MAINE STATE LEGISLATURE

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PUBLIC DOCUMENTS

OF THE

STATE OF MAINE

BEING THE

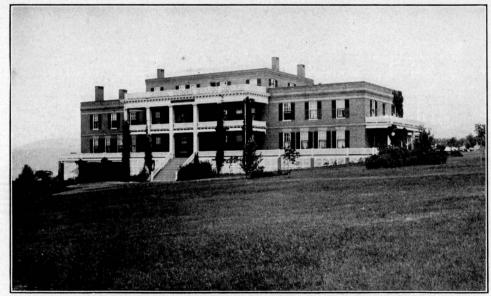
REPORTS

OF THE VARIOUS

PUBLIC OFFICERS, DEPARTMENTS AND INSTITUTIONS

FOR THE YEAR 1916

VOLUME IV



Leigh Chamberlin Administration Building.

REPORTS

OF THE

Trustees, and Resident Officers

OF THE

Maine State Sanatoriums

Covering the period from JULY 28, 1915 to JUNE 30, 1916

WATERVILLE SENTINEL PUBLISHING COMPANY 1917

BOARD OF TRUSTEES.

Theodore E. Hardy, M. D., Chairman	. Waterville
Kingsbury B. Piper, Secretary	FAIRFIELD
C. H. Bayard, M. D., Treasurer	Orono
F. L. Shaw, M. D	STEUBEN
F. H. Johnson	PORTLAND



To the Governor and the Executive Council:

In compliance with Chapter 351 of the Public Laws of 1915, entitled,

"An Act to Provide for the Care and Treatment of Tubercular Persons,"

the Board of Trustees for Tuberculosis Sanatoriums submits its first annual report covering the period from July 28, 1915, to June 30, 1916. Section 3 of said Act declares:

"The said Board of Trustees shall, on or before the first day of October of each year, furnish a report to the Governor and Council containing a history of the several sanatoriums for the year and a complete statement of all accounts, with all the funds, general and special, appropriated or belonging to said sanatoriums, including a detailed statement of disbursements."

This Board of Trustees was organized on August 2, 1915. Dr. Theodore E. Hardy of Waterville, was elected chairman; Kingsbury B. Piper of Fairfield was chosen secretary; Dr. C. H. Bayard of Orono, was chosen treasurer; the other members are Fred H. Johnson of Portland and Dr. Frank L. Shaw of Steuben.

The first duty to be performed under the statute was, according to section I of the statute, to

"Establish and maintain by building, lease or by purchase one or more sanatoriums in such districts of the State as shall deem best to serve the needs of the people for the care and treatment of persons affected with tuberculosis."

This Board investigated several sites in various localities but the action of the Board was determined, in a large measure, by the liberality of the Trustees or Directors of the two institutions at Hebron and at Fairfield, who offered the two institutions to the State at prices so low when compared with the physical values of the properties, that the purchases were made within two months from the organization of this Board.

The property at Hebron which was operated as the Maine State Sanatorium was acquired by the State for \$15,000. The net worth of the land, buildings and equipment was \$208,006.54. In other words, the Directors of the Maine State

Sanatorium offered their property having a value of \$208,096.54 to the State at a price of only \$15,000; and this Board of Trustees promptly accepted, the deed being executed on October 5, 1915.

The property at Fairfield was operated under the name of Chase Memorial Sanatorium. Its inventoried value including land, buildings, and equipment amounted to \$32,000. The State acquired this property for \$15,000, taking possession on September 1, 1915.

This Board, therefore, with an appropriation for 1915 and 1916 of seventy-five thousand dollars (\$75,000) appropriated by the Legislature of 1915 to erect or lease and equip one or more sanatoriums was enabled within three months from the date of its organization to have the title to two completely equipped institutions in working order vested in the State of Maine with some capital remaining from that appropriation for maintenance.

Connected with the Hebron institution there were certain vested funds. These consisted of the Chamberlin fund, the Stewart fund, the Benjamin fund, and the W. W. Brown fund, The Chamberlin fund amounted to two hundred thousand dollars. The income from that amount invested was paid to the Hebron institution by Mr. Franklin Payson of Portland, who is the treasurer of the trust fund created by the liberality of the donor, Mr. Elezer Chamberlin. Although it was desired by the Directors of the Hebron institution to transfer the Chamberlin fund to the State with the property, objections raised by one or two heirs in another State prevented such transfer until legal proceedings shall determine whether the fund belongs to the institution now owned by the State. The status of the Chamberlin fund will be determined at an early date. The interests of the State in this matter are lodged with the Attorney-General of the State.

The Stewart fund consists of seventy-five thousand dollars invested in interest-yielding securities. Hon. David D. Stewart of Saint Albans, Maine, is the donor of this fund. When the sanatorium property at Hebron was transferred to the State, Mr. Stewart very willingly, generously and promptly transferred the Stewart fund to the State.

The Benjamin fund amounted to five thousand dollars. When the Hebron Sanatorium property was acquired by the State, the adjoining farm consisted of 150 acres of land with buildings owned by Dr. Estes Nichols, who served as medical director of the Hebron Sanatorium for some years. Dr. Nichols desired to sell his property, and the securities representing the Benjamin fund were exchanged for the Dr. Nichols farm, a portion of which is under a high state of cultivation. Mention should be made in connection herewith of the fact that on the Nichols farm there are more than 2000 young apple trees of standard varieties just entering the bearing age. This additional farm, then, is a product of the generosity of Miss Alice Benjamin who gave the endowment to the Hebron sanatorium before the State bought that property.

The W. W. Brown fund consists of securities amounting to one thousand dollars, yielding sixty dollars a year. The State has the benefit of this fund.

It will be seen, therefore, that the purchase of the sanatorium property of Hebron for \$15,000.00 brought to the State not only a net worth in buildings and equipment of \$208,096.54 but vested funds which represent \$81,000.00. Should the State be given a favorable decision in the matter of the Chamberlin fund the value of the acquirement at Hebron will be greatly enhanced.

The property at Fairfield bought by this Board at a cost of \$15,000.00 was necessary or, at least, a second institution was necessary if the conditions named in the deed to the Hebron property are to be observed. The particular condition in this connection is an agreement or a covenant that only the so-called curable cases shall be treated at Hebron. The statute under which this Board acts emphatically states that all classes of tubercular cases shall be treated by the State. The stipulation in the deed of the Hebron property restricting treatment at Hebron for all time to the so-called curable cases may have no legal force. Morally the present Board of Trustees for tuberculosis sanatoriums considers that agreement as binding. Some place had to be provided for the advanced tuberculosis cases and the property at Fairfield already equipped and in operation seemed to be the very best bargain available.

At once with two institutions actively at work and with the use of one institution restricted to the so-called curable cases this Board had to adopt a policy which would be consistent and at the same time should not take away one atom of hope for recovery that any person coming to either of the institutions might have. The Central Maine Sanatorium at Fairfield was therefore made the receiving institution, all patients being admitted there first. As examination and supervision might warrant the curable cases have been transferred to the Western Maine Sanatorium at Hebron. This policy has observed the restriction placed upon the Hebron institution and at the same time has located the very advanced cases at the Fairfield institution for treatment.

The Western Maine Sanatorium came to the ownership of the State in a splendid condition. With the Nichols farm the real estate comprises 480 acres. The buildings fully equipped comprise the Chamberlin building used for administration purposes, the reception cottage, the women's cottage, the men's cottage, central heating plant, creamery, ice houses, three barns, sheds, etc. The management of this real estate is the most complex problem coming under the administration of this Board. There are certain modern standards for treating tuberculosis. Physicians and nurses and dietetians are trained for this branch of public service. The money appropriated by the State should be wholly expended for the care and treatment of the patients at these institutions. Unless the farming proposition at Hebron can be operated without a loss, a portion of the public funds appropriated for the care and treatment of tubercular persons must go to make up the deficit of the farm. Not only from a business standpoint should there be no deficit in the farming operation at Hebron; any loss in that direction has been considered by the Board to be almost a misfeasance since taking care of a deficit makes it possible to treat fewer sick people. The farming season of 1915 was a poor one in Central and Western Maine. The sanatorium farm at Hebron did not produce as heavy crops that season as were expected. The crops for the season 1916 have not yet been harvested. The most serious loss the State has suffered from farming operations at Hebron since taking over the property was due to an epidemic of hog cholera which caused the

death of quite a number of hogs. An investigation seemed to show that the building in which the hogs were quartered, an old barn, was badly infected. The swine were innoculated by a veterinary and then removed to another building. The disease was in that manner checked. The old barn because of its infection was torn down and the lumber will be used in the construction of a shelter for farm wagons.

The Central Maine Sanatorium at Fairfield does not carry with it any farm problem. Supplies for that institution are bought in the market at lowest prices and consumed at the institution. To buy at lowest prices and to prevent waste is the only economic problem at the Central Maine Sanatorium.

Section 11 of Chapter 351 reads as follows:

"Section 11. Persons having legal residence in Maine shall be admitted to these Sanatoriums from any part of the State; provided after due examination by any reputable physician or the Superintendent of the Sanatorium said person shall be found to be suffering from tuberculosis. According to the capacity of the Sanatorium such patients shall be eligible for treatment in all stages of the disease. Whenever a patient is received for treatment in any of these State Sanatoriums the charge for treatment shall not exceed \$5.00 per week. If upon due inquiry into the circumstances of the patient, the Superintendent of the Sanatorium finds such patient or his relatives unable to pay for his care and treatment in whole or in part, the charge for such care and treatment not so paid shall be laid upon the State. No discrimination shall be made in the accommodation, care or treatment of any patient because of the fact that the patient or his relatives do or do not contribute in whole or in part to the charge for treatment; and no officer or employee of such State Sanatoriums shall accept from any patient thereof any fee or gratuity whatever for any service rendered."

