

Annual report of the Peter Bent Brigham Hospital : 1916.

Contributors

Peter Bent Brigham Hospital.

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PETER BENT BRIGHAM
HOSPITAL ' ' BOSTON

THIRD
ANNUAL REPORT

FOR THE YEAR 1916



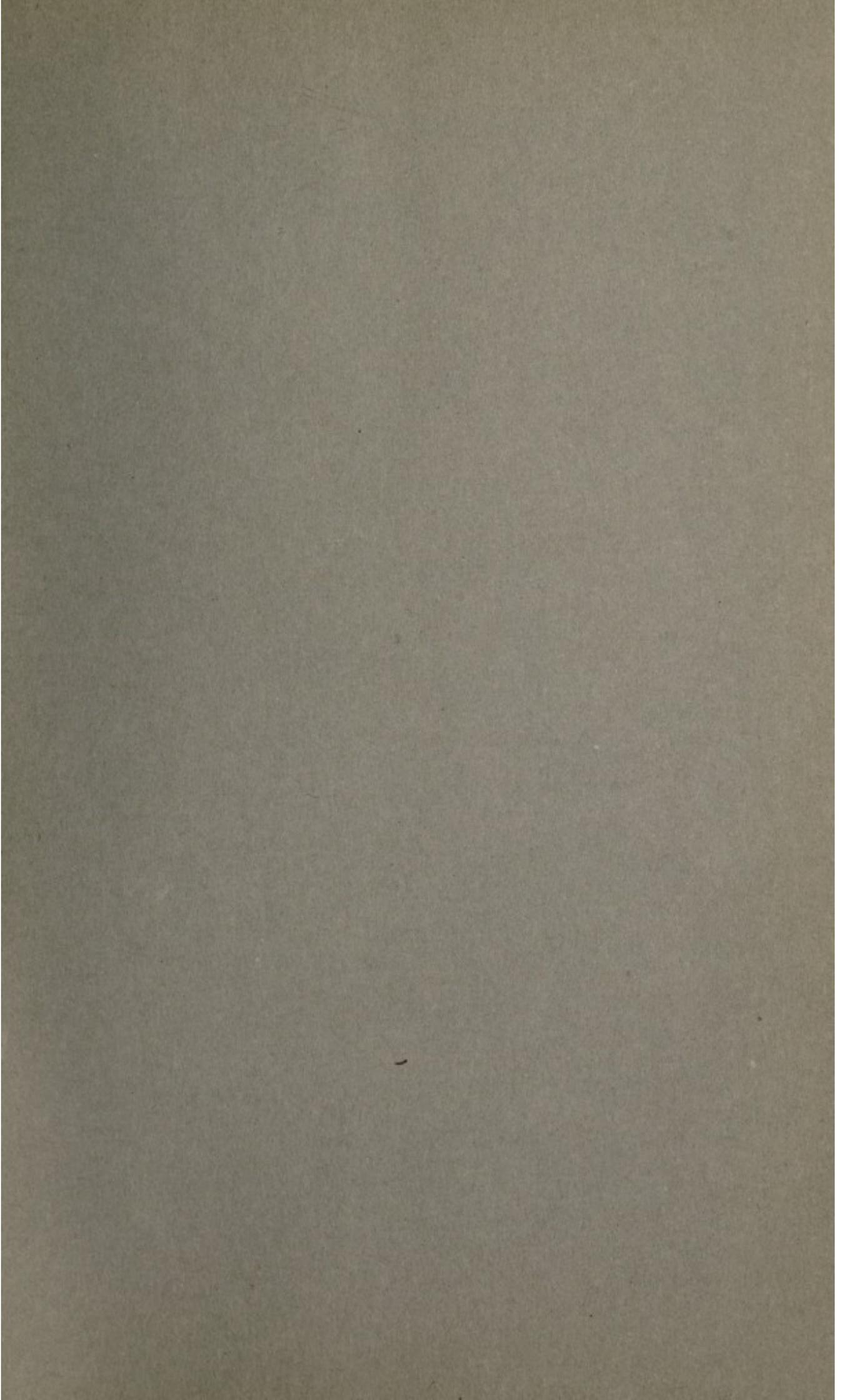
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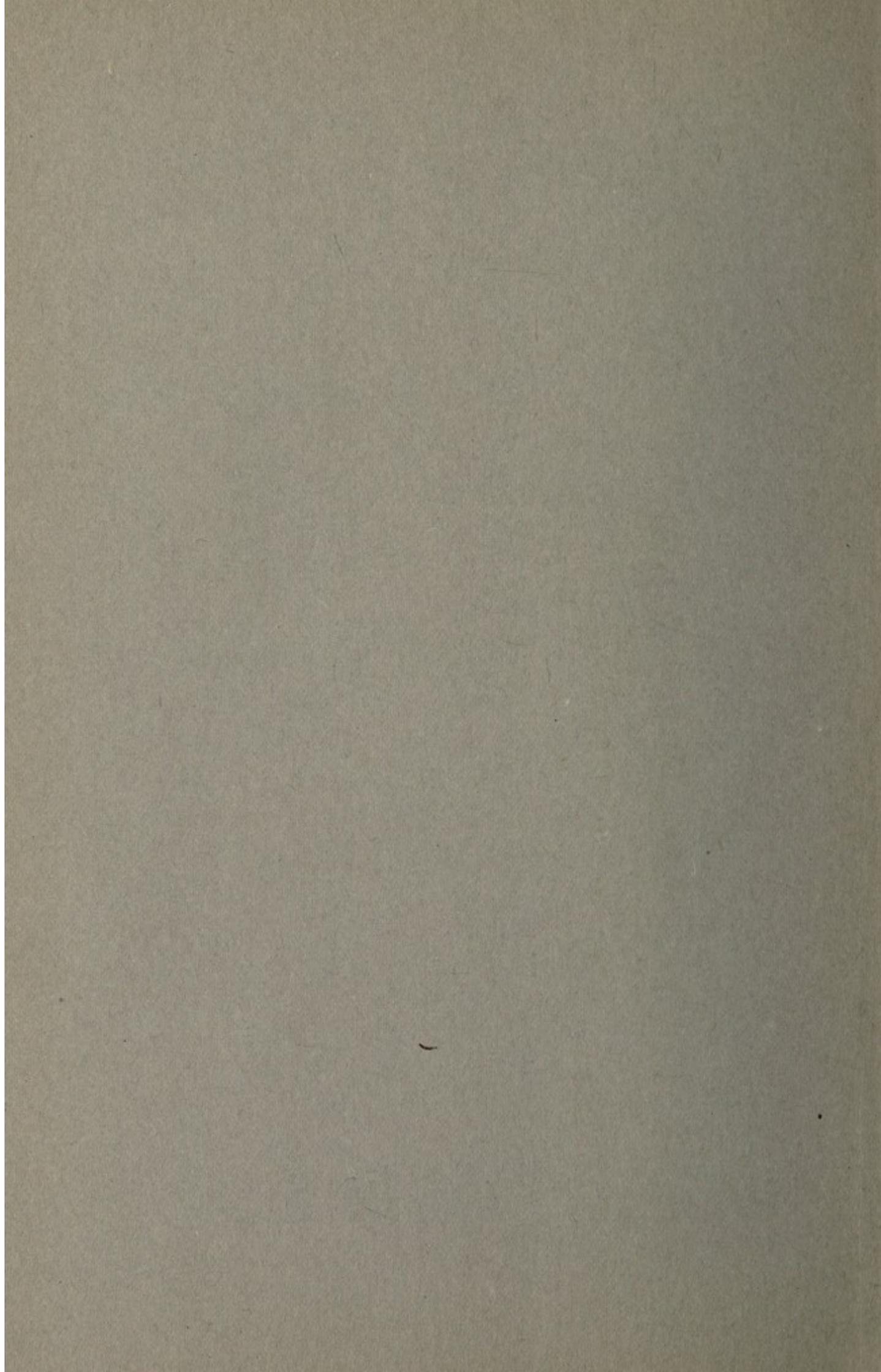
FORM OF BEQUEST

