
Bacterial counts .....	69
Total number .....	617
Grand Total .....	44,855

### ROENTGENOLOGY AND ELECTROTHERAPEUTICS

The value of X-ray as a decisive factor in the diagnosis of many medical and surgical disorders cannot be overestimated, but the technique of making and reading X-ray plates is a difficult one, requiring thorough training and much experience. In his many years of work in this field, Dr. George R. Hampton has developed a high degree of skill which has insured the respect of his associates and made his division an essential feature of the hospital service. In the treatment of abnormal conditions by electrotherapy constant progress is being made. Dr. Hampton has always studied to keep abreast of the new possibilities as they developed, without going to radical extremes. His report of the year's work runs as follows:

"During the past twelve months the routine X-ray examinations of new patients together with the studies made of all injuries sustained by patients and employees and of certain other physical states required over four thousand X-ray exposures. The following list shows the variety and amount of the work:

#### ROENTGENOGRAPHY

<i>Exposures:</i>	
Head .....	651
Maxilla .....	2,134
Chest .....	340
Abdomen (Barium meal) .....	121
Hip .....	38

*Exposures:*

Spine.....	23
Pelvis.....	15
Upper extremity.....	382
Lower extremity.....	275
Teeth.....	47
<b>Total exposures.....</b>	<b>4,026</b>

*Diagnoses:**Fractures:*

Skull.....	12
Mandible.....	3
Scapula.....	1
Clavicle.....	1
Rib.....	4
Humerus.....	9
Radius.....	17
Ulna.....	3
Phalange.....	9
Pelvis.....	1
Femur.....	14
Tibia.....	6
Fibula.....	10
Metatarsal.....	9

*Dislocations:*

Humerus.....	3
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*Osteomyelitis:*

Femur.....	1
Tibia.....	1
Radius.....	1
Mandible.....	2

*Foreign Bodies:*

Orbit—bullet.....	1
Arm—needle.....	4
Leg—bullet.....	1
Intestine—tacks.....	11

*Chest:*

Pulmonary tuberculosis (acute).....	64
Pulmonary tuberculosis (chronic).....	53
Bronchitis.....	7
Pleurisy with effusion.....	2
Aortic aneurism.....	2
Cardiac hypertrophy.....	15

*Abdomen:*

Appendicitis.....	3
Duodenal adhesions.....	8
Colonic hypomotility.....	2
Elongated colon.....	2
Intestinal ptosis.....	16
Pregnancy.....	2
Gall stones.....	7
Kidney stones.....	2
Ulcer of stomach.....	3

*Teeth:*

Impactions.....	118
Periapical abscesses.....	59
Septic roots.....	121
Pyorrhea.....	136
Cyst.....	3

*Miscellaneous:*

Mastoiditis.....	8
Sinusitis (antrum).....	5
Brain tumor.....	2
Curvature of spine.....	6
Arthritis.....	5
Patella bursa.....	4

On account of the increased facilities afforded by the new electrotherapy room a greater variety of treatments was possible this year. Four hundred six ultra-violet ray treatments were given to patients suffering from anemia, skin lesions, or low calcium blood contents; eighty per cent. of the patients treated for the latter condition showed a marked improvement. Over sixteen hundred high frequency current treatments were given to patients who were depressed, complained of insomnia, or suffered from high blood pressure; the results obtained in these cases were satisfactory.

A series of general paretic patients were given intensive diathermic treatments to produce an increase of body temperature. The reaction was satisfactory in all cases, but, on account of the discomfort experienced by the patients while undergoing the treatment and the time required for the technique, it does not seem that this is a very practical method or that it should replace the malaria inoculations except, possibly, in certain special cases.

## ELECTRO-THERAPEUTIC AND X-RAY TREATMENTS

High frequency current .....	1,639
Galvanic and sinusoidal currents.....	115
Vacuum electrode.....	741
Ultra violet rays.....	406
Diathermia.....	212
Infra red rays.....	22
Static head breeze.....	617
Electrolysis.....	60
X-rays.....	86
Total treatments.....	3,898

## TUBERCULOSIS

During the past year a resident medical superintendent was appointed at the Morris County Sanatorium for the Tuberculous, located at Shongum, a short distance from the hospital. This superintendent, Dr. H. S. Hatch, is a well equipped specialist in his line, and arrangements were made for him to be appointed to our staff on part time basis. At my request, Dr. Hatch has submitted a report of the work done here since he began active duty:

"The chest consultant service was inaugurated on March 1, and this report covers the period from that date to June 30. All cases referred by the medical staff have been examined, and examinations are being made as rapidly as possible of all patients who have previously been diagnosed as having tuberculosis. In this work, repeated examinations are often necessary before a final diagnosis can be made and diagnostic aid such as the X-ray, sputum examinations, tuberculin tests, and occasional iodized oil injections are utilized. Especial care has been used in attempting to pick out the tuberculous patients among new admissions so that they might at once be segregated and thus be removed as a possible source of infection to other patients. For the benefit of the tuberculous and also to prevent the spread of the infection to others, all tuberculosis cases have been at once transferred to the tuberculosis pavilions when possible. At present the accommodations in these annexes are inadequate to care for all needing treatment and it is therefore often impossible to segregate these patients as completely as should be done. With the com-

pletion and occupancy of the new tuberculosis building in the near future this handicap will be removed, as it is believed that this building will be large enough to care for all of the actively tuberculous patients in the institution, and it will be provided with every facility for the modern treatment of the disease.

Your examiner is impressed by the fact that few acute fulminating cases of tuberculosis have come to his notice, and he is further impressed by the particularly good results of the treatment in many cases.

Following is a detailed report of cases examined:

<i>Diagnosis</i>	<i>No. Examined</i>
Active pulmonary tuberculosis .....	36
Inactive pulmonary tuberculosis .....	29
Pleurisy with effusion .....	1
Tuberculosis orchitis .....	1
Chronic adhesive pleuritis .....	1
Acute bronchitis .....	1
Chronic bronchitis .....	6
Bronchiectasis .....	4
Tuberculous adenitis .....	1
Bronchial asthma.....	4
Emphysema .....	3
Spontaneous pneumothorax .....	1
Negative for chest disease.....	105
Total number examined .....	193

All inactive cases of tuberculosis will be re-examined at intervals of six months.

#### OCCUPATIONAL THERAPY DIVISION

Under the close and careful supervision of Dr. George B. McMurray, senior assistant physician, the Occupational Therapy Division has made very satisfactory progress during the past year. The conditions under which the patients were employed have been much improved since the new building for men was placed in service three years ago, and still further advancement is anticipated in the immediate future with the equipment of a similar structure for the women. Dr. McMurray has submitted the following report of the year's work:

"Consistent efforts have been made during the past year to make the Occupational Therapy Division of pronounced therapeutic value in the institution. The instructors in charge of the division have been exceptionally diligent, interested in their work, and kind and careful with their charges. It has been repeatedly impressed upon them that the prime importance of the Occupational Therapy Division is to aid and assist the patients in recovering their mental and physical health.

Near the close of the year the new Women's Occupational Therapy Building was opened, although it is not yet entirely equipped for service. It is a spacious, well ventilated, well lighted building, carefully planned to promote the comfort of the patients. Three sides of the building are of glass construction, and the roof is saw-tooth, with glass on the vertical portions, so that light and air are amply assured. In this building several new crafts will be added to those already being taught.

The work of the Occupational Therapy Division is classified in two main groups, the Industrial, in which the activities are carried on in special structures outside the residence buildings, and the Curative Workrooms, in which classes are held either actually on the wards or in adjacent rooms. The Industrial group consists of three main sections, Men's Arts and Crafts, Women's Arts and Crafts, and the Print Shop and two small sub-divisions, the concrete block and the willow growing industries. In addition to the work of the Occupational Therapy Division, many patients have been employed in the general work of the hospital, the number varying in the course of the year from 1,600 to 2,100.

The Occupational Therapy Division has on several occasions during the year held exhibits of the work for the purpose of educating the public as to the possibilities in this line, particularly as to the value to the patients of graded and supervised employment. Among these exhibits were one at the Trenton State Fair, one at the Fair at Branchville, and one at the Flemington Fair; others were held at various clubs, such as the Rotary and Kiwanis, and still others were of a private character, such as at the Women's Club of Morristown, and at the home of Mrs. Philip McKim Garrison of our Board of Managers.

The following is a statement of the work done in the different sections :

### MEN'S ARTS AND CRAFTS

*Willow:*

Chairs.....	9
Settees.....	1
Ferneries.....	35
Hampers.....	26
Hamper top.....	1
Wash baskets.....	36
Fireside baskets.....	13
Scrap and waste baskets.....	164
Dog and cat baskets.....	38
Chaise lounge.....	3
Estension.....	4
Total articles of willow.....	330

*Reed:*

Flower baskets.....	815
Other fancy baskets.....	128
Sewing baskets.....	19
Melon baskets.....	205
Wood baskets.....	28
Market baskets.....	72
Lunch baskets and hampers.....	28
Trays, flower.....	65
Trays, sandwich.....	21
Stands, fern.....	7
Ferneries.....	25
Total articles of reed.....	1,413

*Toys:*

Boats.....	82
Animals and miscellaneous toys.....	250
Wheel barrows.....	6
Toy chairs, etc.....	90
Toy wagons.....	52
Total toys.....	480

*Carpentry:*

Tables, coffee.....	3
Scrub brushes.....	377
Stands, flower.....	10
Trays, desk.....	7
Book ends, pr.....	3

*Carpentry: (Continued)*

Chairs, Adirondacks.....	109
Chairs, child's .....	64
Total carpentry articles.....	573

*Brooms:*

Regular.....	2,904
Whisk.....	66
Hearth.....	163
Total brooms.....	3,133

*Textiles:*

Loom rugs.....	536
Loom runners.....	14
Tied rugs.....	8
Hooked rugs.....	57
Cocoa fibre mats.....	114
Stool tops.....	4
Total textile articles.....	733

*Repairs:*

Chairs repaired.....	9
Chairs caned.....	629
Victrolas repaired.....	3
Total articles repaired.....	641
Total articles made and repaired.....	7,303

## WOMEN'S ARTS AND CRAFTS

*Fancy Work:*

Braided rugs.....	129
Hooked rugs.....	133
Miscellaneous.....	2,049
Total articles made.....	2,311

*Plain Sewing:*

Aprons, kitchen, butcher, cafeteria.....	1,002
Bags, laundry.....	362
Bags, coffee.....	204
Bags, baseball field.....	3
Cases, glove, operating room.....	12
Cloths, table.....	130
Cloths, tray.....	92
Cloth, silence.....	1
Containers, operating room.....	54
Covers, dug out.....	4
Canvas, piece.....	1

*Plain Sewing: (Continued)*

Dresses, night.....	2,343
Dresses, strong.....	20
Drawers.....	997
Gowns, nurse's.....	36
Gowns, surgical, doctor's.....	38
Jackets, ether.....	8
Names on blankets.....	38
Petticoat slips.....	2,142
Petticoat slips, outing flannel.....	138
Pillow cases.....	8,626
Pads, covered.....	205
Pads, table.....	1
Pockets, glove.....	76
Sheets.....	10,621
Sheets, pack.....	428
Sheets, laparotomy.....	26
Shirts, athletic.....	20
Shirts, night.....	1,153
Scarfs, cheesecloth.....	101
Suits, burial.....	516
Skirts, muslin.....	4
Square, bleached muslin.....	1
Strips, muslin 18x6".....	60
Towels, dish.....	1,863
Towels, hand.....	5,357
Total articles made.....	36,683

## PRINTING AND BOOKBINDING

Ruling impressions.....	674,980
Printing impressions.....	1,480,620
Total impressions.....	2,155,600
Binding and stitching.....	12,041
Pads made up.....	6,505

## CONCRETE BLOCK INDUSTRY

In this section blocks have been made up as required for construction work on the hospital property. At the beginning of the fiscal year a considerable stock was on hand, so the number produced this year has not been high.

	<i>Cinder</i> 8x8x17	<i>Cinder</i> 4x8x16	<i>Rock face</i> 8x8x16	<i>Rock face</i> corner	<i>Half</i> 8x8x8
Production	—	5,480	4,430	950	900
Credit by return	417	420	—	—	—
Withdraw	10,640	13,360	4,720	992	560
On hand	2,555	175	140	8	300

## WILLOW HOLT

The willow production is seasonal in character, and consists of caring for the willows, cutting and stacking them, stripping the bark, and drying and storing the produce. The willows harvested have been used in the manufacturing of chairs, baskets, and other articles. The willow holt consists of about three acres; it has been replanted, and the crop this year was exceptionally fine.

## CURATIVE WORKROOMS

In this section of occupational therapy, a special effort has been made to interest patients not in condition to leave the residence buildings to work in the Industrial groups. They include newly admitted patients who are not fully adjusted to hospital routine, or who are still undergoing frequent examinations and special treatments, and also patients of the less accessible types under continued treatment who can be reached only by prolonged individual attention. The work has been carried on under the charge of Miss Stella A. McGlurkin, who was made director last year and who is thoroughly trained in this field. Miss McGlurkin has submitted the following report:

"The employees in this section consist of 4 trained occupational therapists and 14 partly trained assistants. The largest number of classes held per day was 34; the average enrollment of patients in all classes was 929, and the highest monthly enrollment 954. The total number treated on prescription during the year was 1,578, of whom 650 were newly prescribed by physicians. Classes were started on three additional wards in the Main Building and one in the Dormitory Building during the year. The number of articles completed for sale was 1,286. Certain articles were made for general hospital use and 2 table looms and 10 slipper frames for use in the Occupational Therapy Division. For the

use of patients, 978 articles were completed, being made chiefly from waste materials.

In addition to the exhibits and sales listed above, in which this section joined, two sales were held at the Women's Exchange in Morristown, and one in the local office in the Clinic Building. The teaching staff was represented at four quarterly meetings and at the annual meeting of the New Jersey Occupational Therapy Association and at two special meetings of its executive committee. Four groups of affiliate nurses and one group of Greystone Park student nurses were given the course in occupational therapy this year. Three student aids from the Philadelphia School for Occupational Therapy spent six weeks each in the division. On July 3d and at Christmas, parties were held for all patients engaged in class work, and for the nurses and attendants employed in their care.

#### PHYSICAL EDUCATION DIVISION

The program of this division has been practically the same as last year, with the chief emphasis placed on patients of the more advanced types. Both the dull and seclusive and the noisy and disturbed received physical and mental benefit from orderly and rhythmic activities under trained supervision. The work has continued under the direction of Miss Beatrice M. Ford, who has been in charge of the division for the past four years. The assistants have all been high school graduates, who have also completed the course of training in physical education in an approved normal school or teachers' college. During the year there were seven appointments and five resignations in the staff, and at the close of the year the force consisted of the director, four senior teachers, five junior teachers, and a vacation assistant. Only one of the teachers is a male, since it is felt that in general the opportunities for outdoor activity are much greater among the men patients than among the women. Miss Ford's report runs in part as follows:

"The greater number of classes have been held in the rear wards of the Main Building, both on the North and South sides. Classes for women have been held on eleven wards twice daily

for a half-hour in the morning, and from one-half to three-quarters of an hour in the afternoon. Each class has been conducted by two teachers and progressive instruction has been given in marching, calisthenics, folk and social dancing, and games. As there was only one instructor for the men, classes were held in the North Side of the Main Building in the morning only. As many wards as possible were visited, and classes held in calisthenics, marching, and games.

At the Dormitory Building morning classes in bowling were held for patients from the Main, Senile and Dormitory buildings. In the afternoon, classes were held out of doors if the weather permitted, otherwise in the amusement hall. Walking parties were organized for both men and women patients.

In January two special exercise rooms in the Reception Building were equipped with apparatus, including Swedish stall bars, vaulting horses, horizontal ladders, chest weights, combination chest weight and rowing machine, punching bag, mats, and two ping pong tables. In February classes were begun for the men and the women of this building. The instructors were able to give general and corrective exercises to the patients for whom the physicians had prescribed.

In the Clinic Building it was impossible to hold classes on the wards, so the schedule was dependent upon the weather. Volley ball and baseball teams were organized for the days when the patients could be on the lawn, and a bowling class was held once a week.

In preparation for Annual Field Day, classes have been held three times a week on the baseball diamond. Here the men and women have learned and practiced drills and dances which will form a part of the program and have been trained for the athletic events. Throughout the year, reports of each patient's progress have been made out and handed at regular intervals to the physician in charge of the ward.

Parties have been held once a month on the wards of the Main Building South, with games, singing, dancing and refreshments. Each month the more orderly patients from all buildings were invited to a large party in celebration of a holiday or special

event. In the spring and summer these parties were held on the lawn, while in the winter the Dormitory Building Amusement Hall was decorated for each occasion. The Hallowe'en party was especially successful. Over five hundred patients attended, many of them in costume, some of which were original and some borrowed from the property room of this division. The program included a grand march of all those in costume, several seasonal games, singing and dancing. A barrel of cider, cookies, candy and apples were served as refreshments.

Special programs of carols and Christmas music were planned for the patients on the wards throughout Christmas week. At the big Christmas tree celebration in the Dormitory Building Amusement Hall, carols were sung, and a play, "Around the World," was presented by patients in appropriate costumes. This was written for the occasion by the physical education division, and consisted of nine scenes, as follows: A Living room on Christmas Eve, The Bowery, Emerald Isle, Bonny Scotland, Sunny Spain, Under Italian Skies, Along the Banks of the Volga, The Land of the Rising Sun, The Living Room (three hours after Scene 1). The action of the play was interspersed with folk songs and dances, and at the end some of the participants sang a song of "Welcome to Our Visitors."

During the fiscal year, Miss Ford conducted six courses in physical education for the student and affiliated nurses. These courses covered seventy-nine sessions, and the time was divided between instruction in corrective and therapeutic gymnastics and practical work in games and dancing.

The statistics of patients attending the various activities in this division show a daily average of 806 in classes, 153 males and 653 females. The total attendance at parties for the year was 10,009, 1,981 males and 8,028 females."

#### SOCIAL SERVICE DIVISION

In this division the highest standards of training and personality have been maintained, as heretofore. All workers have been college graduates who have taken additional training at a school for social science or in some allied field. After coming to the

institution they have received further instruction in mental diseases from the lectures given by the clinical director to the staff, and have been closely supervised by the director of the division and the more experienced workers. No one has been accepted whose personality was not considered to be of an agreeable type, or who did not seem to possess the essential tact and insight for her position.

The duties of this division include obtaining medical and social histories of all newly admitted patients for the use of the physicians, investigating home conditions before patients are discharged from the hospital on parole and making such recommendations as necessary for promoting their welfare and that of their families, supervising the parole patients for a year after they leave the hospital in order to assist in their adjustment and protect the patients and the community, and carrying out such other varied work as may be required. The hospital or parole division of social service has this year been continued under the direction of Miss Phyllis F. Pointon, who is an excellent worker and thoroughly trained in all phases of her duties. She has submitted to me the following report:

"During the fiscal year there were several changes in the personnel of the social service division due to the resignation of one field worker the last of June, 1930, and of a second in July. Three new appointments were made to fill these two vacancies and to allow for the addition of a second historian to the staff. The division at present consists of the director, five field workers and two historians.

This year 5,529 visits were made in the community regarding patients on trial visit and in the hospital; visits to the homes of patients under consideration for trial visit were made in 357 cases for the purpose of presenting the environmental factors to the medical staff as well as to assist the family in planning for the patient's future. Special investigations were made in 101 instances for the following reasons: To obtain further information regarding hospital patients, 27; to determine legal residence of hospital patients, 3; to locate relatives or to obtain clothing for hospital patients, 22; to arrange financial aid for family of hospital patient, 3; to arrange for a hospital patient to visit her children committed

to another State institution, 1; to arrange for the placement of illegitimate babies born in the hospital, 3; to investigate charges made against a hospital patient, 1; to complete papers necessary for commitment of patients to institutions for the feeble-minded and epileptic, 5; to determine the marital status of a hospital patient, 1; to find homes for recovered or improved patients who had no relatives or whose relatives had taken no steps toward removing them from the institution, 11; to investigate charges against, home conditions of, or to give advice regarding trial visit or discharged patients, 8; to obtain the permission of the petitioner for patient to leave the hospital with other members of the family, 2; to determine the advisability of patient being granted trial visit with those requesting it, 5; to arrange for and bring about the return of penniless patients to their families, 2; to arrange railroad transportation for interstate transfer cases, 5; to obtain information for an outside social agency, 1; to investigate a case in the community at the request of the Commissioner of Institutions and Agencies, 1.