This section of the law not only limits the cost of care and treatment to five dollars a week per patient, but it also commands that persons afflicted with tuberculosis though unable to pay anything for treatment shall be considered upon equal terms with citizens so afflicted who are able to pay whatever price might be charged for their care and treatment. This Board has made consistent efforts to obtain as much income for care and treatment as possible. The policy of the trustees could not differ, however, from the policy of the statute which declares that admissions must be made up to the capacity of the institutions and that no discrimination should be made in

the accommodation of patients because of their ability or inability to pay for care and treatment at these institutions.

In the treatment of tubercular persons directly by the State in institutions owned and controlled by the State, Maine has undertaken not to carry a burden of charity. In this new departure the State seeks to solve an economic problem.

Tuberculosis is not now regarded as an incurable disease. Sanatorium care, treatment, discipline and watchfulness if brought within the reach of all tubercular persons so far as cost of treatment is concerned are recognized as the most efficient agency of relief.

Broadly speaking, Maine has lost 1,000 citizens a year from tuberculosis. How many persons in this State are suffering continuously from this disease is not known. These thousand deaths a year have not been in the ranks of the aged. The toll has been levied upon citizens in the years of young manhood and young womanhood. The loss upon society is greater than any financial estimate can cover. If through a concentrated effort the State can in the place of decline and death restore health and make possible years of activity in society and in business, is it not only profitable for the State from an economic standpoint to prevent death and restore years of vigor and activity to society and business, but is it not the duty of the State to prevent death and to restore health?

The only objection that can be raised to the new policy of the State in maintaining tuberculosis sanatoriums is the cost. Had not the State undertaken to suppress disease and contagion in other directions such an objection might have some force even at this time. For years the State has borne the expense of an effort to suppress tuberculosis among cattle. For years the State has expended thousands of dollars to protect the wild game in our forests. In fact both State and Nation use every effort to stamp out contagious diseases in cattle, horses and hogs. No objection is ever raised. Commercially such a policy is correct, economically such a policy is profitable.

The State of Maine now assumes that the lives of its citizens afflicted with tuberculosis merit from the State the same effort to relieve and to cure and to prevent distress and death that has been made in the past in the direction of pre-

venting the spread of disease among cattle and swine. It is a new policy for Maine. If the cost of the policy is a logical objection, then certainly the cost of any policy to suppress disease whether among the brutes or the humans is an objection.

This Board of Trustees desires, at this time, to make certain recommendations. At the Western Maine Sanatorium the expansion should be determined by the number of so-called curable cases desiring treatment. Up to the present time the Board has been able to admit practically all applicants of that class. Sanatorium treatment, however, possesses so many merits that it is altogether probable as the new system of treatment becomes better known, the number of early cases asking for treatment will increase. Every early case should be carefully attended to in order to increase the restoration to good health.

The present system of heating at the Western Maine Sanatorium consumes about 720 tons of coal a year. This coal must be hauled up hill about two miles. It seems apparent that the indirect method of heating water in tanks located in different buildings by live steam driven from the boiler house is an expensive method. It may be that, could the water be heated at the boiler house and then drawn to the different buildings, not so much pressure of steam would be required. This is a matter for further investigation. An off hand opinion given by several men acquainted with heating plants is that by neating the water at the boiler house a considerable saving could be made in fuel.

All of the trucking at the Western Maine Sanatorium is from West Minot. The highway is in bad condition. The towns of Hebron and Minot do not feel disposed to improve it at any great cost. A good road would reduce the expense of hauling fuel and other supplies from West Minot to the institution

In order to handle the fuel required at Hebron at the least expense a coal pocket and spur track at West Minot are desirable.

One barn at the Western Maine Sanatorium should be shingled, clapboarded and painted. A new piggery should be built and a shed to shelter wagons, sleds, etc., should be erected. Some lumber obtained from the old barn is available for such a shed.

There are certain needs for the Central Maine Sanatorium. The present kitchen and dining room are sheltered by a rough shack. This Board of Trustees believes that instead of erecting a building for a kitchen and dining room the Northwest side of the Chase Memorial building should be changed over for that purpose. The rest of the Chase Memorial building should be used for offices, assembly room and other administration purposes. This Board also recommends that at Fairfield three pavilions be erected. It is not necessary that these pavilions be expensively constructed. Advanced cases of tuberculosis require altogether different treatment from the earlier stages of the disease. The advanced case requires warmth and more constant care. One of the pavilions should be for that purpose. The other two should be for the earlier cases. Sewerage facilities at Fairfield must be remedied. There is no adequate supply of water. The plan considered by the Board as being best is to extend the main of the Kennebec Water District to the Sanatorium, laying sewerage pipe in the same trench to the Kennebec River. The cost of putting in water supply and sewerage in this manner would not exceed \$6,000.00.

The Board of Trustees was fortunate, upon assuming the inauguration of this Sanatorium policy, in securing the services of Dr. Olin S. Pettengill as Superintendent of the Western Maine Sanatorium. Dr. Pettengill has had much experience in this line of service. He has been connected with several institutions in New York: was Assistant Physician for some time at the State Sanatorium at Rutland, Mass., and was Assistant Superintendent of the Rhode Island State Sanatorium when the position at Hebron was offered him. He has taken a deep interest in the welfare of the patients, has been painstaking in the matter of giving to the State an efficient administration of the institution. This Board also believes that it was fortunate in securing the services of Dr. John F. Shaw as Superintendent of the Central Maine Sanatorium at Fairfield. Dr. Shaw has had considerable experience in the treatment of tuberculosis in various institutions in the West. So far as possible the nurses and other employees at these two institutions when the State took them over were con-Mr. Albert M. Richardson had for some years acted as Treasurer at the Maine State Sanatorium at Hebron. experience had made him intimately acquainted with the buildings, equipment and the procuring and consuming of supplies. Mr. Richardson also understood how the various funds were invested. He was highly recommended by Mr. Hiram Ricker who was so actively and generously connected with that institution, and by Mr. Franklin C. Payson, another of its Directors, who had given much of his valuable time and of his means to make it a success. The services of Mr. Richardson were continued by this Board as bookkeeper and office manager. has been conscientious and exacting. At Fairfield Miss Elizabeth Marco was practically superintendent, housekeeper and head nurse when the State acquired the property. Miss Marco has been efficient in every way. Other than mentioned the force of employees has changed from time to time, either from resignation, voluntary or required-

When this Board of Trustees organized on August 2, 1915, it was believed that very little could be accomplished in actual treatment of tuberculosis under the appropriation made by the Legislature for that purpose. The sum of \$75,000 will not provide a very large sanatorium plant. The low price asked for the available property at Hebron and the Sanatorium at Fairfield made a refusal to purchase impossible. About one-half of the \$75,000 appropriated was expended in these purchases. The capacity at Hebron is about 100 patients. The capacity at Fairfield is about 50 patients. Under the statute the Trustees could not refuse to admit so long as there was room for the applicant. The capacity of the two sanatoriums was therefore about 150 patients. Every effort consistent with efficient feeding, care and treatment, to reduce the cost of maintenance has been made. Prices of food stuffs, fuel. bedding, table linen and other things necessary for these institutions have increased, yet the per capita cost of maintenance has remained about the same at both institutions. On June 30, 1016, the close of the fiscal year established by this Board, there was a balance on hand of \$1,040. The Board understood from the time the two institutions were purchased according to the law a deficit would result. The matter of

continuing was referred to Governor Curtis who, with his usual wisdom, has directed that the institutions continue to do their work. There will be, until the Legislature provides, no appropriation to expend, and these two institutions must be provided for through the able management of the Governor and the Executive Council.

Forming a part of this report are financial tables which will explain the cost of the two institutions and their maintenance to June 30, 1916. In addition as part of this report are the reports of Dr. Olin S. Pettengill, Superintendent of the Western Maine Sanatorium, and of Dr. John F. Shaw, Superintendent of the Central Maine Sanatorium.

FINANCIAL STATEMENT

WESTERN MAINE SANATORIUM, HEBRON, MAINE.

Sanatorium Property, June 30, 1916.

Nichols Farm, Land and Buildings	\$ 5,000	00
Sanatorium Farm-Land	4,775	00
Grounds and Roads	5,093	18
Administration Building	53,209	09
Administration Building Equipment	11,311	50
Men's Cottage	11,445	97
Men's Cottage Equipment	1,249	43
Women's Cottage	15,720	20
Women's Cottage Equipment	1,277	52
Reception Cottage	24,283	86
Reception Cottage Equipment	3,103	16
Farm Cottage	1,952	33
Farm Cottage Equipment	399	19
Stable	11,918	54
Power House	13,968	84
Heating System	9,748	02
Lighting System	4,896	38
Pumping Stations, Tank and Connections	5,609	90
New Water System	12,311	78
Laundry Equipment	1,196	20
Ice House and Creamery	1,437	95
Shack and Tents	481	62
Live Stock	4,500	00
Harnesses, Wagons, etc.	1,080	33
Farm Tools, Machinery, etc.	2,411	65
Equipment of Medical Offices	4,365	87
Miscellaneous Equipment	522	32
Permanent Improvements	904	72
Value of Plant and Equipment, Oct. 5, 1915	\$214,174	55
Equipment since Oct. 5	473	
Permanent Improvements since Oct. 5	124	
-		

\$214,771 93

PER CAPITA COSTS.

CENTRAL MAINE SANATORIUM,

September 1, 1915 to June 30, 1916.

