

REPORT

OF THE
BOARD OF MANAGERS
OF THE
New Jersey State Hospital
AT
TRENTON, N. J.
1919

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ANNUAL REPORT

OF THE

BOARD OF MANAGERS

OF THE

NEW JERSEY STATE HOSPITAL, *Trenton*

AT

TRENTON, N. J.

FOR THE

Year ending June 30th

1919

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TRENTON, N. J.

PUBLISHED BY THE STATE

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ANNUAL REPORT

BOARD OF MANAGERS

NEW JERSEY STATE HOSPITAL

TRENTON, N. J.

FOR THE

Year ending June 30th

1910

APPROVED BY THE BOARD

1910

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DENTIST

DR. F. S. BIRD



Occupation Therapy. Psychopathic Building.

Letter of Transmittal

TRENTON, N. J., August 1, 1919.

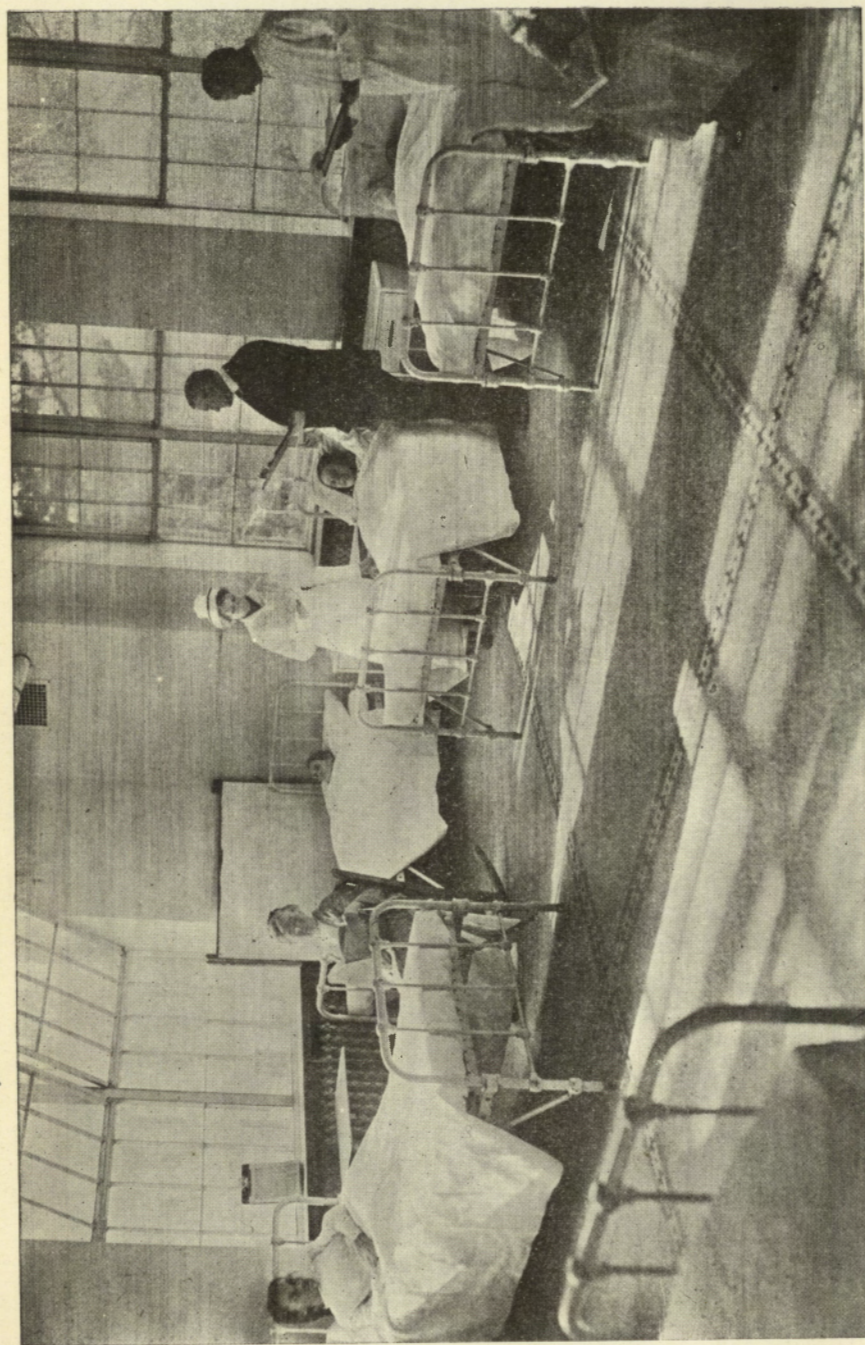
To His Excellency, Governor William N. Runyon:

DEAR SIR—Enclosed herewith the annual report of the Board of Managers of the New Jersey State Hospital at Trenton, together with the report of the Medical Director and Warden of that institution.

Very truly yours,

CHARLES DEF. BESORE,
Secretary.





Admission Ward in Psychopathic Building—Dix.

Medical Director's Report

To the Board of Managers of the New Jersey State Hospital at Trenton:

GENTLEMEN—I have the honor to present the seventy-second annual report of the operations of the medical department of the New Jersey State Hospital at Trenton for the year ending June 30, 1919.

At the beginning of the fiscal year there were present in the hospital 1,898 patients, 1,044 men and 854 women. There were admitted during the year 699 patients, 380 men and 319 women; 12, 6 men and 6 women, were admitted from visit; 2 men returned from escape, making the total admissions 713, 388 men and 325 women. Twenty-three patients, 15 men and 8 women, were nominally admitted from discharge at the end of their four months' visit, making the total under care 736, 403 men and 333 women. Of this number we have dismissed during the year 784 patients, 442 men and 342 women; 459, 244 men and 215 women, were discharged; 281, 169 men and 112 women, died; 9, 4 men and 5 women, were transferred; 18, 16 men and 2 women, escaped; and 17, 9 men and 8 women, were on visit, leaving the total number under care June 30, 1919, 1,850, 1,005 men and 845 women, which total is 48 less than the number in the hospital July 1, 1918.

The average yearly net increase in the population of the hospital for the last ten years has been 50 and for the last three years 99, and the relation of the discharges to admissions for the last ten years has been 43 per cent. Calculating the discharges for the past year on the basis of 43 per cent of the admissions, the number of discharges would have been only 300 instead of 481, a difference of 181. This added to the total number in the hospital July 1, 1918, would make 2,079, the number which would have been under care at the end of this fiscal year. The death rate, based upon the total number under care, is 10 per cent, an increase of 3 per cent over the normal

cent
cent
cent
50
46
96
50
91
141

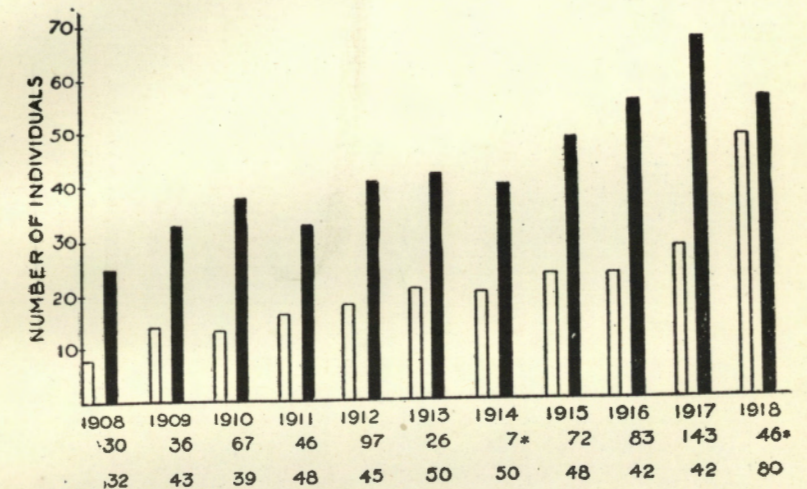
death rate, due largely to the epidemic of influenza last fall. Subtracting the excess of deaths, 78, from 2,079, the normal increase expected under the old methods of treatment, the population would be 2,001 at the beginning of this fiscal year. Instead of 2,001 we have 1,850 patients, which is really a decrease of 151 patients and it is the first time in the history of the hospital that such a decrease has occurred.

We claim that this reduction in the population, after our liberal deductions for any other factors which could cause such a reduction, is due entirely to the new methods of treatment adopted in April, 1918, which will be explained under the medical work of the hospital, and that this showing is the more remarkable when one considers the disadvantage under which we labored during the last year and a half. Our medical staff was reduced from eleven, our normal number, to four and at times three, and we had a constant shortage in the nursing staff of over 100. This would seem to be a sufficient handicap to discourage the work which took so much time for each patient, but in the fall, we, like all similar institutions, were hit by the epidemic of influenza and most of the nursing staff were sick which caused a cessation of the work for at least two months, and this was accompanied by a decided falling off in our discharges. For the eight months period from April, 1918, to January 1, 1919, the relation of discharges to admissions was 80 per cent, and the reduction in the population was 46. But when we had to suspend work our population rapidly increased until in February it was 1879 and the reduction had to begin over again when we could resume the work.

While it is true that there has been a reduction in the population of other institutions, this reduction has been through deaths due to the epidemic of influenza referred to above, and not to an increase in the discharges.

The relation of discharges to admissions for the year, exclusive of deaths, has been 70 per cent, an increase of 23 per cent over a ten-year period, and our recovery rate, based on admissions, is 51 per cent, an increase of about the same, or 23 per cent. (See Charts I and II.)

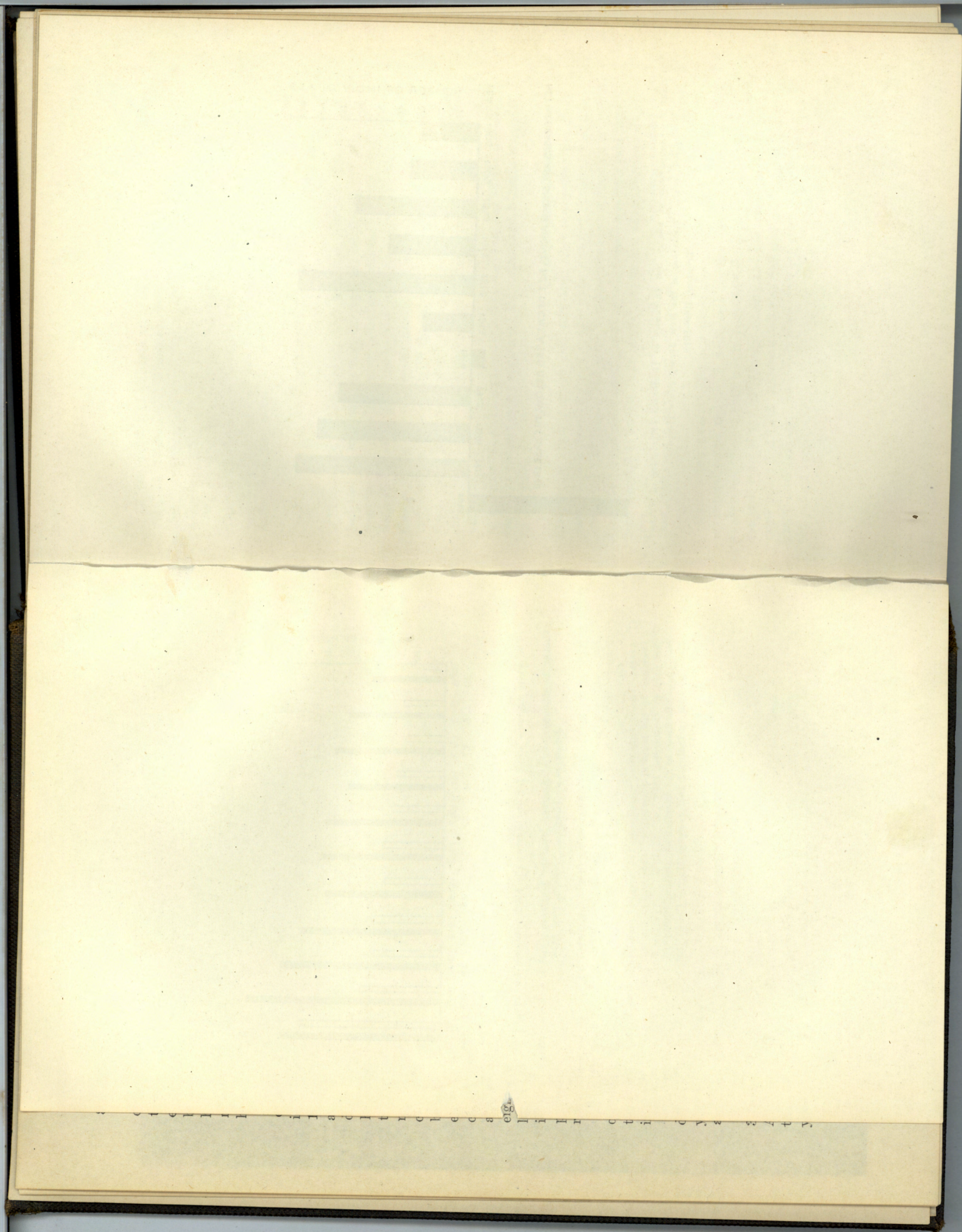
The daily average number of patients has been 1,867 which is only 33 more than last year, but 29 less than the average for five years. Aside from the immediate monetary saving to the state for the year these patients will not be a burden to the state for the usual fifteen years, the average life of a chronic patient in the state hospitals.



The white columns stand for discharges; the black columns, for admissions.

CHART I.—Comparison of Average Monthly Admissions and Discharges, New Jersey State Hospital, Trenton, 1908-1918.

- I. Ratio of average monthly discharges to admissions, 1908-1917..... 43 per cent
Ratio of average monthly discharges to admissions, 1918..... 80 per cent
Increase in the ratio of average monthly discharges to admissions, 1918 37 per cent
- II. Average yearly numerical increase in the hospital population, 1908-1917... 50
Decrease, in the hospital population, 1918..... 46
Net gain in discharges, 1918 96
- III. Net annual increase in the hospital population, 1908-1917..... 50
Decrease, not including transfers from Morris Plains, 1918..... 91
Net decrease, 1918 141



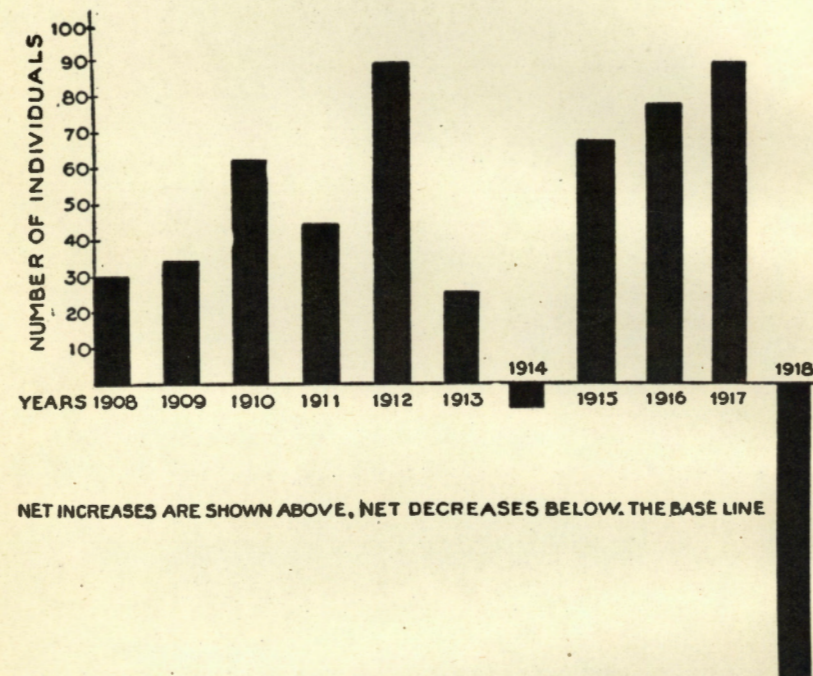


CHART 2.—Comparison of Yearly Net Increases or Decreases (Exclusive of Transfers) in the Population of the New Jersey State Hospital, Trenton, 1908-1918.

Of the number of patients on visit at the end of the last fiscal year, 23, 15 men and 8 women, were admitted nominally for discharge and there are on visit at the end of this year, 17, 9 men and 8 women.

We are glad to report that we had no suicides during the year, which is all the more remarkable when we consider the serious shortage in the nursing staff and the difficulty of caring for the patients under these conditions.

INFLUENZA EPIDEMIC

Fortunately we have had no other epidemic than influenza, and we feel that we were fortunate in having been lightly affected when we compare our situation with other institutions. In the first place we had very few cases among the acute or recent patients and no deaths among the recoverable group, and while most of the nurses and employees were sick with the influenza we had no deaths among them. The patients in which the epidemic was most prevalent was among the chronic males, mostly those who were employed in farm work and apparently in good physical condition. Of this group 47 had the disease and 18 patients died of it. Very few of the females, 24, of the chronic group contracted the disease and 7 deaths occurred among them.

We did not use any specific serum or vaccine largely because our cases in the chronic group died very soon after contracting the disease and the others recovered. And while many of the employees, 23, contracted the disease and some few had pneumonia they all recovered. If we had used specific treatment in these cases we would have been tempted to ascribe their recovery to the use of the vaccine. But if the epidemic had assumed alarming proportions we certainly would have used specific serum and vaccines as their value cannot be questioned.

Quite a few patients were admitted, some in a delirious state following influenza and some with well marked psychoses. We concluded that the influenza was responsible for the psychosis only in so far as it lowered the individual's vitality and the latent infection became active. All of these cases showed infected teeth, tonsils and gastro-intestinal tract, and when these other infections were cleared up the patient recovered.

VOLUNTARY ADMISSIONS

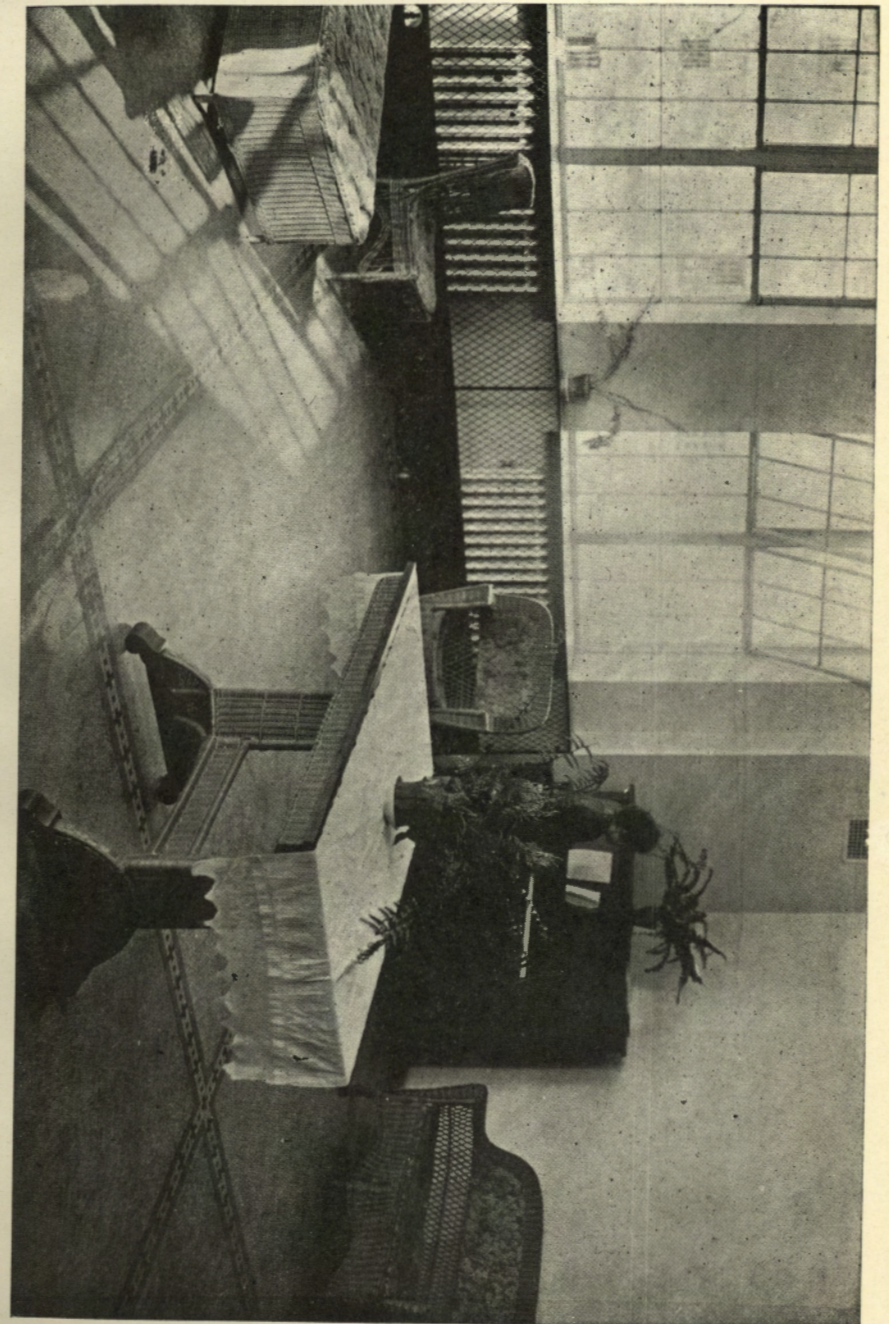
We are glad to report that there has been a steady increase in the number of patients availing themselves of the voluntary commitment law. In the last year we had 147 patients, 80 men and 67 women, who were admitted on voluntary papers which is 50 per cent increase over previous years and those so admitted were 21 per cent of admissions. We feel that with a better understanding of the voluntary commitment law by the profession and the public at large the majority of patients will be admitted on voluntary papers.