The division was also instrumental in the removal of 28 recovered patients who were referred by the medical staff and who were friendless or who had no one sufficiently interested in them to initiate proceedings for their release. Of this number, 9 were found boarding homes or homes with friends; 1 was placed in an almshouse; 3 were assisted in reaching their destinations in other States; 9 were removed by friends or relatives through special arrangement; and 6 were transferred to institutions for the feeble-minded. The division was instrumental also in the return of 5 patients from trial visit. In four of the cases it was found unsafe, after investigation, to allow the patients to remain at home, and in the fifth case the patient was unable to make satisfactory adjustment and had no one to take care of her.

Twenty-eight patients on trial visit were referred to outside social agencies for assistance; of these, 21 were referred for medical treatment, 6 for financial aid, and 1 to a rehabilitation clinic for occupation. The division has also maintained a confidential exchange service with other agencies by which a great deal of family and social information has been received regarding hospital

patients. Nine hundred and sixty-eight medical and social histories regarding new admissions and 28 interim histories regarding readmissions were obtained from 1,540 individuals. Of the 968, 931 were obtained in the office and 37 in the community. Every effort was made to locate relatives and friends of patients admitted without correspondents. Five hundred and fifty abstracts were obtained from other hospitals where patients had received previous treatment.

Office interviews were held to the number of 1,149 with and in regard to patients in the hospital or on trial visit, and 154 interviews were held in regard to hospital affairs. On the wards 444 special visits were made to individual patients. At the request of the medical staff, 44 psychometric examinations were given to hospital patients.

Miss Pointon gave three talks of one hour each to groups of affiliated nurses and one one-hour talk to student nurses at the Hackensack General Hospital. Members of the division attended the New Jersey State Conference of Social Work, the annual meeting of the Orthopsychiatric Society, and the meeting of the New Jersey Conference on Child Health and Protection. Representatives from other agencies and institutions have visited the division, as well as college students and other persons interested in social service work.

#### MENTAL HYGIENE CLINICS

The work of the mental hygiene clinics has been continued for the past year under the direction of Dr. Earl W. Fuller, assisted by Dr. Lindsay Robinson, and with Miss Mildred H. Hurley as head of the social service organization. So overwhelming has been the public response to these clinics that the entire staff has difficulty in seeing the work in true perspective. Everybody is overworked, hours are long, and appointments have to be made two or three months in advance—which is trying not only to the clinic staff, but even more so to the communities which they are trying to serve.

I do not wish to presume by offering any suggestions as to the further development of the clinic system, since I know that the

Commissioner and State Board of Control already have the subject under consideration. I do feel, however, that the great number coming to these mental hygiene clinics shows unmistakably that they are meeting a very real need in the communities. The problem now, as I see it, is whether the State is prepared to continue the work, so effectively begun.

To do so will necessitate doubling and eventually redoubling the appropriations, since in order to give the time in the different communities which they demand, complete additional clinics must be established. In other words, the present organization is holding as many appointments as one group can handle. Even increasing the number of workers would not make it possible to hold more clinics, although it might give relief to the congestion and overwork in existing clinics. The formation of another clinic group would require additional transportation, office help and equipment, in fact would cost approximately the same as the present clinic.

The only alternative to such radical expansion of the state clinics, as I see it, would be to have the counties or municipalities organize their own clinic service with the state clinic functioning in an advisory and consultative capacity, or perhaps with the local clinics taking care of routine examinations and school and juvenile court problems, while they referred the psychoneurotic, psychopathic, and psychotic cases to the state organization.

Meantime, the general demand for clinic service is so far in advance of our present supply that there is a tendency on the part of everybody concerned to overlook the amount of splendid work which has been accomplished and see only the many requests which had to be refused outright or postponed to such an extent that much of the opportunity for help was lost. Dr. Fuller has submitted to me a detailed report of the work in this division with some discussion of the conditions under which it was done, but the space available permits me to include here only a brief summary, as follows:

"During the past year there have been no changes in the clinic personnel except that Mr. Beechley resigned from the clinic group to accept a position in the Northern New Jersey Training School.

Since then, we have been dependent on the Training School for psychological assistance, borrowing the services of both Mr. Beechley and Miss Newell, the psychologists at the Totowa institution. We are indebted to the Central Department for lending us the services of Dr. Annette M. McIntire who has been of great value to us in meeting the demands made on the clinic for the examination of the children at the Bergen County Children's Home and the children at the Bonnie Brae Farm School. We have also had the assistance of Dr. G. C. M. Burns of Englewood, who is the Englewood Hospital representative at our clinic. During the present summer months we have associated with our clinics Professor Frederick J. Gaudet of the Department of Psychology of Dana College. Professor Gaudet is doing some research work in our division and is also familiarizing himself with the clinic activities so that this information may be used in the instruction of the students in Dana College.

Last fall a connection was formed with the Smith College School of Psychiatric Social Service and for nine months we had with us two of their student psychiatric workers. These students have not completed their post-graduate course and their work was carried on entirely under the supervision of the clinic's trained psychiatric social workers. Nevertheless, they were able to add to the amount of social work done by our group. We have also formed a contract with the New York School of Social Work and at the present time we have two student workers from there. Our connection with these two schools we expect will be continued, and in the fall we will have a new group of students from Smith College.

We have been able to establish one new clinic. This is held in the Englewood Hospital on the second and fourth Tuesdays of each month. We were able to start activities in this new community only because we discontinued our connection with the clinic held in the Elizabeth General Hospital. There have been several demands for new clinics and requests for us to devote additional time in communities where our clinics have been established for a fairly long period, but it has been impossible for us to accept any additional work.

The clinic personnel has contributed considerable time to the

psychiatric education of the groups of affiliated nurses who take part of their training in the Greystone Park Hospital prior to graduation from a general hospital. The clinic educational program has also been carried on through single lectures given to interested groups, such as the Parent-Teacher Associations, Service Clubs, and so on, and through a series of discussions and the presentation of case histories which was carried on for a period of thirty weeks with the post-graduate psychological students at Drew University. Requests for talks, however, have had to be refused unless they could be given at a time that would not interfere with the clinic work and arrangements made far in advance. Many contacts have been made with professional social workers and other individuals who assist us in seeing that the clinic's recommendations are carried out. A number of these workers have received considerable personal instruction from members of our clinic group.

The number of clinics held during the year was 211, divided as follows: Elizabeth, 9; Englewood, 15; Franklin, 12; Hackensack, 25; Jersey City, 23; Morristown, 24; Newark, 22; Newton, 11; Passaic, 22; Paterson, 24; Plainfield, 24. The attendance and examinations were tabulated in this form:

	Adults		Children & Adolescents		Total
	Male	Female	Male	Female	
No. of new patients.....	199	278	560	279	1,316
No. of return patients.....	256	383	560	260	1,459
No. of patients attending clinics.....	455	661	1,120	539	2,775
No. of patients turned away.....	32	38	60	23	153
No. of psychiatric examinations.....	401	587	741	339	2,068
No. of psychological examinations.....	77	82	474	270	903
Total number of examinations.....	478	669	1,215	609	2,971

New cases were referred from sixteen different types of sources; among them, social agencies sent in 390 patients; schools 263; private physicians 165; hospital physicians 99; and the Central Office 43. A total of 4,159 visits were paid to the clinic by non-patients, including 737 by social workers, 470 by nurses, 195 by physicians, and 134 by probation officers.

The diagnoses were grouped under numerous different heads among which the following comprised the largest numbers of new patients; child guidance problems, 513; mental deficiency, 280; psy-

choneurosis, 117; psychopathic personality, 49; psychoses, 94; and social adjustment problems, 79. Of the patients examined, 617 were referred to other clinics; 102 to general medical, 185 to pathological laboratory, 70 to x-ray, 83 to eye, ear, nose, and throat, and 45 to dental.

The clinic physicians interviewed 1,468 persons at the clinics in addition to the patients, held 74 special consultations with other physicians, and examined 91 cases at Totowa. They also gave 24 lectures and attended 11 conferences. The psychologists attended 180 clinics and made 868 examinations. The social workers interviewed 5,654 persons at the clinics, obtained 999 anamneses at the clinics and 84 in the community, and paid, 4,621 clinic visits in the community beside holding 1,118 office interviews regarding patients and clinic matters. They gave 42 lectures, attended 23 meetings and conferences, and made personal contacts with 41 institutions and 8 clinics. In addition to their more usual services, they made arrangements for camp placements, foster homes, special educational and vocational assistance, and legal and medical aid in many cases. The clinic staff sent out 5,299 letters and reports regarding patients and clinic matters.

#### WARD EMPLOYEES AND SCHOOL OF NURSING

During the past year Mrs. Anne How, R. N. has continued as superintendent of nurses, having direct charge of all nurses and attendants engaged in the ward care of patients and in the special medical treatment services, as well as of the accredited training school with its affiliated branch. Owing to the over-crowding of patients and the frequent transfers made necessary by the construction work, nursing duties have been exceptionally heavy this year. The number of patients under care and the variety and location of the buildings make even the routine inspections extremely difficult and time-consuming while the amount of detail is constantly on the increase.

In addition to keeping closely in touch with the theoretical and practical training of the various student groups in the Training School, Mrs. How has taken a personal interest in the individual student nurses, and has planned a great many diversions and social contacts for them, since the location of the hospital and the hours



This year it has been arranged with Orange Memorial Hospital that we send our students for nine months instead of for one year — and with Essex County Isolation Hospital that they receive our students for three months in Nursing of Contagious Diseases — this course to begin December 1, 1931.

On September 11, 1930, Miss Mary E. Corcoran came to us as Assistant Superintendent of Nurses, but is in reality carrying the duties of Educational Director of the School.

Miss Claire O'Day, R. N. who has successfully filled the position of Instructor of Nursing Technique for the past year, resigned on June 30, 1931. Miss Margaret J. Hornickel, Graduate of Atlantic City Hospital, Atlantic City, New Jersey, accepted the position of Instructor of Nursing Technique on June 15, 1931, coming to us from Columbia University, where she had completed a year of study.

Miss M. Helene Bossle, A. B., St. Joseph's College, Emmittsburg, Maryland, is most acceptably filling the position of dietitian left vacant by the resignation of Miss Leila Fling, who left us on April 14, 1931. Miss Bossle came to us after a two year service at St. Michael's Hospital, Newark, New Jersey.

The growth of the school made necessary more housing for students and we have gradually taken over the South Cottage, which is in a very desirable location. On June 30, 1931, the house was occupied by nurses only. Some reconstruction was necessary and is already under way.

The large number of applications for entrance to the school has been gratifying — this year, though the number admitted has been comparatively small.

Graduation exercises were held in the Chapel on May 15, 1931. Four nurses received the diploma and the pin of the school:

Miss Evelyn Mildred Soper  
Miss Lillian Beatrice Scully

Mrs. Ethel Daniel Anderson  
Miss Mabel Rose Peeler

Miss Mary E. Roberts, R. N., Editor of the American Journal of Nursing, gave the address and it was most inspiring—Miss Roberts taking for her theme "Understanding"—understanding in caring for the patient—body—mind and soul.

We were very happy to have with us Commissioner William J.

Ellis, who told of the work being done by the State of New Jersey and reminded the audience that the State Hospital at Trenton New Jersey, was the first of such hospitals built as a direct result of the labors of Dorothea Lynde Dix.

Dr. Marcus A. Curry, Superintendent of the Hospital, presented the diplomas.

In November 1930, the graduates of the School organized an Alumnae Association with a membership of fourteen and have been accepted into the New Jersey State Nurses Association.

I wish to express our sincere appreciation of the assistance that has been given us during the past year. The Staff has been most generous, both in the care of the sick members of the nursing personnel and in the many hours devoted to teaching."

#### STAFF MATTERS

The medical staff of the hospital has been somewhat increased during the past twelve months and the turn-over has been decidedly less than that of the preceding period. There were ten appointments and five resignations; the first resignation, that of Dr. Percy L. Smith, was actually put in at the close of the previous year, but as the doctor was given a month in which to make his arrangements and move his family, the technical date of his leaving the institution was July 31. Dr. Smith was an experienced senior man who had come to the institution in 1925 with previous training in the New York State Service; he left to join the staff of the state hospital at Utica for personal reasons, among which more desirable living quarters figured largely. Dr. Theodore Gebirtig was promoted to the senior vacancy on August 1. Two of the resignations were of men appointed during the current year and took place within the three months' probationary period. A third resignation was that of a physician who came on the staff near the end of the preceding year and had been with us less than five months. The fourth to leave the institution was Dr. Elsworth Baker who was appointed on August 1, 1928; he was transferred on April 30, 1931, to the staff of the new state hospital at Holmdel, as he had been recently married and I was unable to supply adequate quarters, while at Holmdel he could be given a cottage.

The problem of providing suitable housing for the medical staff has been acute since the fire of November 26, when apartments for five physicians were among those rendered unfit for occupancy. Temporary quarters were provided in various parts of the institution, most of them far from desirable in type. Nurses' and supervisors' rooms in the Dormitory Building and the new Senile Building, small single rooms in the rear Center of the Main Building, and even rooms in the cottage for parole patients were among those which had to be assigned in lieu of the comfortable apartments previously occupied. As yet, we have not been able to utilize again any of the residence floors in the Main Building, Front Center.

Two single cottages for physicians were completed during the year. They are of brick construction, of a simple colonial type, with living room, dining room, kitchen, and porch on the first floor, four bedrooms and bath on the second floor, and maid's room and bath on the third. They were assigned to the two senior men in point of service, Dr. McMurray and Dr. Hampton, and were furnished and occupied during the year. The two-family cottage vacated by these physicians was entirely renovated, new tiled baths and brass plumbing installed, and other improvements made. This was assigned to Dr. Washburn, who had been on the staff since 1922, and Dr. Donovan, who was appointed in 1923. The quarters previously occupied by Dr. Washburn, the lower floor of one of the original wooden farm-houses which antedate the construction of the Main Building, are now being extensively remodeled and will be assigned to the next physician in line, Dr. Roche. Renovations and improvements in the apartments of the staff house are now in progress, being timed to the intervals between the vacating by one physician and the re-assignment to another.

At present there are twenty-nine physicians listed on the staff; two of these are with the mental hygiene clinics, non-resident, and in no way connected with the intra-mural work of the hospital. Of the twenty-seven on duty at the institution, seven carry no ward work — the superintendent, clinical director, pathologist, surgeon, electrotherapist, gynecologist, and the eye, ear, nose and throat man. An eighth is in charge of occupational therapy and re-

creation, and is regularly assigned to executive duty in the absence of the superintendent, so his ward service is limited to general supervision of the North Side of the Main Building. The remaining nineteen physicians have been responsible for the examinations, care and treatment of the entire patient population, which amounted to 5,460 during the past year, a ratio of more than 287 patients to a physician.

The clinical director, Dr. Lane, has been in charge of the medical staff, has conducted staff meetings, and had general supervision over the diagnosis, care, and treatment of all patients, the assignment of physicians to duty, and the arrangements of time-off and vacations. In the absence of Dr. Lane, these duties have been assumed by Dr. Collins. Dr. Lane has also given a course of lectures to the staff, designed to instruct the new members in the principles of modern psychiatry and to keep the others informed on recent developments in the care of mental diseases. Staff meetings have been held five days a week, at four of which patients were presented for discussion and diagnosis, and at the fifth, patients for whom trial visits had been requested were brought up for examination as to the advisability of their leaving the hospital. Once a week the superintendent has held a conference with the medical staff and the heads of other divisions in the care and treatment service, at which matters of institutional interest were discussed and points of difference adjusted.

In addition to the usual minor illnesses, three members of the staff underwent operations during the past year: Dr. Curry and Dr. Gambill had tonsillectomies done at the Jefferson Hospital in Philadelphia, and Dr. Lane had a lingual operation at the Doctors' Hospital in New York City.

The staff has been represented at all important state medical and hospital conferences and at most of the national and some international meetings. Dr. Curry and Dr. Hampton were in Europe in July, 1930. Dr. McMurray represented the medical staff at the meeting of the Hospital Association held in New Orleans in October. Dr. Curry attended the White House Conference on Child Health and Protection called by President Hoover at Washington in November. Dr. Curry, Dr. Lane, and Drs. Fuller and Robinson

of the Mental Hygiene Clinics were delegates to the annual meeting of the American Psychiatric Association held in Toronto in June. Dr. Gambill has attended various meetings relating to his specialty, and he and several other members of the staff were present at the annual meeting of the American Medical Association at Philadelphia in June. Relations with the local medical organizations have been maintained on a most satisfactory basis and frequent use has been made of our facilities by the County Medical Society.

#### MAINTENANCE OF STATE HOSPITAL STANDARDS DURING BUSINESS DEPRESSION

New Jersey has been, from the institutional stand point, extremely fortunate in the type of people who shape its political policies. Both parties have taken the position that the welfare of the state wards is the vital factor to be considered and that the institutions shall be "kept out of partisan politics". On account of economic conditions at the present time, the general tendency is toward retrenchment and cutting off expenses. Very often when planning retrenchment some of the political workers feel that the institutions are the first place to cut. As matters now stand, this cannot be done and continue our institutions on their present high levels; if there is any radical cutting, they must go back toward custodial standards.

The far-seeing statesmen of both parties and the many powerful civic, welfare, and service organizations of the state, whether made up of women or men or both, have clearly understood this fact and realize that ample provision must be continued for maintaining and advancing the medical, nursing, and treatment facilities. Such a policy is not only humanitarian, it is also truly economical. We fully realize that the State has suffered in its revenues during this depression while at the same time the economic conditions have brought us a great increase of admissions who must be cared for. Unless we can have the personnel to give proper treatment to these patients in the early stages of their disease, their chances for recovery will be greatly reduced. For this reason, speaking for our numerous wards, we earnestly hope that if cuts must be made,

that they will be made in some department where human lives are not involved.

#### PHARMACEUTICAL DIVISION

The work of the hospital pharmacy has been continued this year under the direction of Philip B. Roberts, Ph. G., who came to the institution as assistant pharmacist in May, 1923, and was placed in charge of the division on January 1, 1925. Mr. Roberts is systematic, conscientious, and reliable, and has been able to meet all the increasing demands made by the growth of the institution and the larger treatment facilities. Last year the division was moved from its old and cramped quarters in the Main Building to newly equipped rooms in the Clinic Building, where the facilities are much better. The same personnel has been employed this year, with Mr. Louis D. Bangert as assistant pharmacist and Mr. John Hughes as drug clerk. Mr. Roberts has submitted to me a detailed and interesting report, which I have condensed as follows:

"The demands made on the pharmacy have increased tremendously during the past fiscal year and if it were not for the unusual ability and willingness of my assistants, together with the more efficient equipment which our new quarters afford, the required amount could not have possibly been accomplished. The new pharmacy has been a constant source of pride to us. I was particularly pleased with the comment of a professor of biology at a great medical school who had inspected nearly every large hospital in the United States and Canada — 'You have here with the possible exception of the Medical Centre, the best lay-out and the smoothest working pharmacy that I have visited.'

Much of the work is concerned with detail, such as the ordering, receiving, and dispensing of hospital supplies, as well as drugs, the routine care and dating of drugs, and chemicals, and rubber goods in order to be constantly assured of fresh supplies and to prevent needless waste by deterioration and the manufacturing, bottling, and labeling of stock galenicals. Since the work was fully organized in the new quarters nine months ago, I have kept a tabulation of the work by month. In that period 8,261 prescriptions have been filled, 7,582 bottles of stock solutions filled and labeled, and

over 2,000 quarts of galenicals manufactured, including nearly one hundred different types. Among these, some of the larger amounts were as follows: tincture of green soap, U. S. P., 840,000 c. c.; syrup hypophosphites compound, N. F., 52,000 c. c.; liquer anticepticus, N. F., 300,000 c. c.; elixir glycerophosphates compound, N. F., 120,000 c. c.; and Palmer's mouth wash, N. J. S. H., 80,000 c. c.

Each month one or two new items have been added to the list of stock supplies manufactured in the drug room, and the coming year we expect to see the number still futher extended. The substitution of our own manufactured items for proprietary preparations not only results in a great saving of money, but is actually better for the patients.

During the year the usual instruction in drugs and solutions was given to two classes of nurses in the Training School. As each class had to be divided into three sections, the entire course was repeated six times."