Maintenance	\$17,449 70 3,249 20
Expense to State	\$14,200 50
Weekly per capita expense	10.241 1.904
Weekly per capita expense to State	\$8.337
Western Maine Sanatorium,	
October 6, 1915 to June 30, 1916.	*
Maintenance	\$41,476 69
Recupts, Western Maine Sanatorium 19999 00	\$21,018 61
Expense to State	\$20,458 08
Weekly per capita expense	13.202 6.692
Weekly per capita expense to State	\$6.510
If from the total receipts the amount received from the Association be deducted the per capita costs will be:	Sanatorium
Weekly per capita expense	13.202
Weekly per capita receipts	5.124
Weekly per capita cost to State	\$8.078
Average weekly per capita expense for all patients	12.152
Average weekly per capita receipts, all patients	3.983
Average weekly per capita expense to State	\$8.169

General Statement showing balance available June 30, 1	916.	
Appropriation	. \$75,000	00
State of Maine, balance due Sanatorium Association		
Cash on hand October 5, 1915		
Sanatorium Association accounts collected		98
Notes paid, due Sanatorium Association	. 91	34
Income from E. D. Chamberlin Fund, due Sanatorium Ass's	1 613	69
Income from Central Maine Sanatorium	. 3,238	20
Gifts to Central Maine Sanatorium	. 11	00
Income from Western Maine Sanatorium	. 11,949	94
Gift to Western Maine Sanatorium	. 50	00
Income from Levi M. Stewart Fund	. 3,460	00
Dividends W. W. Brown Fund	. 60	00
-	 	_
•	\$99,267	81
CONTRA.		
Sanatorium purchased, Fairfield \$15,000 o	0	
Sanatorium purchased, Hebron 15,000 0	0	
Outstanding Bills, Sanatorium Association 11,013 6	5	
Equipment and permanent improvements 1,930 7	3	
Trustees, per diem and expenses	4	
General Salaries)	
Salaries and pay rolls, maintenance and supplies 51,990 4	3	
Cash on hand June 30 345 7		
545 /	9	

Balance of Appropriation.....

\$1,041 02

CENTRAL MAINE SANATORIUM, FAIRFIELD, MAINE.

CASH RECEIPTS.

Sept. 1, 1915 to June 30, 1916.

Treatment of Patients	\$3,139 62
Transients, meals	25 74
Medical Supplies	48 39
Laundry	15 72
Office and Telephone	4 13
Gifts-Rev. Geo. W. Kelly, Portland, Me	I 00
Margaret Goff Moore Chapter, D. A. R., Madison, Me.	10 00
Miscellaneous	4 60 •
	\$2.240.20

CENTRAL MAINE SANATORIUM, FAIRFIELD, MAINE.

EXPENSE.

Sept. 1, 1915 to June 30, 1916.				
Salaries and Pay Roll:				
Medical Director, Nurses	\$2,407	44		
Mechanic	352	30	`	
House and Kitchen	2,026	73	\$4,786	47
Provisions:				
Meat	\$1,394	06		
Fish	228	26		
Groceries	1,845	2 8		
Fruit and Vegetables	716	42		
Dairy Products	2,249	84		
Eggs	309	35		
Ice	163	50	\$6,906	71
Heat, Light and Power:				
Coal	\$647	27		
Electricity	214	12		
Oil	16	14	\$877	53
Household:				
Range Coal	\$430	42		
Paper Supplies	89	68		
Brooms, Mops, etc	31	66		
Soap, etc	132	81		
Electric Supplies	51	19		
Laundry	835	18		
Dishes, etc	63	47	\$1,634	41

Maintenance and Repairs:		
Insurance		
Materials 170 56		
Labor 167 65		
Repair Parts		
Replacements	\$638	II
General Expense:		
Office Supplies \$211 88		
Office Expense		
Tel. and Tel 232 70		
Postage		
Medical Supplies 1,267 23		
Medical Expense		
Express and Freight 112 84		
Transportation, Travel Expense, etc 350 15	\$2,565	44
Garden 41 03	41	03
· · · · · · · · · · · · · · · · · · ·		_
Maintenance		
Plant Purchased	\$15,000	00
Equipment:		
Medical \$ 8 10		
Household 752 41		
Office 10 00		
Automobile 500 00	\$1,270	51
Permanent Improvements:		
Buildings	62	89
	\$33,783	10

Of the above expense \$1,464.06 had not been manifested to the State Auditor July 1st and so does not appear in the statement showing balance of appropriation.

WESTERN MAINE SANATORIUM, HEBRON, MAINE.

CASH RECEIPTS.

Oct. 6, 1915 to June 30, 1916.

Cash from Maine State Sanatorium Ass'n	\$ 374 17
Sanatorium Ass'n accounts collected	1,549 98
Notes paid, due Sanatorium Ass'n	91 34
Treatment of patients	10,009 20
Farm	450 38
Transients, meals and rooms	553 96
Medical Supplies	130 88
Laundry	50 06
Office and Telephone	74 84
Store, toilet articles, etc., for patients	283 80
Express and Freight	33 17
Training School	42 66
Income from Chamberlin Fund due Sanatorium Ass'n	613 69
State Aid due Maine State Sanatorium Ass'n	2,869 49
Levi M. Stewart Fund	3,460 00
Dividends—W. W. Brown Fund	60 0 0
Gift-Robert H. Gardiner, Gardiner, Maine	50 00
Interest	12 16
Interest on petty cash balance	5 12
Rent, Dr. Estes Nichols' House	48 00
Rebate on Liability Insurance	104 63
Miscellaneous	151 08

· \$21,018 61

WESTERN STATE SANATORIUM, HEBRON, MAINE.

EXPENSE.

Oct. 6, 1915 to June 30, 1916.

Salaries and Pay Roll:	
Medical Director, Assistants, Nurses	\$5,182 84
Office Assistants	581 62
Chief Mechanic, Engineers	1,382 51
Laundry	866 02
House and Kitchen	4,556 66
Farm	2,805 95
Panaire	r6 87 \$15 43

Provisions:		
Meat	\$5,512 60)
Fish	681 96	i
Groceries	2,469 92	!
Fruit and Vegetables	1,402 84	•
Dairy Products	4,200 12	!
Eggs	973 93	
Ice	163 10	\$15,404 56
Heat, Light and Power:		
Coal	\$3,084 16	i
Hauling Coal	474 50	•
Electricity 6 months	362 40	
Power House	51 81	
Miscellaneous	7 31	
Water	225 00	
Wood for Power House	53 00	\$4,258 18
Household:		
Range Coal	\$207 75	;
Hauling Coall	34, 00)
Paper Supplies	300 00	•
Brooms, Mops. etc	51 42	:
Soap, etc.	291 67	
Electric Supplies	<i>77</i> 00	
Dishes, etc.	94 03	
Laundry	244 92	
Wood for Kitchen	114 75	\$ \$1,415 54
Maintenance and Repairs:	φ	
Insurance	\$2,178 51	
MaterialsLabor	371 06	
Repair Parts	187 10 153 99	
Replacements	322 84	
Grounds, Roads, Walks	182 40	
, ,	102 40	ν ψ3,393 90
General Expense:	φ	
Office Supplies	\$304 96	
Office Expense	84 36	
Postage	254 01	
Medical Supplies	125 00 934 16	
Medical Expense	58 36	
Express and Freight	1,165 39	
Store and Chairs	262 59	
Transportation, Travel Expense	201 23	
Training School	36 61	
		10

Farm and Stable:				
Grain	\$2,195	57		
Pasture	40			
Fertilizer	322			
Seeds and Plants	134	84		
Repair Parts		6 i		
Repair Work	65			
Dairy Stock		40		
Storing Ice	86	60		
Horses	223	39		
Swine	171			
Poultry	29			
Replacements	78			
Orchard	35	97		
Miscellaneous	16			
	,			
	\$3,412	74		
Supplies and Labor Credited	\$5,267	37	\$1.856	63
Maintenance				
Sanatorium at Hebron				
Outstanding Bills, Sanatorium Association			\$11,013	65
			, , ,	J
Equipment:				
Medical	\$ 39	65		
Household	305	-		
Office		00		
Farm	126	20	\$473	3.3
				-
Permanent Improvements:				
Buildings	\$86	05		
Grounds	38	00	\$124	05
			+10 0	
			\$68,087	
Of the above expenses \$5,471.90 had not been				
Auditor July 1st, and so does not appear in sta	tement	sho	wing b	al-
ance of appropriation.				
Acknowledgements.				
Books, Magazines, etc.				
Mrs. H. M. Shepley	Po	rtla	nd. Ma	ine
Zion's Advocate				
Lewiston Journal				
Religious Services.				
Rev. P. J. Boivin	No	rw	ay, Ma	ine
Rev. W. A. Smith	Н	ebr	on, Ma	ine
Dr. N. S. Kupelion				
Prof. D. T. Harthorne				
			,	

Musical Entertainment.	
Mr. Arthur W. Pettengill and OrchestraLewiston, Mr. Menander Dennett, (Reader)Lewiston,	Maine Maine
Miscellaneous.	
Mr. Robert H. Gardiner, (\$50.00)	Maine
WAGES OF EMPLOYEES.	
Superintendent (per annum)—1 \$1	,800 00
1.	,000 00
	,100 00
Stenographer (per week)—1	5 o o
House Keeper (per month)—I	45 00
Laboratory Assistant (per month)—1	20 00
Nurses (per month)—12\$7 00 to	o 60 00
Bookkeeper (per week)—1	5 00
Boiler Men (per month)—2	40 00
Farmers	o 30 0 0
Farm Superintendent (per month)—1	65 oo
Chef (per month)—1	60 vo
2nd Chef (per month)—I	30 00
Dish-Washer (per month)—I	25 00
Laundryman (per month)—1	40 00
Laundresses (per month)—2\$29 00 t	- 1
Baker (per month)—I	4 0 0 0
Waitresses	
House Man (per month)—I	30 00
Mechanic (per month)—I	50 00
Kitchen Men (per month)—2	25 00
Housemaids	to 6 50
Oct. 6, 1915, June 30, 1916.	
FARM CREDITS.	
Cream, Milk and Butter\$	3,003 26
Fruit and Vegetables	66o 36
Meat	335 36
Eggs	192 74
Ice	163 10
Wood for kitchen	114 75
Wood for power house	53 00
Hauling coal for power house	474 50
Hauling coal for kitchen	34 00
Care of ground and roads and clearing snow	182 40
Maintenance and repairs, labor	33 50
Transportation, aside from stage	-22 40

Report of Superintendent Western Maine Sanatorium

SUPERINTENDENT'S REPORT.