*I give and bequeath to the Peter Bent Brigham
Hospital, a corporation established under the
laws of the Commonwealth of Massachusetts,
the sum of _____ dollars,
the same to be used for the furtherance of its
charitable work.*



22503068435





THIRD ANNUAL REPORT
OF THE
PETER BENT BRIGHAM
HOSPITAL

FOR THE YEAR
1916



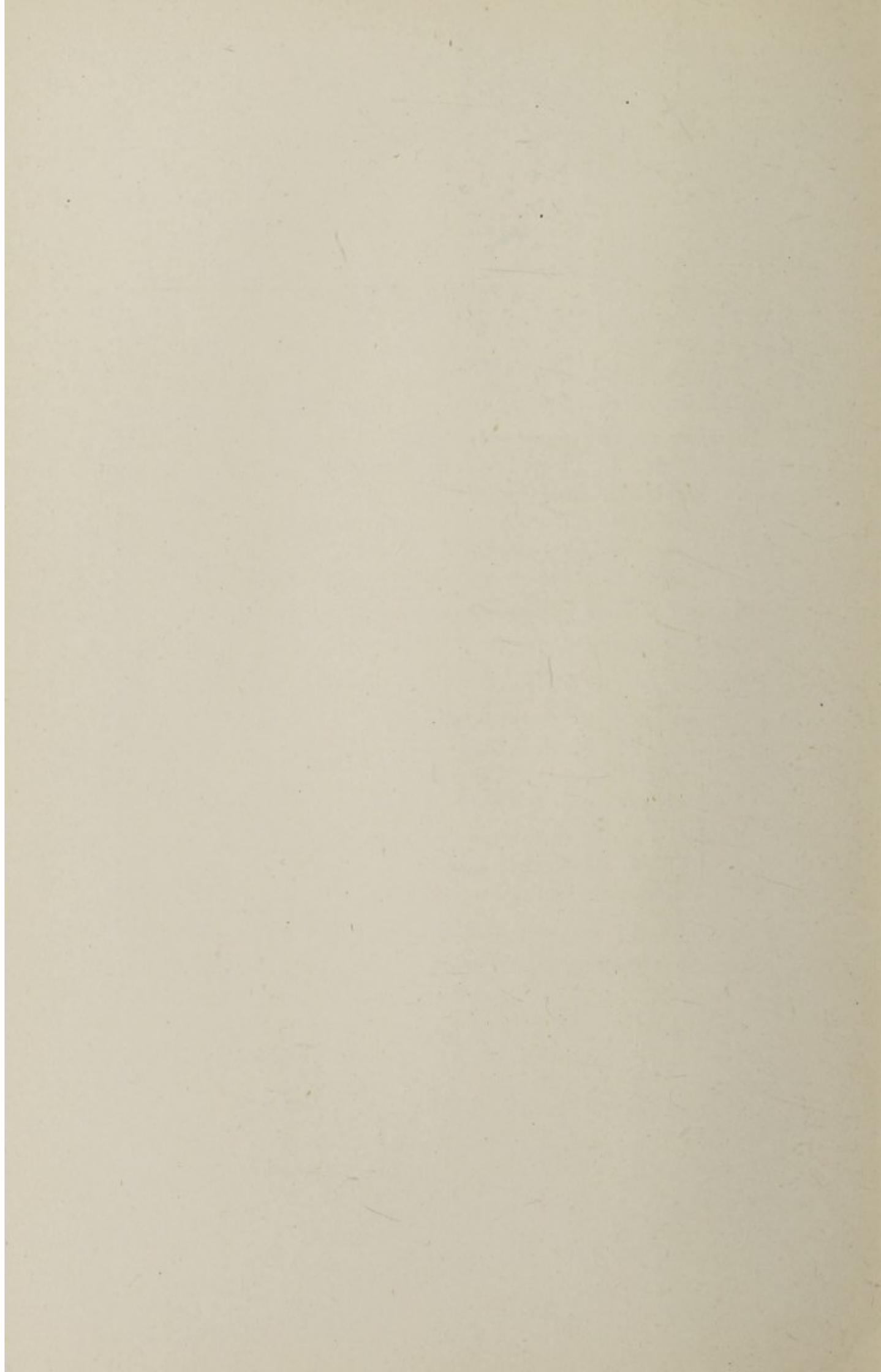
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President's Report

IN behalf of the Corporation, I submit this volume of reports made by the heads of the departments of the hospital, showing the work done during the past year and the suggestions that they have to offer for the future. They show that there has been a substantial increase in the number of patients treated during the year.

I call attention to the opinion offered by Dr. Henry A. Christian of the importance of continuing with increasing activity the scientific work which the hospital has done in the past. The Board is in entire sympathy with this work and appreciates its value.

We are informed that it is probable that asthmatic patients will be aided in the future as a result of extended studies made possible by a gift of money for that purpose. Similar gifts would make it possible to study cases of heart disease, diabetes, Bright's disease, etc., and under the exceptionally favorable opportunities for such studies at this hospital, it is probable that effectual aid could be given to those persons who are suffering from those complaints.

The Board appreciates the importance of the Urological Department, which has been organized during the past year by Dr. William Carter Quinby. We are informed that successful work has already been accomplished.

We have been glad to accept a request from the United States Government to study into the effects of caffeine on the human body; this work will be done under the direction of Dr. Henry A. Christian.