MEDICAL STAFF

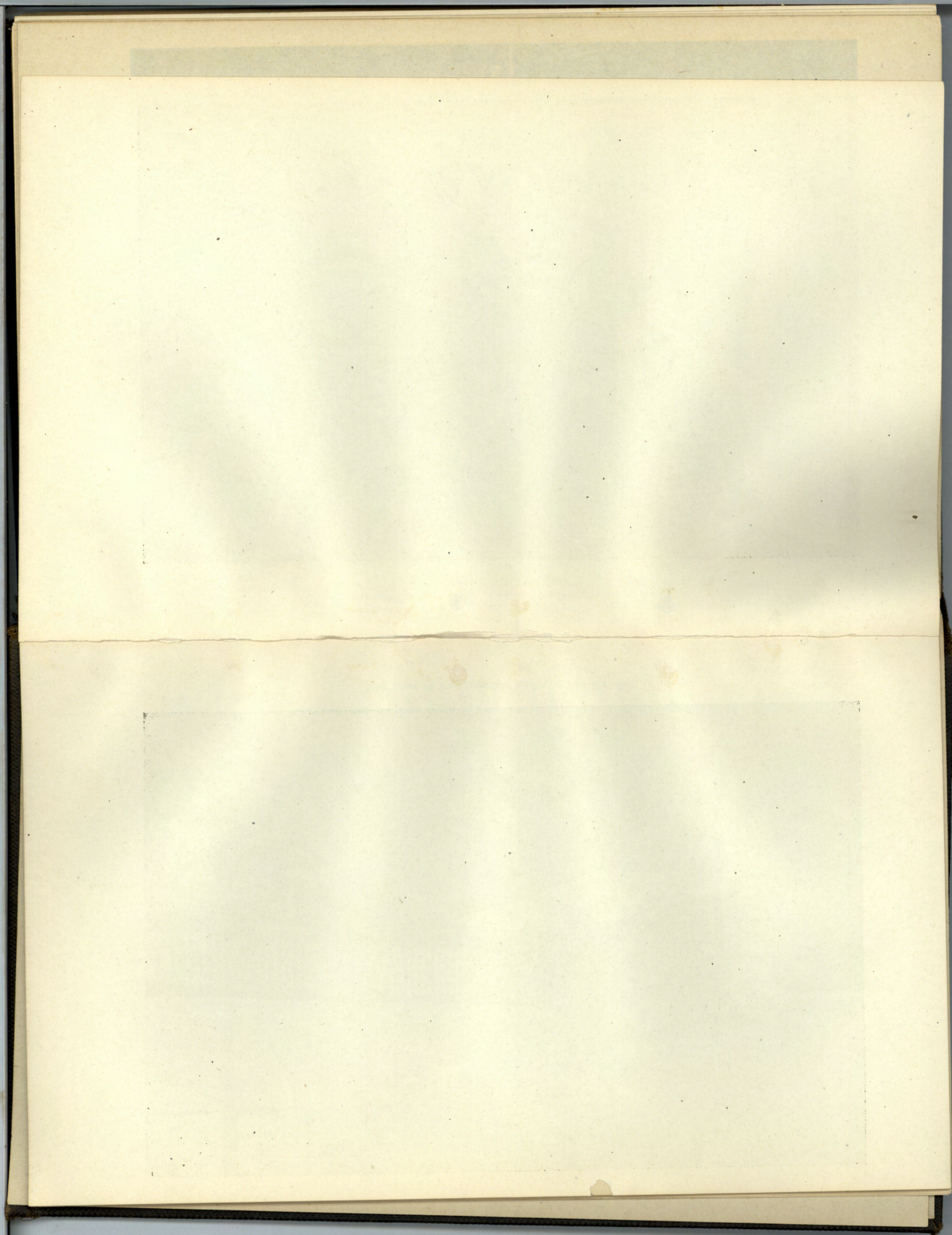
There have been several important changes in the medical staff during the year. Drs. W. B. Jennings, R. G. Stone, H. V. Pike, Oran A. Wood, and Julia Donahue were appointed during the year. These physicians had been in practice and came to fill out the staff. We are glad to say that their work has been most satisfactory principally because they had no pre-conceived ideas regarding mental conditions and were willing to accept the theories of the Medical Director and work on the physical condition of the patient.

Drs. E. B. Funkhouser and P. B. Means have returned from the army service. Dr. Ralph P. Truitt, who was in the government service, did not return after his discharge as he was appointed secretary to the Mental Hygiene Committee of Illinois. Dr. J. L. Gariss, another member of the staff who entered the army, went into private practice following his discharge. Dr. James P. Sands will return to the hospital when he is discharged. Dr. E. Ray Buhrman, formerly assistant pathologist in charge of the histo-pathological work in the laboratory, returned for duty and we have been able to carry out this part of the work which had been neglected for the past year or two.

As yet we have not succeeded in obtaining the services of a chief for the laboratory department. We were fortunate enough to secure the services of William Striefler who for nine years was bacteriologist at the Cornell Medical School under Dr. T. W. Hastings. Mr. Striefler's long experience with Dr. Hastings along focal infections has been of great value to us. Miss Emily Ellinger was appointed assistant bacteriologist.



Day room in Psychopathic wards of Dix Building.





OPERATING ROOM.
Drs. Draper and Lynch operating. Exploratory Laparotomy.

CONSULTING STAFF

We regret to report the death of two members of our consulting staff, Dr. George H. Parker, gynecologist, and Dr. Paul L. Cort, neurologist. We were fortunate enough to secure the services of Drs. J. W. Draper and Jerome Lynch as visiting gastro-enterologists. They visit the hospital weekly and through them we have been able to do some interesting work in intestinal pathology in relation to the mental condition of patients. Dr. Ward Langstroth was appointed consulting gynecologist. Dr. Enock Blackwell was appointed consulting laryngologist.

We take this opportunity of expressing our thanks and appreciation for the work of the members of the consulting staff.

NURSING STAFF

We are still suffering, as are most institutions, from the shortage in the nursing staff, although in the last six months there has been some improvement. Mrs. Margaret MacMartin, for nine years supervisor of nurses and superintendent of the training school, resigned April 1, 1919. Mrs. MacMartin had served the hospital faithfully and her resignation was very much regretted. We were fortunate enough to secure the services of Miss Jessie M. Durstine who has had years' experience as superintendent of general training schools for nurses.

At the annual commencement of the training school the following nurses were graduated:

Miss Mae Allison
Miss Estelle Holder
Miss Fannie Holder
Miss Esther Johnson

Dr. Robert T. Morris of New York addressed the graduates.

RESEARCH WORK

Our research work has consisted for the most part in searching for foci of infection in our patients. Aside from our original work of finding infection in the teeth we have also found the tonsils, gastro-

intestinal tract, uterus, gall bladder, kidneys, etc., infected. In the clinical pathological laboratory we have carefully studied the bacteriology of these infections. As a result of this work we are convinced that in a majority of the cases the infection starts in the teeth and that the infection spreads through the lymphatic system or the blood to other organs and there secondary foci are established. If our theory of the spread of focal infection is correct it is evident that very radical measures must be employed to eradicate all infected teeth and this is done usually before any other work is undertaken with the patient.

Infection of the Teeth.

It is very difficult to determine the presence of infected teeth. The majority of patients have X-ray plates made of their teeth. The types of infection found by the X-ray are three. First, unerupted and impacted third molars or wisdom teeth. This type is usually found in most of the young patients and in some of the older ones, and without the X-ray the presence of these impacted teeth cannot be determined. In the report of cases we will cite a number of cases where impacted wisdom teeth were the original source of the trouble.

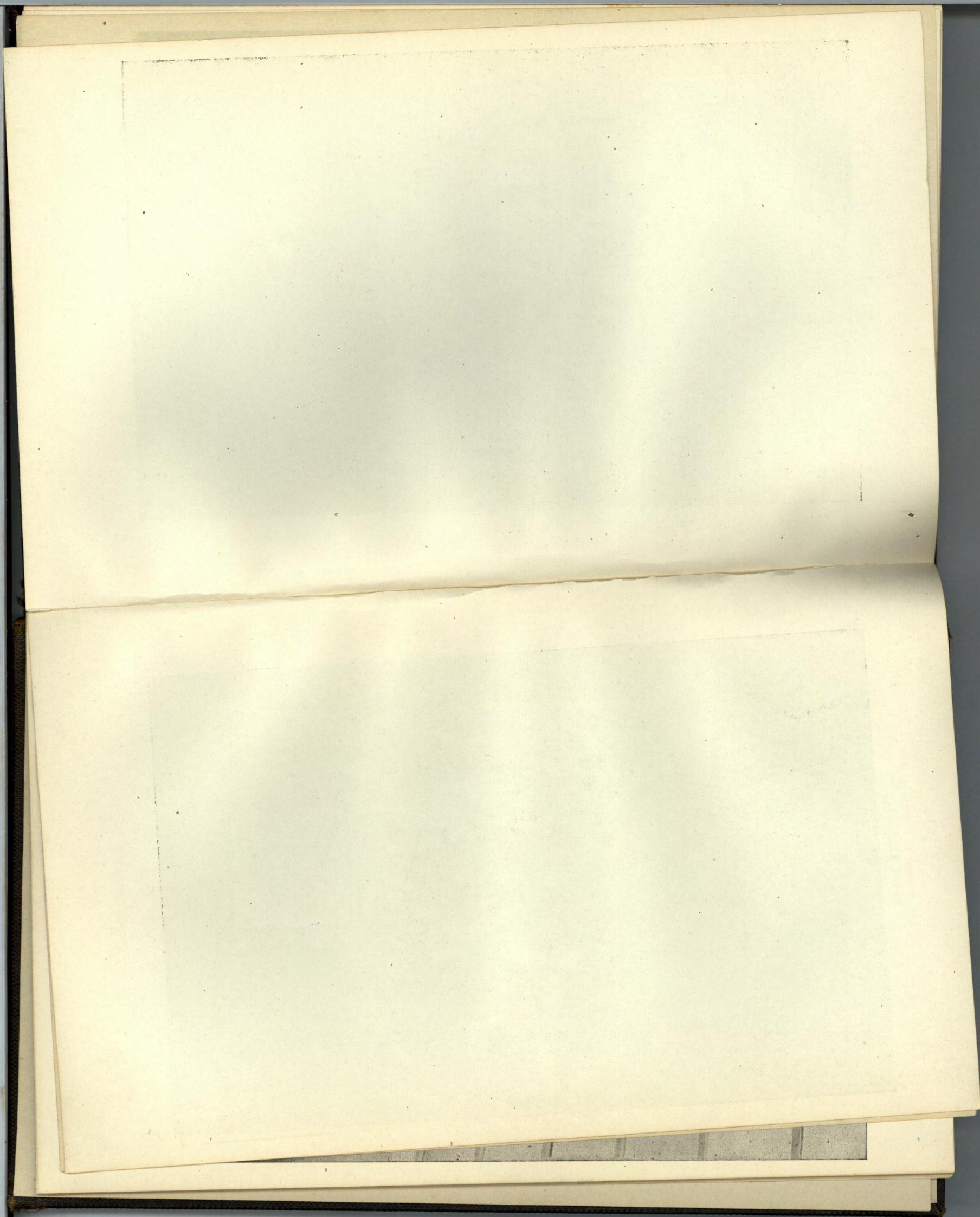
The second type of infection is due to bad dentistry which includes Richmond crowns, gold caps, bridges, and heavily filled molars. In a majority of cases the dentist has repaired these teeth without first taking an X-ray of the roots and we find this type more prevalent than in any other in our cases. In a large majority much of the trouble could have been avoided if the dentist had taken an X-ray of the teeth and extracted the ones showing infection rather than capping or crowning them.

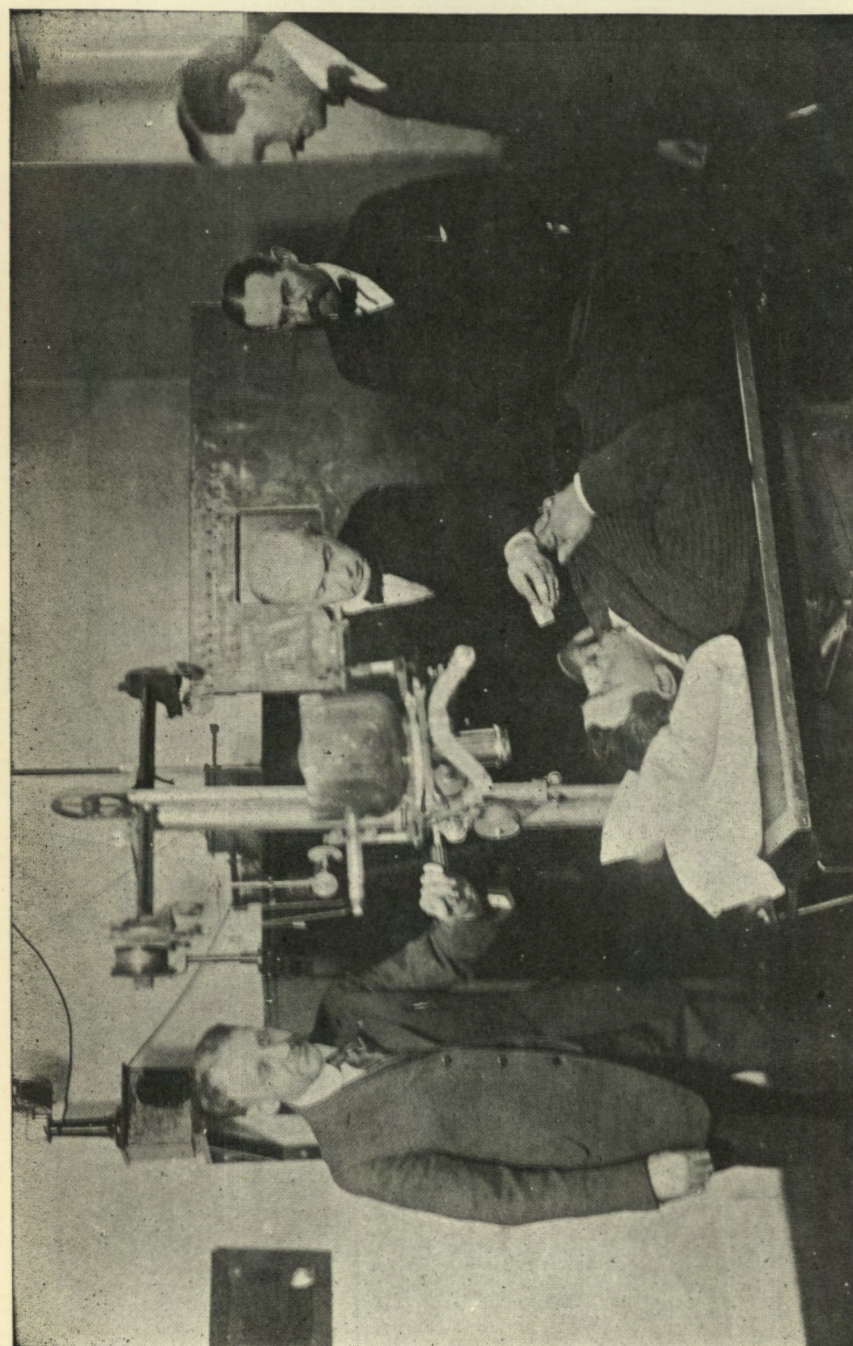
The third type may be classed as that due to neglect where the patient has many old infected roots left in the gum and many decayed teeth.

The first and second types are perhaps more dangerous to the patient because they go unrecognized for a great many years. We have cultured the roots of unerupted and impacted third molars as well as other types described above and we always find them infected. Therefore it is our practice to remove all suspicious teeth as shown by the X-ray and this includes the unerupted and impacted molars. Our viewpoint differs somewhat from that of the dentist as he claims these unerupted teeth in young people are normal and if let alone will finally come through, but from our experience with this type of de-



DENTAL ROOM.
Extraction of infected teeth.





X-RAY ROOM.
Patient having radiogram made of teeth.

fect in the teeth we have found that if patients show mental symptoms these teeth are undoubtedly the source of such symptoms and should therefore be extracted.

In some cases an X-ray will not show much involvement of alveolar process and one is easily misled in his opinion as to the desirability of extracting certain teeth. Inspection of the mouth will often show evidence of infection. If the gums are not pink, firm and thin, but are purple and swollen, we consider the latter evidence of infection, and when such teeth have been extracted we have found that we were right in assuming such a condition indicated infection.

Infection of the Tonsils.

Out of 699 admissions we have enucleated 337 infected tonsils, or about 50 per cent of the cases admitted. The determination of the infection of the tonsils is not difficult. Usually the throat is purple and the tonsils somewhat enlarged. When the tonsil is pressed often pus material can be expressed from them. In many cases it is necessary to make cultures from the interior of the tonsil before a diagnosis of infection can be substantiated. All the tonsils enucleated are studied bacteriologically in the clinical laboratory.

Infection of Gastro-Intestinal Tract.

The most important work of the year has been the determination of gastro-intestinal infection as an etiological factor in many of the psychoses. Infection of the stomach and duodenum is demonstrated by the method of Rehfuess which consists of a fractional examination of the stomach contents after a test meal. The method is as follows: A test meal of a cup of tea and two pieces of dry toast is given and fifteen minutes later the Rehfuess tube is swallowed and allowed to remain in the stomach. Every fifteen minutes a specimen of stomach contents is withdrawn by means of a syringe attached to the Rehfuess tube. Each specimen is examined for free hydrochloric acid, total acidity, and every other specimen is put in culture tubes containing broth for bacteriological study.

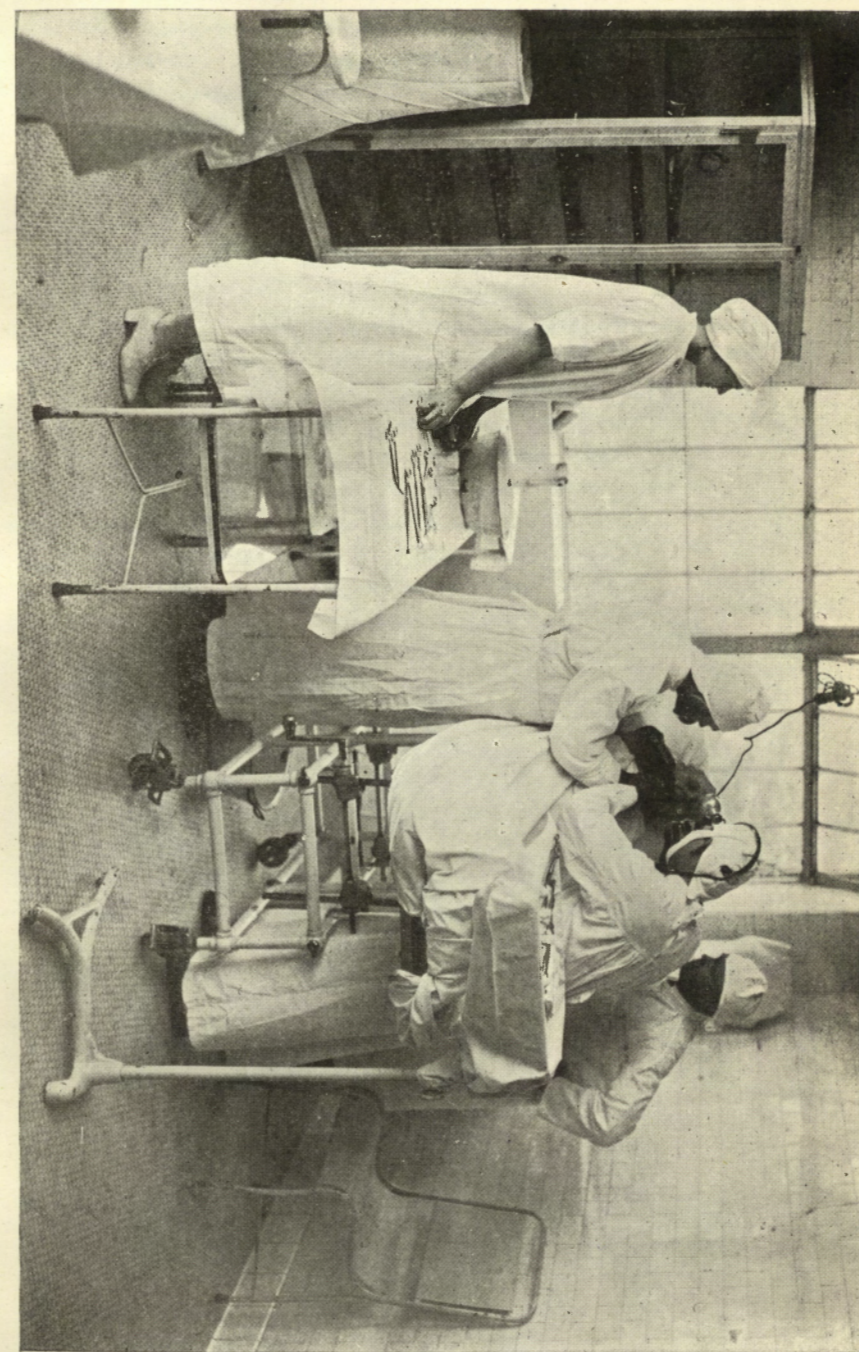
During the year we have examined 934 stomachs. In 451 cases the hydrochloric acid was absent or very low. When we have a complete absence of hydrochloric acid during a test meal we consider the case one of achylia gastrica and this is an indication that the infection is in the stomach wall and therefore interferes with the secretion of hydrochloric acid.

In our autopsy material we have been able to demonstrate the presence of bacteria in the stomach walls and peptic glands in a number of cases. In 403 cases the hydrochloric acid was apparently normal and in a large proportion of these cases there was also an infection. Fortunately in these cases the infection was of shorter duration and had made no progress to the extent of influencing the hydrochloric acid secretion. In 80 cases the hydrochloric acid was considered above normal.

Autogenous vaccine made from the bacteria found in the stomach and duodenum was given in 277 cases. It has not been possible to re-examine all the cases to whom vaccine has been given, but where such examinations have been made the hydrochloric acid has returned to normal and cultures were negative.

Type of Infection in Gastro-Intestinal Tract.

In our earlier work we considered that the bacteria concerned with the gastro-intestinal infection were principally the non-hemolytic streptococcus and colon bacillus. A close differentiation of streptococcus has resulted in finding various types of the hemolytic streptococcus as well. It is not unusual to find both these types in the same stomach either with or without colon bacillus. Occasionally the staphylococcus aureus is found either alone or associated with the bacteria named before. Without exception the colon bacillus and the three other types are similar to the organisms found in the teeth and tonsils, therefore it would seem reasonable to suppose that the source of the gastro-intestinal infection is to be looked for in the teeth. The non-hemolytic types of streptococcus are the ones concerned in chronic infections. They do not cause pus, pain or swelling, and seldom a rise in temperature, but undoubtedly very toxic and contrary to our earlier views we find various strains of the hemolytic streptococcus which act in the same manner. We have also found these organisms in the teeth and tonsils as well. The fact that these types of streptococci found in the teeth, tonsils, stomach and duodenum are identical, is very important and confirms the opinion that the teeth are the original source of infection. We are fortunate enough to have the bacteriologist of the State Board of Health and Dr. J. F. Anderson, bacteriologist of the Squibbs Laboratory, New Brunswick, confirm our work.



Enucleating tonsils in operating room.

While the colon bacillus is a normal inhabitant of the lower intestinal tract there is abundant evidence that it frequently becomes pathogenic and migrates to other organs. It is a significant fact that in most of the chronic psychoses the colon bacillus is found in the stomach and duodenum and frequently in the kidneys and gall bladder. Reese Satterly and others have for some time emphasized the importance of the pathogenic colon bacillus and our work corroborates their opinion.

Summary of Types of Infection.

Of the number of cases, 474, admitted and examined in the last year the proportion showing the various types of infection is approximately as follows. Infected teeth alone 25 per cent, infected teeth and tonsils 48 per cent, infected teeth, tonsils and stomach 58 per cent. (See Table I.) In the majority of cases where the infected teeth seem to be the only focus of infection there seems to be a tendency to recover and to some extent this is true where the tonsils are involved. The cases which tend to become chronic or have rapid recurrences are the ones in which the infection has spread from the teeth and tonsils to the gastro-intestinal tract and irrespective of the diagnosis these cases do not become chronic unless the infection is eliminated.

At the end of the six months' period, January, 1919, it was shown that of the recoverable cases admitted 148 remained in the hospital. They had all had their infected teeth extracted, but 110 had not had their tonsils enucleated and 127 had not had a complete examination of the stomach and duodenum. The 86 cases with gastro-intestinal infection had not had vaccine. In other words, if we had had sufficient help during this period to have completed the examination of every patient and given them proper treatment, more cases would have been discharged as recovered.