To the Board of Trustees of the State Sanatoriums:

Gentlemen:—Herewith is submitted the superintendent's report of the Western Maine Sanatorium at Hebron, Maine, for the period beginning October 6, 1915, when the State assumed control, and ending June 30, 1916, the termination of the official year.

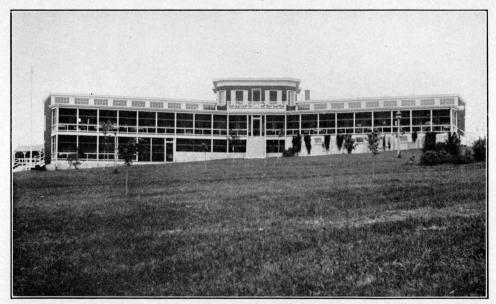
On October 6, 1915, when the State assumed control, there were 56 patients in the institution. Their condition was as follows: Incipient 3, moderately advanced 40, far advanced 13. From October 6, 1915 to June 30, 1916, 140 patients were admitted. Of this number 17 were incipient, 105 moderately advanced, and 17 far advanced. During this same period 103 were discharged. The number of patients treated was 196. On June 30, 1916, there were 93 patients in the institution. The greatest number of patients in the institution at any one time was 95 on April 7, 1916; the smallest number was 56 on October 6, 1915. The daily average of patients was 81.77.

TEMPORARY RESULTS.

Of the 103 patients discharged, 5 were apparently arrested; 10 quiescent; 58 improved; 20 unimproved; 9 died. Fortyneight per cent of the cases that failed to improve were far advanced. Twenty-eight per cent of the unimproved cases were moderately advanced, Turban 111.

END RESULTS.

Six months after patients are discharged and thereafter at intervals of six months, they are sent blanks with questions to be answered. The purpose is to ascertain the condition of the patients' health, whether they are living under strict hygienic conditions and whether they are taking sanitary precautions against spreading the disease. Questions are asked concerning other members of the family, if they have shown any



Reception Cottage.

symptoms of tuberculosis and, if so, whether they have consulted a physician. When the patients are working they are asked to give an estimate (if they care to do so) of their weekly earnings. The idea of this last question is to find out the economic value of treating tuberculosis by the State. On June 30, 1916, 37 patients had been discharged six months and over. Four of the patients we are unable to trace, 9 patients are dead, 11 or 64.8% are living, and 13 or 35% are living and working. The condition of the cases after they have returned home to resume their former occupations, and how long they are able to continue their work in good health indicate the extent of repair processes accomplished by their stay at the sanatorium and the value of the sanatorium as a training school for hygienic living.

DIAGNOSTIC FEATURES.

A study of the cases tabulated in the medical report in detail shows that only 28 cases gave a history of marked exposure to the disease compared with 89 who have no history of exposure whatever. The average duration of disease previous to admission was about three years. The greatest number of patients treated were between the ages of 20 and 30, this being the most common period in life for the disease to become active. One case was discharged as non-tuberculous. It is our routine to administer a subcutaneous tuberculin test* to

^{*}The subcutaneous tuberculin test is capable of doing great harm if not used carefully. It should not be given to patients who have an afternoon temperature over 99.2 F. and the initial dose should be small so that if the patient is highly sensitive to tuberculin no violent or injurious reaction will result. It is rarely necessary to give it if a careful and accurate history of the case can be obtained. Koch's Old Tuberculin is the variety of tuberculin commonly used. The initial dose to an adult is usually 1-2 milligram. The temperature should be taken every three hours. After an interval of three to five days, if no reaction (rise of temperature) occurs, a second dose of 2 milligrams is given. If no reaction occurs, a third dose of 6 milligrams is given. No reaction occurring after the last dose, which is usually 10 milligrams, the case is considered to have no active tuberculosis. A rise of temperature of one degree higher than normal within 48 hours after any dose has been given constitutes a positive reaction. Should this be accompanied by an increase of physical signs of the lungs, or if lung symptoms appear (a focal reaction) it is safe to conclude that the focus is in the lungs.

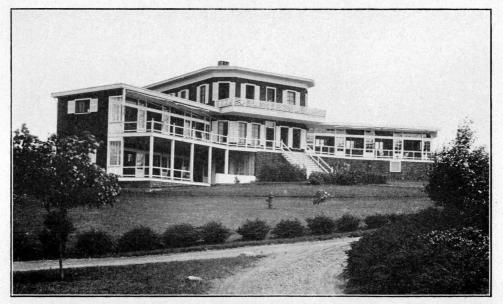
cases giving no marked exposure to the disease, and showing no positive symptoms of tuberculosis or having a P. M. temperature of not over 99° F. A negative test is considered proof that active tubercular infection is not present. This case complied with the above conditions, and was discharged as non-tuberculous.

IMPORTANCE OF EARLY TREATMENT.

Owing to the fact that many cases stayed a short time and that this period of stay was entirely too short to accomplish more than temporary improvement, the cases on discharge have been divided into two classes, viz: those that remained less than 90 days and those that remained more than 90 days. I have mentioned only the results in the cases remaining over 90 days. There were 74 cases in this series with an average residence of 208 days. Not a single incipient case failed to improve and 40% of the incipient cases were discharged as apparently arrested. This condition corresponds to the "apparently cured" cases in the classification used for many years. Of the moderately advanced cases about 20% failed to improve. Contrast these results with the results obtained in treating the far advanced cases. Of the II far advanced cases, over 72% failed to improve and 27% improved in some way. figures indicate that the institutional method of treating tuberculosis is hopeless for advanced cases. It will prolong life, but this life prolonged is not of much comfort to the patient or the relatives and friends. Since the average patient treated here showed symptoms of the disease for about three years previous to admission, it is urged that cases be sent to us earlier.

ADVANTAGES OF SANATORIUM TREATMENT.

The direct advantages derived from sanatorium treatment are first, the restoration of patients to health, and second, the teaching of hygienic rules of living for them to follow when discharged. Many cases cannot and others will not remain at the sanatorium long enough to be completely restored to health. To these cases the sanatorium is a training school for the proper method of taking the so-called "open air treatment." The minor details of this treatment are so many that the average physician has not the time at his disposal to instruct



Women's Cottage.

his patients thoroughly. He is also unable to control the daily routine of his patients and to secure the necessary data for the intelligent management of the case unless his patient can afford to pay for the services of a nurse especially trained in this line of work.

The indirect advantages are far reaching. Many of the most efficient anti-tuberculosis workers are from the ranks of discharged patients. Besides the routine instruction about tuberculosis given by the physicians, patients unconscientiously imbibe lasting impressions from their associations concerning the importance of certain symptoms, their significance and the results of prompt treatment. When such patients are discharged they are often the means of saving other cases with whom they come in contact by their intelligent advice and by impressing upon them the lessons they have learned.

POLICY OF THE SANATORIUM.

As far as possible the policy in vogue at the Western Maine Sanatorium when the State assumed control has been carried out under State management. This Sanatorium has been reserved for the so-called "curable cases." Not enough early cases have applied for treatment to keep all the beds at Hebron full. For this reason some cases in the far advanced stages have been admitted when their condition manifested some hope of the arrest of their disease or the surroundings at home meant inevitable spread of the infection. The Administration Building has been reserved strictly for administrative Reception Cottage has been used principally for bed patients, both male and female. The beds in the lower pavilion of Reception Cottage have been used for female patients instead of male because of the increased demand for more beds for female patients. The daily routine, including visiting hours, has been the same. In general, the policy has been to maintain a sanatorium along lines similar to those pursued by other state sanatoria with the object in view of accomplishing the greatest good for the anti-tuberculosis cause with the means at our disposal.

DIETARY.

Realizing that the question of food is one of the most complex problem with which the management of a sanato-

DIETARY

rium for treating tuberculosis has to deal, the plan has been to serve a liberal, well balanced diet of plain food, the best the markets afford. The average case of tuberculosis, showing symptoms of activity of the disease has no desire to eat. For this reason, in addition to the regular meals three lunches a day are served, in order that from these lunches together with what the patient eats at the table, maximum assimilation of nutrition may be obtained. Patients who are below their normal weight are given three lunches consisting of two raw eggs served either as egg-nogs or plain with milk. who are at their normal weight are given only two extra lunches, consisting of one raw egg. Patients ten pounds above their normal weight are not given extra lunches. It is detrimental to over-burden a patient's powers of assimilation and the organs of excretion by forced feeding. Of the 103 discharged patients 68 gained weight and the average gain per patient was 12.8 pounds. The most any individual gained was 42 3-4 pounds. Sixteen patients lost weight, the average loss being 6.3 pounds. Ten patients neither lost nor gained, five not remaining over a second weight period which is one week.

A copy of an average week's dietary is printed elsewhere.

TREATMENT.

The Hygienic-dietetic treatment common to all tuberculosis sanatoria has been followed out here. In addition to this Artificial Pneumothorax with Nitrogen Gas has been induced in suitable cases. Tuberculin has been used therapeutically in carefully selected cases.

GRADUATED EXERCISES.

Following the method in use at most sanatoria for treating pulmonary tuberculosis, the patients, when their condition warrants, are put on graduated exercise. The patient's condition is carefully noted, and once a week a conference is held with each patient not in bed and the exercise prescribed as any therapeutic measure would be. At first, this exercise consists of short walks at a given time each day. Later, as their tolerance increases, they are given in addition light work about the



Men's Cottage.

sanatorium such as making beds, sweeping porches, dusting, charting, and light work on the lawns. The work serves a dual purpose, viz: that of restoring patients to health with some other form of exercise than monotonous walking and that of helping in a slight degree the expense of maintaining the sanatorium. It teaches the patients to work and take treatment at the same time so that they are in a better condition to return to their self-supporting occupations.