We have been glad to offer the use of a part of the hospital to the Surgical Dressings Committee of the

National Civic Federation, and congratulate them on the success of their work.

At the exercises held on the graduation of nurses who have served in the Training School, Superintendent Carrie M. Hall was given an honorary degree in recognition of the efficient and valuable work which she has done in the hospital. During this year Miss Hall has directed the giving of lectures in nursing to Simmons College students. We have also been able to coöperate with the Red Cross in the treatment of convalescents at their homes.

It has been our custom to invite doctors of distinction to visit the hospital and work with the staff, and we take pleasure in recording that Dr. Frank Billings, Dean of the Rush Medical College, Chicago, has passed some time with us to our advantage.

During the year Dr. William Thomas Councilman reached the retiring age. We recognize and appreciate the valuable services which he has rendered the hospital in the past. The hospital is fortunate in having been able to obtain the services of Dr. Simeon Burt Wolbach, who has been appointed Pathologist to succeed him.

The Board believes that valuable work has been done by the Social Service Department and particularly in the classes that have been held for chronic invalids suffering from several types of diseases. We have no doubt that aid has been given to them and their sufferings have been diminished.

The Board appreciates and is grateful for the voluntary work that doctors and others have given to the hospital during the past year.

CHARLES P. CURTIS,

President.

Report of the Treasurer

A statement of receipts of income from investments and of payments therefrom out of the office of the Treasurer for the year ending December 31, 1916, is as follows:

INCOME	
Real Estate Receipts:	
Rents	\$134,351.07
Taxes paid by tenants	32,295.31
Insurance paid by tenants	256.03
Refunds on insurance	382.59
	\$167,285.00
Interest on Investments:	
On bonds	\$46,050.00
On mortgages	8,130.10
On notes	2,215.00
	\$56,395.10
Dividends	23,351.86
	\$79,746.96
Less accrued interest on bonds bought.	395.83
	\$79,351.13
Bank interest	2,424.75
	\$249,060.88

EXPENDITURE	
Taxes	\$48,267.37
Building repairs	5,347.61
Insurance	2,305.93
	\$55,920.91
<i>Amount carried forward</i> . . .	\$55,920.91

PETER BENT BRIGHAM HOSPITAL

<i>Amount brought forward</i>	\$55,920.91	
Salaries	7,800.00	
Legal expenses	765.25	
Audit	391.90	
Safe deposit box.	70.00	
Appraising securities	25.00	
Lease forms	21.00	
Check books	13.00	
Interest on insurance money held	13.59	
	<hr/>	
Total expenditure	\$65,020.65	
Bond premiums amortized	665.42	
	<hr/>	\$65,686.07
		<hr/>
Net investment income available for operating expense		\$183,374.81
Net payments for operating expense, as shown by Superintendent's state- ment appended	\$190,818.74	
Adjustment between Superintendent's and Treasurer's accounts	18,257.62	172,561.12
	<hr/>	<hr/>
Difference carried to reserved income		\$10,813.69
Balance reserved income, January 1, 1916		6,655.58
		<hr/>
Balance reserved income, December 31, 1916		\$17,469.27

SCHEDULE OF PROPERTY

Land and buildings occupied for hospital, in- cluding furniture and fixtures	\$1,789,772.87
Mortgages	181,628.22
Notes:	
Boston & Maine R. R. Co., due August 31, 1916, 6%	8,000.00
Land and buildings:	
63 Blackstone Street	59,437.53
166-210 Portland Street	677,165.70
	<hr/>
<i>Amount carried forward</i>	\$2,716,004.32