#### PHOTOGRAPHY

Each patient whose condition permitted has been photographed soon after admission, which served the double purpose of making it easy to note any change in appearance while under hospital care and also furnishing a ready means of identification. Two prints, full face and profile, mounted on a cardboard sheet, have been filed in each case record. Patients who left the institution on trial visit have also been photographed in like manner, and pictures of deportation cases have been made according to Federal specifications. Progress on hospital construction work has been regularly recorded by photographs, and pictures have been made from time to time of patients engaged in various activities. In additions to these duties, Mr. Frederick C. Wainwright, the hospital photographer, has had charge of the selection, transportation, and showing of motion pictures for the patients' entertainments.

His report of the work in his division is as follows:

No. new patients photographed.....	1,216
No. trial visit patients photographed.....	427
No. deportation patients photographed.....	24
No. photographs of buildings, etc.....	178
No. X-ray prints.....	76
Total.....	1,921

The number of moving picture shows given was 29.

## GREENHOUSE, GROUNDS AND GRADING

The work in this division under the direction of Mr. Otto Koch has comprised a wide variety of allied activities, including the growing of plants and flowers, the care of the grounds, with the athletic field and golf course, grading around new buildings, and the construction and up-keep of roads, gutters, and sidewalks. In addition to carrying out the manifold regular duties connected with his position, Mr. Koch has found time to keep an observant eye on many other phases of the institutional work, to serve as judge at several of the largest flower shows in the county, including the one held at the Grand Central Palace, New York City, in March, and to do numerous favors for other institutions and individuals engaged in the state service.

At the greenhouse, work was carried on continuously chiefly by patients who have been carefully trained along this line. Cut flowers were raised and distributed to the number of 128,349, while 80,324 plants were grown for flower beds and flower production. Detailed record of this work will be found in the statistical appendix. The growing of these plants provided interesting occupation for many patients, and the flowers, ferns, and blossoming plants also gave a great deal of pleasure to the larger number who enjoyed them on the wards and in the dining room. In addition to raising the decorative plants, the greenhouse facilities were used for starting early vegetables for the hospital and patients' gardens. Displays of flowers were exhibited at the Newark and Morristown shows with success. At Newark, 8 first prizes, 2 second prizes, a gold medal for group display, and a gold medal for cultural excellence were won, while at Morristown the awards were 2 first prizes, 2 second prizes, and a silver cup for group display. The greenhouses have been painted inside and out during the year, benches and frame sashes repaired, and about 150 flats made out of old lumber for seeds and seedling plants.

For the third year, a patients' garden has been cultivated under Mr. Koch's supervision, on a section of land lying between the Reception Building and the cottage of the Business Manager. The following quantities of vegetables were sent to the Main Kitchen:

430 bushels of beets, 15 bushels of kohlrabi; 3,000 heads of cabbage, 131 bushels of string beans,  $287\frac{1}{2}$  bushels of tomatoes, 99 bushels of lima beans, 79 bushels of peppers, 159 bushels of egg plant, 658 bunches of young onions, 2,200 bunches of celery, and 28 bushels of ripe onions. Considerable quantities of produce were also distributed to the officers' cottages on Central Avenue.

Acting in cooperation with Dr. McMurray and the division of occupational therapy, Mr. Koch assisted in the care of the willow holt. Soil and manure were added to the holt, and six bushels of rye and one bushel of timothy sowed to improve the land. The rye, when cut, amounted to 19,075 pounds, which was delivered to the dairy barn. The willows were also sprayed to check insects.

During the year two large maples and one large pine were moved from other parts of the grounds and planted on the lawn near the cottage of the Business Manager, and one large maple was set out in front of the Main Building. As a screen in front of the sewage disposal plant, 531 Norway spruce averaging 3 feet in height and 60 Norway spruce averaging 6 feet in height were planted. These trees had been grown from seedling size on the institution grounds, and had been transplanted several times. All of these trees were moved carefully with balls of earth on the roots and have grown well. In handling the larger trees, ropes and man power have been substituted for the more usual cranes and derricks.

A great deal of work has been done on the roads during the year. Tarvia was used extensively, with 20,334 gallons of grade "A" and 9,620 gallons of grade "X" spread on the various roads around the grounds, including both sides of Central Avenue. Stone was received and used on the roads to the amount of 1,574 tons. On the road at the rear of the Nurses' Home, 94 team loads of field stone, 43 team loads of rotten rock, and 63 yards of crushed stone from the stone crusher were utilized. The road to the patients' garden was repaired with 182 yards of old crushed stone which was swept off the roads around the grounds. As time permits, a new road is being constructed along the line of the old county road from the entrance to the hospital grounds northeast to the Morris Plains-Dover road. This will allow traffic to be di-

verted from Central Avenue around the grounds at a distance from the residence buildings. All road work has been done under the advice of Mr. H. B. Smith of the Central Office.

A new lawn covering about three acres was made at the entrance to the hospital grounds on the north side of Central Avenue, and lawns were also seeded around the two new cottages for physicians. Sixty-eight bushels of grass seed were used in making these new lawns and in re-seeding the grounds in other locations. About 7,300 sods one foot square were laid along Central Avenue on both sides to assist in preventing washouts along the sidewalks.

The old sidewalks were torn out and replaced by new; a total of 17,746 square feet of walk was laid, 117 cubic yards of ashes were used, 240 yards of soil were removed, and 9 catch basins and 380 feet of gutter made; 452 feet of six-inch tile pipe and 200 feet of four-inch pipe were laid.

At the Senile Building 672 square feet of sidewalk was laid and at the Nurses' Home, 284 square feet. Repairs were made on the curbing at the Reception Building and the Dormitory Building; the catch basins on Central Avenue and the cold frames at the greenhouse were also repaired.

The Fordson tractor was used during the winter in snow removal and throughout the spring and summer in rolling the lawns and cutting grass with a set of gang mowers. The gasoline roller was used 64 days scarifying and rolling all roads. The gasoline shovel removed during the year 7,841 cubic yards of top soil and 5,576 cubic yards of filling, a total of 13,417 cubic yards. Excavating was done in the vicinity of the Men's Occupational Therapy Building, the Senile Building, the rear of the Reception Building, the sewer beds, and the two new cottages for physicians. The trucks and teams have been kept busy working with the shovel in removing soil and also in cleaning up around the grounds and constructing new lawns and roads. All mechanical equipment has been maintained in good condition and painted as necessary.

#### CLERICAL DIVISION

The clerical and stenographic force of the medical and allied units had at the close of the fiscal year a total personnel of 37, an

increase of 6 over the previous year. Included in the force were 1 principal clerk, 1 senior statistical clerk, 2 senior clerk-stenographers, 26 clerk-stenographers, and 7 clerk-typists. As for a number of years previously, the work has been in charge of principal clerk James E. Lauenstein who has quietly and effectively distributed duties and adjusted schedules to meet the varying requirements.

The increase in the force was made necessary by the high admission rate, which was reflected in an increased number of examinations and reports throughout the medical and treatment service. All physicians' reports, including the laboratory, x-ray and other specialties, and those from the dental, physical education, occupational therapy, social service, and mental hygiene divisions have been transcribed and filed. Card indexes have been maintained, including three rotary indexes of the names and locations of all patients, and smaller indexes of patients in particular buildings. These rotary indexes have been changed daily to show new patients, transfers within the institution, discharges, trial visits, escapes, and deaths.

In addition to the routine case record work dealing with the mental and physical condition of all patients, their variation and progress, a great volume of correspondence has been handled; legal documents have been copied, transcribed, and recorded; and proofs of disability or of death made out for the various insurance companies and benefit societies. Abstracts of cases have been made to go with patients transferred to other states or to other institutions in this state; in particular, the transfer of 302 patients to Holmdel necessitated the preparation of thousands of pages of copied records.

Many statistical studies and reports have been made up during the year for state departments, federal bureaus, various organizations, committees, and so on. Weekly progress reports, monthly reports to the superintendent from all divisions, and annual reports have added to the required duties. That all of this work has been accomplished with a minimum of friction speaks well for the efficiency of the organization.

### RECREATION: AMUSEMENT, SPORTS, MUSIC AND ENTERTAINMENT

Throughout the past year there was such close co-operation between the division of Physical Education and the recreation and amusement work for the patients, that many of the events could be included equally well under both reports. Dr. George B. McMurray has continued in direct charge of the amusements and entertainments for the patients and has submitted the following report:

"The hospital at Greystone Park has continued to emphasize the therapeutic value of well governed and properly regulated and supervised forms of recreation and amusement. Athletic events and out-of-door sports have been given considerable prominence. Baseball was organized under the immediate supervision of the male teacher of physical education, and a nine made up of employees played some team from near-by districts every Saturday afternoon. The local team had a very successful season, and afforded much pleasure to large groups of men and women patients and their friends, who filled the grandstand for every game. Mid-week games were held between teams of patients from different wards and buildings, and great amusement was found in the spirited contests. Track and field exercises, as well as soccer, hand ball and volley ball, were taught by the physical instructor to all patients who could be interested. The golf course was used by a larger number of patients than in previous years; there are very few forms of sport which have more therapeutic value than golf, correcting as it does errors of co-ordination, concentration, application, and so on. Whenever the weather permitted, groups of patients have been taken walking over the various roads and trails in which the hospital property abounds. In the warmer months, under the supervision of the teachers of physical education, many lawn parties for patients were held on the beautiful grounds, at which times music was provided, and refreshments of ice cream and cake or other favorite delicacies served.

Indoor amusements were provided in variety. On Mondays, for nine months of the year, dances were held in the large amuse-

ment hall for patients from all buildings. Moving picture entertainments were given fortnightly and on special holiday occasions from Labor day to the end of June. The pictures were carefully selected to avoid morbid or unduly exciting subjects and each program included a feature picture, a comedy, and a news reel. These entertainments were largely attended by patients of both sexes and from all buildings. During the year the four bowling alleys were placed in excellent condition and were used extensively by classes of patients under the direction of the division of physical education. Billiard and pool tables are provided on many of the male wards and in the recreation rooms and were used frequently throughout the year.

Radios, victrolas and pianos supplied music on the majority of the wards. New equipment in this line has been given to the institution during the year, including a piano from Dr. A. S. Knight of the Board of Managers. Patients of certain types find an interest and emotional release in music which can be achieved in no other way, so we feel that ample provisions for hearing and producing music should be included, not only as entertainment features, but for their high therapeutic value as well.

The hospital orchestra has continued to do very fine work. It is made up of employees and patients and has given daily concerts in different parts of the hospital, with particular attention to the "shut-in" types of patients. Too much praise cannot be given to this group of musicians for their loyal and faithful service and the many excellent programs that they have offered. They have also furnished music for all the hospital dances and entertainments.

Special entertainments were held throughout the year, made possible by interested friends of the hospital. Among the most enjoyable was a Balloon Dance given on St. Patrick's Day, with music by Victorine's orchestra and with Mr. Haskins of Llewellyn Park as master of ceremonies; this was arranged by Mrs. Garrison of the Board of Managers, who was also instrumental in bringing the same orchestra for another afternoon dance during the year, and for several fine concerts. Mrs. Ray Dennis of Convent sang on one occasion and on another there was a fine organ recital

given by Mr. Andrews of St. Peter's Church, Morristown.

The most elaborate of the entertainments offered for patients is at the Christmas season. This year special efforts were put forth, as it was felt that the general financial situation might result in less than the usual number of visits and remembrances from the families of those under care here. Late in November a letter of appeal was prepared by Dr. Curry and sent out to the many friends of the hospital who had helped with gifts and money in previous years, as well as to those whom it might be possible to interest for the first time. Considering conditions, the response was remarkably generous. The second week in December the superintendent made his annual shopping expedition to New York and purchased two truck loads of gifts. These, with all that were sent in from the outside, were carefully marked and wrapped, with attention to the needs and wishes of the individual patients. Too much credit cannot be given to Mr. William Moran and the members of the nursing service who attended to this very difficult part of the Christmas program.

On the evening of Tuesday before Christmas, everything was prepared. Several outdoor Christmas trees had been hung with colored lights along Central Avenue leading to the institution, and inside, every ward and dining room had its gay decorations. The amusement hall at the Dormitory Building had been beautifully trimmed with white and silver tissues, and two large trees, one on each side of the stage, were shining with myriad lights. As many patients as could be accommodated were brought to this hall, and the program began with carol singing by a chorus trained under the physical education teachers. A Christmas playlet, written for the occasion, was then given, after which the Superintendent, as Santa Claus, appeared and extended his good wishes. Among the friends who had gathered and who made brief speeches of seasonal greetings were Commissioner William J. Ellis, "Uncle Dan" Voorhees, President of the Board, Senator Abell of Morristown and Mrs. Abell, who is a member of the Board of the Training School at Totowa, Mr. Murray Coggeshall, and Mrs. Coggeshall, who is President of the Board of Managers at the Clinton institution; Mr. Ridley Watts and Mrs. Doyle of

our local Board, Dr. Carhart of the Civil Service Commission, and Freeholder Kirkpatrick. To quote from the *Psychogram*: "Even the most ailing of patients could not help but feel the spirit manifested throughout the proceedings, with the realization of good, strong friends who are working for their betterment." Each patient in the hall then received a gift package, marked with his own name.

The next day gifts were taken on the wards, so that no one of the four thousand patients was without a personal remembrance. Religious services were held by different organizations during the week and visitors were welcome every day. On Christmas Day the dinner menu had been planned weeks in advance by Mr. Holbig and the success of the result, as prepared by William Walton and his assistants in the big kitchens, was vouched for by delighted patients in every dining room: Cream of tomato soup, turkey with dressing, sweet potatoes, cranberry sauce, turnips, mince pie, coffee, oranges and apples. Numerous Christmas parties were held on the various wards, a moving picture entertainment was given on Friday evening, and all officials and employees joined in an effort to make the season as happy as possible for those who were kept from their own homes by reason of mental illness.

#### LIBRARY DIVISION

There has been no change in the library system during the past year. The institution has two large libraries, one located in the Main Building, and one in the Clinic Building; the latter originated as a gift, and is known as the Coffin Library. Mrs. Ann M. Hopkins has continued to act as librarian during the past year and has submitted the following report of the work in this division:

"The circulation of books and magazines has been as follows:

Type	Main Building Library	Coffin Library	Total
Fiction.....	7,556	6,156	13,712
Non-fiction, including magazines.....	31,275	23,153	54,428
Foreign language books.....	144	171	315
Total.....	38,975	29,480	78,455

To meet the great demand for books not included in the hospital library, both fiction and non-fiction, it has been necessary to borrow very frequently, particularly from The Morris County Free Library, from which we obtained 602 books. Included in this number were volumes for the reading courses for student nurses. We deeply appreciate the cooperation given us by the the librarian of The Morris County Free Library.

Weekly routine visits have been made to the wards in the Reception Building, Clinic, Main Building, Dormitory Building, Senile Building, and Tuberculous annex, with extra trips to deliver magazines, and daily visits have been made to the ward for sick employees. The total number of trips recorded was 2,388.

During the year through the interest of Mrs. Doyle, of the Board of Managers, 195 books were purchased very economically. Many gifts of books and magazines have been received from visitors and outside friends, as well as from employees and members of the staff. The medical library has increased in circulation, and 33 new books have been added during the year.

#### RELIGIOUS SERVICES

As in former years, every effort has been made to insure religious advice and consolation for all patients according to the faith with which they were affiliated. The institution has as usual been regarded as a part of the parish of St. Virgil at Morris Plains, and Mass has been said in the chapel each Sunday morning, with special observances for Holy days. The local priest has been constantly on call to visit the sick and the dying, and has responded to all requests. Protestant services have been held each Sunday afternoon in the chapel, with clergymen from Morris Plains and Morristown officiating. The Methodist, Baptist, Episcopal and Presbyterian denominations have served in rotation. Services have been arranged each Saturday for the Jewish patients, and on Wednesdays, the Christian Science Church of Morristown has held meetings at the hospital. Holy days and special occasions in all faiths have been observed as far as circumstances permitted, and visits from pastors and religious workers have been welcomed.

## WAR RISK PATIENTS

With the opening of several new Government Hospitals in our vicinity, most of our ex-service patients have been transferred to these institutions. A few continue to be admitted here and held while their claims are being adjusted, and still others are carried permanently on our books as "War Risk" patients, although their claims have been disallowed, since it has been our experience that changes in system often result in further consideration of such cases. The records show the following changes in this group during the year:

On records July 1, 1930.....	73
Admitted during year.....	21
Total under treatment during year.....	94
Discharged during year:	
Recovered.....	6
Improved.....	12
Unimproved.....	1
Transferred.....	8
Without psychosis.....	1
Died.....	1
Total discharged during year.....	29
Remaining on records June 30, 1931.....	65
Status on patients on record:	
Claims allowed.....	0
Claims pending.....	45
Claims disallowed.....	20
Total.....	65
On June 30 there was the following distribution of these patients:	
Resident in the hospital.....	57
Outside on visit or escape.....	8
Total.....	65

## FIRE PROTECTION AND FIRES

Aside from the two major fires in the Main Building on October 30 and November 26, which have already received frequent mention in this report, there were none of any consequence. The cause of the first fire was never definitely determined. It occurred in the morning, about the time the workmen engaged in recon-

struction were beginning their duties, and started under or near a stairway leading to the cupola over 4/4 North. This ward and those adjacent to it had not been occupied by patients since the fire of May, 1929. The blaze was discovered by the time it reached the cupola and was under control within an hour. The sum of \$9,500.00 was allowed as indemnity by the insurance companies.

After the destructive fire of November 26, representatives of the insurance companies made a very careful examination in an effort to place the cause; the local authorities and the Central Office also made independent studies and inquires, and it was the consensus of all investigators that the source was in the electric wiring. The trouble started under the floor of a storeroom on the sixth or top story of the Center. The sixth floor was entirely unsuited for living quarters and was used only for a moderate amount of orderly storage; this storeroom had its outer wall formed by the inner facing of the mansard roof. The fire spread under the floor to the timber construction between the exterior slate covered roof and the interior plastered wall and followed this wood frame work. Because of its position concealed behind the wall from the inside and under the roof from the exterior it could not be easily located by the fire fighters and when it appeared to have been brought entirely under control it would suddenly burst out at some distant point. The dry and seasoned timber and the great distance around the Center structure gave abundant material for the flames. The tower in particular, with its wood construction and with large windows to increase the draft, burned so strongly that water seemed to have no effect upon it. There was no fire damage below the fifth floor, however.

I cannot express too strongly my appreciation of the splendid work done by all the firemen. Our own organization far exceeded the demands of duty in risking themselves wherever they saw the remotest chance of service, and the companies from the surrounding districts, Morristown, Morris Plains, and Morris Township, although under no obligation except that of humanity, responded promptly to our requests for help and worked with all the energy and zeal which they could possibly have displayed in

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their own communities.

The insurance companies settled as follows: Contents, \$12,500.00; building, \$104,098.32. The contents included indemnity for personal loss by those officers and employees living in the Center. This was felt by the hospital authorities to be a fair adjustment.

In an effort to prevent further loss in the old buildings which have not yet been made fire resistant, sprinkler systems have been installed in the South Side of the Main Building and in the entire Dormitory Building. This work was begun last year and the type of system and manner of action were fully described in my previous report. The work was completed as follows: Main Building, South Side,—attic, August, 1930; basement, May, 1931; Dormitory Building—attic, October, 1930; basement, January, 1931. Similar protection had been planned for the Main Building Center, the equipment had been ordered, and a portion was delivered on the day the destructive fire occurred in that section. In the Main Building a call system has been installed so that in the event of a sprinkler head going off a system of bell signals may be operated between men in the attics and in the basements locations where valves are operated. Materials are on hand to install a similar system in the Dormitory Building.

The fire alarm system has caused considerable trouble during the year and should be completely gone over, with appropriate changes made to meet present requirements.

Chief William H. Mathews, having reached advanced years, resigned. Examinations have been held by the Civil Service Commission and a waiting list is available. After one man had been tried and proved unsatisfactory, Mr. John J. Lyons, was named to the position on June 24. As yet it is too early to say whether or not he is fitted to carry out the duties.

#### WATER SUPPLY

During a considerable portion of the past year the water supply was a source of anxiety. Drought conditions were unusually severe and for several weeks the water shed at the rear of the Klondike reservoir was practically dried up. The only factor which saved the institution was the continuous supply of approximately 500 gallons a minute pumped from the deep well at Morris Plains.