TABLE I

SUMMARY OF FOCI OF INFECTION IN VARIOUS PSYCHOSES

Manic Dep. Insanity.		Admitted, 247
Teeth	194	
Tonsils Nor.	18	
Tonsils Re.	123	
Stomach Neg.	59	
Stomach Strepto.	88	
Stomach Strepto. and Colon	51	
Dementia Præcox.		Admitted, 55
Teeth	33	
Tonsils Nor.	5	
Tonsils Re.	27	
Stomach Neg.	16	
Stomach Strepto.	15	
Stomach Strepto. and Colon	10	
General Paralysis.		Admitted, 53
Teeth	37	
Tonsils Nor.	3	
Tonsils Re.	24	
Stomach Neg.	13	
Stomach Strepto.	24	
Stomach Strepto. and Colon	11	
Alcoholic.		Admitted, 64
Teeth	39	
Tonsils Nor.	1	
Tonsils Re.	25	
Stomach Neg.	9	
Stomach Strepto.	25	
Stomach Strepto. and Colon	9	
Other Psychoses.		Admitted, 55
Teeth	44	
Tonsils Nor.	1	
Tonsils Re.	27	
Stomach Neg.	10	
Stomach Strepto.	19	
Stomach Strepto. and Colon	14	
Strepto. and Colon.		95

In Table II is given a summary of the types of the psychoses admitted in the various months and the number of patients from these monthly admissions which are still in the hospital. Thus it will be seen that in 410 admissions, which include the manic depressive, dementia præcox, and general paralysis groups, and over recoverable

psychoses, 274 have been discharged or 66 per cent of these groups have already been discharged, leaving only 136 still in the hospital. As our total discharges were 481, it will be seen that 71 cases were discharged who were admitted previous to the fiscal year. We should not only have sufficient help to thoroughly examine all the new cases and give them proper treatment, but we should also look over all the cases in the hospital admitted within recent years in order to find the cases which would clear up mentally if proper treatment was provided. Of those remaining the majority have not had complete examinations and proper treatment.

The Dementia Præcox Group.

The study of this group has proved most interesting from the standpoint of the etiological factors and the curability of the group. Our studies have led us to conclude Dementia Præcox is not a distinct entity but is rather a chronic stage of the acute psychoses. Of our admissions we have diagnosed only 43 men and 12 women, total 55, as belonging to this group which is only 8 per cent of the admissions. This is a very small number compared to the diagnosis made in most of the state hospitals where the rate varies from 15 per cent to 35 per cent of the admissions. If we include the paranoid conditions in this group, which amount to 38, the percentage would only be 13 per cent of the admissions. We have found the etiology in dementia præcox similar to that of manic depressive insanity which is toxic due to infection of the teeth, tonsils, gastro-intestinal tract and other sources of infection. In some of these cases the teeth alone were involved, but in the majority of cases a rather severe infection of the gastro-intestinal tract was evident. We are convinced that the early stages of dementia præcox offer no greater difficulties in the treatment than the manic depressive group, but after two or three years the cerebral toxemia is so far advanced that even with the removal of infection no beneficial results are noted. Of the total number, 55 cases, 43 men and 12 women, admitted during the year there remains in the hospital 21 men and 3 women, total 24. All cases that remain are of long duration and in some the work has not been completed. It seems reasonable to conclude that our work in the last year has been especially valuable in preventing this group from becoming chronic patients and a life-long expense to the state as in other hospitals the residuals are made up largely from this group.

TABLE II

RECOVERABLE AND IMPROVED CASES, NUMBER OF ADMISSIONS JULY 1, 1918, TO
JUNE 30, 1919, AND NUMBER STILL IN HOSPITAL

MALES

	M. D. I.		Dem. Pr.		Gen. Par.		Other Psy.		Total	
	In		In		In		In		In	
	Ad. Hos.		Ad. Hos.		Ad. Hos.		Ad. Hos.		Ad. Hos.	
July	5	0	3	0	4	1	1	0	13	1
August	6	1	4	0	2	0	0	0	12	1
September	5	1	3	0	3	1	2	0	13	2
October	6	0	4	4	3	0	4	0	17	4
November	10	1	6	3	5	0	4	3	25	7
December	11	2	4	1	4	3	0	0	19	6
January	8	1	4	2	1	0	1	0	14	3
February	10	5	2	2	4	1	5	2	21	10
March	8	1	5	2	1	1	4	1	18	5
April	3	1	3	3	1	0	3	0	10	4
May	3	3	4	3	6	3	2	0	15	9
June	7	6	1	1	2	2	0	0	10	9
	82	22	43	21	36	12	26	6	187	61

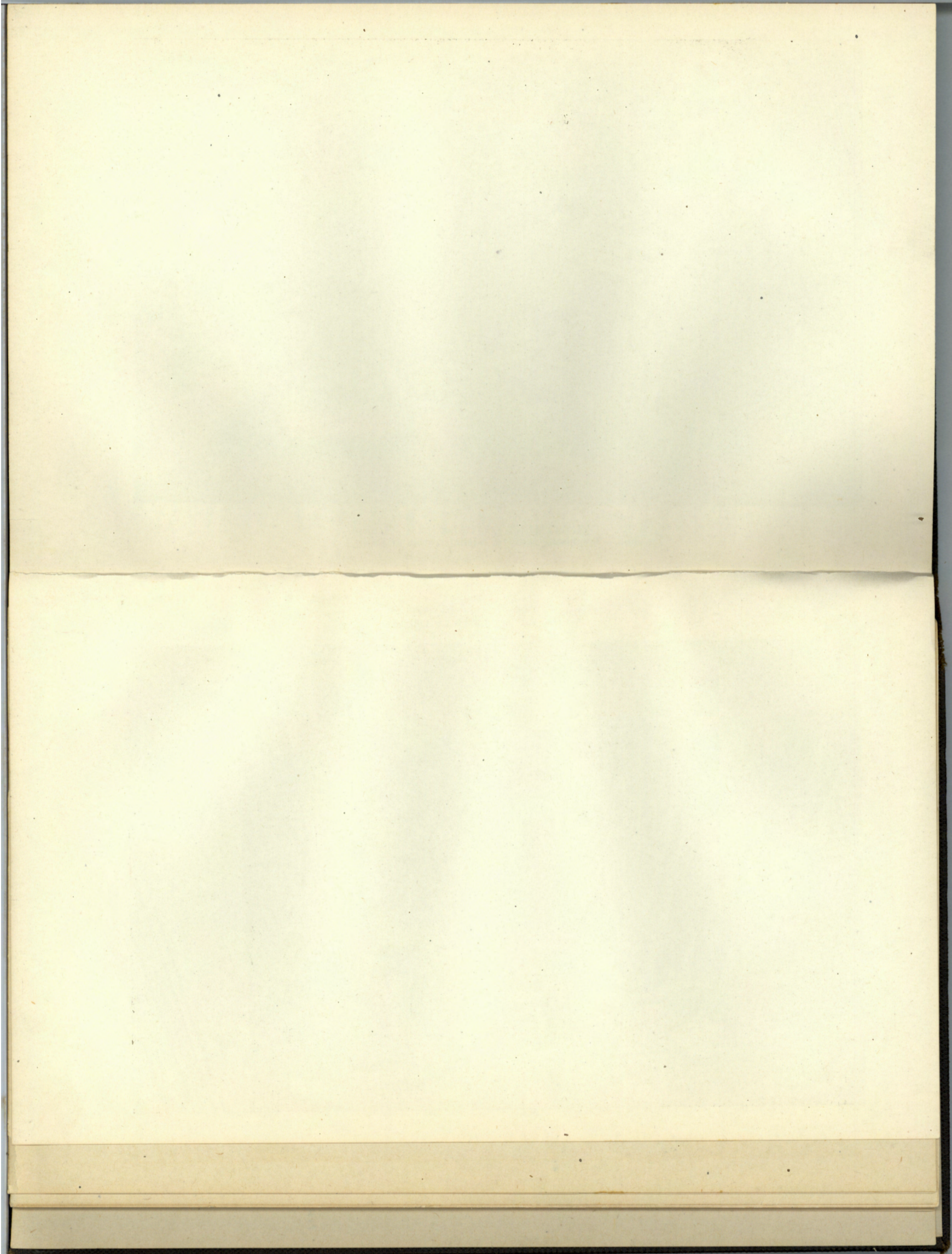
FEMALES

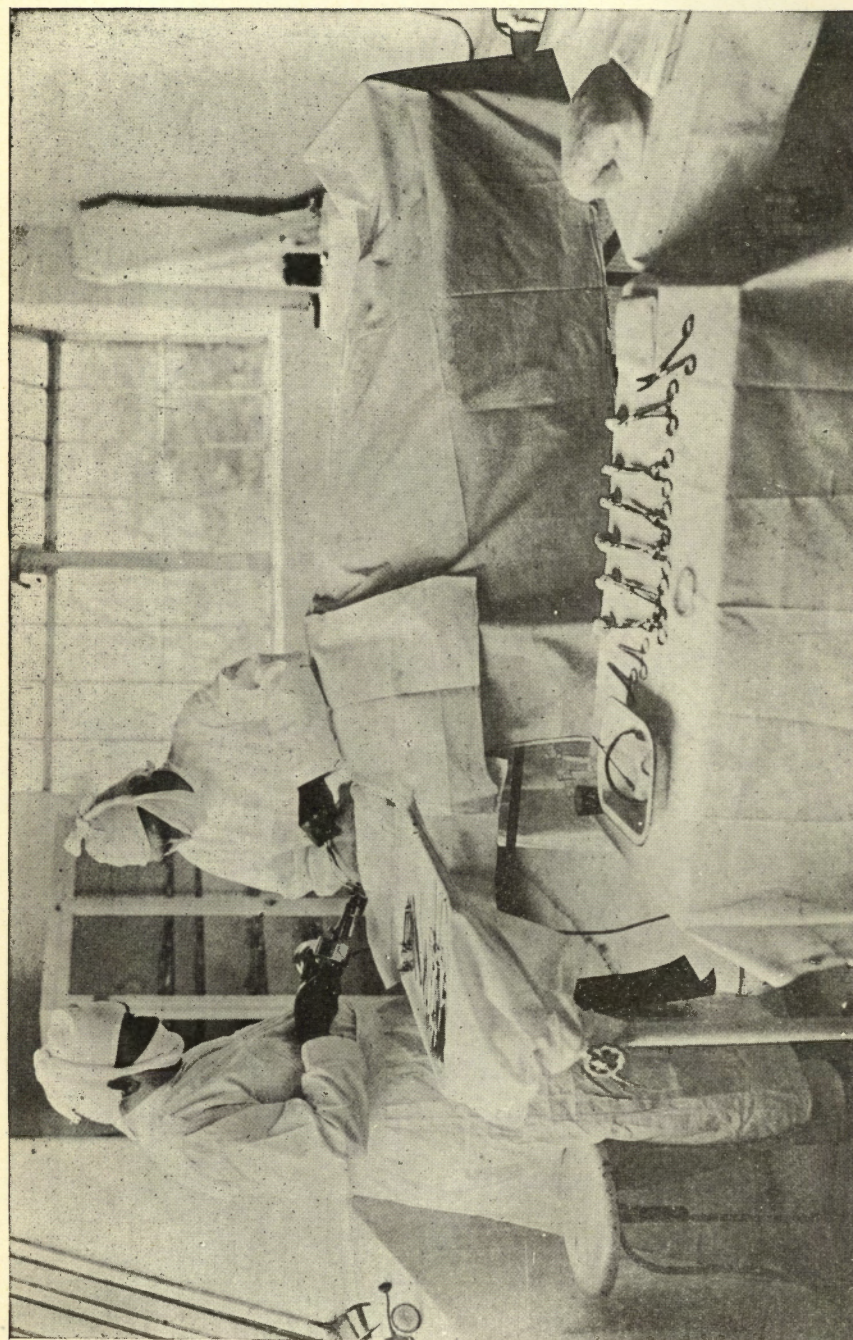
	M. D. I.		Dem. Pr.		Gen. Par.		Other Psy.		Total	
	In		In		In		In		In	
	Ad. Hos.		Ad. Hos.		Ad. Hos.		Ad. Hos.		Ad. Hos.	
July	8	3	1	0	1	1	3	0	13	4
August	6	1	1	0	3	1	2	0	12	2
September	7	3	0	0	3	0	3	1	13	3
October	14	4	2	0	2	0	1	0	19	4
November	18	3	1	0	2	0	1	1	22	3
December	18	2	1	0	2	0	2	0	23	2
January	17	4	1	1	1	0	1	1	20	5
February	16	5	1	0	1	0	3	1	21	6
March	12	3	2	0	1	1	4	1	19	5
April	19	10	0	0	1	1	2	1	22	12
May	18	13	0	0	0	0	2	0	20	13
June	12	9	2	2	0	0	5	2	19	13
	165	60	12	3	17	4	29	8	223	72

	Admissions			In Hospital		
	Male	Female	Total	Male	Female	Total
Man. Dep. Ins.	82	165	247	22	60	82
Dem. Pr.	43	12	55	21	3	24
Gen. Par.	36	17	53	12	4	16
Other Psy.	26	29	55	6	8	14
	187	223	410	61	75	136

TREATMENT OF PARESIS.
First—Intravenous injection of Salvarsan.







TREATMENT OF PARESIS.
Second.—Trephining skull for administration of serum.

Manic Depressive Group.

The 82 men and 165 women, total 247, were admitted with this diagnosis, or 35 per cent of the admissions. Of the number admitted during the year 60 men and 105 women, total 165, have been discharged out of 247 admissions, which is 66 per cent of the admissions, about the same proportion of the discharges of dementia præcox in cases admitted during the year. The cases that are still in the hospital will receive further examinations with the possibility of clearing them up.

General Paralysis Group.

There were admitted during the year 55 patients, 37 men and 18 women, in which paresis was the diagnosis. Out of that number, 16, 12 men and 4 women, have been discharged. Of this number, 13 were put down as much improved and 3 unimproved. We have not discharged any of these cases as recovered, although some of them were normal mentally at the time of discharge and are able to continue their work after the four months' visit. We have continued to give treatment as in previous years. All patients have been treated every two weeks, usually with the intraventricular injections of salvarsanized serum and we feel that the results obtained justify us in continuing this treatment. In the earlier cases we continue to have good results from the treatment, but in the later cases there is very little that can be done as destruction of the cortex precludes any improvement even under treatment.

Surgical Procedures.

We have been fortunate to secure the services of Drs. J. W. Draper and Jerome Lynch, of New York, who have studied our cases from the standpoint of intestinal pathology. In 57 cases exploratory laparotomy has been performed. The type of operation and condition of the patient is given in the table and summary shows the effect of the operation on the patient's mental condition. We have usually taken the more chronic types for these studies and while it has been impossible to clear up the mental condition in all of them, at the same time a great deal has been learned regarding intestinal pathology in these cases which will be of immense benefit in the more acute types which show tendency to chronicity. Sufficient work has not been done as yet to make of any definite conclusions. Cases in which we have

cleared up the infection in teeth, tonsils, and upper intestinal tract and still show no improvement mentally are then thoroughly examined as to abdominal condition. Following a test meal X-rays are taken at 24, 48 and 72-hour intervals with the view of determining the intestinal function and where indicated laparotomy is performed.

TABLE III

OPERATIONS

	Rec.	Much Im- proved	Im- proved	Not Im- proved	Died	Total
Enucleation of cervix	7	8	5	3	0	23
Repair of Perineum	2	0	2	0	0	4
Appendectomy	5	8	1	8	1	23
Cholecystectomy	1	4	0	0	0	5
Jejunostomy	1	3	0	0	0	4
Developmental Reconstruc- tion of Colon	0	2	3	3	5	13
Hysterectomy	0	2	0	1	0	3
Intestinal Obstruction	0	0	0	0	1	1
Number of operations	16	27	11	15		
Number of patients	12	18	8	12	7	57

Per cent patients recovered mentally following operation.....(12)—21%

Per cent patients much improved mentally following operation....(18)—31%

Per cent patients improved mentally following operation.....(8)—14%

Per cent patients not improved mentally following operation.....(12)—21%

Per cent patients died following operation.....(7)—12%

Diagnosis—Recoveries—all were of the Manic depressive group but of chronic type.

Not improved—12 M. D. Ins. (chronic) 5 D. P. or allied to D. P.
1 Paranoid condition.

Improved— 4 M. D. Ins. (chronic), 4 D. P.

Not improved— 3 M. D. Ins. (chronic), 6 D. P. 1 Paranoid con-
dition, 1 unclassified, 1 General Paralysis.

Died— 1 M. D. Ins. (chronic), 2 Epilepsy, 3 D. P.
1 Intestinal obstruction.

Prevention.

From the results of our work in the last year we have learned that the role of infections and toxemia is one of the most important factors in producing mental diseases of the maniac depressive and dementia præcox type. Therefore, we are convinced that by a campaign of education the profession and the public at large can be taught the necessity for better dental work. In other words, instead of trying



Third.—After trephining, needle is introduced through cortex into ventricle and serum is allowed to flow into ventricle.

to save teeth the work of the dental profession should be to extract infected teeth and thereby save the patient from further trouble. If the public fully realized these things there is no doubt but that many diseases could be prevented which come to us now for treatment. Not only will we reduce our population in the institution, but it is logical to assume that many cases could be prevented if these infections were not allowed to persist until they cause these mental diseases.

RECENT CONTRIBUTIONS

The following papers have been read during the year:

The Role of Focal Infections in the Psychoses, read before the New York Psychiatric Society.

The Relation of the Psychiatrist in the Field of Correctional Work, read before the New York Society of Medical-Jurisprudence.

The Relation of Focal Infections to Mental Diseases, read before the First District Dental Society, New York City.

Etiology and Treatment of the So-called Functional Mental Diseases, read before the Northwestern Medical Society of New York.

The Dementia Præcox Problem, read before the American Medical Neurological Association, Atlantic City, N. J.

Etiology and Treatment of the So-called Functional Diseases, read before the American Medical Psychological Society, Philadelphia, Pa.

LABORATORY REPORT

See detailed report of the laboratory work during the year.

The most important development in the laboratory work has been the correlation of the fixation tests for the various organisms concerned in focal infections and the determination of the infection in individuals which show positive fixation tests. The value of the fixation test as a means to determine infection by the various bacteria, if our work proves successful, will be extremely important, and careful studies are being made with this end in view. The bacteriological work is also very important and since we have secured the services of Mr. Wm. Striefler, who has had extensive experience in this

work, we have been able to determine definitely the types of streptococci met with in our cases and to classify them according to the various sugar reactions. Thus we have found that we were dealing with the hemolytic streptococci as well as the non-hemolytic group which is a very important finding.

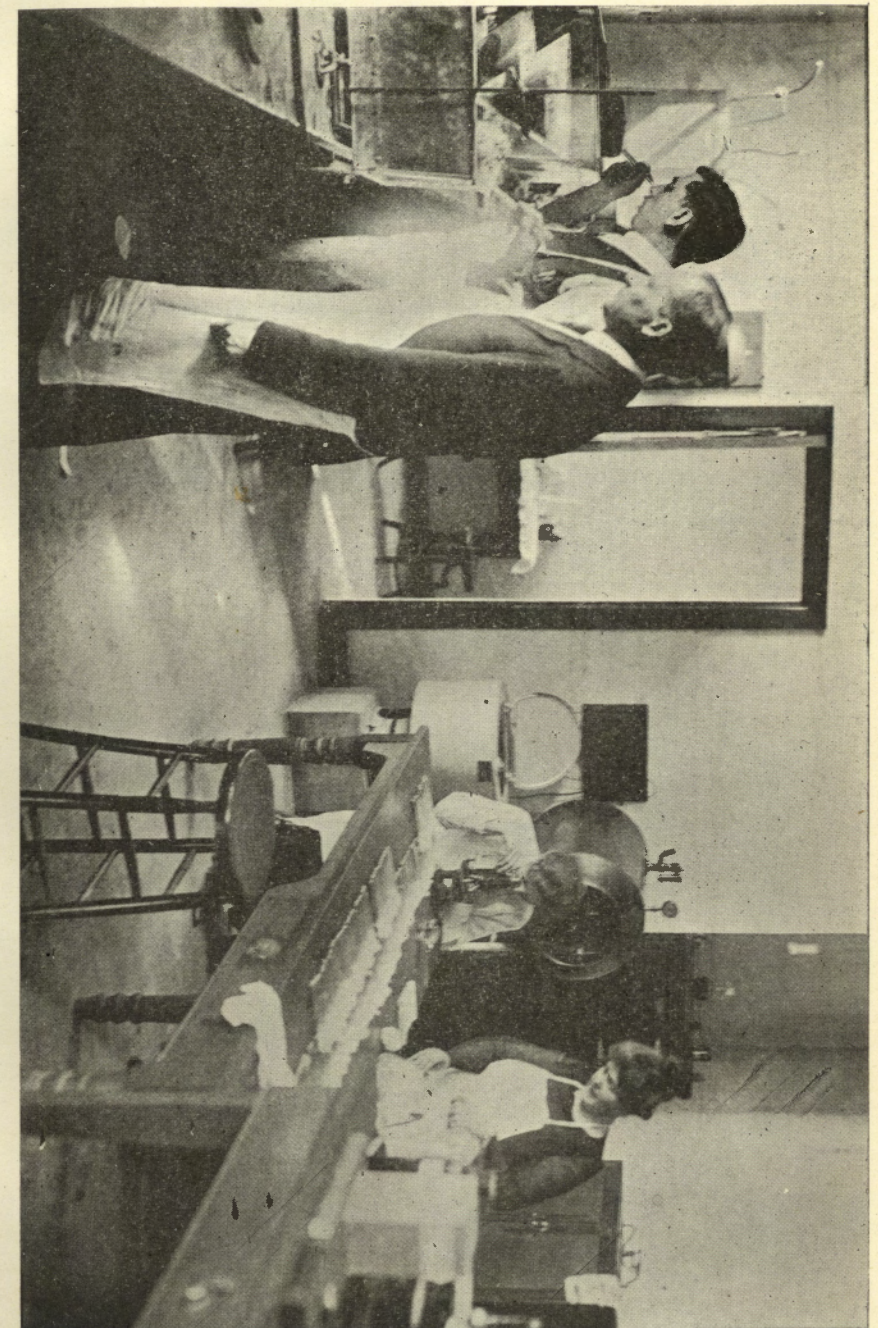
The histo-pathological department has been resumed since the return of Dr. E. Ray Buhrman, formerly connected with this department. Forty-two autopsies have been performed during the year and 13 have been done since May 1, 1919. Section of the brain and organs have been cut and stained for further study. Besides this, 39 clinical specimens from major operations have been studied and 21 tonsil specimens have been examined. Not only are the histology methods used for autopsy material, but cultures are made from all organs and sections stained for bacterial as well.

NEW BUILDINGS, IMPROVEMENTS, ETC.

At the last session of the Legislature \$250,000 was appropriated to increase the capacity of the hospital. We succeeded in getting the State House Commission and the State Board of Institutions and Agencies to allow us to spend that money for the very necessary psychopathic wards for the male side and increase the capacity of the psychopathic wards for the women. Total bids for this work amounted to \$395,000 so that we were unable to obtain more than two buildings with the appropriation available. We respectfully request an additional \$45,000 to complete the psychopathic units which will accommodate 200 acute patients and practically take care of all the admissions.

The new wing of the criminal insane building, of which \$110,000 was appropriated, but owing to the high price of construction could not be completed until the sum of \$93,000 was appropriated, has been completed and occupied. Owing to the fact that the locks on the doors of the rooms in the building were unsound, we were able to have the State House Commission appropriate \$10,000 and we have been able to install the Pauly Jail Lock System in two floors of this building.

We respectfully request that sufficient money be appropriated for a suitable building in which to house the male attendants and employes, and also an appropriation for a staff house as our accommodations at the present time are very much limited.



Bacteriological and Serological Laboratory.

CONCLUSIONS

I wish to express my appreciation for the loyalty and efficient work of the members of the Medical staff during the last year. We had a reduced force but through their efforts we were able to carry on the work successfully. I also wish to express thanks to the nurses and attendants who remained with us and frequently did double work on account of the serious shortage of help. I want to express my thanks to the members of the Board of Managers for their encouragement and assistance during the year. I feel especially indebted to the Commissioner of Institutions and Agencies for his hearty cooperation and broad-minded policy extended to us in our work.

Respectfully submitted,

HENRY A. COTTON,

Medical Director.

I wish to express my appreciation for the friendly and efficient work of the members of the Medical Staff during the past year. We had a reduced force but through their efforts we were able to carry on the work satisfactorily. I also wish to express thanks to the nurses and attendants who remained with us and especially the double work of the members of the nursing staff. I want to express my thanks to the members of the Board of Managers for their encouragement and assistance during the year. I feel especially indebted to the Commissioner of Institutions and Agencies for his hearty cooperation and interest which were extended to us in our work.