TRAINING SCHOOL FOR NURSES.

We have had an average of 4 pupil nurses in the training school during this period. Lectures, demonstrations, and textbook courses have been given as at any regular training school for nurses. It is the plan to affiliate with some hospital so that practical work may be had in surgical and obstetrical nursing in order that graduates of the school may meet the requirements of the State Board for Registration of Nurses. This school offers an exceptional opportunity for ex-patients in suitable health to train under ideal hygienic surroundings and under strict medical supervision.

FREE TREATMENT.

The financial status of the one hundred and ninety-six patients admitted during the period of time from October 6, 1915 to June 30, 1916, was as follows:

Entirely free	• 50
Paying \$2.00 per week	2
Paying \$2.50 per week	2
Paying \$3.00 per week	3
Paying \$5.00 per week	129
Paying \$5.00 per week on admission and later reduced	
to \$3.50	Ţ
Paying \$5.00 per week on admission and later reduced	
to free	· I
Paying \$15.00 per week (out of state patients)	I
Paying \$16.00 per week (out of state patients)	2

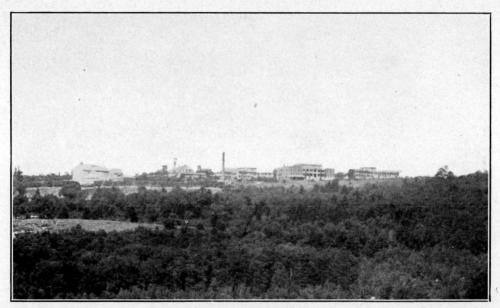
REPAIRS AND IMPROVEMENTS.

Ten new beds for patients have been added since the State assumed control. This brings the total number of beds for patients to 107. Four beds were added to the Men's Cottage, 4 to the Women's Cottage, and 2 to Reception Cottage. To increase the value of the garbage as a food for the pigs, and to kill any tubercle bacilli in the garbage from the patients' tables, a steam garbage cooker was installed at the stable. Two dentinal bowls for use in brushing the teeth have been placed in the Men's Cottage. One new brooder house for chickens was built and the old one repaired. The veranda floors at the cottages have been painted with the exception of the lower pavilion at Reception Cottage. The dressing rooms at the Men's and Women's Cottages have been varnished. The black barn has been torn down. The upper veranda of the Administration Building has been partially screened.

ACKNOWLEDGEMENTS.

A full list of acknowledgements is printed elsewhere. The many books given by Mrs. H. M. Shepley have been a useful addition to the library. I take the opportunity to acknowledge my indebtedness to the officers, nurses, and employees, for their loyal and efficient assistance in the work of the Sanatorium and to you, gentlemen of the Board of Trustees, for your consideration and helpful advice.

Respectfully submitted,
OLIN S. PETTINGILL, Superintendent.



Distant View of Sanatorium Looking East.

1-MOVEMENT OF POPULATION.

Patients.	Males.	Females.	Totals.
*Number remaining October 6, 1915	27	29	56
Number admitted from October 6, 1915, to June 30, 1916	61	79	140
Number treated from October 6, 1915, to June 30, 1916	88	108	196
Number discharged from October 6, 1915, to June 30, 1916	48	55	103
Number remaining June 30, 1916	38	55	93

^{*} Number of patients residents at Sanatorium when the State assumed control.

2-MONTHLY ADMISSIONS, DISCHARGES AND AVERAGES.

`	Admissions.		Discharges.			Daily	
Мо̀хтн.	Males.	Females.	Totals.	Males.	Females.	Totals.	average of patients.
Oct. 6 to 31	14	9	23	9	9	18	64.25
November	îî	11	22	š	7	îŏ	71.26
December	6	4	10	5	5	10	76.48
January	5	10	15	i	4	5	82.48
February	4	4	8	4	0	4	87.35
March	4 5 9 5	4	9	3	3	6	91.19
April	9	8	17	12	10	22	88.5
Мау	5	13	18	7	13	20	86.8
June	2	16	18	5	3	. 8	87.7
Total daily ave	rage		 	l 		<i></i>	81.77

3-NATIVITY, BY STATES, OF NATIVE-BORN PATIENTS.

STATES.	Males.	Females.	Totals.
Florida. Illinois Maine. Massachusetts New Hampshire New York Pennsylvania Vermont.	53 5 2 3	2 76 3 2 2 2 1 2	2 1 129 8 4 5 1
Totals	64	88	152

4-NATIVITY OF FOREIGN-BORN PATIENTS.

Countries.	Males.	Females.	Totals.
Canada (French)	11	5	16
Canada (English)	9	6	15
Russia	6	.4	10
Sweden	_	1	1
Unknown	_	2	2
Totals	26	18	44

5—RESIDENCE—COUNTIES.

	Males.	Females.	Totals.
Andresserin	10	19	29
Androscoggin	10	10	19
Aroostook	9	10	
Cumberland	8	12	20
Franklin	2	4	ō
Hancock	3	3	6
Kennebec	6	11	17
Knox	6	6	12
Lincoln	4	3	7
Oxford	- 4	7	11
Penobscot	15	10	$\bar{25}$
Piscataquis	10	13	-5
Paradahaa	í	1 5	ž
Sagadahoc	1	- 6	15
Somerset	Ģ	9	10
Waldo	· 1	1 - 1	10
Washington	5	5	10
York	3	3	6
Missing	3	1	4
Totals	88	108	196

6-AGES.

	Males.	Females.	Totals.
5 to 10 years. 10 to 15 years. 15 to 20 years. 20 to 30 years. 30 to 40 years. 40 to 50 years. Over 50 years.	1 9 44	1 4 13 50 24 14 2	1 5 22 94 46 23 5
Totals	88	108	196

7-CIVIL CONDITION.

	Males.	Females.	Totals.
Single	43	53	96
Married	42	49	91
Widowed	2	5	7
Separated	<u>`</u>	1	. 1
Divorced	1	_	1
Totals	88	108	196

8-EDUCATION.

-	Males.	Females.	Totals.
Academic. Collegiate High School Grammar School Able to "read and write" Illiterate Not given Normal School	2 6 16 43 3 2 16	2 2 30 41 - 5 25 3	4 8 46 84 3 7 41 3
Totals	88	108	196

9-RELIGIONS.

	Males.	Females.	Totals.
Catholics	18	26	44
Hebrews	5	_	5
Protestants	65	82	147
Totals	88	108	196

10-OCCUPATIONS.

	Males.	Females.	Totals.
Barbers	1] _ [1
Bookkeepers	î	1	2
Business men	i		1
Carpenters	$\frac{1}{2}$		2
Clerks.	6	4	10
Cooks	2		2
Dressmakers	2	3	3
	1	0 ~	1
Electro-typist		-	
Farmers	18	-	18
Garage keepers	1	- 1	1
Hostlers	1		1
Housemaids		21	21
Housewives	- -	34	34
Ironworkers	1	-	1
Laborers	5	-	5
Laundress	-	1	1
Lumbermen	1	-	1
Machinists	3	-	3
Marine engineers	1	-	1
Meat cutters	1	_	1
Mechanical engineers	1	_	1
Mill operatives	13	8	21
Music teachers	_	1	1
Nurses	_	9	9
Painters	1	_	1
Plumbers	1	_	1
Printers	1.	_	1 2 8 6
Railroading	2 '	_	$ar{2}$
Salesmen	8	-	8
School teachers	_	6	6
Seamen	1	-	ĭ
Shoemakers	1	_	ī
Stenographers	_	7	7
Stone-cutters	1		i
Students	7	10	17
Surveyors	i		- i
Tailors.	î	1 _	i
Teamsters	$\mathbf{\dot{\hat{z}}}$	_ i	2
Telephone operators		1 1	ī
Textile-workers	ĩ	1 1	i
Waitresses	1	_ 2	$\frac{1}{2}$
vv altifesses			
Totals	- 88	108	196
1 Otals	88	109	190

11-ÆTIOLOGY.

	Males.	Females.	Totals.
1—Sources of Infection.			
Previous infection of other members of patient's family *Previous infection of members of patient's family with	26	38	64
whom patient lived. Previous infection of persons outside the family with whom	8	17	25
patient lived	_	2	2
Previous infection of persons with whom patient slept	2	2 11 8	13
Previous infection of persons with whom patient worked.	1	8	9
Previous infection of houses in which patient lived Total number in whom a history of marked exposure to in-	1	-	1
fection was obtainedthumber of patients in whom no history of exposure was	8	20	28
obtained	52	37	89
2—CONTRIBUTORY CAUSES.	_		_
Exposure to inhalation of metal or store dust	5	-	5

^{*} In not all cases in which there was a family history of tuberculosis did our records show that the patient lived with the infected members.

† Columns cannot be totalled, as some patients were exposed in more than one way.

12—PRESUMABLE DURATION OF DISEASE PREVIOUS TO ADMISSION.

	Males.	Females.	Totals.
From 0 to 3 months. From 3 to 6 months. From 6 to 12 months. From 1 to 2 years. From 2 to 5 years From 5 to 10 years From 10 to 20 years. Over 20 years.	5 7 10 20 18 9 4 -	2 6 13 25 19 8 4 1 25	7 13 23 45 37 17 8 1 45
Totals	93	103	196

Average duration by months, 31.07.

13-PROMINENT SYMPTOMS PREVIOUS TO ADMISSION.