REPORT OF THE TREASURER

<i>Amount brought forward</i>	\$2,716,004.32
5-11 Tremont Row	473,129.45
224-230 Congress Street.	100,411.20
108-114 Lincoln Street	159,477.39
223-225 Washington Street	220,000.00
91-95 Portland Street	75,957.25
67-69 Commercial Street	73,999.76
1-3 Bowdoin Street	54,569.50
148-150 Hanover Street	60,787.78
1-7 Sudbury Street	69,994.95
88-92 Court Street	169,417.80
94-98 Arch Street and 13-17 Otis Street	165,737.94
Land, corner Albany and Dover Streets	110,221.90
1000 Shares Fitchburg R. R. Co., preferred	142,000.00
100 Shares Boston & Albany R. R. Co.	25,800.00
524 Shares Vermont & Mass. R. R. Co.	91,700.00
450 Shares Old Colony R. R. Co.	93,150.00
183 Shares Nashua, Acton & Boston R. R. Co.	183.00
200 Shares State Street Exchange	21,760.00
400 Shares Boston Wharf Company	37,585.25
50 Shares Boston Real Estate Trust	58,514.25
30 Shares Constitution Wharf Trust	3,330.00
150 Shares Hotel Trust (Touraine)	15,900.00
100 Shares South Terminal Trust	10,300.00
15 Shares National Union Bank	2,700.00
100 Shares Newport & Fall River St. R'way Co.	13,278.33
1000 Shares Berkeley Hotel Trust	65,000.00
1500 Shares New York, New Haven & Hartford R. R. Co.	225,545.33
200 Shares New York Central & Hudson River R. R. Co.	21,025.00
100 Shares Chicago, Milwaukee & St. Paul R. R. Co., preferred	14,760.70
220 Shares Pennsylvania R. R. Co.	11,731.88
\$150,000 American Telephone & Telegraph Co., 4% bonds, 1929	139,887.50
25,000 Quincy Market Realty Company, 5% bonds, 1964	25,000.00
60,000 Portland & Ogdensburg R. R. Co., 4½% bonds, 1928	60,966.89
<i>Amount carried forward</i>	\$5,529,827.37

PETER BENT BRIGHAM HOSPITAL

<i>Amount brought forward</i>	\$5,529,827.37
5,000 Kansas City & Memphis Ry. & Bridge Co. 5% bonds, 1929	5,095.95
100,000 Chicago, Burl. & Quincy R. R., Ill. Div., 3½% bonds, 1949.	89,077.50
20,000 Washington Water Power Co., 5% bonds, 1939	20,374.21
50,000 Boston & Maine Railroad Co., 4½% bonds, 1929	51,484.11
50,000 Burlington, Cedar Rapids & Northern, R. R., 5% bonds, 1934	54,650.83
25,000 Baltimore & Ohio R. R. Co., South West Division, 3½% bonds, 1925	22,125.00
25,000 N. Y. Central & Hudson River R. R. Co., Debentures, 4% bonds, 1934	23,937.50
50,000 Cleveland, Lorain & Wheeling R. R. Co., 5% bonds, 1933	54,214.91
25,000 N. Y. Central & Hudson River R. R. Co., 1st mortg. 3½% bonds, 1997	21,875.00
25,000 Northern Pacific R. R. Co., Prior Lien 4% bonds, 1997	24,781.25
25,000 New York City, 4% bonds, 1956	24,718.75
50,000 Old Colony Street Railway Co., 4% bonds, 1954	43,250.00
75,000 Chicago & North Western Railway Co., 4% bonds, 1926	72,750.00
28,000 General Electric Co., 3½% bonds, 1942	23,170.00
50,000 Chicago & West Michigan Railroad Co., 5% bonds, 1921	49,420.00
3,000 Pennsylvania R. R. Co., 4% bonds, 1948	2,880.00
50,000 Atchison, Topeka & Santa Fe R. R. Co., Transcontinental Short Line, 4% bonds, 1958	47,500.00
50,000 Illinois Steel Co., 4½% bonds, 1940	47,375.00
50,000 Boston & Albany R. R. Co., Equip- ment, 4½% bonds, 1920	49,725.00
15,000 Boston & Albany R. R. Co., Equip- ment, 4½% bonds, 1924	14,893.50
<i>Amount carried forward</i>	\$6,273,125.88

REPORT OF THE TREASURER

<i>Amount brought forward</i>		\$6,273,125.88
15,000 Boston & Albany R. R. Co., Equip- ment, 4½% bonds, 1925		14,886.00
5,000 Boston & Albany R. R. Co., Equip- ment, 4½% bonds, 1926		4,960.00
15,000 Boston & Albany R. R. Co., Equip- ment, 4½% bonds, 1927		14,875.50
50,000 Interborough Rapid Transit Co., 5% bonds, 1966		49,500.00
50,000 Kansas City Stock Yards, 5% bonds, 1920		50,000.00
25,000 Long Island R. R. Co., 5% debenture gold bonds, 1934		24,000.00
Cash:		
Operating Expense Fund	\$20,000.00	
Superintendent's Fund	2,500.00	
Cash in banks	150,650.41	173,150.41
		<hr/>
Superintendent's Inventories		33,309.76
		<hr/>
		\$6,637,807.55

Included in the above Schedule of Property are the following special funds:

CHOATE FUND	\$10,000.00	
Less amounts expended	5,542.23	\$4,457.77
		<hr/>
JOHN P. REYNOLDS MEMORIAL FUND	1,000.00	5,457.77
		<hr/>
		\$6,632,349.78

Viz.:

Peter Bent Brigham Hospital Account	\$6,614,880.51
Reserved Income Account	17,469.27
	<hr/>
	\$6,632,349.78

EDMUND D. CODMAN,
Treasurer.