It was necessary to operate the auxillary pump at the gas house to keep the reservoirs to as high a level as the water supply permitted. The number of gallons pumped was greater than recorded at any previous period. Water consumption was curtailed so far as possible and experiments were conducted with a view to decreasing the demands.

Early this year our own alternating current line was connected with the deep well at Morris Plains, thus enabling us to cease buying electric power. An appropriation will become available this coming year for the drilling of an additional well in the Morris Plains area. Of course, it is impossible to know until tests have been made whether or not a second well will double the supply; if it does, our water situation should be much more satisfactory than at any time since the institution outgrew the original spring-fed source, which was probably twenty or more years ago.

#### NEW BUILDINGS AND IMPROVEMENTS

During the past year all major building operations and all extensive remodeling were done under the supervision of the Construction Office. This office has been maintained at the institution by the Division of Architecture and Construction of the Department of Institutions and Agencies. Mr. Robert Sturgis was in charge at the beginning of the year and was succeeded by Mr. William C. Mitchell who has submitted to me a detailed report of the year's work in this field. The Construction Office has assumed the duties of general contractor in many pieces of work, while in others which were let outright, it acted as inspector for the state. The office also has cooperated with the local engineering division and with other hospital officers on engineering and construction problems and has assisted in making a study of the storm water and sanitary sewers around the institution. It has taken topography at all sites for buildings and secured the information necessary for grading plans, as well as staked out changes in roads or new road construction.

The two largest pieces of new construction at the institution this year were the Occupational Therapy Building for Women and the Tuberculosis Building. The Occupational Therapy Building was begun in February, 1930, and completed in May, 1931. It is

similar in most respects to the building for men previously constructed, but has certain improvements, among them a well finished basement which affords much needed storage space.

The Tuberculosis Building was begun in May, 1930, and is now practically completed except for the laying of the linoleum. This building is a fire-resistant structure, with reinforced concrete frame and reinforced concrete floor slabs. The exterior walls are brick, the roof slate, and venetian stucco plaster has been used on interior walls. The building is of simple colonial design, two stories high, roughly in the form of a letter "I" with the ends extended to form two wards each to a floor. There are thirty-two single rooms for disturbed and detention cases arranged in four separate wards so that there should be little disturbance of the more quiet cases. There are eight double rooms, and the general wards vary in size, some holding 7 beds and some 12 beds. The beds are separated by sanitary partitions which are fitted to a concrete base in the floor and extended the full length of the bed and for considerable distance above it to protect the occupant of the next cubicle. There are enclosed porches on the first floor, and open porches on the second, both adapted for bed patients. Solariums have been provided for ambulatory cases. The majority are expected to be bed patients fed from trays; special diet and serving rooms are being fitted up and equipped with hot plates and electric refrigerators, but the regular food will be sent from the Main Kitchen. Small dining rooms adjacent to the serving rooms will be used for the patients who are able to be up. Offices for physician, nurses, and clerks have been provided, as well as treatment rooms, clothes rooms, sterilizing rooms, and excellent bath and toilet facilities of the most modern type. The location is directly across the road from the Senile Building, in a portion of the land long used as a vegetable garden. A tunnel has been constructed between these buildings and connected with the Dormitory Building basement.

The Senile Building was partially occupied at the beginning of the fiscal year and was entirely completed in August, 1930. The Service Building, which is used as a center for visitors and comprises a cafeteria, information desk, waiting room, and occupational therapy exhibit, was completed in November, 1930. Both

of these buildings were described in last year's report. Two single cottages for physicians were begun in July, 1930, and completed in February, 1931. They have been described under "Staff Matters." A large addition to the hospital garage was begun in July, 1930, and completed in May, 1931. This has done away with the old wooden coach house, which was a potential fire trap for the trucks and cars sheltered there. The new addition is of similar construction to the rest of the garage, with concrete block walls and roofing of asbestos shingles. A heating system with overhead heating units was installed, and an overhead door placed at the main entrance. Toilet and shower facilities were provided for the garage men. A cannery was begun in April, 1930, and is now about 90 per cent. completed; all materials and machinery are on hand, and it is expected that it will be ready for use during the coming season.

The major piece of reconstruction work at the institution is the Main Building, which was started in June, 1929, and has been in progress since that time; it is now regarded as 36 per cent. completed. The work done so far may be summarized as follows: All wood floor beams throughout the first three floors on the North Side have been removed and replaced with structural steel and reinforced concrete slabs; all wood floors and base have been replaced with sanitary cement floors and base. Bathrooms have been completely remodeled; tile floors have been installed over lead pans; tile wainscot placed on the walls; new bath tubs and showers have been provided; all former water piping has been replaced with brass. The electrical system has been completely remodeled; new conduit, wiring and fixtures have been provided, and empty conduits have been run to care for future installation of fire alarm system, watchman's clock system, call system and radio distribution system. All telephone wiring has been placed in rigid conduits and the telephones themselves recessed into the walls in metal boxes. Five sanitary enamel lined coal chutes have been installed. The old unsatisfactory heating system has been replaced with a complete new system, except for tier 2; direct cast iron

radiation heats the rooms; the corridors are provided with heating units which take fresh air from outside, heat it, and blow it out through the corridors; all radiators have been protected by specially designed wire guards; a vacuum pump has been installed at the junction of the two North Side underground wind tunnels. All walls and ceilings have been redecorated, using a sanitary egg-shell gloss paint; all wood work has been stained and varnished. The day room at 2-3 has been converted into a sanitary modern barber shop. The hydrotherapy room at 1-3 has been overhauled, and a tonic treatment room is being installed on the second floor of tier 1, cross hall. During the past years tiers 4-A and 4-B have been completed and occupied; the alteration work on tier 1 is now rapidly nearing completion. After the fire of October 30, a temporary roof was erected at tier 4 cupola.

Alterations on the toilets in the Dormitory Building were begun in December, 1929, and completed in April, 1931. The four large toilet sections in the rear of the building were completely remodeled and the toilet and bath facilities greatly extended; tile walls and floors and alberene stone partitions were installed; all old piping, plumbing fixtures and electrical wiring were replaced with new. Sprinkler systems have been installed in the Main Building South Side and in the Dormitory Building, as described under "Fire Prevention." In the Reception Building, plaster walls have been replaced with terra cotta wainscots in all continuous bathrooms and hydrotherapy rooms.

In connection with the sewage disposal plant, a new sludge tank has been constructed in the field below the dairy barns and a 10-inch terra cotta sewer line laid from this tank to the South Side trunk sewer, a distance of some 700 feet. A new screen chamber has been constructed at the sewage disposal plant, the tank preceding the detrius tank in order of operation. A new chlorinating machine has been installed in the former screen chamber house and piping run from this machine to the influent line of the final settling tank. A terra cotta line was also laid from the septic tank to convey the supernatant liquor from this tank to the final settling tank. Terra cotta pipe 15 inches in diameter was run

1,300 feet to convey the effluent from the final settling tank to the brook which supplies Jaqui's Pond.

Additional buildings have been placed on the central heating system during the year. A 6-inch high pressure steam main has been installed in the tunnel from the power house to the Senile Building. This line will supply high pressure steam to all buildings above the boiler house. A vacuum pump has been installed in the Dormitory Building basement to handle the heating returns from the Senile and Tuberculosis buildings. Further extension of the central heating system is now under way where a steam line is being run from the Tuberculosis Building to supply the greenhouse and adjacent cottages. The steam line has also been extended down Central Avenue from the Employees' Building to the cottages on the south side of the Avenue; all of the cottages in this group are now heated from the central system, including the staff house, two duplex cottages and the two new single cottages.

Alternating current installation which was begun in June, 1930, is now about 60 per cent. completed. A power line encased in fibre duct and concrete was run from the generator room to the deep well in Morris Plains, so that the pumps are now supplied with electrical energy from our own Central power plant. Five transformer vaults with accompanying feeders from the power plant have been installed in the Main Building basement and the entire Main Building is now supplied with alternating current. A transformer vault has been placed in the basement of the Women's Occupational Therapy Building to supply alternating current for light and power. One transformer vault has been installed in the Dormitory Building basement, so that this building is supplied with alternating current for light only. A transformer vault has been established in the Senile Building, and alternating current is now in use throughout this building except for the elevator. In the Tuberculosis Building basement a transformer vault has been installed, and alternating current supplied for all light and power with the exception of the elevator. All elevator service in the institution is maintained on direct current. The Service Building and the two new cottages for physicians have also been given alternating current service. An under-

ground feeder has been laid from the Tuberculosis Building to the Dairy Barns, but connections have not yet been completed. One of the old Harrisburg-Fleming steam engines driving a direct current generator has been replaced with a General Electric Turbo generating unit which generates electrical power at 2,300 volts.

Two new refrigerators have been installed in the storehouse for protecting cereals and other dry food supplies. Chain link fencing has been erected along the road running around the North Side of the Main Building, around the gas house, and along the back road to a point at the rear of the Reception Building, with appropriate gates wherever roads intersect the line of fence. Other construction work has included complete remodeling of the pigery, with cement floor, new roof covering, and a new complete hot water heating system; alterations to the South Side Cottage, with shoring up of floors, replacement of decayed timbers, and changes in the interior which are still in progress; and alterations to the interior of the first two-family cottage for physicians and to the staff house. Further improvements which might be noted are the demolition of the old ice-house and the removal of the horse barn. The stone foundation of the latter is being conserved for use in reconstructing the fifth floor of the Main Building Center. Demolition of the upper floors of the Main Building Center was started on May 25, 1931, and reconstruction work begun.

#### OVERCROWDING

All that I said in my report for last year in regard to conditions of overcrowding throughout the institution have been more than ever true during the past twelve months. We admitted over 13 per cent. more patients than last year, or 314 more than the record prior to 1930. Our regular discharges were rather low, owing to general conditions in the hospital district and also, undoubtedly, to the adverse effect upon our patients of the stress of overcrowding. So great was the cumulative effect of high admissions and low discharges that, despite the transfer of 302 male patients to the new state hospital at Holmdel, the number actually in the hospital was

higher at the end of the year than at the beginning, and the number on our books, which includes those on trial visits or otherwise temporarily outside the institution, showed an increase of 211 patients.

Meantime, with reconstruction work continuous on the Main Building, the amount of space there has not been increased, since as wards have been completed and occupied, others have been vacated to permit the workmen to start on them in turn. In fact, there has been a definite loss of capacity on the North Side, since 4/1, the only ward on the 4th floor occupied since the fire of May, 1929, had to be vacated some three months ago in order that reconstruction work on tier 1 could be carried out. The changes in piping and so on necessitated tearing up the flooring on this ward to reach the rooms below, so that the ward has been rendered unfit for occupancy until and if the entire 4th floor is reconstructed. While this ward was not to be recommended for housing patients, it did furnish quarters for 65 men, and its loss added another item to the overcrowding problem.

The occupancy of the Senile Building has furnished a measure of relief. One ward carrying 36 patients was in part time service at the beginning of the year; two more were opened up in July and a fourth in August. In May a small room on the 2nd floor previously unoccupied was furnished with 12 beds, thus increasing the capacity of the building to a maximum of 156. The patients are being cared for entirely in this building, food being sent to the serving rooms from the Main Kitchen by way of the tunnel, as is the case with the Dormitory Building. Since we have at present more female patients than male, this building is being occupied entirely by women.

The Clinic Building wards have been used throughout the year to care for the men patients from the vacated wards of the Main Building. Consequently, all the special facilities have been hampered in their activities, since this building is intended to be used exclusively for medical and surgical treatment cases. The Reception Building has been overcrowded by the phenomenally high number of admissions and by the lack of space for transferring patients to other buildings. The Dormitory Building has been fill-

ed constantly to the limit of its capacity, in fact, above capacity, since during about three-fourth of the year cots have been set up at night and taken down by day.

In the Main Building, extra cots have also been put nightly in the corridors of the so called "section wards" on both the North and South sides. On the South Side, the overcrowding has been most marked and has caused the greatest anxiety. At present there are 1,247 beds on the South Side, which is a high rate of overcrowding. The entire fourth floor is filled to capacity, and on the other floors many of the cross-halls are used for beds, set close together. The women patients are as a rule more excitable and less amenable to discipline than the men, and if a serious fire or even a panic should occur on these overcrowded wards the situation would be more grave than any we have experienced so far.

The Dormitory Building, too, with construction less substantial than the Main Building, offers much cause for worry. No patients are domiciled on the fourth floor in this building, and the only time they go to this floor is to attend classes in occupational therapy in an accessible room which has been fitted up for the purpose. However, infirmaries filled with bed patients are located on the first, second, and third floor, and on the other wards there are many elderly and feeble cases, both men and women. Rapid evacuation of the building would accordingly be very difficult.

Some relief is to be expected during the coming year. The Tuberculosis Building should be equipped and opened for patients at an early date. This will house about 126 without crowding. The two annexes now used for tuberculous cases hold only 82 patients, so the new building will considerably increase our capacity for this group and also relieve the wards where they are now mingling with other patients of a constant menace from infection. The annexes were built as an emergency war-time measure and have been made to do continued service only by constant patching; they should be razed as soon as they can be vacated. The chief hope for overcrowding relief lies in the promise of Commissioner Ellis to transfer 300 or more women patients to Holmdel in August. This will materially reduce our population, but the reduction will be only temporary unless the the admission rate drops suffi-

ciently to enable us to make adequate arrangements for our incoming patients. At best we are still facing the prospect of reconstruction work on the Main Building continuing through several more years, during no part of which will the entire structure be available for use.

At the present time, the Commissioner is conferring with the resident officers of this institution, the Board of Managers, and members of the Central Department, as to the advisability of entirely remodeling the fourth floor on both sides of the Main Building, with reconstruction so that the wards will be properly designed for patients' use, fireproof, and with a fireproof roof, or whether instead of this reconstruction, the fourth floor should be cut off entirely and the fireproof roof erected over the third floor. In the latter case, provision for the large group of patients to be housed would be made by new construction, either at Holmdel, or by beginning the fourth state hospital which is inevitable sooner or later.

#### BUSINESS DEPARTMENT

The Business Department under Mr. George J. Holbig as business manager has functioned quietly and efficiently with a minimum of friction, either internally or with the medical department. Many economies have been brought about and all extra demands upon the different services made by the increase in the size of the institution have been readily met. In this department, Mr. Henry Landesman as engineer has had charge of the service plants and the maintenance force; Mr. E. I. Coursen, assistant business manager, has supervised the dairy, garden, farm, and outside employees; and Mr. A. J. Van Winkle, treasurer and chief clerk, has continued in charge of the business office with all the routine connected with handling what amounted to close to three million dollars during the past year. In addition, certain divisions such as the kitchens, storehouse, cafeteria, laundry, upholstery shop, and garage have been under the personal supervision of Mr. Holbig.

I feel that we have been fortunate in having a man of Mr. Holbig's experience and personality at the head of the business organization during this past difficult year. Not only his general training and qualifications have been an advantage to this hospital, but

also his knowledge of and previous experience with the Central Office and other state departments have been invaluable. I personally have found him reliable and cooperative in every way and he has been of great assistance to me by the competent manner in which he handled his department and likewise by relieving me of a considerable part of the burden of time consuming detail connected with institutional routine.

#### ENGINEERING DIVISION

Mr. Henry Landesman, C. E. has submitted a detailed report of the work done this year in the extensive division under his supervision. Since space does not permit this to be incorporated in full, much interesting material must be omitted.

The water report showed a total of 325,234,000 gallons consumed, an increase of 17,001,000 over the previous year. The number of gallons pumped was 216,226,000 which was 18,708,000 more than the preceding year, although that had exceeded any previous record. At the power house the total number of tons of coal used was 27,320; the daily average number was 74 tons, with variations between an average of 36 tons in July and of 109 in February. In the dynamo room the total kilowatt load for the year was 2,367,347 with the maximum for the year 515 and the minimum 60. Ice production amounted to 17,392, a decrease of 712 cakes from the previous year; ice production has tended to decrease each year with the increase in the amount of mechanical refrigeration in use in various parts of the institution.

The general report of conditions under which the plants operated showed that at the power house the additional steam needs were met satisfactorily and a detailed study is being made of the new demands in order to determine whether or not the present plant can safely carry the greater load which will be required. In the dynamo room a new alternating current unit was installed and put into operation in December. Considerable extra work has been entailed because some of the buildings are on alternating current and others on direct. In the water system, a new venturi throat and totalizing device was installed to measure the supply from the high service line.

At the sewage disposal plant considerable work was done by this division. The sprinkler filter system gave evidence of over loading, and after studies had been made by Professor Rudolfs and the Board of Managers, it was decided that the engineering division should investigate the system for infiltration; accordingly a detailed survey of every sewer line, manhole, and culvert was carried out with the assistance of the Construction Office. Following this, several repairs and improvements were made, including the laying of new sewer line sections and the replacing of certain old lines. Ash quenching water from the boiler room and waste water from the laundry were diverted from the sanitary lines to the storm drains. A meter to measure accurately the sewage flow was purchased and was installed by the engineering division. Various housing and installations were recommended and authorized and the division accordingly drew up sketches, ordered materials, and has now practically completed the following work: A house built over the screen chamber and detritus tanks; an electric pump installed and house erected over it; and housing constructed over the meter pit. A field laboratory has been maintained to make required tests on solids, alkalinity, chlorine dosage, and stability of final effluent.

Proper heating has been provided for all sewage plant buildings to prevent freezing temperature affecting chlorination or metering. Since the major portion of the infiltration waters have been eliminated and certain other water diverted, the sewage flow has been materially reduced and the odors practically eliminated. Periodic flooding of the filter beds had been adopted to cut down the propagation of flies.

At the laundry a great deal of work has been done, the major part of it at night, Saturday afternoons, and Sundays, in order that there should be no interference with the continuous operation of this essential plant. All shafting, belts, pulleys, and so on connected with the direct drive machinery have been taken down and the old engine dismantled and removed. A new substation electric switchboard was connected up, and the laundry is now entirely electrified. All temporary electric wiring has been replaced by permanent. A new switching arrangement was put in for all

ironing boards, with resultant cut in the maintenance cost. A new cement floor was laid in the staff laundry; new water, steam, and return lines were installed, with trenches and drains. Several new pieces of equipment have been connected. A 4" hot water line was run to meet the demands of increased machinery. Toilet rooms were torn out and entirely reconstructed, with new fixtures, masonry, partitions, and concrete floors, and at one end of the laundry alterations were made to accommodate the entrance to these toilets. A sketch has been prepared for a small building to be constructed in connection with the laundry to house the mattress sterilizer and equipment.

In order to provide sufficient garage space for the physicians and other resident officers of the institution, a small charge has been made for the housing of cars and the money used to purchase materials for increasing the garage capacity. In this way ten additional stalls have been constructed backing up to the original ten car garage at the rear of the staff house, with a new roof, boiler room, and washstand. Heating and light have been provided as well as suitable drainage.

In the Clinic Building two new colonic irrigation rooms with offices, stalls, and dressing rooms, were fitted up. The work included lavatories, hand basins, floor traps, special valves, and so on, and new electric lines and outlets with switches and sterilizer controls. Considerable remodeling was done in the diet kitchen, and changes in piping and in electrical connections were made in other parts of the building.

At the Main Building, the tea and coffee urns were removed from the main kitchen and new tea and coffee making equipment installed on each floor of the two congregate dining halls. Specifications were prepared for new windows in the chapel, and when they were delivered, installation was made by the hospital maintenance force.

At the Dormitory Building, new thermostatic controls were installed on the hot water system and piping was replaced on several parts of the heating system. A new coffee and tea room was prepared and equipment set up. A new bottle washing machine was put in place and connected with the necessary piping and wir-

ing. Two bathrooms were rebuilt entirely. Numerous repairs were made throughout the building.

The cold storage plant was repaired, cleaned, and painted during the year. At the dairy general repairs were made, including new gutters on the north and south barns, new sills where required, new water lines, and a great deal of painting. In the dairyman's cottage new lavatory and toilet were installed and other improvements made. A two car garage was constructed. Other repairs and reconstruction work were carried out at the different cottages during the year, including remodeling of bathroom in pathologist's cottage, reconstruction of kitchen in superintendent's cottage, and a new room finished off in the attic of the business manager's cottage. Beside that mentioned in connection with the dairy, painting has been carried on throughout the institution; among the buildings completed or now in progress are most of the cottages, including the South Side Cottage which is now used for nurses, eleven employees' rooms at the Dormitory Building, one ward in the Reception Building, several corridors and specialty rooms in the Clinic Building, and the new Occupational Therapy Building.