	Males.	Females.	Totals.
Cough	81	92	173
Expectoration		83	167
Chills		44	777
ever		69	118
Night sweats		53	104
Hemorrhage	54	61	115
Pleurisy	66	82	148
Hoarseness	34	45	79

14—PHYSICAL CONDITION OF PATIENTS AT SANATORIUM, OCTOBER 6, 1915.

,	Males.	Females.	Totals.
Incipient	_	3	3
Moderately advanced	22	18	40
Far advanced	5	8	13
Totals	27	29	56

15—DURATION OF RESIDENCE. PATIENTS IN SANATORIUM, OCTOBER 6, 1915.

	Males.	Females.	Totals.
Under 3 months	13	10	23
3 to 6 months	7	12	19
6 to 12 months	4	5	9
Over 1 year	3	2	5
Totals	27	29	56

16—CONDITION OF PATIENTS ADMITTED FROM OCTOBER 6, 1915, TO JUNE 30, 1916.

,	Males.	Females.	Totals.
Incipient	5	12	17
Moderately advanced	47	58	105
Far advanced	6	11	17
Non-tuberculous	_	1	1
Totals	58	82	140

17-AVERAGE NUMBER OF BED PATIENTS, BY MONTHS.

	Males.	Females.	Totals.
December January February March April May June	13.57 20.58 21.75 21.03 20.10 19.19 13.20	23.69 18.45 22.10 21.77 20.90 19.61 19.86	37.26 39.03 43.85 42.80 41.00 38.80 33.06
Daily average for past seven months	18.48	20.91	39.40

No record kept of bed patients before December 1, 1915.

18—DURATION OF RESIDENCE. PATIENTS IN THE HOUSE, JUNE 30, 1916.

	Males.	Females.	Totals.
Under 3 months	12	*34	46
3 to 6 months	7	†10	17
6 to 12 months	17	9	26
Over 1 year	2	2	4
Total	38	55	93

^{*}Two females readmitted—duration of residence less than one month.
†One female readmitted—duration of residence less than six months.

19-DURATION OF TREATMENT OF DISCHARGED PATIENTS.

	Males.	Females.	Totals.
Under 1 month	4	6	10
1 to 3 months	10	8	18
3 to 6 months	18	18	36
6 to 12 months	14	19	33
Over 12 months	2	4	6
Total	48	55	103

20-CAUSES OF DISCHARGE.

	Males.	Females.	Totals.
Left with consent. Left with consent, not improving. Left against advice. Infraction of rules. Died. We to other institutions. Non-tuberculous.	11 6 20 5 4 2	17 3 28 1 5 - 1	28 9 48 6 9 2
Totals	48	55	103

21—REASONS GIVEN FOR LEAVING AGAINST ADVICE.

	Males.	Females.	Totals.
Homesickness. Support or care of family. To continue treatment at home. To continue treatment in other climates. To return to work. No good reason given. Not improving.	4 8 3 1	2 5 11 2 - 8 -	3 9 19 5 1 10
·	20 .	28	48

22-PHYSICAL CONDITION ON DISCHARGE.

	Males.	Females.	Totals.	Percentages
Apparently arrested. Quiescent. Improved. Unimproved. Non-tuberculous. Died.	3	2	5	4.85
	6	4	10	9.70
	23	35	58	56.31
	13	7	20	19.41
	-	1	1	.97
	4	5	9	8.73

23-DEATHS IN THE INSTITUTION.

SEX.	Immediate Cause of Death.	Presumable duration of disease.	Duration of residence in sanatorium.
Male. Female. Male. Female. Female. Female. Male.	Pleural shock Tuberculous meningitis. Hemoptysis. Asthenia Asthenia Hemoptysis. Asthenia Asthenia Asthenia Asthenia	25 months 42 months 18 months 30 months 144 months 18 months 60 months	6 6-7 weeks 39 3-7 weeks 31 4-7 weeks 50 4-7 weeks 1 4-7 weeks 27 weeks 5 1-7 weeks

24—CLASS I—TWENTY-NINE PATIENTS WHO REMAINED LESS THAN 90 DAYS. AVERAGE RESIDENCE, 40 DAYS.

			Quies	scent.	Impr	oved.	Unimp	roved.	Di	ed.
CONDITION OF PATIENTS WHEN ADMITTED.	Number.	Per cent.	Number.	Per cent,						
Incipient cases	3	10.7	1	33.3	2	66.7	_	_	_	_
Moderately advanced cases	18	64.3	2	11.1	12	66.7	3	16.7	1	5.5
Far advanced cases	7	25.0	-	-	.2	28.5	3	42.9	2	28.5
Totals	*28	100.0	3	10.7	16	57.1	6	21.4	3	10.7

^{*} This does not include one non-tuberculous case.

Note.—The cases in this table that were residents when the State assumed control were classified according to their conditions at that time and not according to their conditions on admission to the sanatorium. The residence in days includes the time they were under treat ment at the sanatorium before the State assumed control.

25—CLASS II. SEVENTY-FOUR PATIENTS WHO REMAINED MORE THAN 90 DAYS. AVERAGE RESIDENCE, 208 DAYS.

			Appai arres			scent.	Impi	roved.	Unimp	proved.	L	ied.
CONDITIONS OF PATIENTS WHEN ADMITTED.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Incipient cases	5	6.7	2	40.0	_	_	3	60.0	_	_		-
Moderately advanced cases		78.4	3	5.2	7	12.1	36	62.1	10	17.1	2	3.5
Far advanced cases	11	14.9	-	-	-	- '	3	27.3	4	36.3	4	36.3
Totals	74	100.0	5	6.8	7	9.5	42	56.7	14	18.9	6	8.1

Note.—The cases in this table that were residents when the State assumed control were classified according to their conditions at that time and not according to their conditions on admission to the sanatorium. The residence in days includes the time they were under treatment at the sanatorium before the State assumed control.

26-EFFECT OF TREATMENT ON PROMINENT SYMPTOMS.

	On admission.	On discharge.	Prior to admission.	During stay at Sanatorium.	Average gain per patient—lbs.	Average loss per patient—lbs.
Number of patients whose expectoration contained T. B. Number of patients who either had no T. B. or no expectoration.	73 30	66 37	59 44	71 32	-	-
Total	103	103	103	103	_	_
Number of patients who had hemorrhages Number of patients who had no hemorrhages	_	-	61 42	38 65		_
Total	_	-	103	103	· _	_
Number of patients who gained weight Number of patients who lost weight Number of patients who neither lost nor	_	-	-	68 16	12.8	$6.\overline{3}$
gained	-	-	-	*10	-	-
Total	_		-	†94	-	_

^{*} Five cases of this number did not remain over second weight period. † This total does not include 9 cases, who died in the Sanatorium.

TABLE 27.

Class.	Extent of physical signs,	T. B. found	Results of Pneumothors	Hygienic-diet ax. Patients V	etic Treatmen Who Stayed 9 208	0 Days or Mo	Fuberculin and ore. Average I	Artificial Residence,
	according to Turban.	at any time.	Cases.	Apparently arrested.	Quiescent.	Improved.	Unimproved.	Died.
Incipient. Incipient. Incipient. Incipient. Incipient. Incipient. Moderately advanced. Far advanced.	I	0 + 0 + 0 0 + 0 + 0 + 0 + + + + + + + +	5 = 6.76%	1 = 14.28%	2 = 25.00% 3 = 11.11% 2 = 15.38%	6 = 85.71% 2 = 100.00% 17 = 62.96%	$\begin{array}{c} - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ 6 = 22.22\% \\ 2 = 15.38\% \\ 1 = 50.00\% \end{array}$	

28-RESULTS OF SPUTUM EXAMINATION OF PATIENTS IN TABLE 27.

Class.	Extent of physical signs, according to Turban.	Cases.	P A R D + + + +	PARD +++0	PARD ++00	PARD +000	PARD 0000	PARD 0+++	PARD 0++0	PARD 0+00
Incipient. Incipient. Moderately advanced. Moderately advanced. Moderately advanced. Far advanced. Far advanced. Far advanced. Far advanced.	III III III III III	$\begin{array}{c} 5=6.76\%\\ -\\ 15=20.27\%\\ 29=39.19\%\\ 13=17.57\%\\ 1=1.35\%\\ 2=2.70\%\\ 9=12.16\% \end{array}$	20 = 68.96% 9 = 69.23% 1 = 100% 1 = 50%	1 = 3.45%	1 = 7.69%		5 = 100% 8 = 53.33% 2 = 6.89% - -	4 = 13.79% 2 = 15.38% 1 = 50%	3 = 20.00% 1 7.69 %	2 = 6.89%

Note 0 = Tubercle bacilli absent. +=T. B. present. A=On admission. R=During residence. D=On discharge. P=Previous to admission.

DEFINITIONS OF TERMS EMPLOYED.

Below is given the classification of the National Association for the Study and Prevention of Tuberculosis, as modified and interpreted by the American Sanatorium Association.*

I. ON ADMISSION.

These definitions indicate the furthest extent of disease and the greatest severity of symptoms that a patient can present and still belong to the stage defined. All patients beyond the incipient stage fall under the moderately advanced stage unless the physical signs and symptoms exceed those of the moderately advanced stage, when they should be classified as far advanced.

Incipient.—Slight or no constitutional symptoms (including particularly gastric or intestinal disturbance or rapid loss of weight.)

Slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours.

Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent.

Slight infiltration limited to the apex of one or both lungs or a small part of one lobe.

No tuberculous complications.

Moderately Advanced.—No marked impairment of function, either local or constitutional.

Localized consolidation moderate in extent with little or no evidence of cavity formation; or infiltration more extensive than under incipient.

No serious complications.

Far Advanced.—Marked impairment of function local and constitutional.

Marked consolidation of an entire lobe.

Or disseminated areas of beginning cavity formation.

Or serious complications.