Report of the Superintendent

THIS is the third annual report of the Peter Bent Brigham Hospital, and covers the work of the year 1916. The hospital is steadily increasing in its activities, and each department continues to show a broadening of its usefulness.

During the year there have been admitted into the wards of the hospital 3712 patients, and there have been 9810 new patients treated in the Out-Door Department. 13,522 people, therefore, have directly received the benefit of the treatment in this hospital during the year. In addition to this, the X-Ray Department made 5504 examinations. There have been 3530 examinations in the serological laboratory. The respiratory laboratory has had its usual number of cases, and contributed its mite towards diagnostic work. Dr. Walter M. Boothby, formerly its head, has left us to take up similar work at the Mayo Clinic, Rochester, Minnesota. Miss Edna H. Tompkins has been in charge of this work since he left. There have been 735 ambulance calls.

The total operating expenses for the year have been \$308,413.81. Receipts from patients have amounted to \$116,519.00. The corresponding figures for 1914 were: Operating expenses, \$269,913.46; receipts from patients, \$88,651.55.

The Dietary Department of this hospital has proved one of the very important aids in perfecting its work. Last year over seven thousand days of scientifically prepared special diets were served under the direction of the dietitian. This year, that work has been nearly doubled. Our dietitian, Miss E. Grace McCullough, has, ever since the hospital opened, had one or two pupils working under her for experience. They have served

REPORT OF THE SUPERINTENDENT

about four months each, without salary and usually without lodging. There has been so much demand for these graduate pupils that I feel we should make more of the department, and give a recognized certificate for having performed the work. I recommend this to last as long as Miss McCullough continues in the work. I make this condition because dietetics, in spite of their importance, are still in their infancy. If the hospital is to give such a course and to give a certificate at the end of it, it should be very careful that the woman at the head of this department is a capable, painstaking woman, of experience. So far but one pupil has been accepted who has not had a B.S. degree or its equivalent.

The Squash Racket Court, added this year through the kindness of Mr. Augustus Hemenway, is proving of great assistance in furnishing the staff a place for healthy exercise during the winter months.

The Surgical Dressings Committee of the Women's Department of the National Civic Federation are still using the Zander Room of the Out-Door Building for the purpose of preparing surgical dressings for the war sufferers of Europe. The amount of their work has steadily increased, month by month, as the time has gone by.

You will find printed in this report a copy of the "Charter, By-Laws, and Rules and Regulations," prepared so early in 1917 that we were enabled to print it in this report.

In the following pages are the usual tables of statistics, the reports of the Superintendent of Nurses, the head of the Social Service Department, the Pathologist, the Surgeon-in-Chief, and the Physician-in-Chief.

The thanks of the hospital are due to the clergymen who have so kindly officiated during the year.

HERBERT B. HOWARD,

Superintendent.

Table I
Comparative Table of Statistics

HOSPITAL WARDS AND SINGLE ROOMS		
	1916	1915
Patients in hospital first of year:		
Medical	78	59
Surgical	89	86
	<hr/>	<hr/>
Total	167	145
Patients admitted during the year:		
Medical	1,925	1,734
Surgical	1,787	1,683
	<hr/>	<hr/>
Total	3,712	3,417
Patients treated in hospital wards and private rooms during the year:		
Medical	2,003	1,793
Surgical	1,876	1,769
	<hr/>	<hr/>
Total	3,879	3,562
Patients discharged during the year:		
Well	1,228	1,082
Improved	1,783	1,573
Unimproved	265	249
Untreated	218	281
Died	218	210
	<hr/>	<hr/>
Total	3,712	3,395
Patients in hospital end of year:		
Medical	75	78
Surgical	92	89
	<hr/>	<hr/>
Total	167	167

REPORT OF THE SUPERINTENDENT

Total patients days treatment:	1916	1915
Paying patients	27,578	19,942
Part paying patients	14,245	16,582
Free patients	23,468	23,718
Total	<u>65,291</u>	<u>60,242</u>
Percentage:		
Paying patients	42+	33+
Part paying patients	22-	28-
Free patients	36-	39+
Total	<u>100</u>	<u>100</u>
Average patients per day:		
Paying patients	75+	55-
Part paying patients	39-	45+
Free patients	64+	65-
Total	<u>178+</u>	<u>165+</u>
Average time per patient in hospital . . .	18- days	18- days
Daily average cost per patient	\$4.72-	\$4.48-
Daily cost per capita for provisions for all persons supported . . . . .	.37-	.29-
Patients were admitted as follows:		
Paying \$14.00 or more	1,980	1,609
Paying less than \$14.00	652	712
Free	1,080	1,096
Total	<u>3,712</u>	<u>3,417</u>