HENRY A. GOTTEN
Medical Director

Laboratory Report

The following is a detailed report of the laboratory work for the past year:

General Statistics for the Year

	Males	Females	Totals
Patients in Hospital July 1, 1918	1044	854	1898
Admitted within the year	403	333	736
Viz.: By commitment	300	252	552
By voluntary admission	80	67	147
From escape	2	0	2
*From visit	21	14	35
Whole number of cases within the year	1447	1187	2634
Dismissed within the year	442	342	784
Discharged as recovered	185	175	360
Discharged as improved	26	18	44
Discharged as unimproved	33	22	55
Transferred	4	5	9
Escaped	16	2	18
Died	169	112	281
On visit	9	8	17
Patients remaining in Hospital July 1, 1919	1005	845	1850
Viz.: As indigent patients	748	754	1502
As private patients	42	74	116
As convicts	148	7	155
As criminals	67	10	77
Number of different persons within the year	1447	1187	2634
Number of different persons admitted	403	333	736
Daily average number of patients	1030	837	1867

*15 males and 8 females nominally admitted for discharge.

She had had four previous attacks, the first occurring in 1912. The attacks were characterized by severe and prolonged convulsions, which were usually followed by a period of unconsciousness. The attacks had already been of some months' duration. The patient was very much confused, apprehensive, excited, and violent at times. She did not improve after three years' residence in the hospital and was considered a chronic, demented patient. In June 1918, the resident physician after much difficulty, secured a rowed motor which was introduced. Soon after the motor was introduced, she had four more attacks, the first occurring in 1918. The attacks were characterized by severe and prolonged convulsions, which were usually followed by a period of unconsciousness. The attacks had already been of some months' duration. The patient was very much confused, apprehensive, excited, and violent at times. She did not improve after three years' residence in the hospital and was considered a chronic, demented patient. In June 1918, the resident physician after much difficulty, secured a rowed motor which was introduced. Soon after the motor was introduced, she had four more attacks, the first occurring in 1918.

Laboratory Report

The following is a detailed report of the Laboratory work for the past year:

SPECIMEN EXAMINATIONS

Wassermann Blood Test	397
Wassermann Fluid Test	270
Wassermann Active Serum	142
Wassermann Inactive Serum	74
Wassermann Spinal-Fluid	279
Cerebral Spinal-Fluid	592
Colloidal Gold	139
Complement Fixation Tests	1,145
Stomach and Duodenum	533
Stomach Examinations and Cultures	130
Stomach	246
Duodenum	55
Urine	262
Tonsils	220
Cervix	33
Sputum	2
Tooth	1
Throat	1
Vaccines	320
Cultures	341
Total	5,182

REPORT OF CASES

We give below a number of cases which would illustrate the relation of infection to the mental condition.

(1) A. A. Single girl, age 26. Admitted May 9, 1911, from Bloomingdale Hospital at White Plains where she had been since 1910. She had had four previous attacks, the first occurring at the age of 19. She, however, finished school and took up trained nursing. The attacks increased in severity and when she was admitted in 1911 the attack had already been of seven months' duration. On admission she was very much confused, apprehensive, agitated, and violent and resistive at times. She did not improve after three years' residence in the hospital and was considered a chronic, demented patient. In June, 1916, the resident physician, after much difficulty, extracted a crowned molar which was infected. Soon after this she began to im-

A. Before treatment. Hydrochloric acid—dotted line—negative throughout two-and-a-half-hour test and cultures were Streptococcus, Colon Bacillus and Staphylococcus Aureus.

B. After treatment—re-examination a month later—normal hydrochloric acid curve and negative cultures.

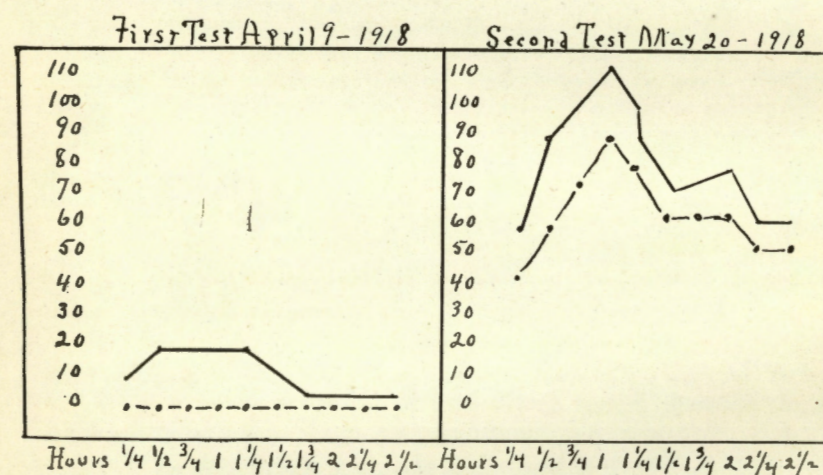


CHART 3, Case 2. Showing fractional examination of stomach—Rehfuß method.

prove and in October, 1916, she had apparently recovered and was allowed to go home where she has since remained. This patient has been frequently visited by the field worker and found to be in an apparently normal mental condition. She has been interested in Red Cross and other charitable and social work. On several occasions she has had sick headaches and it is possible that there is some mild infection still present. The only reason that we can find for her recovery after five years in the hospital is the extraction of an infected molar.

(2) M. L. Married woman, age 45. Admitted April 10, 1910. Duration, two years before admission. No heredity in the family history, very good family, especially bright mentally, wife of a college professor. When admitted she was in a mild maniacal condition, silly and dilapidated, untidy in personal habits. Would not wear any clothing except a wrapper—no shoes nor stockings. Many attempts were made to arouse her interest. She was given a special nurse and sent to the theater but she always relapsed into the condition described above. In 1916, examination of the blood revealed the fact that she probably had streptococcic infection. She had lost most of her teeth and the remaining ones were extracted—one at a time. No change was noted in her mental condition. In 1917 her tonsils, which were badly infected, were removed. With this there was some improvement. She was able to go on a good ward, did some work, kept her clothing on, but was silly and dilapidated. In April, 1918, examination of stomach showed entire absence of hydrochloric acid during the test meal and streptococcus viridans, colon bacillus, and staphylococcus aureus were isolated from the stomach contents. Combined vaccine of these three bacteria was given and on May 20, 1918, hydrochloric acid was normal and cultures from the stomach were sterile. She improved rapidly and on June 18, 1918, she was discharged recovered. It took her several months to readjust herself to her home life but she showed considerable improvement and in September, 1918, she was apparently normal. Since that time she has taken great interest in Red Cross work and in various women's activities in connection with the camps and military hospitals. Her husband states, "Her interest and activities are sustained and there are no symptoms of deterioration, either mental or physical, and she is now as strong and active as she ever was." The relation of the infection to the mental disease in this case can hardly be questioned as she showed no signs of recovery until the foci of infection had been removed.

(3) L. R. Married woman, age 40. Admitted May 9, 1918. Invalidism for twenty years. Her first breakdown occurred while she was attending the Normal School, as a girl. Married in 1903. First child born 1904. Onset of her trouble dates back to 1909 at which time she attempted suicide. Sent to a sanitarium. Operation was performed, curetage of uterus, repair of lacerated cervix and perineum, also massage and electric baths, but without results. She continued nervous, but lived at home and in 1910 had second child. Suffered constantly from indigestion and insomnia. Constant pain in face and head. Two teeth were in bad condition but the dentist advised her to save them and Richmond crowns were put on. In 1910 she again tried to commit suicide. She was no better and a year later made a third attempt at suicide. She was again sent to a private sanitarium where she was put in a "straight jacket," tied to her bed, and pillows put over her head to prevent her annoying other patients by her screaming. She remained in this sanitarium for a few weeks and was finally admitted to this hospital as a voluntary patient. She was depressed, agitated and confused and in a very poor physical condition. Weight, 90 pounds. Appetite very poor. Had to be dressed and undressed, stood in the corner of the room all day, never spoke and refused to answer any questions. Radiograms of her teeth showed that three were badly infected, including two pivot teeth. These were extracted but she showed no improvement. Examination of stomach showed fair amount of hydrochloric acid during test meal, no bacteria in stomach. Culture of duodenum showed streptococcus viridans and colon bacillus. Autogenous vaccine was given with some improvement. On August 30, 1918, tonsils were removed and a week later she began to improve. In two weeks she was practically normal and was discharged September 30, 1918. Had gained thirty pounds in weight. Since going home she has been through some unpleasant domestic difficulties. She found her husband was interested in another woman. He treated her very badly in many ways and continually threatened to return her to the State Hospital. Through all this she kept up her weight and in spite of the provocation has shown no return whatever of her mental trouble.

(4) D. Z. Married woman, age 22. Admitted to the State Hospital November 18, 1915. Three months after marriage suffered with pains over heart and had a general feeling of weakness. At this time she was seen in consultation by the Medical Director and she had been in several hospitals. She showed no mental symptoms dur-

ing this period. At the time of the consultation she was told, because her blood test was positive for streptococcus viridans, that she should have her teeth examined. This she did not do and in October, 1916, she became depressed and mute. Spent eleven weeks in a hospital and was finally admitted here. Was in a mute, stuporous condition, extremely prostrated, nodded her head in answer to questions. She remained in this condition until June, 1917. With a great deal of difficulty several infected teeth were removed and later her tonsils were enucleated following which she cleared up rapidly and on July 15, 1917, she recovered and was discharged. Since that time she has been in a normal condition, has gained physically and shows no evidence of mental trouble. This case is interesting from the fact that a year before the mental trouble developed she was in a very weak physical condition with marked heart symptoms, which condition was recognized as the result of infected teeth, but she refused to have any work done and finally developed a serious mental trouble which cleared up when the infected teeth and tonsils were removed.

(5) M. A. S. Single woman, age 55. Father died of acute melancholia at the age of 64. Mother died of paralysis at the age of 80. Infancy and childhood normal. She had typhoid fever at the age of 12 and was mentally upset for some months, probably delirium, and since that time showed some inability to learn. She was a good housekeeper, however. Her mental trouble followed the death of her mother in August, 1916. She became excited, talkative, and in September became much depressed and agitated, with self-accusations. She was admitted to the State Hospital October 3, 1916. At that time it was noticed that her upper teeth were missing and her lower front teeth were in a badly decayed condition. Nothing was done for her, however, and she was transferred to the chronic wards. In September, 1918, eleven bad teeth were extracted. She improved rapidly during the next few weeks and on November 9, 1918, was discharged as recovered and since that time has been perfectly well. The neglect of the teeth in this patient probably is responsible for her residence of two years in the hospital for there seemed to be nothing wrong except her teeth.

(6) C. F. B. Married man, age 35. Father and grandfather had depressed spells. Married eleven years, domestic life happy. In 1916 saw service on the Mexican Border with the 71st Regiment. Following his military service—one and a half years prior to admission to the State Hospital in March, 1918—he was treated in

private sanitariums but became progressively worse. He was apprehensive, confused, refused food, had many somatic ideas and delusions regarding the disarrangement of his gastro-intestinal tract. He became very much confused, refused to talk and had to be force fed. In April he had several infected teeth removed. Examination of stomach showed he had practically no hydrochloric acid and streptococcic infection. He was given vaccine and examination of stomach, June 17, showed normal hydrochloric acid but still some bacteria. He improved somewhat and was discharged September 21, 1918. Following his discharge from the hospital he showed rapid improvement and a letter from his mother in December, 1918, stated that he was entirely normal, had gone to work and was supporting his family. The duration of this case was one and a half years before admission during which time he was becoming progressively worse. After the removal of the infected teeth he rapidly recovered. The question of diagnosis is uncertain, but there can be no doubt that he was becoming progressively worse and fast going into a chronic state. The relation of the infection and his recovery can hardly be doubted.

(7) J. G. Single man, age 37, admitted August 13, 1918. Common school education. At the age of 13 began to do farm work at which he was employed at the onset of his mental attack which was six weeks before admission. He had ideas that people were after him, tried to commit suicide by cutting his throat. On August 9 six infected teeth were extracted, and tonsils removed August 16. Stomach test was normal. He was discharged October 3, 1918, although he had shown very little improvement. A letter from his brother, December 3, 1918, stated he was well and working every day. Another letter in February stated he was still improving and working. Relation in this case of teeth and tonsils to the mental condition seems to be well established and the rapidity of recovery after their removal shows this relation. It is noteworthy that only a month and a half was spent in the hospital where formerly the average in the hospital of such cases was ten months.

(8) H. R. A. Single man, age 34. First admission July 24, 1911. Ten years previous to this date he was considered simple-minded, and was unable to hold a position. He left the hospital August 18, 1911. He lived with his mother in the country and accomplished nothing. He was untidy in habits, annoyed the neighbors by indecent talk. Second admission September 8, 1914. He was considered a case of dementia præcox with slow deterioration of long standing. On Sep-

tember 13, 1915, he was taken out on trial by his mother, but could not get along and was returned September 11, 1915. Had exposed himself in public places. He remained in the same condition until March, 1918, when two infected molars were extracted. He improved rapidly after this. Showed interest in his surroundings and on May 12, 1918, he was discharged. A letter from his mother December 24, 1918, says, "Harry is feeling fine, better in mind and body than he has ever been, works out every day, and I think your doctoring has helped him. Neighbors and friends say he never looked better. He is happy and contented; and no one can see that there has ever been anything out of the way with him. He is much stouter." Monthly letters from the mother show a continued improvement and a letter on February 26 states that he is still normal mentally and working steadily. There is a contrast between the patient's present condition and the seventeen years previous during which he did no work at all, exposed himself on the street and made himself a general nuisance, and with the extraction of two infected molars he has been able to make a good living and remain in a normal mental condition.

(9) W. G. B. Married man, age 53. Admitted February 24, 1916. His mental trouble followed "grippe" three months before admission. Had marked physical signs, complained of head hurting him. On January 18 attempted suicide by cutting throat, jumped out of window, ran in front of a trolley car. When first admitted he was somewhat in a semi-delirious condition. He was taken out against advice September, 1916. All infected teeth were removed prior to this. He remained at home, gradually becoming worse, until June, 1917, when he was readmitted. He was much depressed. Accused wife of running with other men. Said he would never get well. Tonsils were found to be infected and were removed, but not much improvement was noted. In May, 1918, examination of stomach showed a severe infection with absence of hydrochloric acid. He was treated with autogenous vaccine and improved rapidly. He gained considerably in weight and in October, 1918, was discharged recovered. In this case we have infection of the teeth, tonsils and stomach with no evidence of improvement until the foci of infection were removed.

(10) W. P. A young married man, age 35, who had been a successful contractor with no evidence of mental trouble until November, 1917, at which time friends noticed that he acted in a peculiar manner. About Christmas, 1917, he suddenly disappeared and was later found in a hospital in Chicago in a confused state. He did not know

how he got there and could give no account of himself during this period. He was brought back to Trenton and put in a general hospital for treatment by his family physician. He seemed to improve a little and was taken out. Soon became very much worse. He was depressed, agitated, confused, and had made self-accusations. Admitted to this hospital March 17, 1918. He was extremely apprehensive, thought he was going to be killed and became rapidly worse. In May it was noticed he had four crowned molars. The most suspicious one was extracted and two days following this extraction the patient became normal. He lost all his apprehensiveness and depression and rapidly improved. Gained over thirty pounds in weight. Stomach examination showed infection and autogenous vaccine was given. He was discharged June 9, 1918, following which he went to work as a contracting engineer at Tullytown and later at the Old Hickory plant, Dupont's, Nashville, Tenn., earning \$160.00 a month. His work was entirely satisfactory and he has shown no mental symptoms whatever since his discharge. The sudden improvement two days after the extraction of an infected crowned molar in this patient, who was becoming progressively worse, was very striking and we would emphasize the fact that he has been an efficient, capable man at his work since that time.

(11) F. K. B. Married woman, age 24. Admitted March 4, 1918. Mental trouble followed childbirth November 7, 1917. She became maniacal and was sent to a private sanitarium. She showed no tendency to improve and was finally admitted to this hospital. She was maniacal, excited, destructive, with no tendency to improvement. On April 5 operation for infection of the cervix, curetage and repair of perineum done, but no change noted in her maniacal condition. In April four capped molars were extracted and within a week the maniacal excitement subsided and she was discharged May 25th, 1918, a little over two months after admission. Stomach examination showed infection and absence of hydrochloric acid. She was given an autogenous vaccine. Reports from the family are that she has remained entirely normal since leaving the hospital. The relation between the infected teeth and stomach and the rapid recovery with the removal of these foci is evident, especially as for five months previous to admission she had become progressively worse.

(12) J. S. Young man, age 28, single. Admitted May 18, 1918. Son of college professor, family unusually bright and of a high intellectual level. Brothers successful lawyers. Patient is well edu-

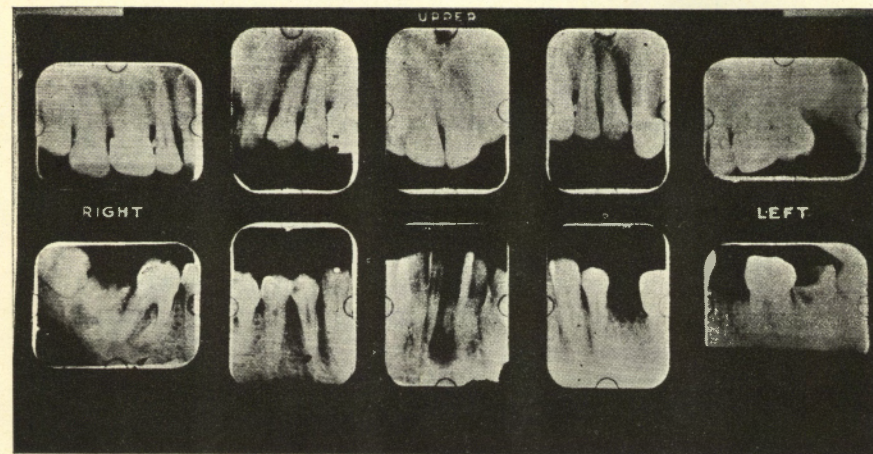


PLATE 1.—Radiogram of teeth showing two impacted lower third molars (extreme right and left) with decayed molars next to these impacted teeth. Very marked apical abscess on lower incisor. Five capped teeth badly infected. Man 36 years old suffering from paranoia for five years.

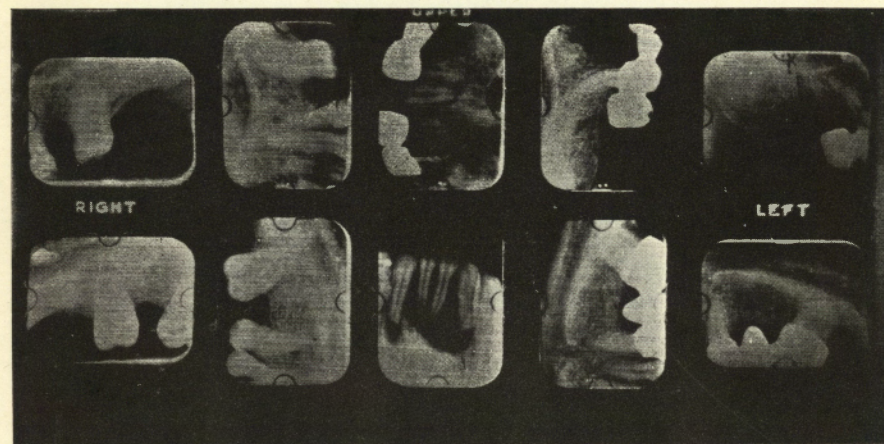


PLATE 2.—Radiogram of teeth showing marked abscess in lower incisor (center picture), also gold caps and crowns—the white showing is gold work—in a case of Dementia Praecox, age 39 years, of eight months' duration.

cated, a graduate from college in 1909, taught school for three years. A graduate of the Harvard Law School in 1915 and was admitted to the bar. He began to show mental symptoms in 1916. Had auditory hallucinations and could not get along with his colleagues. Became vacillating, inefficient. For a while worked with pick and shovel so as to live out of doors more. Suspicious of everyone, heard people accusing him of masturbation. Admitted to the Mercer Hospital April 13, 1918, at which time he was silly and dilapidated. Spent his time indolently in bed and frequently exposed himself to the nurses and other patients. From the symptoms at this time with hallucinations and dilapidation a diagnosis of dementia praecox of two years' duration was justified. Physical examination: Under weight. Neurological examination negative. Six teeth showed very marked apical abscesses. The upper teeth, although they did not show distinct abscesses in the X-ray, were found to be infected and all the upper and lower, except six front teeth in the lower jaw, were extracted. Examination of stomach showed absence of hydrochloric acid and from the cultures streptococcus viridans and colon bacillus were isolated. An autogenous vaccine was given of streptococci and colon bacillus. Improvement was rapid. He gained in weight, soon lost his silly and dilapidated appearance and talked rationally. In July, 1918, tonsils were removed. He had a mild relapse, reappearance of hallucinations with some physical disturbance and fainting attacks. He was discharged November 5, 1918, and has been at home since this time. He obtained a clerical position at \$150.00 a month which he is still filling satisfactorily. At the present time he is not altogether normal and shows some evidence of gastro-intestinal infection and at times has a recurrence of hallucinations. This case is interesting as it was the first one in which we cultured the stomach contents and found evidence of stomach infection.

UNERUPTED THIRD MOLARS

Another type of infection, which is often overlooked, occurs in unerupted and impacted third molars or wisdom teeth. There seems to be quite a difference of opinion in regard to the necessity of extracting these teeth when their presence is shown by the radiogram. Formerly I was inclined to give little attention to these teeth, but in the last few months I have had a series of cases which have convinced me that they are a source of great danger and when found

should be extracted. This statement may be modified perhaps, by adding, if these unerupted teeth are causing any symptoms—and evidence of symptoms may be very vague. One of the most important signs, and often the only sign, is a very rapid pulse in an otherwise healthy individual—usually a young person of probably 13 to 20 years of age. Sometimes there may be headaches in a girl or a boy previously healthy and these symptoms cannot be explained by any other condition or abnormality. If the third molars have not come through and the radiogram shows them unerupted or impacted it seems to me imperative that they be extracted at once.

(Cases 13 and 14.) We have now six cases, all of which have come to my attention in the last six months, where their symptoms were directly due to unerupted wisdom teeth and upon the extraction of these teeth the symptoms rapidly disappeared. The symptoms varied from mere headaches and irritability to profound mental disturbances, lasting for two or three years. The youngest case was a lad of thirteen and the oldest was a man of sixty. In the former there suddenly occurred, without any previous mental or physical condition to explain the trouble, a series of hysterical convulsions and this was followed by maniacal excitement. He was admitted to the State Hospital and under rest and care improved materially, as so many of these cases do at the time of their first attacks, and subsequently the teeth were extracted.

(Case 15.) This case I had seen six years previously with a rather peculiar mental condition at the age of 19 years, and who apparently recovered after six months in the State Hospital and was well for five years, but finally had to be recommitted. For the past year I had seen this patient almost daily and had had her bad teeth extracted, and could not understand why she did not recover as her trouble was rather superficial from the mental viewpoint, but her physical condition was very bad, anemic and somewhat emaciated. Finally, I had her teeth radiographed and found four unerupted molars. These were extracted, her tonsils were removed, she improved rapidly both mentally and physically and today is entirely well.