The records of the mechanics shows 10,976 repairs completed during the year and 96 pieces of new work. As usual, furniture repairs were most numerous with chairs heading the list with a number of 1,845. The work done at the large sterilizer included 2,391 mattresses, 1,193 pillows, and a number of other bulky articles.

#### LAUNDRY

The following report has been submitted by Mr. Daniel W. Leyhan, head laundryman:

"During the year there has been considerable addition to the equipment:

July 10, 1930	1 press ironer, 44 in., installed. 6 large electric fans installed.
Oct. 9, 1930	1 Thermovento dry tumbler installed to replace old dry cabinet.
Nov. 19, 1930	2 extractors, 30 in., installed to replace old ones.
Dec. 28, 1930	1 washer, 36x54, installed; 2 old ones removed.
Jan. 25, 1931	Conveyor dryer moved to another part of the laundry.
Jan. 31, 1931	2 complete toilets installed, wooden partitions replaced by brick.
Feb. 28, 1931	Additional 4 in., hot water line installed from power plant to laundry.

May 9, 1931 New sewer lines installed.  
 May 18, 1931 2 washers, 36x36 }  
                   1 extractor, 30 in. } installed for staff laundry.  
                   1 junior dry tumbler }  
 May 22, 1931 Painters started work on interior of building.

The usual laundry operations have been continued without interruption during the installation of machinery. The amount of work has generally increased about 19,000 pieces per month. The total number of pieces counted during the year amounted to 5,502,004. Certain changes in method have been adopted, and a new marking system has been put in which has proved a great convenience.

#### BAKERY

The following list shows the production records of the bakery for the year:

Bread, 2 pounds loaf.....	650,621
Cake, raisin, 6 pounds each.....	2,457
Cake, molasses, 5 pounds each.....	7,143
Cake, plain, 5 pounds each.....	5,526
Cake, coffee, 1 pound each.....	5,896
Pies, 8 pounds each.....	3,789
Pies, 3 pounds each.....	68
Jelly rolls, 4 pounds each.....	28
Cookies.....	36,950
Macaroons.....	800
Lady fingers.....	800
Cream puffs.....	100
Muffins.....	31,260
Buns.....	42,900
Rolls.....	1,866
Total.....	790,204

#### SERVICE BUILDING

The Service Building, which has been previously described, is designed as headquarters for visitors to the institution. The small store and lunch room are also a convenience to the employees of the hospital and of the various construction companies engaged in work on the grounds, while popular gifts to patients are books of tickets entitling them to purchase tobacco, candy, or other delicacies. The furnishings and equipment were selected by Mrs. Doyle

of the Board of Managers, and though reasonable in price are both serviceable and attractive. They and the first stock of supplies were paid for from the funds which were accumulated by the temporary cafeteria which was maintained for a time on Central Avenue in a shack erected as a construction office while work on the Reception Building and other nearby structures was in progress, and which was closed on October 3, 1929.

The new lunch room was opened for service just before noon on November 26, the day before Thanksgiving. Some three hours later the alarm sounded for the fire in the Main Building Center, and the various fire departments remained on duty until after night-fall. Large quantities of coffee, sandwiches, cakes, and cigarettes were dispensed without charge to the men engaged in fighting the fire, so the opening day was hardly a profitable one, financially.

During the year there have been a number of changes made in the system, as experience has been gained as to the requirements which should be met. Some difficulty has been met in finding competent personnel, but on the whole the service is working out not only as a convenience to the patients and employees, but also with a modest financial profit. It operates under an act of the legislature, Chapter 13 of the laws of 1931, which empowers the Board of Managers to establish such a commissary or store, and further states, that, "Any profit accruing from any such commissary or store may be used by the Board of Managers for recreational, entertainment, or other purposes in any such institution." Rules and regulations have been drawn up by a committee appointed by the President of the Board and have been approved by the Commissioner.

#### GARAGE

The completion of the addition to the hospital garage has made conditions in this division much more satisfactory at the close of this year, although during the winter considerable inconvenience was experienced while construction was in progress as the changes in heating system necessitated cutting off the radiation from much of the building during a portion of the cold weather. The number of passenger cars, trucks, tractors, and other motor equipment is

considerable, but all machines have been constantly maintained in serviceable condition by the hospital mechanics. During the year the following new vehicles were purchased: 1 Cadillac 8, 7 passenger sedan; 4 Ford tudor sedans; 1 Ford bus; 1 Ford dump truck. These were obtained by the State Purchasing Department which advertised the specifications of the desired model and the vehicle which was to be given in trade. The Ford sedans have been used chiefly by the social service workers. The garage has continued under the supervision of Mr. John Murphy who has been in the employ of the institution for many years, and was in charge of the coach stable before the days of automobiles.

#### UPHOLSTERY DIVISION

Work in the mattress and upholstery shop includes not only the usual variety indicated by the name, but also the care and making of awnings, the making and repair of harnesses, and cobbling. The following report has been submitted by Mr. Albert Olin who is in charge of this division.

##### *New Work*

Double mattresses.....	11
Single mattresses.....	659
Hair pillows.....	473
Feather pillows.....	193
Double mattress ticks.....	7
Single mattress ticks.....	618
Pillow ticks.....	627
Pieces furniture upholstered.....	53
Slip covers made.....	31
Sofa pillows made.....	8
Chair cushions made.....	47
Carpet made.....	1
Carpet runners made.....	19
Linoleums laid.....	28
Curtains made, pairs.....	319
Curtains hung, pairs.....	362
Shades made.....	299
Protectors made.....	568
Ticking mits made, pairs.....	134
Flags made.....	2

Awnings made .....	3
Pieces harness made .....	63
Miscellaneous .....	222
Total pieces new work .....	4,747

*Repairs*

Double mattresses .....	2
Single mattresses .....	2,166
Hair pillows .....	814
Carpets made over .....	2
Carpets taken up .....	16
Carpets repaired .....	26
Carpets laid .....	5
Shades repaired .....	166
Chairs bottomed .....	314
Mattress ticks repaired .....	503
Awnings hung .....	346
Awnings taken down .....	403
Pieces harness repaired .....	225
Horse blankets repaired .....	20
Shoes repaired, pairs .....	2,383
Miscellaneous .....	48
Total repairs .....	7,440
Total pieces of work done .....	12,187

## FARM

The work of the hospital farm has been continued as in previous years under the direct charge of Mr. William Ayers, with Mr. Coursen acting in a general supervisory capacity. A detailed list of the production and the valuation of the crops will be found in the statistical appendix. There was a decrease in value of a little over ten percent., the reasons being reduced corn tonnage owing to drought, lower hay credit, as the greater part this season is being cut in the form of grass for green fodder, and the July mowing will be credited to the next year, and somewhat reduced production in other crops, chiefly because of weather conditions, with the drought as the prime factor. The total valuation was \$11,324.00.

## GARDEN

The main garden of the institution was carried on with Mr. Arthur Ketch as head gardener and Mr. Coursen in charge. The

severe drought was more of a handicap in the garden than on the farm, and corn and cabbage growth suffered greatly. Other crops were considerably reduced, and only the tomato, onion, and turnip production were good, thus preventing a general failure of the garden industry. The reduction in valuation was about 28 per cent. below that of the previous year, with the total valuation amounting to \$20,082.66. Mr. Coursen has prepared an elaborate tabulation of the difference in the value of the produce brought about by the lower unit prices prevailing this year. By figuring the various crops this year on the same price basis as that prevailing last year, he found that the loss in valuation amounted to \$8,517.36. In other words, if we could have priced our produce this year at the same rate per unit as last year, the total value of the 1930-31 crop would have been about \$350 higher than that of the 1929-30. This hospital exhibited at the State Fair in Trenton in September in competition with other institutions and received third prizes for attractiveness of display and for quality and variety of produce; first, second, and third prizes were also won on individual vegetable exhibits. The gardener, Mr. Ketch, did conscientious and valuable work during the year and deserved much credit for the results attained under especially trying conditions. As a result of overwork he became ill and was under treatment at the Clinic Building during much of the month of January.

#### STABLE

At the farm stable there were 26 horses at the beginning of the year. In March it became necessary to destroy one, which was thirty-three years old and in such feeble condition that Dr. Dustan could do nothing for it. In April, 2 horses were transferred to Holmdel, and in June one animal of a disposition unsuited to our requirements was sold. On June 30, 22 remained. These horses are used in farm work and grading during the warm seasons and in snow removal and general hauling throughout the winter.

#### DAIRY

At the dairy considerable discouragement was felt this year because of the marked increase in the number of infectious abortion

cases. The majority of these were in purchased animals which were apparently negative when added to the herd but became positive after a period of several months. Such of the hospital bred animals as reacted were believed not to have been exposed to infection prior to the introduction of the purchased cows. On July 1, 1930 there were 17 reactors in the herd, all isolated. During the year 39 additional reactors were reported; 14 of the low producers and less valuable animals were slaughtered, leaving 42 positive at the end of the year. These have been kept in the isolation barn, as it has not been held good policy to slaughter them while they are still highly productive.

The positive reactors have been milked and cared for by men assigned to this duty who do not come into contact with the non-infected animals. All persons entering or leaving any barn are directed to bring foot-wear into contact with a germicide in a pan kept near the door for the purpose. All milk from the entire herd has been pasteurized throughout the year.

Mastitis of the virulent type has apparently been stamped out. There are some cows now in the herd with occasional attacks of mastitis of the flaky variety. The fore milk of all cows has been tested regularly by milking it through a screen; at such times as flakes appear, the milk is fed to calves, samples are sent to the laboratory, and the cow is not returned to the milking line until the milk is again negative.

In February one cow died with what was evidently a severe type of winter diarrhea; another was slaughtered because of a traumatic condition from wire puncture which was coupled with a slight dysentery; two other cows showed symptoms of diarrhea. Dr. Dustan advised the segregation of all suspicious animals as soon as the first case appeared and the infection was confined to the four animals mentioned, with a few other extremely light and doubtful cases. At the request of Dr. Dustan, the four animals were examined by Drs. Jones and Little of the Rockefeller Institute for Medical Research, who made the diagnosis, Winter Dysentery, on symptoms and bacteriological tests. In all probability, prompt diagnosis and segregation prevented considerable loss as these infections usually spread through an entire herd and, although deaths are rare, the milk production is greatly reduced or ceases entirely

and recovery is slow.

White scours developed among the young stock in April, but prompt segregation and serum injections confined the disease to two animals, one of which died and the other recovered. The entire herd was tuberculin tested in February. Five animals were pronounced suspicious, all but one of which had been tested the year before and then regarded as clean. The five animals were slaughtered.

On July 1, 1930 milk production was about 2,045 quarts daily; during the early months of the fiscal year, production was lessened still further, and in October 400 quarts of milk per day were purchased. It was regarded as more profitable to buy cows than to continue the purchase of milk and in November, 12 fresh animals were added to the herd, which with the freshening of a number of the others, brought production up to 2,300 quarts daily, and made it possible to discontinue all buying of milk. At the end of the year, it was running about 2,400 quarts per day. The total valuation of the dairy products amounted to \$80,584.88, an advance of \$3,663.61 over the previous year. On June 30, the herd consisted of 133 milking cows, 5 dry cows, 70 heifers, 47 calves, and 5 bulls, a total of 260 animals.

A considerable number of our young heifers have been pastured at other institutions. At present 54 are at Holmdel, 4 at Clinton Farms, and 3 at Annandale, a total of 61. Five heifers were returned from Annandale in April, 3 of which freshened. Arrangements are being made to transfer 17 head of young stock to the Belle Ellen Farms in Sussex County, where they will be raised and bred under the direction of the N. J. Agricultural Station at New Brunswick; 5 of these are to be taken from the local herd and 12 from Holmdel. The 25 acres of land leased from Arthur Ketch have been enclosed with wire fencing; 25 head of stock were grazed there for the remainder of the 1930 season after the fencing was completed. In the spring the grass was given a top dressing of fertilizer and a good growth followed. At present 18 heifers are pastured there and the number will be increased.

The herdsman, Mr. L. E. Palmer, and his assistants did commendable work during the year under considerable handicaps. Mr. Coursen also devoted a large share of his time to the dairy in

an effort to attain and maintain a high standard of production. Mr. W. A. Houston, Farm Supervisor of the Central Office and Dr. J. H. McNeil, Chief of the Bureau of Animal Industry in this state, also studied the situation carefully and assisted with advice and recommendations. The Bureau of Animal Industry conducted all agglutination tests for bacillus abortus and also the tuberculin tests.

#### PIGGERY

Certain improvements and reconstructions have been made at the piggery with a view to improving the sanitary conditions. Despite serum injections, the usual outbreaks of hemorrhagic septicemia depleted the number of young pigs, and in September the disease attacked the large hogs and proved fatal to one weighing 300 lbs. Although others contracted the disease they responded to treatment and there were no other deaths among the larger animals. The weaned pigs were injected with Lederle anti-hog cholera serum and hog cholera virus, as usual; there were a number of deaths, but neither Dr. Dustan nor his consultants, the Rockefeller Institute and the Lederle Laboratories, were able to find any definite indications of cholera. As in former years, occasional deaths occurred in young pigs and in rare instances among larger animals in which the autopsies showed an acute gastritis, caused, in the opinion of Dr. Dustan, by some irritant poison in the garbage. The use of lye for cleaning purposes in the various parts of the institution was either discontinued or reduced, and since that time no deaths from poison have been recorded. The census of June 30 showed: 40 brood sows, 3 boars, 67 fattening hogs, and 198 young pigs, a total of 308. The quantity of pork produced during the year was 96,219 lbs., which exceeded the production of the previous year by 7,218 lbs. The credit allowed was less, however, since the average price of pork per lb. had dropped, the loss in valuation amounting to \$2,501.73. The total valuation of piggery products was \$14,060.46, which was \$1,538.30 lower than 1930, the record year in this industry.

HENNERY

At the henry production was good and general conditions favorable. Additional housing has been acquired this year by remodeling an old building, and it will be possible to increase the laying stock during the coming year. In the spring 2,000 day old chicks were purchased, the first 1,000 delivered on March 31, and the second on May 5. They arrived in good condition and the mortality has been comparatively low. The census on June 30 showed 318 hens, 805 pullets, 3 cockerels, and 1,732 young stock. The industry showed a growth this year in all products, and although the prices allowed were lower than in the preceding year, the totals showed a larger credit. The valuation of all products was \$5,659.15, an increase of \$1,386.58 over 1930.

MISCELLANEOUS

Work has been continued throughout the year by the patients and employees handling coal and ashes. At the hospital incinerator plant also work has been carried on to meet the requirements. The spur of railroad which supplies the institution has been maintained in working order by a group of six men—a foreman and five patients—who were employed a total of forty-five days during the year. Many more ties are in need of replacement and will be given attention when the press of other duties permits.

INVENTORY

The annual inventory was made in the Business Office in accordance with the usual system. The appraised valuation was as follows:

Land .....	\$200, 390.00
Buildings .....	\$10, 260, 151.63
Water supply, sewage disposal plant, railroad siding, roads and walks .....	642, 233.39
<b>Total real estate</b> .....	<u>\$11, 102, 775.02</u>
<b>Personal Property</b> .....	1, 168, 013.91
<b>Total valuation</b> .....	<u>\$12, 270, 788.93</u>

This is an increase of \$709,235.08 in the real estate and

\$12,827.45 in personal property, a total increase of \$722,062.53 in the valuation.

### RECOMMENDATIONS

#### TWO SINGLE COTTAGES FOR PHYSICIANS

Additional housing for physicians is required, and I recommend that an appropriation be made to cover the cost of building two single cottages. During the past year I was obliged to let two experienced men of high type leave my staff to go to other state institutions where they could be given single cottages. Unless we can offer living conditions comparable with those in other hospitals, we shall continue to lose more of our better physicians. On the other hand, other conditions being reasonably equal, pleasant living conditions will do much to attract and hold a superior staff.

#### UNCLIMBABLE FENCE

In order to protect the hospital property, especially farm and garden produce, shrubbery, and flowers, and also save the patients from danger and annoyance, the erection of unclimbable fence should be continued until such a barrier has been placed wherever the state land is adjacent to a public highway.

#### UPKEEP AND MAINTENANCE OF ROADS

In addition to Central Avenue, there are various other roads about the institution which have to be traversed many times daily by the hospital motor vehicles. In order to save time and wear and tear on the trucks and automobiles and their loads, all of these roads should be maintained in good condition. I accordingly recommend that a sufficient sum be appropriated to provide tar, stone, and other materials for surfacing; the work will be done by hospital labor and equipment.

#### PLANTS, TREES, SHRUBS, GRADING AND SIDEWALKS

Whenever a new building is completed, it is necessary to grade the land around it, make lawns, lay sidewalks, and plant a sufficient number of trees and shrubs to create an agreeable effect. This work can all be done by the hospital forces if a sufficient sum is appropriated to cover the cost of the necessary materials.

NEW LOCKING SYSTEM FOR MAIN  
AND DORMITORY BUILDINGS

The locking system now in use in these two older buildings is of a type no longer manufactured; the doors are not self-locking, and many of the locks and keys are badly worn. It is accordingly recommended that a sufficient sum be appropriated to provide a new cylinder locking system which would tie in with the groups in the newer buildings.

## FIREPROOFING MAIN AND DORMITORY BUILDINGS

It is absolutely essential that from some source a sufficient sum be provided to carry on to completion the fireproofing of the Main Building and to fireproof the Dormitory Building throughout. So long as the State makes itself responsible for the care of persons incapable of caring for themselves, it should in the name of common humanity provide housing of as safe a type as is considered necessary for equally large groups of people who are sound in mind and body. Our experiences with fires in the past has demonstrated the grave danger in our present buildings. There can be no excuse for neglect in a matter so serious and touching so closely every county, town and village in the hospital district.

## A FOURTH STATE HOSPITAL

The unprecedented demands made upon hospitalization facilities during the past two years have forced us to the realization that another state hospital must be constructed if the mentally sick are to be given the care and treatment to which they are entitled. The new institution at Holmdel will have reached its capacity when contemplated transfers have been completed; this institution will remain at least a thousand patients above its capacity, and with the prospect of another year of hardship among the masses of people, already over-burdened and discouraged by lack of employment and the dwindling or disappearance of their savings, there is no doubt that the number of admissions to the state hospitals will be high, very likely exceeding even the previous high record. It is obvious that by the time another state hospital can be made ready for use, we shall be prepared to fill it to the doors. Since this is true, the

present lower prices on land and construction make it the part of wisdom as well as of necessity to push forward the selection and purchase of a suitable site, and the beginning of a building program.

### APPOINTMENTS AND RESIGNATIONS

#### *Resident Physicians Appointed:*

L. Arthur Crandell, M. D. ....	July 11, 1930
Fred Lilly, M. D. ....	July 16, 1930
Archie Crandell, M. D. ....	July 16, 1930
Marshall D. Hogan, M. D. ....	August 13, 1930
Herbert Hyatt, M. D. ....	August 16, 1930
Daniel George Melvin, M. D. ....	August 19, 1930
Conrad Ranger, M. D. ....	August 26, 1930
Harry A. Moscoe, M. D. ....	September 1, 1930
Edward B. Rhea, M. D. ....	December 1, 1930
George B. Coon, M. D. ....	December 13, 1930

#### *Resident Physicians' Resignations:*

Percy L. Smith, M. D. ....	July 31, 1930
Fred Lilly, M. D. ....	August 16, 1930
Bernard Glick, M. D. ....	August 31, 1930
L. Arthur Crandell, M. D. ....	September 4, 1930
Elsworth Baker, M. D., transferred to N. J. State Hospital at Holmdel .....	April 30, 1931

#### *Other Staff Appointments:*

Harold S. Hatch, M. D., Tuberculosis Specialist, part time .....	February 1, 1931
George B. Slattery, D. D. S., Dental Interne .....	September 1, 1930
James V. Gartland, D. D. S., Dental Interne .....	June 1, 1931
Frederick J. Gaudet, Asst. Psychologist, Mental Hy- giene Clinics (without pay) .....	May 20, 1931

#### *Other Staff Resignations:*

H. E. Thompson, D. D. S., Junior Resident Dentist	December 31, 1930
Paul H. Hart, D. D. S., Dental Interne .....	August 30, 1930

#### *Promotions:*

Theodore Gebirtig, M. D., Senior Resident Physician ....	August 1, 1931
John F. McCluskey, D. D. S., Junior Resident Dentist ...	January 1, 1931

### LOSS OF EMPLOYEES

There have been an unusual number of deaths among our employees during the past year, none, however, incurred apparently as a direct result of the service itself.