For more complete comparison these cases have been classified according to Turban; the extent of the lung involvement being expressed as follows:

^{*}For full report see Journal of the American Medical Association, Sept. 25, 1909, Vol. 53, pp. 1053, 1056.

- I. Sight lesion extending at most to the volume of one lobe or two half lobes.
- II. Slight lesion extending further than "I," but at most to the volume of two lobes; or severe lesion extending at most to the volume of one lobe.
- III. All lesions which in the extent of the parts affected exceed "II."

"By 'slight lesion' we understand disseminated centres of disease which manifest themselves physically by slight dullness, by harsh, feeble, or broncho-vesicular breathing, and by rales.

"By severe lesion we mean cases of consolidation and excavation such as betray themselves by marked dullness, by tympanitic sounds, by very feeble, broncho-vesicular, bronchial, or amphoric breathing, by rales of various kinds.

"Purely pleuritic dullness, unless marked, is to be left out of account; if it is serious, the pleurisy must be specially mentioned under the head of 'tuberculous complications.'

"The volume of a single lobe is always regarded as equivalent to the volume of two half lobes, etc."

Miliary Tuberculosis.

2. On Discharge.

- Apparently Cured—All constitutional symptoms and expectoration with bacilli absent for a period of two years under ordinary conditions of life.
- Arrested.—All constitutional symptoms and expectoration with bacilli absent for a period of six months; the physical signs to be those of a healed lesion.
- Apparently Arrested.—All constitutional symptoms and expectoration with bacilli absent for a period of three months; the physical signs to be those of a healed lesion.
- Quiescent.—Absence of all constitutional symptoms; expectoration and bacilli may or may not be present; physical signs stationary or retrogressive; the foregoing conditions to have existed for at least two months.
- Improved.—Constitutional symptoms lessened or entirely absent; physical signs improved or unchanged; cough and expectoration with bacilli usually present.
- Unimproved —All essential symptoms and signs unabated or increased.

Died.

DEFINITIONS OF TERMS.

TERMS USED IN DEFINITION OF "INCIPIENT."

- I. Slight Constitutional Disturbances.—Slight loss of appetite, of strength, of weight; lassitude; possibly slight acceleration of pulse or possibly slight elevation of temperature. The impairment of health may be so slight that the patient does not look or feel sick in the ordinary sense of the word.
- 2. Slight Elevation of Temperature.—Maximum temperature after rest for one hour, never over 99.5 to 100 F. by mouth (or 100.5 per rectum.)
- 3. Slight Acceleration of Pulse.—Maximum pulse rate not over 90 after rest for one hour, sitting or lying, except when due to causes other than tuberculosis.
- 4. Absence of Tubercle Bacilli.—Each monthly examination (if the sputum be negative) to consist of a careful microscopic examination, with a mechanical stage, of two smears, devoting at least three minutes to each smear, made from selected particles (at least six from different parts) of the sputum on each of three successive days. The morning sputum should always be obtained, or, better, the minute bits that some arrested patients raise at very infrequent intervals. It is not yet deemed wise to insist on digestion and centrifugalization or on innoculation of guinea-pigs.
 - 5. Infiltration.—Physical signs of slight prominence of the clavicle, lessened movement of chest, narrowing of apical resonance with lessened movement of base of lung, slight or no change in resonance, distant or loud and harsh breathing, with or without some change in the rhythm (i. e., prolonged expiration), vocal resonance possibly slightly increased; or fine or moderately coarse rales present or absent. If sputum contain tubercle bacilli, any one of these.
 - 6. Apex.—That portion of the lung situated above the clavicle and the third vertebral spine.
 - 7. A Small part of One Lobe.—An area of one or two intercostal spaces, or an area not exceeding 60 to 80 sq. cm. in extent, according to the size of the patient.

TERMS USED IN DEFINITION OF "MODERATELY ADVANCED."

8. Marked Impairment of Function, Either Local or Constitutional.—Local: Marked dyspnea on exertion, limiting

seriously the patient's activity. Constitutional: Marked weakness, anorexia, tachycardia.

- 9. Moderate Extent of Localized Consolidation.—An area of one-half lobe or less, but may involve both apices; marked dullness, bronchial or decidedly broncho-vesicular breathing; markedly increased vocal resonance; rales usually present. These signs are to be sharply limited as to area intead of gradually shading into normal physical signs.
- Destruction of Tissue.—Presence of tubercle bacilli or elastic fibres in the sputum or the presence of the physical signs of a cavity. There are no absolutely certain physical signs of a cavity but a combination of any four of the following signs is to be taken as indicative of a cavity:

 (I) cracked-pot note;
 (2) amphoric breathing;
 (3) intense whispering pectoriloquy;
 (4) a veiled puff or post-tussive suction;
 (5) bubbling or resonant rales. "Physical signs of softening" do not admit of any definition apart from that of cavity formation, and the term should not be used.
- II. Disseminated Fibroid Deposits.—More or less localized areas of fibrous tissue, producing on physical examination, some change or dullness in the percussion note, more or less increase of vocal resonance, harsh, suppressed or bronchovesicular breathing, rales sibilant or sonorous usually, but at times fine and moderately coarse.
- 12. Serious Complications.—These should be limited to tuberculous complications, such as meningitis, pharyngitis, laryngitis, (except slight thickening in the posterior interarytenoid space, and superficial ulceration of a vocal cord), enteritis, peritonitis, nephritis, cystitis, orchitis, adenitis unless very slight), etc.

TERMS USED IN DEFINITION OF "FAR ADVANCED."

13. Intense Localized Consolidation.—This term should be replaced by "marked consolidation of an entire lobe." "Marked consolidation" indicates dullness merging into flatness, bronchial or tubular breathing and other signs of consolidation as defined in paragraph 10.

TERMS USED IN DEFINITION OF "APPARENTLY ARRESTED."

14. Constitutional Symptoms.—These include elevation of temperature, loss of weight, loss of strength, night sweats,

chills, tachycardia, cyanosis, loss of appetite, amenorrhea, etc.

15. Physical Signs of a Healed Lesion.—These may embrace every physical sign of infiltration or consolidation (see paragraphs 6, 10), with the exception of rales, which must be permanently absent, except possibly a few fine rales at the base, probably atelectatic in origin, and at one apex or over a small part of one lobe. Rales in the latter two places are to be heard only during the eough, at the end of a prolonged expiration, or during the inspiration which follows the cough.

TERMS USED IN DEFINITION OF "IMPROVED."

16. Constitutional Symptoms Lessened or Entirely Absent.

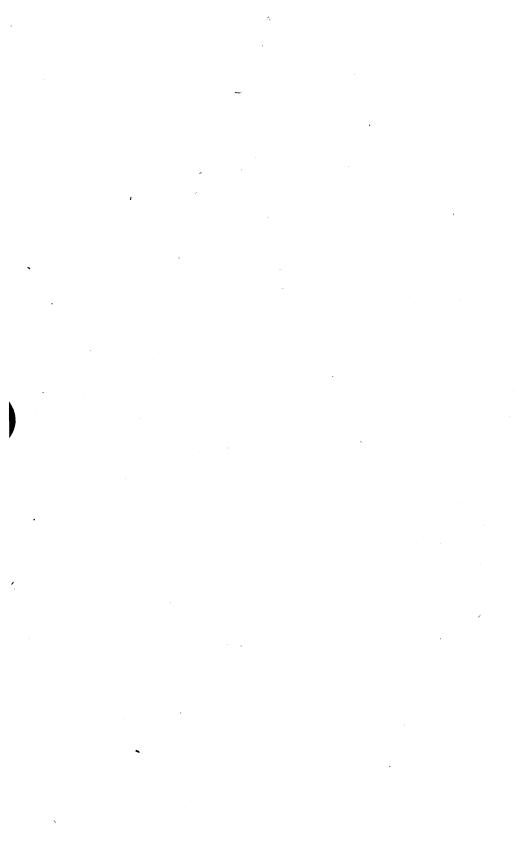
—By this is meant an improvement in the general condition as shown either by a gain in both weight and strength or by reduction of previous febrile temperature to normal without loss of strength.

TERMS USED IN DEFINITION OF "UNIMPROVED OR PROGRESSIVE."

17. Essential Symptoms and Signs.—These include, among others, weight, strength, appetite, night sweats, hemoptysis, pleurisy, dyspnea, temperature, pulserate, dullness, changes in vocal resonance and respiratory movement, rales.

TERMS USED IN DEFINITION OF "APPARENTLY CURED."

18. Ordinary Condition of Life.—This term as used implies that the patient is able to live in an environment where he is able to support himself without the assistance of others, or to live in his former surroundings and pursue his former occupation.



Report of Superintendent Central Maine Sanatorium

SUPERINTENDENT'S REPORT.

To the Honorable Board of Trustees for Tuberculosis Sanatoria,

Gentlemen: The following is the report of the Central Maine Sanatorium for the fiscal year ending June 30, 1916. No detailed statistical report shall be rendered as it is understood that only the far advanced cases and children are retained here and the incipient and moderately advanced cases are transferred to the Western Maine Sanatorium at Hebron.

Following is the Summary:

Number of patients enrolled Sept. 1, 1915	38	
Number of patients admitted	206	
Number of patients discharged		60
Number of patients transferred		116
Number of patients deceased		22
Number of patients enrolled June 30		46
-		
	244	244

NURSES, EMPLOYEES, MEDICAL STAFF.

	Admitted.	Transferred.	Discharged.	Deaths.	Hospital days
September October November December January February March April May June	18 31 24 21 10 16 27	0 21 20 10 11 6 6 11 16 15	6 2 8 5 7 5 8 9 5 5 5	0 1 6 2 4 1 1 3 3 1 3	1,170 1,116 1,030 1,136 1,138 1,121 1,101 1,170 1,413 1,449

The increase in the number of hospital days for the months of May and June is due to the increase of our capacity to fifty-two.