(Case 16.) This case was a perfectly healthy and robust girl of 19 years who had been "ailing" for some time. She was cross and irritable, had frequent headaches, and wanted to spend her time in bed. Fortunately for her, one day at dinner the gum over the right third molar, which was swollen, ruptured. An X-ray picture revealed an impacted wisdom tooth and this was extracted but her symptoms did

not abate. All of her teeth were then radiographed and three more unerupted teeth found and extracted with the result that all of her symptoms disappeared and she is now entirely well. I have no doubt that had these teeth not been found she would have had a serious mental disturbance, perhaps of a permanent character.

(Case 17.) A Princeton University student of 19 years who was somewhat exhausted from his work in the students' training corps suddenly developed a profound depression with suicidal tendencies. An examination of his teeth showed them to be in good condition but I noticed that he had no third molars and I confidently told his parents that the cause of his trouble was unerupted wisdom teeth. An X-ray proved that I was right. The diagnosis was not so difficult to make because he had no wisdom teeth and one could confidently assume that they had not come through. However, I do take credit for the recognition of the relation of these unerupted teeth to the mental condition. This case had infected tonsils which were removed and also a serious gastro-intestinal infection which was eliminated and the young man recovered.

(Case 18.) A case of interest was that of a man of 60 years who had been nervous from the age of 15 years. He suffered from periodic attacks of depression, with peculiar obsessions, so that although well educated and capable he was never able to do the type of work for which he was fitted but was obliged to take inferior positions and was frequently unable to do any work. Of late years he has done nothing because of this constant depression. A radiogram of his teeth revealed eleven bad ones, many of them capped and very badly abscessed. There was also present an unerupted third molar which was extracted as were all of the infected teeth. This work has but recently been done and it is yet too early to make any statement as to the results but I feel confident that in spite of his age he will recover from his nervous and mental symptoms.

Cultures made from these unerupted teeth, in all cases, gave the non-hemolytic streptococcus and from the results after extraction there can be no doubt that the cause of the trouble was in these teeth and that it was expedient to have them extracted. It is difficult to determine from the radiogram whether unerupted teeth are infected but this can even be seen in some cases and if symptoms occur which cannot be explained upon any other basis it is far better to extract them than to leave them alone and have the symptoms continue. Every suspicious tooth should be extracted.

Annual Report of the Board of Managers of the New Jersey State Hospital at Trenton

Honorable Burdette G. Lewis, Commissioner of Institutions and Agencies:

SIR—The Board of Managers of the New Jersey State Hospital, at Trenton, respectfully submits this, its annual report, concerning the conduct of the hospital for the year ended June 30th, 1919, in pursuance of Chapter 147 of the Laws of New Jersey of 1918.

Copies of the reports to the Board of the Medical Director and Warden of the hospital are transmitted herewith. Taken together, these two reports contain so full an account of the conduct of the hospital during the year, both in narrative and statistical form, that the Board's report can be little but a general summary of their contents.

The general conditions under which the work of the hospital was conducted during the year have been most unfavorable, especially the abnormal labor conditions. Both departments of the hospital have suffered at all times from shortage of employes. In the Medical Department the Medical Staff, which normally numbers eleven, was reduced to four and sometimes to three, and the Nursing Staff was at times one hundred persons short of its full quota. In the Business Department there was a corresponding shortage, and the successful operation of this department was made more difficult by the unexpected increases in wages in both departments, which became necessary from time to time in order to retain a sufficient force of employes to continue the work of the hospital. In addition, the influenza epidemic, affecting both patients and employes, was another unfavorable factor. Fortunately, there was no mortality amongst the employes and the scope of the epidemic in the hospital never assumed alarming proportions, but it did act as a deterrent factor in the efficient work of both departments for several months.

In view of the general unfavorable conditions, the work of both departments as shown in their detailed reports, is all the more remarkable.

THE WORK OF THE MEDICAL DEPARTMENT.

The work of the Medical Department for the year, as shown in the Medical Director's report, may be summarized as follows:

At the beginning of the year there were 1,898 patients under care at the hospital; during the year 699 new patients were admitted, while 37 former patients were returned to the hospital, making the total admissions during the year 736 patients. There were discharged from the hospital during the year 459 patients, 281 patients died, 9 patients were transferred, 18 patients escaped and 17 patients were on visit at the close of the year, making a total of 784 patients dismissed during the year. The net result, therefore, is a decrease of 48 patients in the population of the hospital.

Calculated over a period of the last ten years the average yearly net increase in the population of the hospital has been 50 patients, and for the last three years the average annual increase has been 99 patients. The Medical Director shows by a calculation based on the average percentage of discharges for the previous ten years and the death rate for the past year, that the present population of the hospital would have been approximately 2,001 patients had the conditions of the previous ten years continued during the past year, so that the present population of the hospital is 151 patients less than the number anticipated, in view of the past ten years' experience.

The Medical Director shows that the relation of discharges to admissions for the year, exclusive of deaths, has been 70 per cent, and the recovery rate based upon admissions 51 per cent, an increase in each instance of 23 per cent over the rate of the ten-year period.

This remarkable result is attributed to the method of treatment adopted in April, 1918, and continued during the past year, which is founded on the theory of focal infection as a cause of insanity, and described at considerable length in the Medical Director's report.

The Medical Director expresses himself as convinced that infected teeth constitute the sources or original foci of infection in a great number of cases, but that infection of the same character has frequently been found in the tonsils, and that during the past year the theory of focal infection has been developed to the extent of including the gastro-intestinal tract, the uterus, the gall bladder, the kidneys and other organs, as fruitful fields for infections of a character tending to produce insanity. He reports that in many cases the

mental condition has cleared upon the removal of infected teeth, in others recovery or improvement has followed the removal of infected teeth and the enucleation of infected tonsils, while in some cases a seat of infection has been discovered in the stomach which has been treated with an autogenous vaccine, made from bacteria found in the stomach, with highly beneficial results. The work of locating and removing infection in other organs is still in the development stage.

Much research work in searching for infection has been done during the past year, and the Medical Department has been fortunate enough to secure the services of Doctors J. W. Draper and Jerome Lynch of New York, who became members of the Consulting Staff under the title of Visiting Gastro-Enterologists. These gentlemen have visited the hospital weekly and have devoted themselves to the study of cases from the standpoint of intestinal pathology.

From the standpoint both of practical results and research work the year has been a most successful one for the Medical Department and the wisdom of the policy of centering the efforts upon the acute cases with a view of improving their conditions before they became chronic adopted several years ago, seems to be established. The eventual result hoped for is not only a great saving to the state by a reduction of the population of the hospital from year to year, but a great service to humanity at large by returning many persons to active life who otherwise would remain mere derelicts until death.

We have to note with regret the death during the past year of Doctors G. H. Parker and Paul L. Cort, two members of the Consulting Staff.

THE WORK OF THE BUSINESS DEPARTMENT

The report of the Business Department shows a highly satisfactory result. In spite of the adverse conditions above referred to, and rapidly climbing material costs, the hospital was enabled to carry on its business operation without material curtailment during the entire year, and return a balance of over \$38,000 to the State Treasury at the close of the year. This satisfactory condition is due largely to the efficient management of the Warden.

The total amount of money received and earned during the year was \$585,091.21; the expenses of operation of the hospital, including outstanding requisitions, were \$547,086.03, leaving a balance reverting to the state of \$38,005.18.

The inventory of personal property of the institution amounted to \$378,131.74, a depreciation over the previous year of approximately \$14,000. This depreciation is accounted for by the smaller coal supply on hand this year.

Attached to the Warden's Report will be found detailed schedule of the operation of the various subdivisions of his department. Attention is particularly directed to the schedules showing the amounts saved by institutional production of various articles.

In estimating the expense of production, the Warden has included not only the cost of materials and the wages and board of the persons employed, but also interest on the money invested, board and maintenance of the patients employed and a percentage for overhead expense, so that the resulting profit would seem to be an accurate calculation of the actual saving to the state. In addition, many sub-departments have been employed on work which shows no monetary profit, but accomplishes an actual saving, such as the work of the carpenter, the tailor, the upholstery department and the canning department.

The property of the hospital has been maintained in first class condition during the year and in addition to current repairs a number of badly needed extraordinary repairs and betterments to plant were made. Chief amongst these extraordinary repairs and betterments was the replacing of the steam piping in the Criminal Insane Building and the measures taken to safeguard that building against the escape of patients housed therein, and the carrying on of the scheme of fire prevention and protection adopted by the Board several years ago.

It was found during the year that the steam piping in the Criminal Insane Building was leaking badly, and it became necessary to replace the steel pipe originally installed with wrought iron pipe. In addition the Board, with the cooperation of the State House Commission, installed Pauley Jail Lock System of multiple control locks on cell tiers, numbers 1, 2 and 3 of this building. This is the locking system now in general use in the most modern penal institutions in the country, and its installation was made necessary by reason of the inefficiency of ordinary locks to prevent the escape of patients.

In addition, the wall at the northern end of the yard surrounding the building was raised six feet to prevent scaling by patients; the gate in the wall covered by sheet steel; the windows on the eastern side of the dining room covered with substantial window guards, and

the windows in the western wing provided with stops to prevent them from being opened wide enough to permit escape in this manner.

The defects in this building were noticed by the Board at the time the plans were drawn, but the Board's protests were not heeded by the State Architect and State House Commission then in office, the result was a number of escapes of patients which caused considerable unfavorable public comment and led the Board to renew its efforts to remedy these defects, this time with success.

Carrying out the comprehensive plan for fire protection adopted by the Board several years ago, a 1,500-gallon Fairbanks-Morse fire pump was installed in the boiler house during the year, two dumbwaiter shafts running from the cellar to the attic in one of the buildings were fire-proofed, sixteen fire-hose houses throughout the grounds have been built and equipped with hose and fire apparatus and a number of outside fire-proof stairways enclosed in masonry have been built leading from the second and third floors of the buildings, to the ground. A number of fire walls to prevent rapid spread of fire have also been built and the Board is now in a position to report that while the fire prevention and protection plan is not entirely finished, the danger of a great loss of life amongst the patients in case of fire has been greatly reduced, safe means of egress from the buildings are now available and means of effectually fighting and localizing fires have at last been provided. The Board has adopted the policy of providing first, those safeguards which would probably result in the saving of life, proceeding later, as funds become available, to protect the property of the Institution from fire.

NEW CONSTRUCTION

Just prior to the close of the year, an appropriation for a new Psychopathic Hospital became available, which the Board decided to use for the erection of a separate building for male patients and an addition to the Dix Building for female patients. Unfortunately the bids received for these buildings were of such an amount that it became necessary to omit one of the wings of the proposed men's building in order to keep within the appropriation. With this omission the contracts have been let and the construction of the building will undoubtedly proceed in due course.

THE INSTITUTION'S NEEDS

The hospital's most pressing need at the present time is a building to provide adequate living and dining quarters for the employees. At the present time the buildings are so crowded that it is necessary for the employees to have their meals served in the kitchens. Relief in this respect was promised by an appropriation made several years ago for a Congregate Dining Hall on the second and third floors of which living accommodations for the employees were to be provided. The use of this dining hall would have made available dining room space for the employees in other buildings. When the bids for this building came in during the past year, it was found that the appropriation was wholly inadequate and as a result the plan had to be abandoned. The need for this building is a growing one, and in the Board's judgment something should be done at once to provide for this situation. A Staff House for the accommodation of the Medical Staff is also badly needed. The Refrigerating Plant, now about twenty-five years old, is almost wholly worn out and in the Board's judgment it should be replaced by a new plant.

The floors and joists in the main building are badly worn and rotted, and should be replaced at the earliest opportunity. If this is not done, there is danger of some of the floors falling, and an appropriation from the Legislature for this purpose is urgently requested. In addition, iron fence should be built to exclude the public from the grounds of the institution. At the present time the operation of the institution is greatly hampered by the presence of unwelcome visitors strolling through the grounds. This will require an additional appropriation as well.

The Board desires to express its appreciation of the work of the Medical Director and Medical Staff, and of the Warden and Clerical Staff of the institution during the past year—as well as the work of the Secretary.

Respectfully submitted,

A. D. FORST,
GEORGE T. TRACY,
H. N. K. DENNIS,
WM. A. KLEMMANN,
PAUL M. MECRAY.

Report of the Business Department

June 30th, 1919

To the Board of Managers of the New Jersey State Hospital at Trenton:

GENTLEMEN—In compliance with the laws of the State of New Jersey, I beg to submit the annual report of the business department, including a description of fire protection work that has been done in the institution for the past few years; report of the extraordinary repairs that have been made; treasurer's report; statement of the earnings and expenses of the institution for the year; value of personal property; tabulated statements of products of the farm, garden, dairy, piggery and bakery; amount of vegetables canned, preserved and pickled; work done in the industrial shops, including dressmaking department, upholstery, tailor and carpenter shops, and the making of clothing and bedding.

TREASURER'S REPORT OF RECEIPTS AND DISBURSEMENTS FOR THE FISCAL YEAR ENDING JUNE 30, 1919

RECEIPTS

Received from State Treasurer for payrolls of Officers and Employees	\$187,820.21
Received from sundry counties for support and clothing of indigent patients	155,997.69
Received from sundry persons for support and clothing of non-indigent patients	68,848.14
Received from miscellaneous sales of farm products, etc.	7,859.05
Received from State Treasurer for Petty Cash Expense Fund	1,000.00
	<hr/> \$421,525.09

DISBURSEMENTS

Receipts transmitted to State Treasurer	\$232,704.88
Petty Cash refunded State Treasurer	1,000.00
Salaries of Officers and Employees paid	187,820.21
	<hr/> \$421,525.09

STATEMENT OF EARNINGS AND EXPENSES FOR FISCAL YEAR
ENDING JUNE 30, 1919

RECEIPTS

Amount earned and credited by State Comptroller for support of Convict, Criminal and Indigent patients, \$351,386.33

Amount received from sundry Counties for support and clothing of indigent patients:

Atlantic County	\$629.04
Bergen County	300.19
Burlington County	506.27
Camden County	535.21
Cape May County	3,349.73
Cumberland County	890.08
Essex County	570.59
Gloucester County	8,280.23
Hudson County	991.31
Hunterdon County	12,875.49
Mercer County	36,156.80
Middlesex County	31,022.15
Morris County	146.18
Monmouth County	25,386.99
Ocean County	7,443.06
Passaic County	211.35
Salem County	6,412.65
Somerset County	10,409.84
Union County	469.13
Warren County	9,411.40

\$155,997.69

Amount received from sundry persons for support and clothing of non-indigent patients 68,848.14

Amount received from persons for sale of sundry supplies, farm products, etc. 7,859.05

Petty Cash received from State Treasurer 1,000.00

\$585,091.21

EXPENSES

Salaries of Officers and Employees \$187,820.21

Operating Expenses and Supplies—

Food	154,511.38
Clothing	15,685.72
Fuel, Light and Power	63,519.35
Household Supplies	28,606.47
Farm, Stable and Grounds	32,733.34
Medical and Surgical Supplies	8,267.19
Insurance	3,574.46
Sundry Supplies	18,379.30
Incidentals	8,039.68

\$521,137.10

Requisitions Outstanding 25,948.93

\$547,086.03

Balance reverting to State \$38,005.18

The average number of patients for year ending June 30, 1919, was 1,865; the average cost per patient for year \$293.3415; and the average cost per patient per week, \$5.6412.

INVENTORY

The annual appraisalment of the personal property of the institution was made during the month of June, and the values of different products on hand were as follows:

Food	\$26,812.06
Clothing	29,417.72
Fuel, Light and Power	6,095.13
Household Supplies	203,610.42
Farm and Garden	46,518.94
Stable and Grounds	9,375.22
Medical and Surgical	18,498.90
Current Repairs	24,878.31
Miscellaneous	12,525.24
Printing and Office Supplies	399.80

Total \$378,131.74

Our inventory last year amounted to \$392,634.07. The depreciation is caused by our coal supply. Last year we had some \$25,000.00 worth of coal on hand, while this year we had only \$6,095.13. If we had the same amount of coal on the premises this year as we did last year, our inventory would have amounted to more than it did in 1918.

The inventory was taken by Messrs. John W. Hendrickson and Howard B. Tindell, who were appointed by the Board of Managers to assist the Warden in making the appraisalment, and deserve commendation for their services.

LIBRARY FUND—INVESTMENTS, RECEIPTS AND DISBURSEMENTS FOR THE FISCAL YEAR ENDING JUNE 30, 1919

INVESTMENTS AND RECEIPTS

Bond and Mortgage	\$3,500.00
Bond and Mortgage	1,500.00
Liberty Bond	1,000.00
	\$6,000.00
Balance in Bank (Mechanics National)	125.00
Interest on Liberty Bond	14.90
Interest on Bond, \$3,500.00, ½ year at 5%	87.50
Interest on Bond, 1,500.00, ½ year at 5%	37.50
Interest on Bond, 3,500.00, ½ year at 5%	87.50
Interest on Bond, 1,500.00, ½ year at 5%	37.50
	\$6,389.90

DISBURSEMENTS

C. L. Traver	\$50.27
W. B. Saunders & Co.	5.00
New Era Printing Co.	14.84
P. Blakiston's Son Co.	17.50
P. Blakiston's Son Co. ....	.70
C. L. Traver	53.51
W. B. Saunders & Co.	19.00
William Wood	5.00
Boston Medical and Surgical Journal	5.00
American Medical Association	10.00
The Journal of Infectious Diseases	5.00
The Bruce Publishing Co.	3.70
Lea & Febiger	18.50
Rockefeller Institute for Medical Research	5.00
American Medical Association	4.00
The Rockefeller Institute	5.00
Wm. Wood & Co.	5.00
W. B. Saunders & Co.	7.50
	<u>\$234.52</u>
Balance	\$6,155.38
Bonds and Mortgages.....	\$5,000.00
Liberty Loan Bond.....	1,000.00
Cash in Bank	155.38
	<u>\$6,155.38</u>

SEWING ROOM REPORT FOR YEAR ENDING JUNE 30, 1919

MATERIAL USED

7 Pcs. Webbing	\$0.50	\$3.50
293½ Yds. Cheviot .....	.35	102.64
82 Yds. Table Damask .....	.65	53.30
2 Papers Needles .....	.05	.10
1 Box Machine Needles	1.30	1.30
2 Papers Darning Needles .....	.05	.10
1 Paper Pins .....	.06	.06
87 Doz. Cotton .....	.50	43.50
112 Doz. Cotton .....	.60	67.20
75½ Yds. Ruching .....	.20	15.10
8 Boxes Stay Binding .....	.80	6.40
4 Boxes Stay Binding	1.00	4.00
7 Doz. Darning Cotton .....	.25	1.75
199½ Yds. 10/4 Bleached Muslin .....	.70	139.65
36½ Yds. 4/4 Bleached Muslin .....	.19	6.89
282½ Yds. 4/4 Bleached Muslin .....	.275	77.69
2,132½ Yds. 4/4 Bleached Muslin .....	.225	479.87
162½ Yds. 7/4 Bleached Muslin .....	.48	78.12
6,187 Yds. 7/4 Unbleached Muslin .....	.50	3,093.50

4,384 Yds. 7/4 Unbleached Muslin	\$0.48	\$2,104.32
1,608½ Yds. 4/4 Unbleached Muslin .....	.31	498.64
1,083 Yds. 4/4 Unbleached Muslin .....	.22	238.26
3,105 Yds. 4/4 Unbleached Canton Flannel .....	.35	1,086.75
2,530½ Yds. 4/4 Unbleached Canton Flannel .....	.325	822.33
1,642 Yds. 4/4 Unbleached Canton Flannel .....	.225	369.45
7,227½ Yds. 4/4 Unbleached Canton Flannel .....	.245	1,770.80
4,291 Yds. Crash Toweling .....	.30	1,287.30
1,500 Yds. Crash Toweling .....	.21	315.00
11½ Yds. Ticking .....	.42	4.94
1,608 Yds. White Toweling .....	.275	442.20
8½ Yds. Pure Table Linen	2.00	17.00
68 Gro. Porcelain Buttons .....	.07½	5.38
48 Doz. Pearl Buttons .....	.033	1.58
7 Gro. Large Bone Buttons .....	.66½	4.66
18 Gro. Large Bone Buttons .....	.60	10.80
8 Gro. Small Bone Buttons .....	.58½	4.67
8 Gro. Small Bone Buttons .....	.50	4.00
		<u>\$13,162.75</u>

EXPENSE

Wages of three (3) employees	\$932.00
Board of employees	600.00
Board for 4 patients for 12 months....	720.00
5% of material for overhead expense...	658.14
	<u>\$16,132.89</u>

Total value of articles produced	\$17,706.00
Total expense of articles produced	16,132.89

Amount saved by institutional production	\$1,573.11
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FINISHED PRODUCTS

752 Unbleached Sheets	\$1.35	\$1,015.20
183 Unbleached Sheets	1.40	256.20
2,480 Unbleached Sheets	1.45	3,596.00
595 Unbleached Sheets	1.50	892.50
81 Unbleached Pillow Cases .....	.36	29.16
2,697 Unbleached Pillow Cases .....	.45	1,213.65
1,763 Men's Outer Shirts	1.10	1,939.30
196 Chemise .....	.85	166.60
557 Chemise .....	.90	501.30
55 Chemise	1.00	55.00
512 Men's Underdrawers	1.00	512.00
634 Men's Underdrawers	1.25	792.50
496 Men's Undershirts	1.00	496.00
782 Men's Undershirts	1.25	977.50
214 Petticoats	1.25	267.50
1,274 Bath Towels .....	.35	445.90
1,084 Bath Towels .....	.37	401.08

1,669	Bath Towels	.....	\$0.38	\$634.22
364	Dish Towels	.....	.37	134.68
115	Roller Towels	.....	.85	97.75
488	Roller Towels	.....	.90	439.20
527	Women's Aprons	.....	.45	237.15
12	Women's Aprons	.....	.65	7.80
17	Bleached Pillow Cases	.....	.35	5.95
240	Bleached Pillow Cases	.....	.42	100.80
65	Bleached Sheets	.....	1.35	87.75
40	Bleached Sheets	.....	1.45	58.00
12	Bleached Sheets	.....	1.50	18.00
291	Hospital Shirts	.....	1.10	320.10
305	Men's White Aprons	.....	.40	122.00
36	Men's White Aprons	.....	.50	18.00
6	Men's White Aprons	.....	.60	3.60
12	Men's White Aprons	.....	.75	9.00
154	Men's Burial Drawers	.....	.85	130.90
133	Women's Burial Robes	.....	1.65	219.45
132	Women's Burial Skirts	.....	.85	112.20
132	Women's Burial Chemise	.....	.90	118.80
282	Women's Undershirts	.....	1.00	282.00
48	Women's Night Gowns	.....	1.00	48.00
25	Women's Night Gowns	.....	1.25	31.25
972	Attendants' Towels	.....	.36	349.92
204	Attendants' Towels	.....	.38	77.52
80	Double Bleached Sheets	.....	2.20	176.00
8	Dresser Cloths	.....	.45	3.60
13	Surgeons' Gowns	.....	2.17	28.21
5	Nurses' Gowns	.....	1.86	9.30
12	Laboratory Aprons	.....	.95	11.40
6	Bath Hammocks	.....	3.90	23.40
15	Prs. Baker's Gloves	.....	.36	5.40
261	Men's Cheviot Aprons	.....	.55	143.55
6	Bleached Bolster Cases	.....	1.15	6.90
1	Couch Cover	.....	1.23	1.23
3	Table Cloths	.....	.82	2.46
3	Table Cloths	.....	.99	2.97
3	Table Cloths	.....	1.23	3.69
2	Table Cloths	.....	1.50	3.00
6	Table Cloths	.....	2.85	17.10
8	Table Cloths	.....	3.22	25.76
2	Table Cloths	.....	10.30	20.60
Total Value of Products				\$17,706.00