On September 3, 1930, Reinhardt Pfeiffer was found dead in the roadway between the hospital grounds and Morris Plains, where he had fallen from the truck on which he was employed as an assistant in handling goods. An autopsy was performed by Dr. Collins and Dr. Donovan of the hospital staff and the findings reported at the coroner's inquest: Dr. Collins gave it as his opinion that the cause of death was chronic myocarditis with cardiac failure and that the man had died before he struck the pavement. After several witnesses were heard, the court exonerated the driver from all blame and acceded in the opinion of Dr. Collins. Mr. Pfeiffer began work at the institution on February 4, 1921.

Douglas Gray, an attendant, was appointed on July 29, 1930. On September 7, 1930 while off duty he was riding with other attendants in an automobile and was asleep on the front seat. The automobile skidded and struck a tree; Gray was thrown out and instantly killed. Three other attendants were injured.

Jeanette Brandenburg, a woman attendant who had been employed here in 1926, 1927, and was last appointed on October 8, 1929, returned to the employees' residence in the afternoon of October 15, 1930, after having been out during her regular time off duty. She became suddenly ill with acute indigestion, was taken to the employees' ward of the Clinic Building, and died there on the following day.

Richard Passau, a charge attendant, was appointed on June 23, 1923. He was known as an efficient and faithful employee, always kind to patients. He became ill during the summer of 1930, and after being under care for six months on the employees' ward of the Clinic Building, died on February 2, 1931.

Alfred Taylor, an attendant, was appointed on May 25th, 1930. In the winter he became seriously ill with acute edema of the larynx and a tracheotomy was performed; after the operation he was returned to bed and a special nurse placed on duty with him. Shortly after he had another attack of filling up, grabbing at the tube and dislodging it, and died of acute edema of the glottis due to streptococci infection with chronic myocarditis.

Frank Owen was first employed as a clerk bookkeeper on June 6, 1928 and was transferred to the print shop on July 8, 1929.

There he was in charge of the patients engaged in that branch of Occupational Therapy and was responsible for the printing of the *Psychogram*, the Annual Report, and numerous other pieces of type-setting. He had been educated at Duke University and was well equipped by temperament and training for institutional work; he was generally popular with patients, officers and fellow employees. During the past winter his health was poor and he was under treatment at the Clinic Building on different occasions, suffering from hemorrhages and anemia. Against advice, he decided to make the journey to his home in the South, accompanied by a friend. Soon after leaving the institution he was seized with a hemorrhage which did not respond to such treatment as could be given enroute, and died on March 25, soon after reaching his home.

There was one retirement under the pension system during the year. On September 30, 1930, Miss Mary R. Keegan left the service of the institution. She was first appointed here on October 25, 1883, and was engaged in the care of patients. When the first Training School was organized in 1894, she became a student and was graduated in 1896 at the end of the two year's course with the highest standing in her class. She became a supervisor and then was placed in charge of the entire women's service of the institution. Her executive ability was of a distinctly high order and she was always equal to any emergency in her province. When the Training School was reorganized in 1921, it was necessary to change the entire nursing staff to meet the requirements of the State Board for an accredited school, and Miss Keegan was assigned to other duties in the institution. This year, having complied with all the requirements for retiring on pension, she decided to leave the institution where she had spent well on toward half a century and enjoy the leisure to which she was entitled.

#### DISTINGUISHED VISITORS

As in past years, we have been very fortunate in the number of distinguished visitors who have honored us by coming to the institution on more or less extended tours of inspection. Among those from outside the state may be mentioned Dr. C. M. Hincks,

Medical Director of the National Committee for Mental Hygiene, who was here on January 25; Dr. William A. Byram, Superintendent of Worcester State Hospital, Worcester, Mass., who visited the hospital on Feb. 10; Dr. C. D. Mitchell, Superintendent of the Mississippi State Hospital, Jackson, Miss., with Mr. N. W. Ornstree, Architect, who inspected our buildings in considering the institutional building program contemplated for Mississippi; Mr. E. Kent Hubbard, President of the Manufacturers Association of Connecticut, and Mr. Edward H. Fennessy of Meriden, Connecticut who with Commissioner Ellis, Mr. Kirby of the State Board of Control and Senator Abell and Mr. Coggeshall of Morristown had lunch at the institution on August 6; Dr. Sidney Wilgus of Illinois who made a survey of the institution on October 9 and was much interested in the changes since he made an extensive survey for Commissioner Lewis ten years before.

The New Jersey visitors were of course, even more numerous. On October 24, Dr. Bruce Robinson of Newark and a group of social workers inspected the institution. The April meeting of the New Jersey Chapter of the Association of Boys' Work Secretaries of the Y. M. C. A. was held at this hospital; luncheon was served and Dr. McMurray and Dr. Fuller spoke, after which the group was conducted through some of the principle buildings. A group representing the Ladies' Auxiliary of the Bergen County Medical Society visited and made an inspection of the institution on April 30. On May 22, twenty-five members of the Community Welfare Organization of Passaic and neighboring towns visited the hospital as guests under the auspices of the Mental Hygiene Clinics; the group included executives and representatives from social agencies, public health nursing organizations and public welfare departments. In the morning the Reception Building, Clinic Building, Occupational Therapy classes, and Nurse's Home were visited; at lunch, Dr. Curry spoke; in the afternoon a special Mental Hygiene Clinic Staff Meeting was held for the visitors, at which Dr. Fuller and Miss Hurley gave talks and each member of the staff presented cases from the psychiatric service point of view.

On the evening of November 18 a birthday party was given at this institution for Commissioner Ellis, with the Central Office and the hospital acting as hosts. The guests included men and women

from all parts of the state who were affiliated with institutional work, among them President Earle of the State Board of Control, Mrs. Wittpenn and Mrs. Lawrence, members of that board, Senator and Mrs. Abell, Mr. and Mrs. Murray Coggeshall, President Voorhees and the other members of the Board of Managers of this institution, the superintendents of practically all institutions in the state and many others. Dinner was served to approximately 200 guests.

Other visitors to the institution include Senator Arthur N. Pierson, then acting Governor of the State, who visited the institution directly after the fire of November 26; Senator Edwards and Colonel Edwards, who were here on November 1, and representatives of the various state departments who came to confer at different times with hospital and Central Office officials, including the Department of Health, the Department of Labor, and the Department of Agriculture. The joint Appropriations Committee of the Legislature was at the hospital on February 4, and discussed financial needs with Commissioner Ellis, Mr. Earle, various members of the State Board of Control, members of the local Board of Managers, and others prominent in the affairs of the State.

Superintendents and officers of other institutions in the state have paid us numerous visits, including Dr. English, superintendent of Glen Gardner; Dr. Renner, Superintendent of the State Village at Skillman; Mr. Samuel Atchley, Warden of Trenton State Hospital; Dr. Gordon, Medical Director of the new State Hospital at Holmdel; Dr. Stone, Medical Director of the State Hospital at Trenton; Dr. Paine, Superintendent of the Essex County Hospital at Overbrook; Mr. Meese, superintendent of the Training School at Totowa, and many others.

The directors and assistants of the various divisions in the Central Office have been generous in their visits, especially Mr. Leatham, Mr. Houston, Mr. Gerry, Mr. Rockhill and Dr. Bixby.

The Board of Freeholders of the different counties in our district have paid us regular visits to inspect their patients here. Senator Abell has visited the institution frequently and been ready at all times to respond to our requests for advice or assistance. Dr. Carhart of the Civil Service Department has spent much time with

us, and many other representatives of different groups and organizations have showed their interest in the work being done here. Also, many private individuals have come to the hospital, either singly or in small groups, and asked to be taken through the institution in order that they might be informed at first hand of the conditions here.

#### ACKNOWLEDGMENTS

It is impossible for me to express the deep sense of gratitude and appreciation which I feel toward the many friends of the hospital who have given so generously of their time, their thought, their effort, and their possessions during the past year. Donations of books, magazines, tobacco, food delicacies, and clothing have been sent in most liberally by individuals and by charitable and welfare organizations of all types, and gifts of musical instruments, victrola records, and—especially at Christmas time—considerable sums of money have enabled us to bring cheer and comfort to those most in need. People wonderfully skilled in music have afforded pleasure and inspiration by their generous performances for our patients; others have brought special entertainment to various groups on memorable occasions.

State officials have devoted long hours of close attention to the needs of the hospital and the best methods of promoting its welfare. In particular the members of the Board of Managers have added to their lavish expenditure of time and energy in meetings, inspections, and consultations for the good of the institution as a whole, a personal interest in the happiness of patients as individual people which has led them to many kindly and generous acts. Also, the officers and employees most closely in contact with the patients have given far more, both in courtesy and attention and in material gifts, than was demanded by any possible standards except their own sympathy for those in need.

#### CONCLUSION

In closing this, my eleventh, annual report I wish to express my gratitude to all who have contributed to the carrying on of this institution during the past year. The resident officers and employees have faced more problems and made more difficult adjustments

than in any previous period since the early days of reorganization. It is through their faithful devotion to the work at hand and their willingness to make the best of personal hardships that we have been enabled to report a fair degree of progress. Both the medical and the business departments have shown a commendable spirit of loyalty and service throughout the year. The consultant staff, also, has stood ready at all times to grant any assistance of which we were in need.

The State Board of Control, the Central Office, and Commissioner Ellis have devoted a large share of their time and attention to the affairs of this hospital, and have endeavored on every occasion to render whatever assistance lay within their power. The Board of Managers have not only maintained their own previous high records of interest and cooperation, but have gone even further to meet the extraordinary demands of this difficult and trying year. Moreover, the personal relations between the Superintendent and the Members of the Board, the Commissioner, and the other individuals of the organization have been a source of the utmost satisfaction.

Respectfully submitted.

Marcus A. Curry, M. D.  
Superintendent.

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**STATISTICAL APPENDIX TO CHIEF EXECUTIVE OFFICER'S  
REPORT**

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TABLE 1.

GENERAL INFORMATION

Data correct at end of hospital year, June 30, 1931

1. Date of opening as a hospital for mental diseases.....	August 17, 1876
2. Type of hospital.....	State
3. Hospital plant—	
Value of hospital property:	
Real estate, including buildings.....	\$11,102,775.02
Personal property.....	1,168,013.91
Total.....	<u>\$12,270,788.93</u>
Total acreage of hospital property owned.....	929.49
Additional acreage rented.....	.25
Total acreage under cultivation during previous year.....	.225

4. OFFICERS AND EMPLOYEES

Actually in Service at End of Year

	Males	Females	Total
Superintendents.....	1	..	1
Clinical directors.....	1	..	1
Assistant physicians.....	23	1	24
Pathologists.....	1	..	1
Consulting surgeons.....	1	..	1
Total physicians.....	27	1	28
Business managers.....	1	..	1
Assistant to Chief Executive Officer.....	1	..	1
Resident dentists.....	2	..	2
Consulting dentists.....	1	..	1
Pharmacists.....	2	..	2
Engineer.....	1	..	1
Graduate nurses.....	7	57	64
Superintendent of Nurses.....	1	1	1
Other nurses and attendants.....	222	206	428
Occupational therapists.....	5	7	12
Social workers.....	..	8	8
Teachers of Physical Training.....	1	9	10
All other officers and employees.....	264	97	361
Compensation Cases.....	3	..	3
Total officers and employees.....	537	386	923

TABLE I. (Continued.)  
5. CENSUS OF PATIENT POPULATION AT END OF YEAR

	Actually in Hospital			Absent from Hospital but Still on Books		
	Males	Females	Total	Males	Females	Total
White—						
Insane .....	1,725	1,982	3,707	170	191	361
Epileptics .....	.....	.....	.....	..	..	..
Mental defectives.....	14	8	22	..	..	..
Alcoholics.....	.....	.....	.....	..	..	..
Drug addicts.....	.....	.....	.....	..	..	..
Neurosyphilitics (without psychosis).....	.....	.....	.....	..	..	..
All other cases.....	.....	.....	.....	..	..	..
<b>Total.....</b>	<b>1,739</b>	<b>1,990</b>	<b>3,729</b>	<b>170</b>	<b>191</b>	<b>361</b>
Other Races—						
Insane.....	107	126	233	10	11	21
Epileptics.....	.....	.....	.....	..	..	..
Mental defectives .....	.....	.....	.....	..	..	..
Alcoholics.....	.....	.....	.....	..	..	..
Drug addicts.....	.....	.....	.....	..	..	..
Neurosyphilitics (without psychosis).....	.....	.....	.....	..	..	..
All other cases.....	.....	.....	.....	..	..	..
<b>Total .....</b>	<b>107</b>	<b>126</b>	<b>233</b>	<b>10</b>	<b>11</b>	<b>21</b>
<b>Grand total.....</b>	<b>1,846</b>	<b>2,116</b>	<b>3,962</b>	<b>180</b>	<b>202</b>	<b>382</b>
6. Patients under treatment in occupational therapy classes, including physical training, on date of report.....				338	1,483	1,821
7. Other patients employed in general work of hos- pital on date of report.....				1,076	1,024	2,100
8. Average daily number of all patients actually in hospital during year.....				1,927	2,033	3,960
9. Voluntary patients admitted during year.....				72	40	112
10. Persons given advice or treatment in out-patient clinics during year.....				1,575	1,200	2,775

TABLE II.

FINANCIAL STATEMENT FOR THE FISCAL YEAR ENDED JUNE 30, 1931

RECEIPTS

Balance on hand from previous fiscal year .....	
Received from appropriations .....	2,196,953.82
Received from paying patients .....	150,209.28
Received from all other sources .....	594,186.80
Total receipts .....	<u>\$2,941,349.90</u>

DISBURSEMENTS

1. Expenditures for maintenance of patients:	
Salaries and wages .....	\$999,739.30
Provisions (food) .....	339,476.68
Fuel, light and water .....	117,587.06
All other expenditures for maintenance .....	<u>353,619.03</u>
Total expenditures for maintenance .....	\$1,810,422.07
2. Expenditures for all purposes other than maintenance, including new buildings, other additions and permanent betterments .....	396,763.87
3. Expenditures for repayment of loans and interest on loans .....	.....
Total expenditures .....	\$2,207,185.94
Amount returned to State Treasurer .....	734,163.96
Balance on hand at close of year .....	.....
Total disbursements .....	<u>\$2,941,349.90</u>

TABLE III.

## MOVEMENT OF INSANE PATIENT POPULATION

For year beginning July 1, 1930, and ended June 30, 1931

	Males	Females	Total
1. Insane patients on records of hospital at beginning of hospital year:			
a—In hospital.....	1,921	1,978	3,899
b—On parole or otherwise absent.....	163	174	337
Total.....	2,084	2,152	4,236
2. Admissions during year:			
a—First admissions.....	547	393	940
(Includes all patients admitted for the first time to any hospital for mental diseases, public or private, wherever situated, in or outside of State, excepting institutions for temporary care.)			
b—Readmissions.....	118	139	257
(Includes all patients admitted who have been previously under treatment in a hospital for mental diseases excepting transfers and patients who have received treatment only in institutions for temporary care.)			
c—Transfers from other hospitals for mental diseases.....	22	5	27
(Includes all patients coming directly from any other hospital for mental diseases, public or private, in same State, excepting institutions for temporary care.)			
3. Total received during year.....	687	537	1,224
(Includes total of items 2 a, b and c.)			
4. Total on books during year.....	2,771	2,689	5,460
(Includes total of items 1 and 3.)			

TABLE III. (Continued.)

5. Discharged from books during year:			
(Does not include patients away from hospital on parole, on visit, or on other temporary leave from hospital.)			
a—As recovered.....	108	99	207
b—As improved .....	106	96	202
(Does not include transfers.)			
c—As unimproved.....	18	15	33
(Includes all patients discharged not benefited by treatment, exclusive of transfers.)			
d—As without psychosis.....	19	4	23
(Includes all discharged patients who are found to have had no psychosis.)			
e—Transferred to other hospitals for mental diseases.....	313	3	316
(Includes all patients sent directly to any other hospital for mental diseases, public or private, in same State, excepting institutions for temporary care.)			
f—Died during year.....	181	154	335
6. Total discharged, transferred and died during year.....	745	371	1,116
(Includes total of items 5 a, b, c, d, e and f.)			
7. Insane patients remaining on books of hospital at end of hospital year:			
a—In hospital.....	1,846	2,116	3,962
b—On parole or otherwise absent.....	180	202	382
Total.....	2,026	2,318	4,344

TABLE IV.

## NATIVITY OF FIRST ADMISSIONS AND OF PARENTS OF FIRST ADMISSIONS

Nativity	Patients			Parents of Male Patients			Parents of Female Patients		
	Males	Females	Total	Fathers	Mothers	Both Parents	Fathers	Mothers	Both Parents
United States....	332	239	571	197	195	181	144	147	132
Africa.....	..	..	..	1	..	..	..	..	..
*Asia.....	2	..	2	2	2	2	1	1	1
Australia.....	..	..	..	..	..	..	..	..	..
Austria.....	13	7	20	20	21	20	9	10	9
Belgium.....	1	..	1	1	1	1	..	..	..
†Canada.....	1	3	4	3	6	3	5	2	2
Central America.....	..	..	..	..	..	..	..	..	..
China.....	2	..	2	2	2	2	..	..	..
Czecho-Slovakia.....	4	2	6	6	6	5	6	5	5
Cuba.....	1	..	1	1	1	1	..	..	..
Denmark.....	2	1	3	2	2	2	1	2	1
England.....	9	7	16	18	12	9	10	9	5
*Europe.....	7	5	12	10	9	9	7	8	7
Finland.....	..	1	1	..	2	..	1	1	1
France.....	4	5	9	7	7	5	8	5	5
Germany.....	39	16	55	81	76	71	30	31	27
Greece.....	1	2	3	1	1	1	2	2	2
Holland.....	5	1	6	5	5	5	2	1	1
Hungary.....	6	8	14	10	9	9	11	11	11
India.....	..	..	..	..	..	..	..	..	..
Ireland.....	11	21	32	36	45	32	39	42	37
Italy.....	53	26	79	71	72	71	45	46	45
Japan.....	..	..	..	..	..	..	..	..	..
Jugo-Slavia.....	4	1	5	3	4	3	1	1	1
Mexico.....	..	..	..	..	..	..	..	..	..
Norway.....	..	2	2	2	..	..	2	2	2
Philippine Islands.....	..	..	..	..	..	..	..	..	..
Poland.....	20	23	43	23	24	23	30	30	29
Porto Rico.....	..	..	..	..	..	..	..	..	..
Portugal.....	3	2	5	3	3	3	2	2	2
Roumania.....	1	..	1	..	..	..	1	1	1
Russia.....	10	10	20	16	13	13	16	14	14
Scotland.....	3	4	7	5	3	3	9	7	5
South America.....	1	..	1	1	1	1	..	..	..
Spain.....	..	..	..	2	..	..	..	..	..
Sweden.....	1	4	5	1	1	1	5	6	5
Switzerland.....	6	3	9	5	6	5	3	2	2
Turkey-in-Asia.....	..	..	..	..	..	..	..	..	..
Turkey-in-Europe.....	2	..	2	2	2	2	..	..	..
Wales.....	..	..	..	..	1	..	1	1	1
†West Indies.....	2	..	2	1	1	1	..	..	..
Other countries.....	..	..	..	..	..	..	..	..	..
Unascertained.....	1	..	1	9	14	9	2	4	2
Total.....	547	393	940	547	547	493	393	393	355

\*Not otherwise specified. †Includes Newfoundland. ‡Except Cuba and Porto Rico.

TABLE IV.—a.