OUT-DOOR DEPARTMENT

Number of cases treated (new cases) . . .	9,810	8,536
Medical	4,505	4,441
Surgical	4,325	4,095
Ear	185	} *
Throat	544	
Eye	135	
Prenatal	67	
Urological	49	

* Included in medical and surgical cases.

PETER BENT BRIGHAM HOSPITAL

	1916	1915
Number of visits	47,687	36,523
Medical	18,667	15,396
Surgical	26,134	21,127
Ear	564	} *
Throat	1,355	
Eye	386	
Prenatal	199	
Urological	382	

Patients arrived:

A. M. 8-10	15,557	9,776
10-12	12,473	9,130
P. M. 12- 2	6,902	5,586
2- 3	6,057	6,037
3- 4	4,136	3,918
4- 6	2,562	2,074
6- 8 . . . . .	..	..
8-10 . . . . .	..	..
10-12 . . . . .	..	2
	47,687	36,523

Cost of maintenance of Out-Door Department	\$16,551.07	\$12,108.39
Daily average cost per patient . . . . .	.35-	.33+

AMBULANCE

Ambulance calls during the year	735	563
Average calls per day	2.01-	1.54+
Mileage for patients	4,255	3,423
Other business	579	1,636
	4,834	5,059

X-RAY

	1916	1915	1916	1915
	No. of Patients		No. of Plates	
January	451	396	1,155	767
February	437	360	1,079	685
March	572	396	1,186	780

* Included in medical and surgical cases.

REPORT OF THE SUPERINTENDENT

	1916	1915	1916	1915
	No. of Patients		No. of Plates	
April	464	350	846	683
May	527	358	986	630
June	391	363	681	710
July	402	378	658	629
August	484	387	836	678
September	375	313	830	639
October	442	402	1,000	725
November	466	438	933	850
December	493	431	872	943
Total	<u>5,504</u>	<u>4,572</u>	<u>11,062</u>	<u>8,719</u>

Table II
Residences

	1916	1915
Alabama	1	4
Arizona	2	1
Arkansas	3	..
California	8	3
Colorado	2	1
Connecticut	27	9
District of Columbia	1	3
Florida	5	..
Georgia	4	3
Indiana	3	4
Illinois	5	4
Iowa	2	4
Kansas . . . . .	..	3
Kentucky	2	1
Louisiana	2	..
Maine	38	31
Maryland	3	3
Massachusetts (except Boston)	1,006	862
Boston	2,298	2,247
Mexico	3	..
Michigan	6	6
Minnesota	4	5
Missouri . . . . .	..	5
Montana	2	1
New Hampshire	61	41
New Jersey	8	5
New Mexico	1	..
New York	74	57
North Carolina	3	1
North Dakota	1	1
Ohio	18	11
Oklahoma	2	2
Oregon	2	1
<i>Carried forward</i>	3,597	3,319

REPORT OF THE SUPERINTENDENT

	1916	1915
<i>Brought forward</i>	3,597	3,319
Pennsylvania	9	10
Rhode Island	26	30
South Carolina	1	1
Tennessee	3	2
Texas	8	6
Utah	1	1
Vermont	10	12
Virginia	2	1
Washington	13	7
West Virginia	3	3
Wisconsin	4	4
Africa	1	..
Canada	33	21
China	1	..
	<hr/>	<hr/>
Total	3,712	3,417

Table III
Birthplaces

	1916	1915
Alabama	5	6
Arizona	2	..
Arkansas	4	2
California	8	17
Colorado	2	3
Connecticut	59	37
Delaware	3	2
District of Columbia	6	4
Florida	4	4
Georgia	7	8
Idaho . . . . .	..	1
Illinois	10	14
Indiana	5	7
Iowa	6	5
Kansas	5	3
Kentucky	6	7
Louisiana	2	2
Maine	167	140
Maryland	11	16
Massachusetts (except Boston)	894	757
Boston	434	463
Michigan	12	7
Minnesota	5	7
Missouri	11	6
Montana	2	..
Nebraska	2	3
Nevada	1	..
New Hampshire	104	78
New Jersey	25	16
New Mexico . . . . .	..	3
New York	140	125
North Carolina	10	12
<i>Carried forward</i>	1,952	1,755