DRESSMAKER'S REPORT FOR THE YEAR ENDING JUNE 30, 1919

FINISHED PRODUCTS			
124	Percal Dresses	.....	\$2.50 \$310.00
499	Percal Dresses	.....	3.00 1,497.00
33	Cheviot Dresses	.....	3.00 99.00
165	Cheviot Dresses	.....	3.50 577.50
10	Cheviot Skirts	.....	2.00 20.00
70	Gingham Dresses	.....	3.25 227.50
312	Gingham Dresses	.....	4.25 1,326.00
1	Gingham Skirt	.....	1.75 1.75
	Making 3 Private Dresses	.....	2.00 6.00
	Making 8 Private Dresses	.....	1.75 14.00
9	Sacques	.....	1.00 9.00
1	Percal Skirt	.....	1.50 1.50
615	Women's Drawers	.....	.75 461.25

Value of Products \$4,550.50

MATERIAL USED			
1,197½	Yds. 4/4 Unbleached Muslin	.....	\$0.22½ \$269.38
150½	Yds. 4/4 Unbleached Muslin	.....	.31 46.06
34	Doz. White Cotton	.....	.50 17.00
36	Doz. White Cotton	.....	.60 21.60
266	Yds. Percal	.....	.16 42.56
3,429½	Yds. Percal	.....	.25 857.44
379½	Yds. Gingham	.....	.145 55.03
790	Yds. Gingham	.....	.30 237.00
936½	Yds. Gingham	.....	.275 257.54
109	Doz. Buttons—Plain	.....	.04½ 5.27
791½	Yds. Cheviot	.....	.35 277.03
321	Yds. Cheviot	.....	.30 96.30
213	Doz. Hooks and Eyes	.....	.042 8.95
45	Doz. Buttons	.....	.08½ 3.75
2½	Gro. Buttons	.....	1.00 2.50
72	Doz. Buttons	.....	.04 2.88
563	Yds. 4/4 Unbleached Muslin	.....	.245 137.94
9	Yds. 4/4 Bleached Muslin	.....	.27 2.43
719½	Yds. Gingham	.....	.275 197.86
3	Doz. Buttons	.....	.042 .13
66	Doz. Buttons	.....	.083 5.48
10	Doz. Buttons	.....	.033 .33
152	Doz. Buttons	.....	.083 12.62

Cost of material	.....	\$2,557.68
Salary and support of Dressmaker	.....	640.00
Maintenance of 3 patients	.....	540.00
10% of material for overhead expense	.....	255.77

Total cost \$3,993.45

Amount saved by institutional production \$557.05

REPORT OF FRUITS AND VEGETABLES CANNED, JELLIES, PRESERVES, ETC., MADE, FOR THE YEAR ENDING JUNE 30, 1919

62	Quarts	Beans, Lima.
6,590	Quarts	Beans, String.
281	Quarts	Beans, Wax.
35	Quarts	Beets.
132	Quarts	Blackberries.
144½	Quarts	Catsup.
49½	Quarts	Chili Sauce.
87	Quarts	Cherries.
50	Quarts	Chow Chow.
230	Quarts	Corn.
154	Quarts	Green Gages.
282	Quarts	Huckleberries.
16,175	Quarts	Peaches.
4,613	Quarts	Pears.
35	Quarts	Pickles.
226	Quarts	Pineapple.
66	Quarts	Plums, Damsen.
8	Quarts	Peaches Preserved.
90	Quarts	Strawberries.
2,495	Quarts	Tomatoes, Yellow.
25,386	Quarts	Tomatoes, Red.
22	Quarts	Watermelon Rind.
45	Quarts	Kohl Rabi.
10	Quarts	Onions.
12	Quarts	Asparagus.
20	Quarts	Peas.
4	Quarts	Peppers.
32	Quarts	Rhubarb.
16	Quarts	Apple Sauce.
10	Quarts	Sweet Mixed Pickle.
29	Quarts	Green Tomatoes.
9	Quarts	India Relish.
9	Quarts	Mustard Pickles.
14	Quarts	Cucumbers.
156	Quarts	Apple Jelly.
41	Quarts	Grape Jelly.
24	Glasses	Apple Jelly.
63	Glasses	Gooseberry Jelly.
210	Glasses	Grape Jelly.
16	Glasses	Raspberry Jelly.

Total number of quarts 57,621

Total number of glasses 313

BAKERY REPORT FOR THE YEAR ENDING JUNE 30, 1919

PRODUCTS			
309,264	Lbs.	Bread	\$0.075 \$23,194.80
353,209	Lbs.	Bread	.08 28,256.72
41	Lbs.	Molasses Cake	.15 6.15
Value of Production			\$51,457.67

MATERIAL USED			
251	Lbs.	Yeast	\$0.25 \$62.75
638	Lbs.	Yeast	.30 191.40
1,956	Lbs.	Salt	.0085 16.63
1,356	Lbs.	Salt	.01 13.56
743	Lbs.	Salt	.01125 8.42
3,639	Lbs.	Salt	.01175 42.76
370	Lbs.	Sugar	.069 25.53
2,507	Lbs.	Sugar	.0795 199.31
2,338	Lbs.	Sugar	.092 215.10
251	Lbs.	Sugar	.077 19.33
156,691	Lbs.	Wheat Flour	.0545 8,539.66
33,020	Lbs.	Wheat Flour	.0548 1,809.50
116,786	Lbs.	Wheat Flour	.0607 7,088.91
28,440	Lbs.	Wheat Flour	.0584 1,660.90
63,484	Lbs.	Rye Flour	.0535 3,396.40
47,437	Lbs.	Whole Wheat Flour	.0586 2,779.81
1,475	Lbs.	Corn Meal	.0566 83.49
1	Gal.	Molasses	.70 .70
1	Doz.	Eggs	.4855 .49
159	Lbs.	Lard	.27 42.93
384	Lbs.	Lard	.28 107.52
310	Lbs.	Lard	.30 93.00

Cost of Material \$26,398.10

EXPENSES	
Fuel	\$384.47
Baker's Salary	1,160.00
Baker's Board	156.00
Patients' Board	552.00
Insurance	6.00
Electric Light and Power	63.66
Depreciation on Machinery, Buildings, etc., \$7,000 at 5%,	350.00
Interest on Buildings, Machinery, etc., \$7,000 at 5%	350.00
Cost of Delivery System—	
Time, Labor and Depreciation of Horse, Wagon and Harness—10% of \$370—Value of Horse, etc.,	
Driver's Time and Horse Feed	328.32

Total Cost \$29,748.55

Amount saved by Institutional Production \$21,709.12

GARDEN REPORT—FROM MARCH 1, 1918, TO FEBRUARY 28, 1919

60	Quarts	Gooseberries	\$0.18	\$10.80
85	Bbls.	Cabbage	1.25	106.25
346	Bbls.	Cabbage	1.50	519.00
59	Bbls.	Cabbage	1.75	103.25
77	Bbls.	Cabbage	2.00	154.00
14	Bbls.	Cabbage	3.00	42.00
8,500	Heads	Cabbage	.10	850.00
4,500	Heads	Cabbage	.06	270.00
71	Baskets	Tomatoes, Red	.30	21.30
1,456	Baskets	Tomatoes, Red	.40	582.40
788	Baskets	Tomatoes, Red	.50	394.00
1,673	Baskets	Tomatoes, Red	.60	1,003.80
608	Baskets	Tomatoes, Red	.65	395.20
388	Baskets	Tomatoes, Red	.75	291.00
160	Baskets	Tomatoes, Red	1.00	160.00
28	Baskets	Tomatoes, Red	1.75	49.00
30	Bunches	Carrots	.03	.90
10	Bunches	Carrots	.03½	.35
428	Bunches	Carrots	.04	17.12
20	Bunches	Carrots	.05	1.00
60	Bunches	Carrots	.08	4.80
10	Bunches	Carrots	.10	1.00
33	Baskets	Carrots	.45	14.85
1,202	Baskets	Carrots	.50	601.00
255	Baskets	Peas	.80	204.00
354	Baskets	Peas	.85	300.90
304	Baskets	Peas	1.00	304.00
173	Baskets	Peas	1.50	259.50
112	Baskets	Peas	1.90	212.80
865	Bunches	Parsley	.01½	12.98
10	Bunches	Parsley	.02	.20
70	Bunches	Parsley	.04	2.80
25	Bunches	Parsley	.10	2.50
33	Bunches	Kohl Rabi	.04	1.32
69	Bunches	Kohl Rabi	.05	3.45
11	Baskets	Cucumbers	.65	7.15
16	Baskets	Cucumbers	.75	12.00
5	Baskets	Cucumbers	1.00	5.00
8	Baskets	Cucumbers	1.25	10.00
23	Baskets	Cucumbers	1.50	34.50
102	Baskets	Squash	.40	40.80
94	Baskets	Squash	.50	47.00
157	Baskets	Squash	.60	94.20
3	Baskets	Peppers	.30	.90
3	Baskets	Peppers	.35	1.05
3	Baskets	Peppers	.40	1.20
33	Baskets	Peppers	.50	16.50
1	Basket	Peppers	.80	.80
1	Basket	Peppers	.85	.85
2,656	Pints	Raspberries	.12	318.72
2,171	Pints	Raspberries	.15	325.65
64	Pints	Raspberries	.17	10.88

284	Pints	Raspberries	\$0.20	\$56.80
174	Baskets	Lima Beans	.85	113.10
352	Baskets	Lima Beans	.90	316.80
136	Baskets	Lima Beans	1.40	190.40
42	Baskets	Lima Beans	1.50	63.00
42	Baskets	Lima Beans	1.75	112.00
37	Baskets	Lima Beans	2.00	74.00
2	Baskets	Lima Beans	2.75	5.50
332	Baskets	String Beans	.40	132.80
85	Baskets	String Beans	.50	42.50
81	Baskets	String Beans	.60	48.60
349	Baskets	String Beans	.75	261.75
199	Baskets	String Beans	1.00	199.00
36	Baskets	String Beans	1.25	45.00
65	Baskets	String Beans	1.50	97.50
9	Baskets	String Beans	1.90	17.10
18	Tons	Pumpkins	12.50	225.00
310	Heads	Endive	.05	15.50
632	Baskets	Turnips	.30	189.60
7	Baskets	Egg Plant	.90	6.30
25	Bunches	Asparagus	.14	3.50
55	Bunches	Asparagus	.15	8.25
65	Bunches	Asparagus	.20	13.00
260	Bunches	Asparagus	.22	59.80
2,061	Bunches	Asparagus	.25	515.25
225	Bunches	Asparagus	.30	67.50
60	Bunches	Asparagus	.32	19.20
475	Bunches	Asparagus	.34	161.50
20	Bunches	Asparagus	.40	8.00
110	Bunches	Asparagus	.31	34.10
254½	Bunches	Rhubarb	.02½	6.35
259½	Bunches	Rhubarb	.03	7.78
1,475	Bunches	Rhubarb	.04	59.00
502½	Bunches	Rhubarb	.05	25.13
250	Bunches	Rhubarb	.06	15.00
147½	Bunches	Rhubarb	.07	1.02
91½	Bunches	Radishes	.05	4.58
62½	Bunches	Radishes	.06	3.75
808½	Bunches	Radishes	.04	32.33
4½	Bunches	Radishes	.04½	.19
306½	Bunches	Radishes	.05	15.31
395½	Bunches	Radishes	.02½	9.89
687	Bunches	Radishes	.02	13.74
40	Bunches	Radishes	.05	2.00
225	Bunches	Radishes	.02½	5.63
1,970	Bunches	Radishes	.02	39.40
30	Bunches	Radishes	.01	.30
37	Heads	Cauliflower	.22	8.14
15	Heads	Cauliflower	.23	3.45
10	Heads	Cauliflower	.24	2.40
316	Bushels	Spinach	.70	221.20
85	Bushels	Spinach	.75	63.75
1	Bushel	Spinach	.80	.80
142	Quarts	Strawberries	.10	14.20

738	Quarts	Strawberries	.....	\$0.15	\$110.70
148	Quarts	Strawberries	.....	.16	23.68
1,800	Quarts	Strawberries	.....	.20	360.00
1,866	Quarts	Strawberries	.....	.24	447.84
646	Quarts	Strawberries	.....	.30	193.80
311	Baskets	Swiss Chard	.....	.30	93.30
1,044	Baskets	Swiss Chard	.....	.35	365.40
16,890	Ears	Corn	.....	.02	337.80
6,860	Ears	Corn	.....	.02½	154.35
27,756	Ears	Corn	.....	.02½	698.90
15,300	Ears	Corn	.....	.02½	420.75
4,400	Ears	Corn	.....	.03	132.00
31	Baskets	Yellow Tomatoes	.....	.25	7.75
88	Baskets	Yellow Tomatoes	.....	.50	44.00
22	Baskets	Yellow Tomatoes	.....	1.00	22.00
60	Baskets	Grapes	.....	.50	30.00
6	Baskets	Grapes	.....	.60	3.60
14	Baskets	Grapes	.....	.80	11.20
11	Baskets	Grapes	.....	.90	9.90
1,998	Bunches	Green Onions	.....	.02	39.96
785	Bunches	Green Onions	.....	.02½	19.63
1,139½	Bunches	Green Onions	.....	.03	34.19
120	Bunches	Green Onions	.....	.04	4.80
170	Bunches	Green Onions	.....	.10	17.00
1,039	Baskets	Onions	.....	.65	675.35
378	Baskets	Onions	.....	1.25	472.50
26	Heads	Lettuce	.....	.04	1.04
475	Heads	Lettuce	.....	.05	23.75
36	Heads	Lettuce	.....	.08	2.88
1,191	Heads	Lettuce	.....	.10	119.10
47½	Baskets	Lettuce	.....	.35	16.63
73	Baskets	Lettuce	.....	.50	36.50
89	Baskets	Lettuce	.....	.60	53.40
30	Baskets	Lettuce	.....	.70	21.00
127	Baskets	Lettuce	.....	.75	95.25
90	Baskets	Lettuce	.....	.85	76.50
146	Baskets	Lettuce	.....	.90	131.40
187	Baskets	Lettuce	.....	1.25	233.75
175	Bunches	Beets	.....	.08	14.00
175	Bunches	Beets	.....	.05	8.75
885	Bunches	Beets	.....	.04	35.40
28	Baskets	Beets	.....	.65	18.20
28	Baskets	Beets	.....	.75	21.00
98	Baskets	Beets	.....	.60	58.80
1,078	Baskets	Beets	.....	.40	431.20
234	Baskets	Beets	.....	.50	117.00
500	Lbs.	Horseradish	.....	.06½	32.50
290	Baskets	Kale	.....	.45	130.50
370	Bunches	Leeks	.....	.01	3.70
37	Baskets	Onion Sets	.....	1.25	46.25
800	Baskets	Parsnips	.....	.40	320.00
5	Baskets	Brussels Sprouts	.....	2.40	12.00
1,200	Heads	Celery	.....	.07	84.00
20,000	Stalks	Celery	.....	.05	1,000.00
550	Bunches	Herbs	.....	.04	22.00
					\$19,374.26

EXPENSES

2	Tons	Fertilizer	.....	\$49.75	\$99.50
2	Tons	Fertilizer	.....	30.00	60.00
100	Lbs.	Arsenic of Lead	.....	.33	33.00
850	Lbs.	Nitrate of Soda	.....	.....	22.44
20	Bu.	Rye	.....	1.75	35.00
				Manure	945.66
				Seeds and Sets	537.25
				Keep of four horses	884.00
				Board, clothing and household supplies of patients	2,516.90
				Wages of garden help	3,234.18
				Board of garden help	578.00
				Horseshoeing, wear and tear	470.00
				New tools and harness	260.00
				Interest on investment for land, buildings, stock and machinery—\$20,500 at 5%...	1,025.00
				Insurance on value of stock, tools and machinery—\$3,000 at 38½ cents	11.60
					\$10,712.53

Total profit on garden for the year..... \$8,661.73

Value of real estate, stock and equipment—March 1, 1918..... \$17,078.80
Value of real estate, stock and equipment—March 1, 1919..... 16,780.30

Showing a depreciation of \$298.50

FARM REPORT—FROM MARCH 1, 1918, TO FEBRUARY 28, 1919

32	Tons	Timothy Hay	.....	\$27.00	\$864.00
96	Tons	Mixed Hay	.....	26.00	2,496.00
17	Tons	Second Crop Hay	.....	21.00	357.00
650	Tons	Silage	.....	10.00	6,500.00
800	Bu.	Wheat	.....	2.20	1,760.00
30	Tons	Wheat Straw	.....	14.00	420.00
6,494	Bu.	Potatoes	.....	1.70	11,039.80
2,850	Lbs.	Pumpkins	.....	.01½	42.75
3,793	Lbs.	Eggs	.....	.47363	149.67
116	Lbs.	Chicken	.....	.30	34.80
100	Lbs.	Arsenic of Lead—Garden..	.....	.33	33.00
20	Bu.	Rye	.....	1.75	35.00
4,000	Ears	Sweet Corn	.....	2.50	100.00
70	Baskets	Tomatoes	.....	.65	45.50
18	Baskets	Lima Beans	.....	1.00	18.00
7	Baskets	Onions	.....	.80	5.60
3	Baskets	Pears	.....	1.25	3.75
12	Baskets	Wax Beans	.....	1.00	12.00
6	Baskets	Beets	.....	.60	3.60
6	Baskets	Grapes	.....	.60	3.60
12	Baskets	Keiffer Pears	.....	.50	6.00
7	Baskets	Cucumbers	.....	.75	5.25
5	Baskets	Cherries	.....	1.50	7.50
30	Bunches	Asparagus	.....	.30	9.00
200	Bunches	Radishes	.....	.02	4.00

103	Quarts	Strawberries	\$0.20	\$20.60
300	Roots	Celery .....	.05	15.00
4	Bbls.	Cabbage	2.00	8.00
7	Baskets	Lettuce .....	.75	5.25
4	Baskets	Egg Plants .....	.90	3.60
52	Weeks	Board	5.00	260.00
17½	Days	Labor—carting feed, hay, straw, etc., to dairy....	5.00	88.75
30	Days	Labor—carting feed, coal and doing other work at piggery	5.00	150.00
22½	Days	Labor killing hogs at pig- gery	1.87	42.07
42	Days	Labor—hauling wood and coal with team to Hos- pital	5.00	210.00
41	Days	Labor—hauling wood, coal and grading at the Crim- inal Insane Building....	3.40	139.40
40	Acres	Pasture—Dairy	5.00	200.00
				\$25,098.49

EXPENSES

25½	Tons	Fertilizer	\$1,406.46	
300	Lbs.	Arsenic of Lead	\$0.33	99.00
1,200	Lbs.	Kiltone .....	.14	168.00
49	Gal.	Lime Sulphur .....	.20	9.80
40	Tons	Lime	6.00	240.00
420	Bu.	Potatoes	2.35	1,010.50
400	Lbs.	Binder Twine .....	.27	108.00
545	Lbs.	Fence Wire .....	.06½	36.79
14,200	Lbs.	Coal		87.55
300	Gal.	Gasoline .....	.22	66.00
		Manure	3,304.05	
		Seeds	702.98	
		Feed and hay for 8 horses...	221.00	1,768.00
		Feed for chickens		120.63
		Wages of employees	3,150.00	
		Horseshoeing and repairing wagons..	237.80	
		New machinery	1,492.09	
		Board of 9 patients....\$130 per yr.		1,170.00
		Clothing of 9 patients.. 35 per yr.		315.00
		House supplies for 9 patients	12 per yr.	108.00
		Board of employees		1,447.50
		Household supplies		50.00
		Extra labor (ensilage)		337.75
		Interest on investment of \$50,000 at 5%—land, buildings, stock and machinery		2,500.00
		Insurance on buildings, stock, ma- chinery, etc.—\$18,000 at 38½ cents		69.60
		Wear and tear on implements, etc...		800.00
				\$20,805.50
Total profit on farm for the year ..				\$4,292.99

Value of real estate, stock and equipment, March 1, 1919.....	\$55,351.35
Value of real estate, stock and equipment, March 1, 1918.....	55,191.41

Showing an appreciation of \$159.94

DAIRY REPORT—FROM MARCH 1, 1918, TO FEBRUARY 28, 1919

217,589	Quarts	Milk produced...	\$0.09	\$19,583.01
101,588	Quarts	Milk produced...	.10½	10,666.74
				\$30,249.75
319,177	Lbs.	Beef slaughtered, .249		\$2,319.43
5,540	Lbs.	Beef slaughtered, .26		1,440.40
2,530	Lbs.	Beef slaughtered, .25		632.50
				4,392.33
24		Calves sold		352.00
10		Cows sold		510.00
1,676	Lbs.	Hides	\$0.16	\$268.16
445	Lbs.	Hides .....	.12	53.40
				321.56
5,242	Lbs.	Tankage and Bones		67.73
180	Bunches	Rhubarb	\$0.04	7.20
89	Bunches	Asparagus .....	.25	22.25
208	Quarts	Strawberries .....	.18	37.44
14	Baskets	Lettuce .....	.77½	10.80
62	Baskets	String Beans .....	.66	40.92
365	Bunches	Onions .....	.02	7.30
801	Bunches	Radishes .....	.01	8.01
6	Baskets	Cucumbers	1.00	6.00
108	Bunches	Beets .....	.08	8.64
22	Baskets	Beets .....	.45	9.90
16	Baskets	Pears .....	.50	8.00
4½	Baskets	Onions .....	.80	3.60
268	Bunches	Kohl Rabi .....	.04	10.72
21½	Baskets	Pears	1.00	21.25
43	Baskets	Swiss Chard .....	.45	19.35
2,982	Ears	Sweet Corn .....	.02½	82.01
12½	Bbls.	Cabbage	1.65	20.63
2	Baskets	Peppers .....	.47½	.95
52	Baskets	Lima Beans	1.45	75.40
40	Baskets	Squash .....	.39	15.60
15	Baskets	Egg Plant .....	.90	13.50
185	Baskets	Tomatoes .....	.55	101.75
12	Baskets	Grapes .....	.88½	10.60
1½	Bushels	Pop Corn	2.00	2.50
25	Baskets	Cantaloupes .....	.75	18.75
125		Water Melons .....	.30	37.50
84	Heads	Endive .....	.05	4.20
100	Bunches	Leek .....	.01	1.00
5	Bbls.	Cauliflower	4.00	20.00
14	Baskets	Kale .....	.45	6.30
12	Baskets	Carrots .....	.50	6.00
2,000	Roots	Celery .....	.05	100.00
		Manure from 80 head of cattle	24.00	1,920.00
		Manure from 40 heifers	12.00	480.00
				\$39,031.44

940	Lbs.	Lard	.....	\$0.33	\$310.20
4,296	Lbs.	Lard	.....	.30	1,288.80
1,794	Lbs.	Lard	.....	.29	520.26
4,137	Lbs.	Hams	.....	.33	1,365.21
857	Lbs.	Hams	.....	.34	291.38
1,193	Lbs.	Hams	.....	.36	429.48
998	Lbs.	Salt Pork	.....	.35	349.30
522	Lbs.	Salt Pork	.....	.25	130.50
1,036	Lbs.	Salt Pork	.....	.26	269.36
430	Lbs.	Salt Pork	.....	.30	129.00
753	Lbs.	Salt Pork	.....	.32	240.96
296	Lbs.	Pigs Feet	.....	.14	41.44
330	Lbs.	Pigs Feet	.....	.16	52.80
248	Lbs.	Pigs Feet	.....	.20	49.60
435½	Lbs.	Pigs Feet	.....	.17	74.04
1,825	Lbs.	Sausage	.....	.36	657.00
1,680	Lbs.	Sausage	.....	.35	588.00
4,200	Lbs.	Sausage	.....	.295	1,239.00
969	Lbs.	Scrapple	.....	.14	135.66
1,793	Lbs.	Scrapple	.....	.16	286.88
8,105	Lbs.	Scrapple	.....	.105	851.04
509	Lbs.	Bacon	.....	.45	229.05
1,178	Lbs.	Bacon	.....	.42	494.76
111	Lbs.	Kidneys	.....	.25	27.75
17	Lbs.	Kidneys	.....	.10	1.70
					<hr/>
					\$12,461.29