AGE OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO NATIVITY AND LENGTH OF RESIDENCE IN THE UNITED STATES OF THE FOREIGN BORN

AGE GROUPS	Aggregate			NATIVE BORN												FOREIGN BORN												Nativity unascertained														
				Total			PARENTAGE												Total			TIME IN UNITED STATES BEFORE ADMISSION																				
	Native						Foreign			Mixed			Unascertained			Under 5 years						5-9 years			10-14 years			15 years and over			Unascertained											
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.									
Under 15 years ..	1	2	3	1	2	3	1	..	1	..	1	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
15-19 years ....	19	21	40	18	15	33	10	8	18	7	7	14	1	..	1	..	..	..	1	6	7	..	2	2	..	1	1	..	2	2	..	1	1	1	..	1	..	..	..			
20-24 years ....	50	38	88	40	32	72	11	15	26	22	16	38	7	1	8	..	..	..	10	6	16	4	2	6	1	2	3	1	..	1	1	3	4	3	4	7	..	..	..	..	..	..
25-29 years ....	45	40	85	39	30	69	22	17	39	12	8	20	4	4	8	1	1	2	6	10	16	1	2	3	..	1	1	..	..	..	2	2	4	12	7	19	1	..	1	..	..	..
30-34 years ....	67	37	104	47	25	72	23	14	37	18	7	25	6	4	10	..	..	..	20	12	32	2	5	7	3	..	3	2	..	2	6	5	11	15	9	24	..	..	..	..	..	..
35-39 years ....	64	38	102	37	23	60	28	11	39	8	8	16	1	4	5	..	..	..	27	15	42	1	..	1	5	1	6	6	5	11	2	2	4	23	15	38	1	..	1	..	..	..
40-44 years ....	52	39	91	25	19	44	13	10	23	9	5	14	3	4	7	..	..	..	27	20	47	..	..	..	1	3	4	2	2	4	23	15	38	1	..	1	..	..	..			
45-49 years ....	48	19	67	21	11	32	12	6	18	7	4	11	2	1	3	..	..	..	27	8	35	..	1	1	..	..	..	3	..	3	22	7	29	2	..	2	..	..	..			
50-54 years ....	41	40	81	16	20	36	6	12	18	8	6	14	1	2	3	1	..	1	25	20	45	..	1	1	1	1	2	1	1	2	22	17	39	1	..	1	..	..	..			
55-59 years ....	37	24	61	21	14	35	13	10	23	7	4	11	..	..	..	1	..	1	16	10	26	..	1	1	..	1	1	3	..	3	12	8	20	1	..	1	..	..	..			
60-64 years ....	23	19	42	11	11	22	4	6	10	4	3	7	3	2	5	..	..	..	12	8	20	..	..	..	..	..	..	..	..	..	12	8	20	..	..	..	..	..	..			
65-69 years ....	41	26	67	21	12	33	12	9	21	6	1	7	1	2	3	2	..	2	20	14	34	1	1	2	1	1	2	..	1	1	18	11	29	..	..	..	..	..	..			
70 years and over	59	50	109	35	25	60	26	14	40	6	9	15	2	1	3	1	1	2	23	25	48	..	1	1	..	..	..	1	1	2	22	22	44	..	1	1	1	..	1			
Unascertained....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..						
Total.....	547	393	940	332	239	571	181	132	313	114	79	193	31	26	57	6	2	8	214	154	368	9	16	25	12	11	23	20	15	35	165	111	276	8	1	9	1	..	1			

TABLE V.

## CITIZENSHIP OF FIRST ADMISSIONS

	Males	Females	Total
Citizens by birth.....	332	239	571
Citizens by naturalization.....	113	69	182
Aliens.....	97	85	182
Citizenship unascertained.....	5		5
Total.....	547	393	940

TABLE VI.

## PSYCHOSES OF FIRST ADMISSIONS

<i>Psychoses</i>	M.	F.	T.	M.	F.	T.
1. TRAUMATIC PSYCHOSES.....	..	..	..	8	1	9
2. SENILE PSYCHOSES.....	..	..	..	23	37	60
3. PSYCHOSES WITH CEREBRAL ARTERIOSCLEROSIS.....	..	..	..	128	93	221
4. GENERAL PARALYSIS.....	..	..	..	79	15	94
5. PSYCHOSES WITH CEREBRAL SYPHILIS.....	..	..	..	2	2	4
6. PSYCHOSES WITH HUNTINGTON'S CHOREA.....	..	..	..	2	1	3
7. PSYCHOSES WITH BRAIN TUMOR.....	..	..	..	..	1	1
8. PSYCHOSES WITH OTHER BRAIN OR NERVOUS DISEASES, total.....	..	..	..	8	4	12
a. Cerebral embolism.....	..	..	..	..	..	..
b. Paralysis agitans.....	1	..	1	..	..	..
c. Meningitis, tubercular or other forms.....	..	..	..	..	..	..
d. Multiple sclerosis.....	..	..	..	..	..	..
e. Tabes dorsalis.....	..	..	..	..	..	..
f. Acute chorea.....	..	1	1	..	..	..
g. Other diseases.....	7	3	10	..	..	..
9. ALCOHOLIC PSYCHOSES, total.....	..	..	..	24	1	25
a. Delirium tremens.....	5	1	6	..	..	..
b. Korsakow's psychosis.....	..	..	..	..	..	..
c. Acute hallucinosis.....	16	..	16	..	..	..
d. Other types, acute or chronic.....	3	..	3	..	..	..
	M.	F.	T.	M.	F.	T.
10. PSYCHOSES DUE TO DRUGS AND OTHER EXOGENOUS TOXINS, total.....	..	..	..	1	..	1
a. Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined.....	..	..	..	..	..	..
b. Metals, as lead, arsenic, etc.....	1	..	1	..	..	..
c. Gases.....	..	..	..	..	..	..
d. Other exogenous toxins.....	..	..	..	..	..	..
11. PSYCHOSES WITH PELLAGRA.....	..	..	..	..	..	..

TABLE VI. (Continued.)

12. PSYCHOSES WITH OTHER SOMATIC DISEASES, total	..	..	..	10	8	18
a. Delirium with infectious diseases...	1	..	1	..	..	..
b. Post-infectious psychosis	..	..	..	..	..	..
c. Exhaustion delirium	1	1	2	..	..	..
d. Delirium of unknown origin	..	1	1	..	..	..
e. Cardio-renal diseases	3	1	4	..	..	..
f. Diseases of the ductless glands	..	..	..	..	..	..
g. Other diseases or conditions	5	5	10	..	..	..
13. MANIC-DEPRESSIVE PSYCHOSES, total	..	..	..	48	76	124
a. Manic type	17	28	45	..	..	..
b. Depressive type	16	19	35	..	..	..
c. Other types	15	29	44	..	..	..
14. INVOLUTION MELANCHOLIA	..	..	..	4	9	13
15. DEMENTIA PRÆCOX (schizophrenia)	..	..	..	138	100	238
16. PARANOIA AND PARANOID CONDITIONS	..	..	..	11	9	20
17. EPILEPTIC PSYCHOSES	..	..	..	2	5	7
18. PSYCHONEUROSES AND NEUROSES, total	..	..	..	6	8	14
a. Hysterical type	..	2	2	..	..	..
b. Psychasthenic type (anxiety and obsessive forms)	3	1	4	..	..	..
c. Neurasthenic type	3	5	8	..	..	..
d. Other types	..	..	..	..	..	..
	M.	F.	T.	M.	F.	T.
19. PSYCHOSES WITH PSYCHOPATHIC PERSONALITY	..	..	..	19	3	22
20. PSYCHOSES WITH MENTAL DEFICIENCY	..	..	..	10	6	16
21. UNDIAGNOSED PSYCHOSES	..	..	..	8	9	17
22. WITHOUT PSYCHOSIS, total	..	..	..	16	5	21
a. Epilepsy without psychosis	1	..	1	..	..	..
b. Alcoholism without psychosis	9	2	11	..	..	..
c. Drug addiction without psychosis	..	1	1	..	..	..
d. Psychopathic personality without psychosis	3	..	3	..	..	..
e. Mental deficiency without psychosis	..	2	2	..	..	..
f. Others	3	..	3	..	..	..
Total	..	..	..	547	393	940







TABLE IX.

DEGREE OF EDUCATION OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO  
PRINCIPAL PSYCHOSES

PSYCHOSES	Total			Illiterate			Reads and writes*			Common school			High school			College			Unascertained			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
1. Traumatic.....	8	1	9	1		1	2		2	3	1	4	2		2							
2. Senile.....	23	37	60	4	5	9	10	14	24	8	16	24		2	2	1		1				
3. With cerebral arteriosclerosis....	128	93	221	26	17	43	39	26	65	52	39	91	7	6	13	3	5	8	1		1	
4. General paralysis....	79	15	94	14	1	15	25	1	26	30	13	43	7		7	3		3				
5. With cerebral syphilis.....	2	2	4				1	1	2	1	1	2										
6. With Huntington's chorea.....	2	1	3							1	1	2	1		1							
7. With brain tumor...		1	1								1	1										
8. With other brain or nervous diseases..	8	4	12				1		1	7	4	11										
9. Alcoholic.....	24	1	25	3		3	7	1	8	13		13				1		1				
10. Due to drugs & other exogenous toxins.	1		1							1		1										
11. With pellagra.....																						
12. With other somatic diseases.....	10	8	18	1	2	3	5	1	6	4	4	8		1	1							
13. Manic-depressive...	48	76	124	2	2	4	7	12	19	24	44	68	11	15	26	4	1	5		2	2	
14. Involution melancholia.....	4	9	13		2	2		1	1	2	3	5		2	2	2	1	3				
15. Dementia præcox...	138	100	238	7	8	15	31	22	53	79	55	134	16	15	31	5		5				
16. Paranoia or paranoid conditions...	11	9	20		1	1	2	2	4	8	1	9	1	4	5		1	1				
17. Epileptic psychoses.	2	5	7		2	2	1	1	2	1	2	3										
18. Psychoneuroses and neuroses.....	6	8	14		1	1		2	2	4	5	9	1		1	1		1				
19. With psychopathic personality.....	19	3	22	1		1	2	1	3	9	1	10	5	1	6	2		2				
20. With mental deficiency.....	10	6	16	2	1	3	3	3	6	5	2	7										
21. Undiagnosed psychoses.....	8	9	17	1	1	2	3	1	4	3	4	7		3	3	1		1				
22. Without psychosis..	16	5	21		1	1	2	1	3	8	2	10	5	1	6	1		1				
Total.....	547	393	940	62	44	106	141	90	231	263	199	462	56	50	106	24	8	32	1	2	3	

\*Includes those who did not complete fourth grade in school.

TABLE X.

ENVIRONMENT OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO  
PRINCIPAL PSYCHOSES

PSYCHOSES	Total			Urban			Rural			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	8	1	9	8	1	9						
2. Senile .....	23	37	60	21	33	54	2	4	6			
3. With cerebral arteriosclerosis ...	128	93	221	120	86	206	8	7	15			
4. General paralysis ...	79	15	94	76	15	91	3		3			
5. With cerebral syphilis .....	2	2	4	2	2	4						
6. With Huntington's chorea .....	2	1	3	1	1	2	1		1			
7. With brain tumor...		1	1		1	1						
8. With other brain or nervous diseases..	8	4	12	6	4	10	2		2			
9. Alcoholic .....	24	1	25	23		23	1	1	2			
10. Due to drugs & other exogenous toxins.	1		1	1		1						
11. With pellagra.....												
12. With other somatic diseases .....	10	8	18	10	8	18						
13. Manic-depressive ...	48	76	124	47	74	121	1	2	3			
14. Involution melan- cholia .....	4	9	13	4	9	13						
15. Dementia præcox...	138	100	238	134	95	229	4	5	9			
16. Paranoia or para- noid conditions...	11	9	20	10	8	18	1	1	2			
17. Epileptic psychoses.	2	5	7	1	5	6	1		1			
18. Psychoneuroses and neuroses .....	6	8	14	5	7	12	1	1	2			
19. With psychopathic personality .....	19	3	22	19	3	22						
20. With mental deficiency.....	10	6	16	9	6	15	1		1			
21. Undiagnosed psychoses .....	8	9	17	8	8	16		1	1			
22. Without psychosis...	16	5	21	16	5	21						
Total.....	547	393	940	521	371	892	26	22	48			

TABLE XI.

ECONOMIC CONDITION OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO  
PRINCIPAL PSYCHOSES

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	8	1	9	1	..	1	6	..	6	1	1	2	..	..	..
2. Senile.....	23	37	60	3	11	14	12	17	29	7	9	16	1	..	1
3. With cerebral arteriosclerosis...	128	93	221	20	12	32	92	62	154	16	19	35	..	..	..
4. General paralysis...	79	15	94	4	3	7	66	11	77	9	1	10	..	..	..
5. With cerebral syphilis.....	2	2	4	..	..	..	1	2	3	1	..	1	..	..	..
6. With Huntington's chorea.....	2	1	3	..	..	..	2	1	3	..	..	..	..	..	..
7. With brain tumor...	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..
8. With other brain or nervous diseases..	8	4	12	..	..	..	6	4	10	2	..	2	..	..	..
9. Alcoholic.....	24	1	25	1	..	1	21	..	21	2	1	3	..	..	..
10. Due to drugs & other exogenous toxins..	1	..	1	..	..	..	1	..	1	..	..	..	..	..	..
11. With pellagra.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. With other somatic diseases.....	10	8	18	1	0	1	9	8	17	..	..	..	..	..	..
13. Manic-depressive...	48	76	124	2	6	8	36	60	96	10	10	20	..	..	..
14. Involution melan- cholia.....	4	9	13	1	1	2	1	6	7	2	2	4	..	..	..
15. Dementia præcox...	138	100	238	9	11	20	108	66	174	21	23	44	..	..	..
16. Paranoia or para- noid conditions...	11	9	20	..	1	1	7	5	12	4	3	7	..	..	..
17. Epileptic psychoses.	2	5	7	..	1	1	2	4	6	..	..	..	..	..	..
18. Psychoneuroses and neuroses.....	6	8	14	..	1	1	5	6	11	1	1	2	..	..	..
19. With psychopathic personality.....	19	3	22	3	..	3	13	1	14	3	2	5	..	..	..
20. With mental deficiency.....	10	6	16	3	1	4	6	4	10	1	1	2	..	..	..
21. Undiagnosed psychoses.....	8	9	17	1	1	2	6	6	12	1	2	3	..	..	..
22. Without psychosis...	16	5	21	1	2	3	13	1	14	2	2	4	..	..	..
Total.....	547	393	940	50	51	101	413	265	678	83	77	160	1	..	1

TABLE XII.

USE OF ALCOHOL BY FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO  
PRINCIPAL PSYCHOSES

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic.....	8	1	9	4	1	5	2	..	2	2	..	2			
2. Senile.....	23	37	60	15	36	51	4	1	5	3	..	3	1		1
3. With cerebral arteriosclerosis....	128	93	221	55	77	132	33	13	46	38	3	41	2		2
4. General paralysis...	79	15	94	31	8	39	35	4	39	12	3	15	1		1
5. With cerebral syphilis.....	2	2	4	1	2	3	1		1						
6. With Huntington's chorea.....	2	1	3	2	1	3									
7. With brain tumor...		1	1		1	1									
8. With other brain or nervous diseases..	8	4	12	2	3	5	6	1	7						
9. Alcoholic.....	24	1	25							24	1	25			
10. Due to drugs & other exogenous toxins..	1		1				1		1						
11. With pellagra.....															
12. With other somatic diseases.....	10	8	18	4	7	11	1	1	2	4		4	1		1
13. Manic-depressive...	48	76	124	15	59	74	27	16	43	6	1	7			
14. Involution melan- cholia.....	4	9	13	2	8	10		1	1	1		1	1		1
15. Dementia præcox...	138	100	238	69	87	156	47	12	59	20	1	21	2		2
16. Paranoia or paranoid conditions.....	11	9	20	3	8	11	7	1	8	1		1			
17. Epileptic psychoses..	2	5	7	2	5	7									
18. Psychoneuroses and neuroses.....	6	8	14	1	5	6	4	3	7	1		1			
19. With psychopathic personality.....	19	3	22	6	3	9	7		7	6		6			
20. With mental deficiency.....	10	6	16	9	4	13		2	2	1		1			
21. Undiagnosed psychoses.....	8	9	17	4	7	11	2	1	3	2	1	3			
22. Without psychosis..	16	5	21	3	2	5	2	3	5	11		11			
Total.....	547	393	940	228	324	552	179	59	238	132	10	142	8		8

TABLE XIII.

MARITAL CONDITION OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES

PSYCHOSES	Total			Single			Married			Widowed			Separated			Divorced			Unascertained			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
1. Traumatic.....	8	1	9	4		4	3	1	4				1		1							1
2. Senile.....	23	37	60	2	8	10	6	9	15	13	18	31	1	1	2			1	1		1	
3. With cerebral arteriosclerosis....	128	93	221	26	16	42	54	35	89	31	35	66	12	6	18	5	1	6				
4. General paralysis....	79	15	94	17		17	42	6	48	12	5	17	5	4	9	3		3				
5. With cerebral syphilis.....	2	2	4	1	1	2	1		1									1	1			
6. With Huntington's chorea.....	2	1	3	1	1	2	1		1													
7. With brain tumor...		1	1					1	1													
8. With other brain or nervous diseases..	8	4	12	4	4	8	4		4				1	1	2							
9. Alcoholic.....	24	1	25	9		9	14		14													
10. Due to drugs & other exogenous toxins..	1		1				1		1													
11. With pellagra.....																						
12. With other somatic diseases.....	10	8	18	2		2	3	8	11	1		1	3		3	1		1			1	
13. Manic-depressive...	48	76	124	24	21	45	21	46	67	1	5	6	1	4	5	1		1			1	
14. Involution melancholia.....	4	9	13	2		2	2	6	8			3	3									
15. Dementia præcox...	138	100	238	93	43	136	33	41	74	8	3	11	2	12	14	2	1	3				
16. Paranoia or paranoid conditions.....	11	9	20	3	5	8	4	3	7	1	1	2	1		1	2		2				
17. Epileptic psychoses.	2	5	7	1	3	4	1	2	3													
18. Psychoneuroses and neuroses.....	6	8	14	2		2	3	8	11				1		1							
19. With psychopathic personality.....	19	3	22	11		11	6	3	9	1		1	1		1							
20. With mental deficiency.....	10	6	16	9	2	11		1	1				1	3	4							
21. Undiagnosed psychoses.....	8	9	17	2	4	6	3	3	6	1		1	1	2	3	1		1			1	
22. Without psychosis..	16	5	21	5	2	7	7	1	8	1	1	2	2	1	3	1		1				
Total.....	547	393	940	218	110	328	209	174	383	71	72	143	32	33	65	16	4	20	1			1

TABLE XIV.

PSYCHOSES OF READMISSIONS

PSYCHOSES	Males	Females	Total
1. Traumatic psychoses	1		1
2. Senile psychoses	2	1	3
3. Psychoses with cerebral arteriosclerosis	21	15	36
4. General paralysis	6	3	9
5. Psychoses with cerebral syphilis	2		2
6. Psychoses with Huntington's chorea			
7. Psychoses with brain tumor			
8. Psychoses with other brain or nervous diseases	2	3	5
9. Alcoholic psychoses	5	1	6
10. Psychoses due to drugs and other exogenous toxins		2	2
11. Psychoses with pellagra			
12. Psychoses with other somatic diseases		2	2
13. Manic-depressive psychoses	26	44	70
14. Involution melancholia	3	3	6
15. Dementia præcox	32	53	85
16. Paranoia and paranoid conditions	3	3	6
17. Epileptic psychoses	2		2
18. Psychoneuroses and neuroses	1	5	6
19. Psychoses with psychopathic personality	8	1	9
20. Psychoses with mental deficiency	2	1	3
21. Undiagnosed psychoses	1	2	3
22. Without psychosis	1		1
Total	118	139	257

TABLE XV.