Cases Transferred are admitted and held for observation until such time as they are considered ready for transfer. These come under the heads of incipient and moderately advanced and chronic types.



Central Maine Sanatorium—Chase Memorial Building.

Discharge Cases were in almost every instance far advanced and reported as discharged against advice. One case was discharged for willful non-observance of rules, and one for refusal to be transferred. One was also discharged as quiescent.

GENERAL INFORMATION.

The Central Maine Sanatorium, previously known as the Fairfield Sanatorium was purchased by the State and taken over Sept 1, 1915.

It is superbly located on a hill commanding a view of the Kennebec River and surrounding country to the limit of vision in all directions.

The railroad station and post office is Fairfield, situated on the M. C. R. R. Patients coming from the northern and north eastern sections may get off at West Benton. Patients coming to the Institution are requested to notify the Sanatorium on their arrival when our conveyance will meet them. They must come on the date assigned or arrange with the admitting physician for another appointment.

Patients should see that their teeth are in good order and all clothing plainly marked.

Visitors are allowed every day up to 5.30 P. M., excepting between the hours of 1 and 3.00 P. M., which is the patients' rest hour.

All classes of cases are admitted, no exception being made as to race, color or age. Legal residence in State of Maine is required. Cases of glandular, joint, bone and other forms, other than that of the lungs, of tuberculosis are not received.

Application for admission should be made to Dr. T. E. Hardy, Waterville, Maine.

Charges for treatment are fixed by State Law not to exceed \$5 per week. Where it is elicited by strict inquiry that the patient is not able to pay either in full or in part, the charge is laid upon the State. Patients are charged with personal laundry, sputum cup holders and thermometers, the latter articles not being considered transferable from one patient to another

Following is a list of clothing with which all patients should be supplied:

Heavy Bathrobe.

Bedroom slippers and bedsocks.

Outing flannel nightgowns or pajamas.

Warm nightcaps (washable).

Outing flannel negligee shirts are desirable for men.

Sweater and woolen gloves.

Tam-o'-shanter or cap.

A large heavy horse blanket, 84x90.

A fur coat for the cold months.

Two washable laundry bags.

Small bag for toilet articles.

Soap and box, washcloths.

It is advisable for women patients to bring short skirts for outdoor life; heavy skirts should be supported from shoulders; corsets to be discarded to allow of free and easy breathing.

Chest protectors not to be worn.

Storm rubbers and umbrella for wet weather.

One or two cushions and hammock will add greatly to patient's comfort.

Veranda chair, thermometer and sputum cup may be obtained at the Sanatorium at wholesale prices.

"Scheme for classification of patients on Admission."

INCIPIENT.

Slight or no constitutional symptoms (including particularly gastric or intestinal disturbance, or rapid loss of weight), slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours. Expectoration usually small or absent. Slight infiltration limited to the apex of one or both lungs, or a small part of one lobe. No tuberculous complications.

MODERATELY ADVANCED.

No marked impairment of function, either local or constitutional. Marked infiltration, more extension than under incipient with little or no evidence of cavity formation. No serious tuberculous complications.



Central Maine Sanatorium-Women's Ward.

FAR ADVANCED.

Marked impairment of function, local and constitutional. Extensive localized infiltration or consolidation of one or more lobes. Or disseminated areas of cavity formation. Or serious tuberculous complications.

ACUTE MILIARY TUBERCULOSIS.

General dissemination of tubercles in a number of organs at the same time.

"MEDICAL DEPARTMENT."

The method of treatment is the established one of rest, fresh air and good food.

On admittance each patient is given a thorough physical examination, a complete history taken and instructed in detail how to take care of himself and protect others. Only special laboratory work is attempted.

Temperature patients are requested to rest at all times only being allowed to go to the bath room. Patients admitted are carefully watched and when their temperature indicated, put on graduated exercise and transferred to Hebron, if they have shown suitable response to treatment.

We have endeavored to give as varied and nutritious diet as possible. On taking over the Institution, trays were carried from the kitchen to the wards and in consequence the food was cold. A basement serving room was partitioned off with serving table, tray tables and kerosene stove. The food was brought from the kitchen in bulk by means of a cart and kept warm on the stove. The elevator shaft was utilized and small lift built and the trays brought to the ground floor from where they could be quickly served to the patients. I believe the service has been much appreciated. In addition a sink and cupboard have been installed in the basement to avoid unnecessary handling of dishes.

MENU FOR ONE WEEK.

SUNDAY, JUNE 11, 1916.

BREAKFAST Banana Cream of Wheat Baked Beans Brown Bread or Fish Cakes Johnny Cake

DINNER Fricasee of Chicken Brown Mashed Potato

Buttered Beets Cream Peas

Strawberry Ice Cream

SUPPER

Cream of Celery Soup Cold Lamb French Fried Potato

Fresh Strawberries

Cream Puffs

MONDAY, JUNE 12, 1916.

BREAKFAST

Dates Oatmeal Buckwheat Cakes Syrup-Toast

DINNER

Beefsteak Pie Boiled Potato Tomato Macaroni and Cheese Pineapple Fritters Sauce

SUPPER

Pea Soup with Croutons Cold Ham Baked Potato

Pickles Cherries Sponge Cake

Tuesday, June 13, 1916.

BREAKFAST

Oranges Cream of Wheat Bacon

Rolls

DINNER

Roast of Lamb Boiled Potato Mint Sauce—Spinach

String Beans Caramel Custard with

Meringue

SUPPER

Bouillon-Cold Beef Creamed Potato

Cheese Peaches

Hermits

WEDNESDAY, JUNE 14, 1916.

BREAKFAST

Prunes Corn Flakes Scrambled Eggs Bran Rolls

DINNER

Baked Shad Mashed Potato Cabbage Salad Cream Carrots Apple Pie and Cheese SUPPER

Vegetable Soup Cold Pork Baked Potato Corn Fritters Raspberries

Chocolate Layer Cake

THURSDAY, JUNE 15, 1916.

BREAKFAST

Banana Cream of Wheat Cream Toast Jelly

DINNER

Fricassee of Beef Boiled Potato Dumplings Cream Turnip

Cream Onions Squash Pie

SUPPER

Beef Stock with Rice Cold Lamb Loaf Fried Potato Blueberries

Raisin Filled Cookies



Central Maine Sanatorium-Men's Ward.

FRIDAY, JUNE 16,	1916.
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BREAKFAST	DINNEK	SUPPER
Oranges	Fried Mackerel	Fish Chowder
Corn Flakes	Mashed Potato	Cold Pork
Boiled Eggs	Egg Gravy	Baked Potato
Graham Rolls	Escalloped Tomato	Cheese
	String Beans	Cream Fish
	Washington Cream Pie	Apple Sauce with Lemon

SATURDAY, JUNE 17, 1916.

BREAKFAST	DINNER	SUPPER
Dates	Baked Pork	Beef Stock with Spaghetti
Oatmeal	Mashed Potato	Baked Beans
Meat Hash	Apple Sauce	Brown Bread or
Oatmeal Rolls	Corn	Cold Lamb
	Apricot Cream	Cream Potato
0	-	Pears
		Coffee Cake

Bread and Butter, Milk, served at all meals. Tea or Coffee at breakfast and tea at other meals.

Special diets consisting of eggs, custards, soups, creamed toast, chicken, jellies, etc., for all patients having temperature of 100 or over.

A. M. Nourishment, 10 o'clock, choice of, Plain Milk, hot or cold, Egg Nog, Egg and Milk.

P. M. Nourishment, 3 o'clock, same as A. M.

Evening Nourishment, 8.00 o'clock, Hot Cocoa, Hot or Cold Milk.

The class of cases treated has not permitted the use of either tuberculin or artificial pneumothorax.

We have instituted a training school for nurses, a course of lectures being given by our head nurse.

We have also instituted a school for the children and were fortunate enough to have a patient qualified to teach. A complete equipment was procured and school was held at regular hours to the great benefit of the children. We regret that the school had to be discontinued on account of the illness of our teacher.

OTHER DEPARTMENTS.

The artesian well has been repaired and is now in use. The dining room has been papered and is warmer and much improved in appearance.

Four curtains have been put on each ward dividing them into five sections each. This allows us to have hemorrhage and sick wards which were impossible previously as our two infirmaries are continually occupied.

The assembly room, nurses' offices and Superintendent's office, and laboratory, have been painted.

An auto truck has been purchased for the conveyance of passengers and freight and has saved considerable expense.

Our present water supply is derived from a spring and an artesian well. This supply has at times become so meagre as to necessitate various measures for saving it. City water should be put in as soon as possible and at the same time a sewerage system. For this purpose the fifty acres in front of the property would need to be purchased and on which I understand the trustees have an option to buy.

The buildings as they stand are not well suited to our purpose. The men's ward with its northern exposure should not be used at all, and more especially not for far advanced cases. The present building could be made into an administration building and two cottages built. We would also need a small separate building for children and engage a school teacher for their education.

We have been handicapped much by the lack of space to house help.

The weekly per capita cost has been brought to as low a figure as \$8.27, which, considering the high prices of staple foods, will compare favorably with that of other institutions.

As Sanatorium treatment for the far advanced case is not successful, our present purpose being merely to segregate as many as possible to prevent infection of others, it would seem advisable to have small "homes" scattered throughout the State where these people could be cared for convenient to their relatives and at a relatively less cost to the State. In this way Sanatorium treatment would be conserved for those that would derive benefit.

We greatly appreciate the assistance of the State and county Anti-tuberculosis Societies. While we have quite a number of far advanced cases, physicians are cooperating to a greater extent in sending us more favorable cases.

In closing I desire to express my thanks to the Board of Trustees for their continued courtesy and to the nurses and employees for their efficient services, which have enabled us to derive any results that we may have obtained.

Respectfully submitted,

JOHN F. SHAW, M. B.,

Superintendent.