EXPENSES

Materials used in making Sausage—					
141	Lbs.	Salt	.....	\$1.53	
35	Lbs.	Pepper	.....	11.53	
2,100	Lbs.	Beef	.....	503.84	
Materials used in making Scrapple—					
55½	Lbs.	Salt	.....	.61	
290	Lbs.	Buckwheat	.....	21.65	
18½	Lbs.	Pepper	.....	5.84	
1,120	Lbs.	Corn Meal	.....	51.69	
		Labor making sausage and scrapple.....		160.80	
		Fuel and power	.....	10.00	
					<hr/>
					\$767.31
41,426	Lbs.	Pork sold to the Hospital	.....	9,366.75	
					<hr/>
					\$10,134.06
Saving to the Institution by utilizing pork.....					
					\$2,327.23
Net profit from Piggery					
					1,292.11
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Total profit by raising and manufacturing our pork					
for use at the Institution					
					\$3,529.34

REPORT OF GREENHOUSE FROM MARCH 1, 1918, TO FEBRUARY 28, 1919

CUT FLOWERS

18,395		Carnations	.....	\$0.05	\$919.75
2,000		Chrysanthemums	.....	.15	300.00
120	Doz.	Chrysanthemums and Pompons	....	.30	36.00
400		Callas	.....	.10	40.00
332	Doz.	Dahlias	.....	.45	149.40
1,100		Roses	.....	.03	33.00
336	Doz.	Snapdragon	.....	1.00	336.00
85	Doz.	Mixed Flowers	.....	.25	21.25

PLANTS

500		Ferns	.....	.50	250.00
300		Begonias	.....	.30	90.00
350		Cinerarias	.....	.30	105.00
1,200		Geraniums	.....	.10	120.00
800		Cannas	.....	.10	80.00
2,000		Pansies	.....	.03	60.00
800		Coleus	.....	.04	32.00
500		Hardy Perennials	.....	.06	30.00
400		Annuals-Salvia Zimia, etc.	.....	.06	24.00
					<hr/>
					\$2,626.40

EXPENSE

13½	Tons	Egg Coal	.....	\$7.85	\$104.01
2	Tons	Soft Coal	.....	5.50	11.00
50	Lbs.	Tobacco Dust	.....	.10	5.00
2	Lbs.	Black Leaf No. 40	.....	1.25	2.50
4	Ft.	Rubber Hose, ½-inch	.....	.20	.80
4	Tons	Manure	.....	4.35	17.40
1½	Days	One team and one cart—carting soil.....			9.32
		Florist's house, vegetables used by Florist			
		and two-thirds of Florist's time devoted to			
		greenhouse			800.00
		Florist Helper—two-thirds of time devoted to			
		greenhouse			496.00
		One patient's time, 6 months.....		15.50	93.00
					<hr/>
					\$1,539.03
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Total profit on greenhouse					
					\$1,087.37

TABLE 1—GENERAL INFORMATION

Data correct at end of institution year June 30, 1919

1. Date of opening as an institution for the insane May 15, 1848.			
2. Type of institution: State, county, endowed private, or unendowed private? State.			
3. Hospital plant			
Value of hospital property—			
Real estate including buildings			\$2,052,930.65
Personal Property			378,131.74
Total			\$2,431,062.39
Total acreage of hospital property (includes grounds, farm and garden and sites occupied by buildings) ..			462
Acreage under cultivation during previous year			250
4. Medical service—			
	Men	Women	Total
Superintendents	1	...	1
Assistant physicians	8	1	9
Medical internes .....	...	...	...
Clinical assistants .....	...	...	...
Total physicians .....	...	...	...
5. Employees on pay roll (not including physicians)—			
Graduate nurses .....	...	4	4
Other nurses and attendants	70	68	138
All other employes	108	55	163
Total employes	178	127	305
6. Patients employed in industrial classes or in general hospital work on date of report	110	48	158
7. Patients in institution on date of report (excluding paroles)	1044	854	1898

TABLE 2—FINANCIAL STATEMENT FOR THE FISCAL YEAR
ENDING JUNE 30, 1919

RECEIPTS

1. For maintenance of patients—	
Balance on hand from previous fiscal year	
From appropriations	\$507,384.02
From paying patients	68,848.14
From all other sources	8,859.05
Total receipts for maintenance	\$585,091.21
2. For all purposes other than maintenance, including new buildings, additions, improvements, etc.—	
Balance on hand from previous fiscal year	
From all other sources	
Total receipts	\$585,091.21

DISBURSEMENTS

1. Expenditures for maintenance of patients. (Under this heading should be included, as outlined in the ten subheads, all items covering maintenance of patients as such, and of plant, i. e., supplies and repairs intended to keep the plant in its present condition or to restore it to its former condition)—	
Salaries and wages	\$187,820.21
Provisions	154,511.38
Farm, stable and grounds	32,733.34
Clothing	15,685.72
Household supplies	28,606.47
Fuel and light	63,519.35
Insurance	3,574.46
Medical supplies	8,267.19
Sundry supplies	18,379.30
Incidentals, including general supplies, lawns, roads, grounds, etc.	8,039.68
Total expenditures for maintenance	\$521,137.10
2. Expenditures for all purposes other than maintenance, including new buildings, additions, improvements, etc. (Under this heading should be placed all expenditures for items, such as additional land [bought or reclaimed], new buildings, new equipment [not replacements], etc., which represent, not restorations but improvements or additions to plant)	
Total expenditures	\$521,137.10
Amount returned to state treasurer or other officials	38,005.18
Outstanding requisitions (includes balance for maintenance and for all other purposes)	25,948.93
Total disbursements, including balance on hand. (This item should equal total receipts)	\$585,091.21

TABLE 3—MOVEMENT OF INSANE PATIENT POPULATION

For year beginning July 1, 1918, and ending June 30, 1919

	Males	Females	Total
1. Insane patients on books of institution at beginning of institution year	1133	935	2068
Admissions during year—			
a—First admissions	331	278	609
b—Readmissions	48	42	90
Total admissions	379	320	699
c—Returned from visit and escape	24	13	37
2. Total received during year (includes total of items a, b, c)	403	333	736
3. Total under treatment during year (includes total of items 1 and 2)	1536	1268	2804
Discharged from books during year—			
a—As recovered	185	175	360
b—As improved	26	18	44
c—As unimproved	35	22	55
d—Escapes	16	2	18
e—Transferred to other institutions for the insane	4	5	9
f—Died during year	169	112	281
4. Total discharged and died during year (includes total of items a, b, c, d, e and f under "discharged from books")	433	334	767
5. Insane patients remaining on books of institution at end of institution year	1103	934	2037
SUPPLEMENTARY DATA			
6. Average daily number of insane patients actually in institution during year	1021	836	1867
7. Insane voluntary patients admitted during year...	80	67	147

TABLE 4—NATIVITY OF FIRST ADMISSIONS AND OF PARENTS OF FIRST ADMISSIONS

For the Year Ending June 30, 1919

NATIVITY	Patients			Parents of Male Patients			Parents of Female Patients		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
United States	234	188	422	230	230	460	180	179	359
Africa									
*Asia									
Australia									
Austria	7	17	24	7	7	14	18	18	36
Belgium									
Bohemia									
†Canada	4	3	7	4	4	8	2	2	4
Central America									
China	1		1	1	1	2			
Cuba									
Denmark	3	1	4	3	3	6	1	1	2
England	3	1	4	4	4	8	2	4	6
*Europe	1		1						
Finland									
France									
Germany	10	9	19	10	10	20	11	12	23
Greece									
Hawaii									
Holland									
Hungary	10	5	15	11	11	22	5	5	10
India									
Ireland	18	16	34	11	11	22	17	16	33
Italy	24	14	38	33	33	66	15	15	30
Japan									
Mexico									
Norway	1	1	2	1	1	2	1	1	2
Philippine Islands									
Poland	4	7	11	5	5	10	7	6	13
Porto Rico									
Portugal									
Roumania									
Russia	9	12	21	9	9	18	13	13	26
Scotland		2	2				5	5	10
South America		1	1						
Spain									
Sweden									
Switzerland									
Turkey in Asia									
Turkey in Europe	2		2	2	2	4			
Wales									
†West Indies		1	1				1	1	2
Other countries									
Unascertained									
Total	331	278	609	331	331	662	278	278	556

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

TABLE 5—CITIZENSHIP OF FIRST ADMISSIONS

For the year ending June 30, 1919

	Males	Females	Total
Citizens by birth	234	188	422
Citizens by naturalization	97	90	187
Aliens .....	....	....	....
Citizenship unascertained .....	....	....	....
Total	331	278	609

TABLE 6—PSYCHOSES OF FIRST ADMISSIONS

For the year ending June 30, 1919

Psychoses	Males	Females	Total
1. Traumatic psychoses	1	1	2
2. Senile psychoses, total*	15	26	41
(a) Simple deterioration	13	21	....
(b) Presbyophrenic type .....	....	....	....
(c) Delirious and confused states .....	....	1	....
(d) Depressed and agitated states in addition to deterioration .....	....	2	....
(e) Paranoid states in addition to deterioration, .....	....	1	....
(f) Pre-senile types	2	....	....
3. Psychoses with cerebral arteriosclerosis	18	8	26
4. General paralysis	31	13	44
5. Psychoses with cerebral syphilis .....	....	1	1
6. Psychoses with Huntington's chorea	1	....	1
7. Psychoses with brain tumor .....	....	....	....
8. Psychoses with other brain or nervous diseases, total .....	....	5	5
Cerebral embolism .....	....	....	....
Paralysis agitans .....	....	1	....
Meningitis tuberculous or other forms .....	....	....	....
Multiple sclerosis .....	....	1	....
Tabes .....	....	....	....
Acute chorea .....	....	....	....
Other conditions .....	....	3	....
9. Alcoholic psychoses, total	59	5	64
(a) Pathological intoxication	25	2	....
(b) Delirium tremens	8	....	....
(c) Acute hallucinosis	22	2	....
(d) Acute paranoid type .....	....	1	....
(e) Korsakow's psychosis .....	....	....	....
(f) Chronic hallucinosis	1	....	....
(g) Chronic paranoid type	1	....	....
(h) Alcoholic deterioration	2	....	....
(i) Other types, acute or chronic .....	....	....	....

*Give total for each numbered group and, so far as possible, the number in each subdivision.

Psychoses	Males	Females	Total
10. Psychoses due to drugs and other exogenous toxins, total	2	2	4
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined	2	2	....
(b) Metals, as lead, arsenic, etc. ....	....	....	....
(c) Gases .....	....	....	....
(d) Other exogenous toxins .....	....	....	....
11. Psychoses with pellagra .....	....	....	....
12. Psychoses with other somatic diseases, total	5	7	12
(a) Delirium with infectious diseases	3	6	....
(b) Post-infectious psychoses .....	....	....	....
(c) Exhaustion delirium	2	1	....
(d) Delirium of unknown origin .....	....	....	....
(e) Diseases of the ductless glands .....	....	....	....
(f) Cardio-renal disease .....	....	....	....
(g) Other diseases or conditions .....	....	....	....
13. Manic-depressive psychoses, total	72	142	214
(a) Manic type	33	72	....
(b) Depressive type	39	61	....
(c) Stupor .....	....	....	....
(d) Mixed type .....	....	9	....
(e) Circular type .....	....	....	....
14. Involution melancholia .....	....	....	....
15. Dementia præcox, total	38	11	49
(a) Paranoid type	18	3	....
(b) Katatonic type	3	....	....
(c) Hebephrenic type .....	....	....	....
(d) Simple type	17	8	....
16. Paranoia and paranoid conditions	24	8	32
17. Epileptic psychoses, total	8	5	13
(a) Deterioration .....	....	....	....
(b) Clouded states .....	....	....	....
(c) Other conditions .....	....	....	....
18. Psychoneuroses and neuroses, total	3	19	22
(a) Hysterical type	1	3	....
(b) Psychasthenic type	2	3	....
(c) Neurasthenic type .....	....	13	....
(d) Anxiety neuroses .....	....	....	....
19. Psychoses with constitutional psychopathic inferiority	16	2	18
20. Psychoses with mental deficiency	8	2	10
21. Undiagnosed psychoses	30	21	51
22. Not insane, total .....	....	....	....
(a) Epilepsy without psychosis .....	....	....	....
(b) Alcoholism without psychosis .....	....	....	....
(c) Drug addiction without psychosis .....	....	....	....
(d) Constitutional psychopathic inferiority without psychosis .....	....	....	....
(e) Mental deficiency without psychosis .....	....	....	....
(f) Others .....	....	....	....
Total	331	278	609

TABLE 7—RACE OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES
For the Year Ending June 30, 1919

RACE	Total			Traumatic			Senile			With Cerebral Arteriosclerosis			General Paralysis			With Cerebral Syphilis			With Huntington's Chorea			With Brain Tumor		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)																								
American Indian																								
Armenian																								
Bulgarian																								
Chinese	1		1																					
Cuban																								
Dutch and Flemish																								
East Indian																								
English	244	199	443	1	1	2	9	19	28	18	5	23	19	6	25		1	1	1		1			
Finnish	1	1	2																					
French																								
German	8	10	18				1		1				1		1									
Greek	2		2				2		2															
Hebrew																								
Irish	18	14	32				2	4	6		1	1	1	2	3									
Italian*	23	12	35								1	1	2	1	3									
Japanese																								
Lithuanian																								
Magyar																								
Mexican																								
Pacific Islander																								
Portuguese																								
Roumanian	3	4	7										1	1	2									
Scandinavian†	8	5	13										2	2	4									
Scotch																								
Slavonic‡	20	31	51				1	2	3		1	1	4	1	5									
Spanish																								
Spanish-American																								
Syrian																								
Turkish	2		2																					
Welsh																								
West Indian§																								
Other specific races	1		1										1		1									
Mixed																								
Race unascertained																								
Total	331	278	609	1	1	2	15	26	41	18	8	26	31	13	44		1	1	1		1			

*Includes "North" and "South." †Norwegians, Danes and Swedes. ‡Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian. §Except Cuban.

TABLE 7—RACE OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES—(Continued)
For the Year Ending June 30, 1919

RACE	With Other Brain or Nervous Diseases			Alcoholic			Due to Drugs and Other Exogenous Toxins			With Pellagra			With Other Somatic Diseases			Manic-Depressive			Involution Melancholia			Dementia Præcox		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)																								
American Indian																								
Armenian																								
Bulgarian																								
Chinese																								
Cuban																								
Dutch and Flemish																								
East Indian																								
English		2	2	48	4	52	2	2	4				4	7	11	55	93	148				25	9	34
Finnish				1		1										1	1							
French																3	7	10						
German				1		1																		
Greek																								
Hebrew																								
Irish	1	1	4			4																		
Italian*	1	1	2			2							1		1	4	2	6				3	1	4
Japanese																5	9	14				1		1
Lithuanian																								
Magyar																								
Mexican																								
Pacific Islander																								
Portuguese																								
Roumanian																								
Scandinavian†		1	1	1		1										1	3	4						
Scotch																	2	2				3		2
Slavonic‡				2	1	3											1	1						
Spanish																4	24	28				5	1	6
Spanish-American																								
Syrian																								
Turkish																								
Welsh																								
West Indian§																								
Other specific races																						1		1
Mixed																								
Race unascertained																								
Total		5	5	59	5	64	2	2	4				5	7	12	72	142	244				38	11	49

*Includes "North" and "South." †Norwegians, Danes and Swedes. ‡Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian. §Except Cuban.

TABLE 7—RACE OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES—(Continued)
For the Year Ending June 30, 1919

RACE	Paranoia and Paranoid Conditions			Epileptic Psychoses			Psychoneu- roses and Neuroses			With Consti- tutional Psy- chopathic Inferiority			With Mental Deficiency			Undiagnosed Psychoses			Not Insane		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
African (black)																					
American Indian																					
Armenian																					
Bulgarian													1		1						
Chinese																					
Cuban																					
Dutch and Flemish																					
East Indian	15	8	23	6	4	10	1	17	18	15		15	4	2	6	21	19	40			
English																					
Finnish																					
French	2		2						2	2							1	1			
German																					
Greek																					
Hebrew	1		1		1	1	1		1		1	1	1		1	1	1	2			
Irish	3		3	2		2							2		2	5		5			
Italian*																					
Japanese																					
Lithuanian																					
Magyar																					
Mexican																					
Pacific Islander																					
Portuguese																1		1			
Roumanian	1		1							1		1									
Scandinavian†																					
Scotch	1		1													2		2			
Slavonic‡																					
Spanish																					
Spanish-American																					
Syrian																					
Turkish																					
Welsh																					
West Indian§	1		1																		
Other specific races																					
Mixed																					
Race unascertained																					
Total	24	8	32	8	5	13	3	19	21	16	2	18	8	2	10	30	21	51			

*Includes "North" and "South." †Norwegians, Danes and Swedes. ‡Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian. §Except Cuban.

TABLE 8—AGE OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES
For the Year Ending June 30, 1919

PSYCHOSES	Total			Under 15 years			15—19 years			20—24 years			25—29 years			30—34 years			35—39 years			40—44 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	1	2																					
2. Senile	15	26	41													1	1							
3. With cerebral ar- teriosclerosis	18	8	26													1	1							
4. General paralysis	31	13	44										3	2	5	4	2	6	3	1	4	1	1	2
5. With cerebral syphilis		1	1																					
6. With Hunting- ton's chorea	1		1																					
7. With brain tumor																			1		1			
8. With other brain or nervous dis- eases		5	5																					
9. Alcoholic	59	5	64							3		3	4	2	6	12	1	13	11	2	13	12		12
10. Due to drugs and other exogenous toxins	2	2	4																			2		2
11. With pellagra																								
12. With other som- atic diseases	5	7	12																					
13. Manic-depressive	72	142	214				3	8	11	6	20	26	5	20	25	11	19	30	12	28	40	6	9	15
14. Involunt melan- cholia																								
15. Dementia præcox	38	11	49				5	1	6	10	1	11	8	5	13	6	1	7	3	1	4	4	1	5
16. Paranoia or para- noid conditions	24	8	32																					
17. Epileptic psycho- ses	8	5	13		2	2	2		2															
18. Psychoneuroses and neuroses	3	19	22													3	1	4	1	2	3	1		1
19. With constitution- al psychopathic inferiority	16	2	18				3		3	1	1	2	8	1	9				2		2			
20. With mental de- ficiency	8	2	10	1		1		1	1	1		1	1	1	2	1	1	2	1		1	1		1
21. Undiagnosed psy- choses	30	21	51				2	1	3	16	2	18	3	4	7	3	2	5		8	8	2	3	5
22. Not insane																								
Total	331	278	609	1	2	3	15	11	26	38	27	65	34	41	75	45	32	77	38	52	90	43	25	68

TABLE 8—AGE OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES—(Continued)
For the Year Ending June 30, 1919

PSYCHOSES	45—49 years			50—54 years			55—59 years			60—64 years			65—69 years			70 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.
1. Traumatic										1	2	1									
2. Senile				1		1		1	1			2	2	1	3	4	13	19	32		
3. With cerebral arteriosclerosis ..				1		1		1	1			1	6	4		4	7	5	12		
4. General paralysis	4	4	8	6	2	8	3	2	5	1		1									
5. With cerebral syphilis					1	1															
6. With Huntington's chorea																					
7. With brain tumor																					
8. With other brain or nervous dis- eases																					
9. Alcoholic	11		11	3		3		1	1	2		2				1		1			
10. Due to drugs and other exogen- ous toxins																		2	2		
11. With pellagra		2	2		1		1														
12. With other somatic diseases	2	9	11	8	11	19	6	8	14	4	6	10	6	2	8	3	2	5			
13. Manic-depressive																					
14. Involution melancholia	2		2		1	1															
15. Dementia præcox	3	1	4	1		1	3		3				1		1						
16. Paranoia or paranoid conditions ..																					
17. Epileptic psychoses							1	2	3		1	1									
18. Psychoneuroses and neuroses																					
19. With constitutional psychopathic inferiority	1		1				1		1												
20. With mental deficiency	2		2													1		1			
21. Undiagnosed psychoses	2	2	4	2	1	3		2	2		1	1									
22. Not insane																					
Total	27	18	45	23	16	39	14	17	31	13	11	24	12	5	17	25	28	53			

TABLE 9—DEGREE OF EDUCATION OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES
For the Year Ending June 30, 1919

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	1	1	2							1		1						1	1		
2. Senile	15	26	41	1	2	3	2	3	5	8	17	25	4	2	6		2	2			
3. With cerebral arteriosclerosis ..	18	8	26		1	1	2	1	3	12	6	18	4		4						
4. General paralysis	31	13	44				4		4	19	10	29	6	3	9	2		2			
5. With cerebral syphilis		1	1					1	1												
6. With Huntington's chorea	1		1										1		1						
7. With brain tumor																					
8. With other brain or nervous dis- eases		5	5		1	1		2	2		2	2									
9. Alcoholic	59	5	64	3		3	3	2	5	41	2	43	8	1	9	4		4			
10. Due to drugs and other exogen- ous toxins	2	2	4							1	1	2	1		1		1	1			
11. With pellagra	5	7	12							3	5	8	2	2	4						
12. With other somatic diseases	72	142	214		4	4	8	5	13	44	99	143	12	30	42	8	4	12			
13. Manic-depressive																					
14. Involution melancholia																					
15. Dementia præcox	38	11	49	2		2	5	3	8	27	7	34	4		4		1	1			
16. Paranoia or paranoid conditions ..	24	8	32				3	5	8	16	2	18	5	1	6						
17. Epileptic psychoses	8	5	13				1		1	5	4	9	2	1	3						
18. Psychoneuroses and neuroses	3	19	22				2	7	9	1	10	11		2	2						
19. With constitutional psychopathic inferiority	16	2	18	3	1	4	8	1	9	5		5									
20. With mental deficiency	8	2	10		2	2	2		2	6		6									
21. Undiagnosed psychoses	30	21	51	2	1	3	2	3	5	18	12	30	2	5	7	2		2	4		4
22. Not insane																					
Total	331	278	609	11	12	23	42	33	75	207	177	384	51	47	98	16	9	25	4		4

TABLE 10—ENVIRONMENT OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES

For the Year Ending June 30, 1919

PSYCHOSES	Total			Urban			Rural			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	1	2	...	...	...	1	1	2	...	...	...
2. Senile	15	26	41	11	10	21	4	16	20	...	...	...
3. With cerebral arterio-sclerosis	18	8	26	13	4	17	5	4	9	...	...	...
4. General paralysis	31	13	44	18	7	25	13	6	19	...	...	...
5. With cerebral syphilis ..	...	1	1	...	1	1	...	...	...	...	...	...
6. With Huntington's chorea	1	...	1	1	...	1	...	...	...	...	...	...
7. With brain tumor .....	...	...	...	...	...	...	...	...	...	...	...	...
8. With other brain or nervous diseases .....	...	5	5	...	2	2	...	3	3	...	...	...
9. Alcoholic	59	5	64	39	4	43	20	1	21	...	...	...
10. Due to drugs and other exogenous toxins	2	2	4	1	2	3	1	...	1	...	...	...
11. With pellagra .....	...	...	...	...	...	...	...	...	...	...	...	...
12. With other somatic diseases	5	7	12	2	4	6	3	3	6	...	...	...
13. Manic-depressive	72	142	214	45	98	143	27	44	71	...	...	...
14. Involution melancholia...	...	...	...	...	...	...	...	...	...	...	...	...
15. Dementia præcox	38	11	49	21	5	26	17	6	23	...	...	...
16. Paranoia or paranoid conditions	24	8	32	18	5	23	6	3	9	...	...	...
17. Epileptic psychoses	8	5	13	5	3	8	3	2	5	...	...	...
18. Psychoneuroses and neuroses	3	19	22	2	11	13	1	8	9	...	...	...
19. With constitutional psychopathic inferiority ..	16	2	18	8	1	9	8	1	9	...	...	...
20. With mental deficiency ..	8	2	10	3	1	4	5	1	6	...	...	...
21. Undiagnosed psychoses ..	30	21	51	16	15	31	14	6	20	...	...	...
22. Not insane .....	...	...	...	...	...	...	...	...	...	...	...	...
Total	331	278	609	208	174	382	123	104	227	...	...	...