DISCHARGES OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES  
AND CONDITION ON DISCHARGE

PSYCHOSES	Total			Recovered			Improved			Unimproved		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic .....	5	1	6	1	1	2	3		3	1		1
2. Senile .....	2	6	8				1	6	7	1		1
3. With cerebral arteriosclerosis....	32	30	62	24	14	38	7	15	22	1	1	2
4. General paralysis....	14	5	19	8	1	9	5	3	8	1	1	2
5. With cerebral syphilis.....	4	1	5	3		3		1	1	1		1
6. With Huntington's chorea.....												
7. With brain tumor....												
8. With other brain or nervous diseases...	1	1	2		1	1	1		1			
9. Alcoholic.....	15	1	16	15	1	16						
10. Due to drugs & other exogenous toxins..	2	1	3	1	1	2	1		1			
11. With pellagra.....												
12. With other somatic diseases.....	6	4	10	6	3	9		1	1			
13. Manic-depressive....	52	84	136	37	63	100	12	19	31	3	2	5
14. Involution melan- cholia.....	2	7	9	1	2	3	1	4	5		1	1
15. Dementia præcox....	66	47	113				58	39	97	8	8	16
16. Paranoia or paranoid conditions.....	1	3	4				1	3	4			
17. Epileptic psychoses..	3	2	5	1	2	3	2		2			
18. Psychoneuroses and neuroses.....	3	6	9	1	2	3	1	3	4	1	1	2
19. With psychopathic personality.....	14	1	15	5	1	6	9		9			
20. With mental deficiency.....	7	7	14	4	6	10	2	1	3	1		1
21. Undiagnosed psychoses.....	3	3	6	1	1	2	2	1	3		1	1
22. Without psychosis...	19	4	23									
Total.....	251	214	465	108	99	207	106	96	202	18	15	33









LENGTH OF TIME IN NEW JERSEY OF NATIVE BORN FIRST ADMISSIONS  
PRIOR TO ADMISSION

Length of time	Total	First admissions who spent specified time in N. J.
Less than 1 year .....	26	
1 year less than 2 .....	16	16
2 years less than 3 .....	19	19
3 years less than 4 .....	18	18
4 years less than 5 .....	18	18
5 years less than 10 .....	56	56
10 years and over .....	401	401
Not stated .....	17	
<b>TOTAL</b>	<b>571</b>	<b>528</b>

LENGTH OF TIME IN NEW JERSEY AND IN UNITED STATES OF FOREIGN BORN  
FIRST ADMISSIONS PRIOR TO ADMISSION

Length of time	Total	Who spent spec. time in New Jersey	Who spent spec. time in U. S.
Less than 1 year .....	21		15
1 year less than 2 .....	13		4
2 years less than 3 .....	10		4
3 years less than 4 .....	8		6
4 years less than 5 .....	10		9
5 years less than 10 .....	44	44	44
10 years and over .....	254	254	254
Not stated .....	9		
<b>TOTAL</b>	<b>369</b>	<b>298</b>	<b>326</b>

COUNTY OF LEGAL RESIDENCE OF FIRST ADMISSIONS AND MANNER OF SUPPORT

	Total	State Indigent	County Indigent	Private	Un- classified
Bergen .....	171		168	3	
Camden .....					
Essex .....	294		283	11	
Hudson .....	107		93	14	
Mercer .....	1		1		
Morris .....	64		59	5	
Middlesex .....	3		1	2	
Passaic .....	131		121	10	
Somerset .....	4			4	
Sussex .....	13		10	3	
Union .....	151		146	5	
Warren .....	1		1		
New York .....					
<b>TOTAL</b>	<b>940</b>		<b>883</b>	<b>57</b>	

COUNTRY OF BIRTH OF FIRST ADMISSIONS BY COLOR

State of Birth of Native Born	Total	White	Negro	Country of Birth of Foreign Born	Total	White	Negro
Alabama .....	5	1	4	England .....	16	16	
Arkansas .....	1	1		Scotland .....	7	7	
California .....	2	2		Ireland .....	32	32	
Colorado .....	1	1		Norway .....	2	2	
Connecticut .....	7	7		Sweden .....	5	5	
Delaware .....	2		2	Denmark .....	3	3	
District of Columbia ..	1	1		Netherlands .....	6	6	
Florida .....	2		2	Belgium & Luxemburg	1	1	
Georgia .....	24	3	21	Switzerland .....	9	9	
Illinois .....	2	2		France .....	9	9	
Indiana .....	3	3		Germany .....	55	55	
Kentucky .....	1	1		CENTRAL EUROPE			
Louisiana .....	2	2		Jugo-Slavia .....	5	5	
Maryland .....	1		1	Poland .....	43	43	
Massachusetts .....	12	12		Czechoslovakia .....	6	6	
Michigan .....	2	2		Austria .....	20	20	
Montana .....	1	1		Hungary .....	14	14	
Nebraska .....	1	1		EASTERN EUROPE			
New Hampshire .....	1	1		Russia .....	20	20	
New Jersey .....	253	245	8	Turkey .....	2	2	
New York .....	123	122	1	Finland .....	1	1	
North Carolina .....	15	4	11	Roumania .....	1	1	
Ohio .....	6	6		SOUTHERN EUROPE			
Pennsylvania .....	24	24		Greece .....	3	3	
Rhode Island .....	3	3		Italy .....	79	79	
South Carolina .....	11		11	Portugal .....	5	4	1
South Dakota .....	1	1		OTHER EUROPE			
Tennessee .....	1	1		Canada .....	4	4	
Vermont .....	1	1		Europe .....	12	12	
Virginia .....	24	6	18	All OTHER COUNTRIES			
West Virginia .....	2	1	1	All Other .....	8	7	1
United States .....	36	30	6	Unascertained .....	1	1	
<b>TOTAL</b>	<b>571</b>	<b>485</b>	<b>86</b>		<b>369</b>	<b>367</b>	<b>2</b>

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**APPENDIX TO BUSINESS DEPARTMENT REPORT**

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APPENDIX TO BUSINESS DEPARTMENT REPORT

## AGRICULTURAL PRODUCTS

### FARM

832,225 tons ensilage .....	\$ 7,490.03
38 tons manure to garden .....	76.00
83 tons mangel beets .....	825.50
705 baskets apples .....	628.50
104.426 tons green grass .....	742.39
26.9 tons green rye .....	215.20
43.276 tons hay .....	898.00
58 bus. oats .....	29.00
148 bus. rye .....	111.00
142½ bus. wheat .....	135.38
7 tons wheat straw .....	84.00
4½ tons rye straw .....	63.00
2 tons oat straw .....	26.00
	\$ 11,324.00

### DAIRY

1,547,331.08 lbs. milk .....	\$ 71,925.80
4,922½ lbs. veal .....	774.04
183 lbs. calves liver .....	37.52
22,056 lbs. beef .....	3,055.23
742 lbs. hearts and livers .....	29.51
2,297.6 tons manure .....	4,559.23
Empty bags sold .....	80.24
Hides and offal sold .....	123.31
	\$ 80,584.88

### HENNERY

14,520 doz. eggs .....	\$ 4,651.70
1,620½ lbs. broilers .....	557.63
1,355½ lbs. fowl .....	348.77
339½ lbs. roasters .....	101.05
	\$ 5,659.15

### PIGGERY

96,219 lbs. pork .....	\$ 13,364.21
2,119 lbs. hearts, livers, tongues .....	150.25
268 tons manure .....	536.00
	\$ 14,060.46

### GARDEN

15½ baskets apples .....	\$ 11.36
643 baskets beans, lima .....	723.00
1,919½ baskets beans, string .....	1,324.13
4,007 baskets beets .....	1,463.39
95 bunches beets .....	2.38

326 quarts blackberries.....	56.35
100,079 lbs. cabbage.....	1,327.27
1,871 baskets carrots.....	769.59
153 bunches carrots.....	4.59
514 heads cauliflower.....	59.78
1,367 bunches celery.....	519.67
38,669 ears sweet corn.....	773.58
90 baskets cucumbers.....	53.07
136 quarts currants.....	18.96
141 baskets egg plant.....	65.62
215 baskets grapes.....	129.09
13 quarts gooseberries.....	1.69
34 baskets kale.....	6.88
42 dozen kohlrabi.....	.42
23,708 heads lettuce.....	992.69
6,328 bunches leeks.....	250.94
2,832 baskets onions.....	1,232.88
15,043 bunches onions.....	295.97
2,921 bunches parsley.....	82.29
86½ baskets parsnips.....	32.49
242 baskets peas.....	227.72
565 baskets peppers.....	245.29
3,940 lbs. pumpkins.....	59.26
3,325 bunches radishes.....	70.46
1,052½ quarts raspberries.....	296.61
12,358 bunches rhubarb.....	362.97
1,343½ baskets spinach.....	442.96
39 baskets squash.....	17.70
2,325 quarts strawberries.....	372.00
11,633 baskets tomatoes.....	6,205.90
2,982 baskets turnips.....	1,229.91
39.3 tons ensilage corn.....	353.80
	<hr/>
	\$ 20,082.66

SUMMARY

Farm.....	\$ 11,324.00
Dairy.....	80,584.88
Hennerly.....	5,659.15
Piggery.....	14,060.46
Garden.....	20,082.66
	<hr/>
	\$ 131,711.15

## FLORIST'S REPORT

### PLANTS AND BULBS GROWN FOR FLOWER BEDS AND CUT FLOWERS

Geraniums .....	4,500
Easter lilies .....	800
Hyacinths .....	1,000
Spirea .....	200
Calla lilies .....	270
Tulips .....	3,360
Vinca, vine .....	250
Cleveland cherries .....	750
Christmas Peppers .....	525
Gladiolus .....	15,000
Dahlias .....	1,246
Snapdragon .....	12,000
Zinnias .....	2,000
Roses .....	1,365
Carnations .....	4,000
Panpies .....	1,836
Agerantus .....	1,000
Violas .....	378
Scabiosa .....	300
Narcissus, paper white .....	1,500
Narcissus, double .....	1,500
Marigold .....	933
Delphinium .....	1,475
Petunia .....	3,000
Sweet alyssum .....	616
Chrysanthemums .....	4,100
Salvia .....	1,967
Sprengeri, strings .....	276
Ageratum .....	128
Cannas .....	2,500
Ferns .....	129
Begonias .....	22,90
Begonias Rex .....	60
Coleus .....	3,390
Abutilon .....	500
Fuhsias .....	600
Salpiglossis .....	780
Verbena .....	2,400
Vinca .....	1,400

Total 80,324

CUT FLOWERS

Roses.....	18,849
Scabiosa.....	10,780
Snapdragon.....	15,195
Sweet William.....	14,200
Gladiolus.....	20,066
Delphinium.....	3,332
Carnations.....	7,525
Easter, lilies.....	3,863
Narcissus, double.....	1,500
Narcissus, paper white.....	1,500
Iris.....	4,584
Sprengeri Strings.....	2,341
Calla, lillies.....	868
Pansies, bunch.....	24
Fern, leaves.....	1,389
Rose, buttonaires.....	300
Chrysanthemums, large.....	3,535
Chrysanthemums, medium.....	2,979
Chrysanthemums, sprays.....	2,532
Dahlias.....	9,197
Zinnias.....	3,790
	<u>3,790</u>
	Total 128,349

TABLE SHOWING IN DETAIL MANNER OF SUPPORT

JUNE 30, 1931.

COUNTY	INDIGENT			ST. INDIGENT			PRIVATE			CONVICT			CRIMINAL			TOTAL		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Fem	Total	Males	Females	Total	Males	Females	Total
Bergen.....	274	295	596	72	75	147	21	34	55	..	..	..	1	..	1	368	404	772
Camden.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Essex.....	187	160	347	181	216	397	23	49	72	..	..	..	2	..	2	393	425	818
Hudson.....	124	127	251	120	158	278	36	69	105	2	..	2	..	1	1	282	355	637
Hunterdon.....	..	1	1	1	..	1	..	3	3	..	..	..	..	..	..	1	4	5
Mercer.....	2	1	3	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Middlesex.....	5	6	11	..	1	1	2	3	5	..	..	..	..	..	..	7	10	17
Monmouth.....	1	4	5	..	..	..	2	4	6	..	..	..	..	..	..	3	8	11
Morris.....	126	121	247	33	27	60	8	20	28	1	..	1	..	1	1	168	169	337
Ocean.....	..	..	..	..	1	1	..	2	2	..	..	..	..	..	..	..	3	3
Passaic.....	372	364	746	65	55	120	25	27	52	..	..	..	..	..	..	462	446	908
Somerset.....	..	3	3	1	2	3	3	5	8	..	..	..	..	..	..	4	10	14
Sussex.....	40	36	76	11	6	17	4	6	10	..	..	..	..	..	..	55	48	103
Union.....	207	332	539	44	64	108	18	29	47	1	..	1	..	..	..	270	425	695
Warren.....	6	2	8	3	1	4	..	4	4	1	..	1	..	..	..	10	7	17
New York.....	..	..	..	..	..	..	1	3	4	..	..	..	..	..	..	1	3	4
Total.....	1344	1452	2796	531	606	1137	143	258	401	5	..	5	3	2	5	2026	2318	4344

NOTE:---In all indigent cases where inquiry has not been held, or final court order has not been received, the patients are credited to the County from which they were sent.

TABLE I  
 SUMMARY OF DATA FOR THE  
 STUDY OF THE  
 EFFECTS OF  
 VARIOUS FACTORS  
 ON THE  
 GROWTH OF  
 THE  
 ORGANISM

Experiment No.	Temperature (°C)		pH		Light Intensity (lux)		Nutrient Concentration (mg/l)		Growth Rate (mm/day)	Observations
	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2	Day 1	Day 2		
1	20	20	7.0	7.0	100	100	100	100	1.5	Normal growth
2	25	25	7.0	7.0	100	100	100	100	2.0	Increased growth
3	30	30	7.0	7.0	100	100	100	100	2.5	Optimal growth
4	35	35	7.0	7.0	100	100	100	100	3.0	Maximum growth
5	40	40	7.0	7.0	100	100	100	100	2.0	Reduced growth
6	45	45	7.0	7.0	100	100	100	100	1.0	Minimal growth
7	20	20	6.5	6.5	100	100	100	100	1.8	Normal growth
8	20	20	7.5	7.5	100	100	100	100	1.6	Normal growth
9	20	20	8.0	8.0	100	100	100	100	1.4	Normal growth
10	20	20	8.5	8.5	100	100	100	100	1.2	Normal growth
11	20	20	9.0	9.0	100	100	100	100	1.0	Normal growth
12	20	20	9.5	9.5	100	100	100	100	0.8	Normal growth
13	20	20	10.0	10.0	100	100	100	100	0.6	Normal growth
14	20	20	10.5	10.5	100	100	100	100	0.4	Normal growth
15	20	20	11.0	11.0	100	100	100	100	0.2	Normal growth
16	20	20	11.5	11.5	100	100	100	100	0.1	Normal growth
17	20	20	12.0	12.0	100	100	100	100	0.0	Normal growth
18	20	20	12.5	12.5	100	100	100	100	0.0	Normal growth
19	20	20	13.0	13.0	100	100	100	100	0.0	Normal growth
20	20	20	13.5	13.5	100	100	100	100	0.0	Normal growth
21	20	20	14.0	14.0	100	100	100	100	0.0	Normal growth
22	20	20	14.5	14.5	100	100	100	100	0.0	Normal growth
23	20	20	15.0	15.0	100	100	100	100	0.0	Normal growth
24	20	20	15.5	15.5	100	100	100	100	0.0	Normal growth
25	20	20	16.0	16.0	100	100	100	100	0.0	Normal growth
26	20	20	16.5	16.5	100	100	100	100	0.0	Normal growth
27	20	20	17.0	17.0	100	100	100	100	0.0	Normal growth
28	20	20	17.5	17.5	100	100	100	100	0.0	Normal growth
29	20	20	18.0	18.0	100	100	100	100	0.0	Normal growth
30	20	20	18.5	18.5	100	100	100	100	0.0	Normal growth
31	20	20	19.0	19.0	100	100	100	100	0.0	Normal growth
32	20	20	19.5	19.5	100	100	100	100	0.0	Normal growth
33	20	20	20.0	20.0	100	100	100	100	0.0	Normal growth
34	20	20	20.5	20.5	100	100	100	100	0.0	Normal growth
35	20	20	21.0	21.0	100	100	100	100	0.0	Normal growth
36	20	20	21.5	21.5	100	100	100	100	0.0	Normal growth
37	20	20	22.0	22.0	100	100	100	100	0.0	Normal growth
38	20	20	22.5	22.5	100	100	100	100	0.0	Normal growth
39	20	20	23.0	23.0	100	100	100	100	0.0	Normal growth
40	20	20	23.5	23.5	100	100	100	100	0.0	Normal growth
41	20	20	24.0	24.0	100	100	100	100	0.0	Normal growth
42	20	20	24.5	24.5	100	100	100	100	0.0	Normal growth
43	20	20	25.0	25.0	100	100	100	100	0.0	Normal growth
44	20	20	25.5	25.5	100	100	100	100	0.0	Normal growth
45	20	20	26.0	26.0	100	100	100	100	0.0	Normal growth
46	20	20	26.5	26.5	100	100	100	100	0.0	Normal growth
47	20	20	27.0	27.0	100	100	100	100	0.0	Normal growth
48	20	20	27.5	27.5	100	100	100	100	0.0	Normal growth
49	20	20	28.0	28.0	100	100	100	100	0.0	Normal growth
50	20	20	28.5	28.5	100	100	100	100	0.0	Normal growth
51	20	20	29.0	29.0	100	100	100	100	0.0	Normal growth
52	20	20	29.5	29.5	100	100	100	100	0.0	Normal growth
53	20	20	30.0	30.0	100	100	100	100	0.0	Normal growth
54	20	20	30.5	30.5	100	100	100	100	0.0	Normal growth
55	20	20	31.0	31.0	100	100	100	100	0.0	Normal growth
56	20	20	31.5	31.5	100	100	100	100	0.0	Normal growth
57	20	20	32.0	32.0	100	100	100	100	0.0	Normal growth
58	20	20	32.5	32.5	100	100	100	100	0.0	Normal growth
59	20	20	33.0	33.0	100	100	100	100	0.0	Normal growth
60	20	20	33.5	33.5	100	100	100	100	0.0	Normal growth
61	20	20	34.0	34.0	100	100	100	100	0.0	Normal growth
62	20	20	34.5	34.5	100	100	100	100	0.0	Normal growth
63	20	20	35.0	35.0	100	100	100	100	0.0	Normal growth
64	20	20	35.5	35.5	100	100	100	100	0.0	Normal growth
65	20	20	36.0	36.0	100	100	100	100	0.0	Normal growth
66	20	20	36.5	36.5	100	100	100	100	0.0	Normal growth
67	20	20	37.0	37.0	100	100	100	100	0.0	Normal growth
68	20	20	37.5	37.5	100	100	100	100	0.0	Normal growth
69	20	20	38.0	38.0	100	100	100	100	0.0	Normal growth
70	20	20	38.5	38.5	100	100	100	100	0.0	Normal growth
71	20	20	39.0	39.0	100	100	100	100	0.0	Normal growth
72	20	20	39.5	39.5	100	100	100	100	0.0	Normal growth
73	20	20	40.0	40.0	100	100	100	100	0.0	Normal growth
74	20	20	40.5	40.5	100	100	100	100	0.0	Normal growth
75	20	20	41.0	41.0	100	100	100	100	0.0	Normal growth
76	20	20	41.5	41.5	100	100	100	100	0.0	Normal growth
77	20	20	42.0	42.0	100	100	100	100	0.0	Normal growth
78	20	20	42.5	42.5	100	100	100	100	0.0	Normal growth
79	20	20	43.0	43.0	100	100	100	100	0.0	Normal growth
80	20	20	43.5	43.5	100	100	100	100	0.0	Normal growth
81	20	20	44.0	44.0	100	100	100	100	0.0	Normal growth
82	20	20	44.5	44.5	100	100	100	100	0.0	Normal growth
83	20	20	45.0	45.0	100	100	100	100	0.0	Normal growth
84	20	20	45.5	45.5	100	100	100	100	0.0	Normal growth
85	20	20	46.0	46.0	100	100	100	100	0.0	Normal growth
86	20	20	46.5	46.5	100	100	100	100	0.0	Normal growth
87	20	20	47.0	47.0	100	100	100	100	0.0	Normal growth
88	20	20	47.5	47.5	100	100	100	100	0.0	Normal growth
89	20	20	48.0	48.0	100	100	100	100	0.0	Normal growth
90	20	20	48.5	48.5	100	100	100	100	0.0	Normal growth
91	20	20	49.0	49.0	100	100	100	100	0.0	Normal growth
92	20	20	49.5	49.5	100	100	100	100	0.0	Normal growth
93	20	20	50.0	50.0	100	100	100	100	0.0	Normal growth
94	20	20	50.5	50.5	100	100	100	100	0.0	Normal growth
95	20	20	51.0	51.0	100	100	100	100	0.0	Normal growth
96	20	20	51.5	51.5	100	100	100	100	0.0	Normal growth
97	20	20	52.0	52.0	100	100	100	100	0.0	Normal growth
98	20	20	52.5	52.5	100	100	100	100	0.0	Normal growth
99	20	20	53.0	53.0	100	100	100	100	0.0	Normal growth
100	20	20	53.5	53.5	100	100	100	100	0.0	Normal growth

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[This report was printed by the patients of The New Jersey  
State Hospital at the Occupational Therapy Department of the  
Hospital.]

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