TABLE 11—ECONOMIC CONDITION OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES
For the Year Ending June 30, 1919

PSYCHOSES	Total			Dependent			Marginal			Comfortable			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...
2. Senile	15	26	41	13	20	33	17	33	50	2	6	8	...	...	...
3. With cerebral arteriosclerosis ..	18	8	26	13	13	26	11	11	22	11	3	14	...	...	...
4. General paralysis	31	13	44	20	13	33	11	1	12	19	1	20	...	...	...
5. With cerebral syphilis ..	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
6. With Huntington's chorea ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7. With brain tumor .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8. With other brain or nervous diseases ..	...	5	5	...	4	4	...	4	2	...	1	2	...	...	...
9. Alcoholic	59	5	64	40	4	44	2	...	...	...	...	...	...	...	...
10. Due to drugs and other exogenous toxins ..	2	2	4	1	1	2	...	...	...	...	...	...	...	...	...
11. With pellagra .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. With other somatic diseases ..	5	7	12	5	7	12	...	...	...	...	...	...	...	...	...
13. Manic-depressive	72	142	214	55	104	159	12	12	24	17	38	55	...	...	...
14. Involution melancholia ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Dementia præcox	38	11	49	29	5	34	...	...	...	9	6	15	...	...	...
16. Paranoia or paranoid conditions ..	24	8	32	20	4	24	...	...	...	4	4	8	...	...	...
17. Epileptic psychoses	8	5	13	5	3	8	...	...	...	2	2	4	...	...	...
18. Psychoneuroses and neuroses ..	3	19	22	2	15	17	...	...	...	1	1	2	...	...	...
19. With constitutional psychopathic inferiority ..	16	2	18	8	1	9	...	...	...	...	...	...	...	...	...
20. With mental deficiency ..	8	2	10	3	1	4	...	...	...	...	...	...	...	...	...
21. Undiagnosed psychoses ..	30	21	51	16	15	31	...	...	...	...	...	...	...	...	...
22. Not insane .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	331	278	609	252	193	445	...	...	...	79	85	164	...	...	...

TABLE 12—USE OF ALCOHOL BY FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES

For the Year Ending June 30, 1919

PSYCHOSES	Total			Abstinent			Temperate			Intemperate			Unascertained		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	1	2												
2. Senile	15	26	41	5	8	13	9	17	26	1	1	2			
3. With cerebral arteriosclerosis	18	8	26	5	3	8	10	3	13	3	2	5			
4. General paralysis	31	13	44	2	3	5	25	8	33	4	2	6			
5. With cerebral syphilis		1	1		1	1									
6. With Huntington's chorea	1		1				1		1						
7. With brain tumor															
8. With other brain or nervous diseases		5	5					4	4					1	1
9. Alcoholic	59	5	64							59	5	64			
10. Due to drugs and other exogenous toxins	2	2	4				2	2	4						
11. With pellagra															
12. With other somatic diseases	5	7	12	1		1	4	7	11						
13. Manic-depressive	72	142	214	10	30	40	46	80	126	16	31	47		1	1
14. Involution melancholia															
15. Dementia præcox	38	11	49	6	2	8	28	8	36	4	1	5			
16. Paranoia or paranoid conditions	24	8	32	5	2	7	13	5	18	6	1	7			
17. Epileptic psychoses	8	5	13	3	1	4	5	4	9						
18. Psychoneuroses and neuroses	3	19	22		6	6	2	12	14	1	1	2			
19. With constitutional psychopathic inferiority	16	2	18	3		3	11	2	13	2		2			
20. With mental deficiency	8	2	10				7	1	8	1		1			
21. Undiagnosed psychoses	30	21	51	4		4	18	18	36	7		7	1	3	4
22. Not insane															
Total	331	278	609	44	56	100	181	172	353	104	44	148	1	5	6

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TABLE 13—MARITAL CONDITION OF FIRST ADMISSIONS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES

For the Year Ending June 30, 1919

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	1	1	2																		
2. Senile	15	26	41	2	8	10	6	1	2												
3. With cerebral arteriosclerosis	18	8	26		1	1	13	5	18	5	2	7									
4. General paralysis	31	13	44	9	2	11	21	9	30	1	2	3									
5. With cerebral syphilis		1	1					1	1												
6. With Huntington's chorea	1		1	1		1															
7. With brain tumor																					
8. With other brain or nervous diseases		5	5		2	2		2	2	1	1										
9. Alcoholic	59	5	64	23	1	24	21	4	25	13		13				2		2			
10. Due to drugs and other exogenous toxins	2	2	4				2	1	3			1									
11. With pellagra																					
12. With other somatic diseases	5	7	12	2	4	6	3	3	6												
13. Manic-depressive	72	142	214	33	51	84	35	68	103	4	22	26									
14. Involution melancholia																					
15. Dementia præcox	38	11	49	31	7	38	5	4	9	2		2									
16. Paranoia or paranoid conditions	24	8	32	8	2	10	16	4	20												
17. Epileptic psychoses	8	5	13	4	1	5	2	1	3		1	1				1	1				
18. Psychoneuroses and neuroses	3	19	22	2	4	6	1	5	6												
19. With constitutional psychopathic inferiority	16	2	18	12	2	14	2		2												
20. With mental deficiency	8	2	10	2	1	3	1		2												
21. Undiagnosed psychoses	30	21	51	13	3	16	18	1	34	1		1									
22. Not insane																					
Total	331	278	609	149	96	245	147	140	287	33	40	73				2	2	4			

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TABLE 14—PSYCHOSES OF READMISSIONS

For the year ending June 30, 1919

Psychoses	Males	Females	Total
1. Traumatic psychoses .....	....	....	....
2. Senile psychoses, total* .....	....	1	1
(a) Simple deterioration .....	....	....	....
(b) Presbyophrenic type .....	....	....	....
(c) Delirious and confused states .....	....	....	....
(d) Depressed and agitated states in addition to deterioration .....	....	1	....
(e) Paranoid states in addition to deterioration, .....	....	....	....
(f) Pre-senile types .....	....	....	....
3. Psychoses with cerebral arteriosclerosis	1	....	1
4. General paralysis	5	4	9
5. Psychoses with cerebral syphilis .....	....	....	....
6. Psychoses with Huntington's chorea .....	....	....	....
7. Psychoses with brain tumor .....	....	....	....
8. Psychoses with other brain or nervous diseases, total .....	....	....	....
Cerebral embolism .....	....	....	....
Paralysis agitans .....	....	....	....
Meningitis, tuberculous or other forms .....	....	....	....
Multiple sclerosis .....	....	....	....
Tabes .....	....	....	....
Acute chorea .....	....	....	....
Other conditions .....	....	....	....
9. Alcoholic psychoses, total	12	....	12
(a) Pathological intoxication	7	....	....
(b) Delirium tremens .....	....	....	....
(c) Acute hallucinosis	3	....	....
(d) Acute paranoid type .....	....	....	....
(e) Korsakow's psychosis .....	....	....	....
(f) Chronic hallucinosis	1	....	....
(g) Chronic paranoid type .....	....	....	....
(h) Alcoholic deterioration	1	....	....
(i) Other types, acute or chronic .....	....	....	....
10. Psychoses due to drugs and other exogenous toxins, total	2	....	2
(a) Opium (and derivatives), cocaine, promides, chloral, etc., alone or combined	2	....	....
(b) Metals, as lead, arsenic, etc. ....	....	....	....
(c) Gases .....	....	....	....
(d) Other exogenous toxins .....	....	....	....
11. Psychoses with pellagra .....	....	....	....

*Give total for each numbered group and, so far as possible, the number in each subdivision.

Psychoses	Males	Females	Total
12. Psychoses with other somatic diseases, total .....	....	....	1
(a) Delirium with infectious diseases .....	....	....	....
(b) Post-infectious psychoses .....	....	....	....
(c) Exhaustion delirium	1	....	....
(d) Delirium of unknown origin .....	....	....	....
(e) Diseases of the ductless glands .....	....	....	....
(f) Cardio-renal disease .....	....	....	....
(g) Other diseases or conditions .....	....	....	....
13. Manic-depressive psychoses, total	10	23	33
(a) Manic type	8	17	....
(b) Depressive type	2	5	....
(c) Stupor .....	....	....	....
(d) Mixed type .....	....	1	....
(e) Circular type .....	....	....	....
14. Involution melancholia .....	....	....	....
15. Dementia praecox, total	5	1	6
(a) Paranoid type	2	....	....
(b) Katatonic type .....	....	....	....
(c) Hebephrenic type .....	....	....	....
(d) Simple type	3	1	....
16. Paranoia and paranoic conditions	2	4	6
17. Epileptic psychoses, total .....	....	....	....
(a) Deterioration .....	....	....	....
(b) Clouded states .....	....	....	....
(c) Other conditions .....	....	....	....
18. Psychoneuroses and neuroses, total	1	....	1
(a) Hysterical type .....	....	....	....
(b) Psychasthenic type .....	....	....	....
(c) Neurasthenic type .....	....	....	....
(d) Anxiety neuroses .....	....	....	....
19. Psychoses with constitutional psychopathic inferiority .....	....	1	1
20. Psychoses with mental deficiency	5	1	6
21. Undiagnosed psychoses	5	6	11
22. Not insane, total .....	....	....	....
(a) Epilepsy without psychosis .....	....	....	....
(b) Alcoholism without psychosis .....	....	....	....
(c) Drug addition without psychosis .....	....	....	....
(d) Constitutional psychopathic inferiority without psychosis .....	....	....	....
(e) Mental deficiency without psychosis .....	....	....	....
(f) Others .....	....	....	....
	48	42	90

TABLE 15—DISCHARGES OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES AND CONDITION ON DISCHARGE

For the Year Ending June 30, 1919

PSYCHOSES	Total			Recovered			Improved			Unimproved			Not insane		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic	1	1	2	1	1	2									
2. Senile	4	6	10				2	2	4	2	4	6			
3. With cerebral arteriosclerosis	5		5				1		1	4		4			
4. General paralysis	14	9	23				12	8	20	2	1	3			
5. With cerebral syphilis	1	1	2					1	1	1		1			
6. With Huntington's chorea															
7. With brain tumor															
8. With other brain or nervous diseases	1		1	1		1									
9. Alcoholic	55	8	63	55	8	63									
10. Due to drugs and other exogenous toxins	2	2	4	2	2	4									
11. With pellagra															
12. With other somatic diseases	2	4	6	2	4	6									
13. Manic-depressive	73	122	195	71	119	190				2	3	5			
14. Involution melancholia															
15. Dementia præcox	31	21	52	17	13	30	6	1	7	8	7	15			
16. Paranoia or paranoic conditions	14	5	19	13	5	18				1		1			
17. Epileptic psychoses	8	3	11				4	2	6	4	1	5			
18. Psychoneuroses and neuroses	12	20	32	11	17	28	1	3	4						
19. With constitutional psychopathic inferiority	4	1	5					1	1	4		4			
20. With mental deficiency	5	4	9							5	4	9			
21. Undiagnosed psychoses	12	8	20	12	6	18					2	2			
22. Not insane															
Total	244	215	459	185	175	360	26	18	44	33	22	55			

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TABLE 16—CAUSES OF DEATH OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES

For the Year Ending June 30, 1919

CAUSES OF DEATH	Total			Senile			With Cerebral Arterio-sclerosis			General Paralysis			Alcoholic			Manic-depressive			Involution Melancholia		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
GENERAL DISEASES																					
Typhoid fever																					
Malaria																					
Smallpox																					
Measles																					
Scarlet fever																	3		3		
Diphtheria	17	8	25							1		1									
Influenza																					
Dysentery	1		1							1		1					2		2		
Erysipelas	8	3	11																		
Septicæmia																					
Pellagra													1	1	2	1			1		
Acute articular rheumatism	16	14	30		2	2	1		1	1		1	1	1	2						
Tuberculosis of lungs																					
Other forms of tuberculosis																					
Syphilis (non-nervous forms)		1	1																		
Cancer																					
Tumor (non-cancerous)																					
Diabetes																					
Other general diseases																					
NERVOUS SYSTEM																					
Cerebro-spinal meningitis																	1		1		
Diseases of spinal cord	12	15	27		3	3	6	6	12												
Apoplexy (cerebral hemorrhage)	23	6	29							23	6	29									
General paralysis of insane	3	2	5							3	2	5									
Cerebro-spinal syphilis																					
Exhaustion from other mental diseases	1		1																		
Brain tumor	1		1																		
Other diseases of brain																					
Epilepsy																					
Chorea																					
Other diseases of nervous system																					

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TABLE 16—CAUSES OF DEATH OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES—(Continued)

[illegible]

*Includes group 22 "not insane."

TABLE 16—CAUSES OF DEATH OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES—(Continued)

For the Year Ending June 30, 1919

[illegible]

TABLE 16—CAUSES OF DEATH OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES—(Continued)

For the Year Ending June 30, 1919

CAUSES OF DEATH	Dementia Præcox			Paranoia or Paranoic Conditions			Epileptic Psychoses			Psychoneu- roses and Neuroses			With Consti- tutional Psychopathic Inferiority			With Mental Deficiency			*All Other Psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
CIRCULATORY SYSTEM																					
Acute myocarditis	2		2										1	1					2	2	
Chronic myocarditis	9	4	13	1		1				5	5	1	1	2		2					
Acute pericarditis																					
Chronic pericarditis																					
Acute endocarditis		2	2	1		1							1	1		1			2	2	
Chronic endocarditis	4		4																2	2	
Arteriosclerosis	1		1																1	1	
Other diseases of the arteries																					
Other diseases of circulatory sys- tem																					
RESPIRATORY SYSTEM																					
Bronchitis																					
Bronchopneumonia																			1	1	
Lobar pneumonia	2	4	6													1	1		2	2	
Pleurisy																					
Gangrene of lungs																					
Other diseases of the respiratory system																					
DIGESTIVE SYSTEM																					
Ulcer of stomach																					
Other diseases of the stomach (can- cer excepted)																					
Diarrhea and enteritis																					
Appendicitis																					
Intestinal obstruction																					
Other diseases of intestines																					
Cirrhosis of liver																					
Other diseases of liver																					
Other diseases of digestive system (cancer and tuberculosis ex- cepted)																					

*Includes group 22 "not insane."

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TABLE 16—CAUSES OF DEATH OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES—(Concluded)

For the Year Ending June 30, 1919

CAUSES OF DEATH	Total			Senile			With Cerebral Arterio- sclerosis			General Paralysis			Alcoholic			Manic- depressive			Involution Melancholia		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
GENITO-URINARY SYSTEM																					
Acute nephritis	3	3	6													1	1		2		
Chronic nephritis	15	3	18	2	1	3	2		2	1		1	1		1	4	1	5			
Other diseases of kidneys and an- nexa																					
Diseases of bladder																					
Diseases of genital organs																					
Other diseases of genito-urinary system																					
DISEASES OF THE SKIN																					
Gangrene																					
Other diseases of the skin																					
DISEASES OF BONES AND LOCOMOTOR SYSTEM (tuberculosis and rheu- matism excepted)																					
VIOLENCE																					
Suicide																					
Fractures																					
Dislocations																					
Homicide																					
Other external violence																					
Total	169	112	281	17	20	37	24	10	34	34	8	42	3	2	5	15	19	34			

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TABLE 16—CAUSES OF DEATH OF PATIENTS CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES—(Concluded)
For the Year Ending June 30, 1919

CAUSES OF DEATH	Dementia			Paranoia or Paranoid Conditions			Epileptic Psychoses			Psychoneuroses and Neuroses			With Constitutional Psychopathic Inferiority			With Mental Deficiency			*All Other Psychoses		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
GENITO-URINARY SYSTEM																					
Acute nephritis	2	1	3																	1	1
Chronic nephritis	1	1	2										1		1	2		2	1		1
Other diseases of kidneys and annexa																					
Diseases of bladder																					
Diseases of genital organs																					
Other diseases of genito-urinary system																					
DISEASES OF THE SKIN																					
Gangrene																					
Other diseases of the skin																					
DISEASES OF BONES AND LOCOMOTOR SYSTEM (tuberculosis and rheumatism excepted)																					
VIOLENCE																					
Suicide																					
Fractures																					
Dislocations																					
Homicide																					
Other external violence																					
Total	45	23	68	4	2	6		1	1	4	7	11	2	3	5	12	7	19	9	10	19

*Includes group 22 "not insane."

TABLE 17—AGE OF PATIENTS AT TIME OF DEATH CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES
For the Year Ending June 30, 1919

PSYCHOSES	Total			Under 15 years			15—19 years			20—24 years			25—29 years			30—34 years			35—39 years			40—44 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic																								
2. Senile	17	20	37																					
3. With cerebral arteriosclerosis	24	10	34																					
4. General paralysis	34	8	42				2		2				2		2	1		1	6	1	7	1	3	7
5. With cerebral syphilis																								
6. With Huntington's chorea																								
7. With brain tumor																								
8. With other brain or nervous diseases																								
9. Alcoholic	3	2	5																					
10. Due to drugs and other exogenous toxins																			1	1		1		1
11. With pellagra																								
12. With other somatic diseases																								
13. Manic-depressive	15	19	34							2	1	3		2	2	3	1	4		1	1	1	2	3
14. Involution melancholia																								
15. Dementia praecox	45	23	68							5		5	3	2	5	8	3	11	6	2	8	1	4	5
16. Paranoia or paranoid conditions	4	2	6																					
17. Epileptic psychoses		1	1																					
18. Psychoneuroses and neuroses	4	7	11				1	1											1	1				
19. With constitutional psychopathic inferiority	2	3	5													2	2	4	1	1	2			
20. With mental deficiency	12	7	19													1		1		1				
21. Undiagnosed psychoses	9	10	19						1	1	2	1		1	2		2	1	1	2	2	2	4	
22. Not insane										1	1	1		1		1	1	1		1	2		2	
Total	169	112	281				2	1	3	8	3	11	7	4	11	17	7	24	15	10	25	12	11	23

TABLE 17—AGE OF PATIENTS AT TIME OF DEATH CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES—(Continued)
For the Year Ending June 30, 1919

PSYCHOSES	45—49 years			50—54 years			55—59 years			60—64 years			65—69 years			70 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.
1. Traumatic					1	1				2	2	4	1		1	14	17	31			
2. Senile																					
3. With cerebral arteriosclerosis ..	1	1	2	5	1	6	3	2	5	3	1	4	7		7	8	5	13			
4. General paralysis	7	1	8									2	3		3						
5. With cerebral syphilis																					
6. With Huntington's chorea																					
7. With brain tumor																					
8. With other brain or nervous dis- eases																					
9. Alcoholic		1	1				2		2												
10. Due to drugs and other exogen- ous toxins																					
11. With pellagra																					
12. With other somatic diseases																					
13. Manic-depressive	1	5	6	2	1	3	2	5	7	2	1	3	2		2						
14. Involution melancholia																					
15. Dementia præcox	3	2	5	7	1	8	4		4	3	2	5	1	3	4	4	3	7			
16. Paranoia or paranoic conditions, 17. Epileptic psychoses	1	1	2	1	1	1	2		2	1		1									
18. Psychoneuroses and neuroses		1	1							1	1	2					1	1			
19. With constitutional psychopathic inferiority								1	1	1	1	2									
20. With mental deficiency	2		2	1	1	2				1	1	2	1		1		1	1			
21. Undiagnosed psychoses	1	2	3	1	1	2		1	1	1	2	3			2		2	2			
22. Not insane																					
Total	16	24	30	16	7	23	16	11	27	17	11	28	17	3	20	28	27	55			

TABLE 18—TOTAL DURATION OF HOSPITAL LIFE OF PATIENTS DYING IN HOSPITAL CLASSIFIED ACCORDING TO PRINCIPAL PSYCHOSES

For the Year Ending June 30, 1919

PSYCHOSES	Total			Less than 1 month			1—3 months			4—7 months			8—12 months			1—2 years			3—4 years		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic																					
2. Senile	17	20	37	8	4	12	1	3	4	1	2	3	1	1	2	2	5	7		1	1
3. With cerebral arteriosclerosis ..	24	10	34	6	3	9	2	3	5	4		4	1		1	8	1	9	3	1	4
4. General paralysis	34	8	42	5	2	7	3	1	4	5	3	8	5		5	13	1	14	1	1	2
5. With cerebral syphilis																					
6. With Huntington's chorea																					
7. With brain tumor																					
8. With other brain or nervous dis- eases																					
9. Alcoholic	3	2	5	1	1	2														1	1
10. Due to drugs and other exogen- ous toxins																					
11. With pellagra																					
12. With other somatic diseases																					
13. Manic-depressive	15	19	34	1	3	4	4	1	5	2	2	4		2	2	4	4	8		2	2
14. Involution melancholia																					
15. Dementia præcox	45	23	68	3	2	5	2		2	1		1				1	4	5	4	1	5
16. Paranoia or paranoic conditions, 17. Epileptic psychoses	4	2	6									2	2			1		1	1		1
18. Psychoneuroses and neuroses	4	7	11	1	6	7	1	1	2			1									
19. With constitutional psychopathic inferiority	2	3	5																		
20. With mental deficiency	12	7	19		1	1	1		1				1		1		1	1	1		1
21. Undiagnosed psychoses	9	10	19	1	4	5	2	1	3					1	1	1	1	2	2		2
22. Not insane																					
Total	169	112	281	26	26	52	16	10	26	13	11	24	8	4	12	30	18	48	12	7	19

TABLE 18—TOTAL DURATION OF HOSPITAL LIFE OF PATIENTS DYING IN HOSPITAL CLASSIFIED ACCORDING TO PRINCIPAL PSYCHOSES—(Continued)

For the Year Ending June 30, 1919

PSYCHOSES	5—6 years			7—8 years			9—10 years			11—12 years			13—14 years			15—19 years			20 years and over		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Traumatic																					
2. Senile				1		1	1		1		1	1		1	1	1	1	2	1	1	2
3. With cerebral arteriosclerosis ..					2	2															
4. General paralysis	2		2																		
5. With cerebral syphilis																					
6. With Huntington's chorea																					
7. With brain tumor																					
8. With other brain or nervous dis- eases																					
9. Alcoholic										1		1				1		1			
10. Due to drugs and other exogen- ous toxins																					
11. With pellagra																					
12. With other somatic diseases																					
13. Manic-depressive		1	1		1	1	1	1	2	2		2		2	2				1		1
14. Involution melancholia																					
15. Dementia præcox	2	2	4	5	1	6	5		5	3	1	4	3	1	4	1	3	4	15	7	22
16. Paranoia or paranoic conditions ..							1		1	1		1									
17. Epileptic psychoses																					
18. Psychoneuroses and neuroses	1		1													1		1			
19. With constitutional psychopathic inferiority	1	1	2						1	1											
20. With mental deficiency	2		2	1		1	1	1	2		1	1				4	1	5	2	2	4
21. Undiagnosed psychoses		1	1		1	1	2		2		1	1							1		1
22. Not insane																					
Total	8	5	13	7	5	12	11	3	14	7	3	10	3	4	7	8	5	13	20	10	30