REPORT OF THE SUPERINTENDENT

	1916	1915
<i>Brought forward</i>	1,952	1,755
North Dakota . . . . .	..	1
Ohio	25	21
Oklahoma	1	2
Oregon	1	..
Pennsylvania	44	33
Rhode Island	42	41
South Carolina	4	5
South Dakota	2	..
Tennessee	3	2
Texas	8	6
Utah	4	3
Vermont	36	32
Virginia	25	35
West Virginia	6	3
Wisconsin	19	8
Wyoming	1	..
	<hr/>	<hr/>
Total Americans	2,173	1,947
Argentina . . . . .	..	1
Asia Minor	1	..
Austria	17	20
Belgium	2	1
Bulgaria	1	1
Canada	313	325
China	2	2
Denmark	6	6
England	142	141
France	12	4
Germany	66	61
Greece	52	42
Holland	8	5
Hungary	5	4
Ireland	234	273
Italy	125	85
Japan	1	..
Norway	14	23
Panama	1	1
	<hr/>	<hr/>
<i>Carried forward</i>	1,002	995

PETER BENT BRIGHAM HOSPITAL

	1916	1915
<i>Brought forward</i>	1,002	995
Portugal	4	8
Roumania	2	4
Russia	395	333
Scotland	34	28
Spain	2	7
Sweden	50	40
Switzerland	1	..
Turkey	48	52
Wales . . . . .	..	2
West Indies	1	1
	<hr/>	<hr/>
Total foreigners	1,539	1,470

Table IV
Occupations

MALES	1916	1915
Accountants	4	1
Actors	3	1
Agents	23	18
Architects . . . . .	..	2
Artists	3	..
Attendants . . . . .	..	2
Bakers	7	17
Bankers	2	2
Barbers	14	27
Bartenders	4	6
Blacksmiths	9	6
Boiler makers	7	3
Bookbinders	3	9
Bookkeepers	11	15
Bootblacks	5	..
Box makers	1	..
Bricklayers	4	5
Brokers	6	13
Builders	1	4
Butchers	10	5
Butlers	5	2
Cabinet makers	9	1
Candy makers . . . . .	..	3
Carpenters	52	42
Cashiers	1	2
Chauffeurs	19	27
Chemists	3	1
Cigar dealers	1	..
Cigar makers	10	7
Civil engineers	1	5
Cleaners	2	5
Clergymen	11	9
Clerks	124	132
<i>Carried forward</i>	355	372

PETER BENT BRIGHAM HOSPITAL

MALES	1916	1915
<i>Brought forward</i>	355	372
Cobblers	1	3
Confectioners	5	1
Contractors	2	4
Cooks	20	27
Coopers	1	2
Dentists	2	3
Designers	3	..
Detectives	1	..
Draughtsmen	7	5
Drivers	71	9
Druggists	15	3
Editors . . . . .	..	2
Electrical engineers . . . . .	..	4
Electricians	12	14
Elevator men	6	6
Engineers	27	16
Farmers	30	16
Firemen	17	13
Fishermen	2	3
Florists	1	1
Foremen	16	11
Foresters	1	..
Fruit dealers	9	2
Furniture dealers	2	1
Furniture movers	5	2
Furriers . . . . .	..	1
Gardeners	13	7
Gas fitters	1	..
Grocers	3	6
Hardware dealers	1	..
Harness makers . . . . .	..	4
Hotel proprietors . . . . .	..	1
Housemen	14	..
Icemen	1	1
Inspectors	12	9
Insurance agents	3	..
Janitors	20	37
Jewelers	2	6
<i>Carried forward</i>	681	592

REPORT OF THE SUPERINTENDENT

MALES	1916	1915
<i>Brought forward</i>	681	592
Junk dealers	9	2
Laboratory employers	2	1
Laborers	97	100
Laundrymen	2	3
Lawyers	13	12
Leather workers	11	3
Letter carriers	3	4
Librarians . . . . .	..	1
Liquor dealers	1	1
Longshoremen	6	5
Lumbermen . . . . .	..	1
Machinists	54	26
Managers	9	4
Manufacturers	9	3
Marketmen	4	4
Masons	1	1
Meat cutters	4	5
Mechanical engineers	1	2
Merchants	31	25
Messengers	11	13
Metal workers	16	10
Milk dealers	5	2
Mill hands	29	14
Miners	1	4
Minors	22	33
Missionaries . . . . .	..	1
Musicians	5	2
Music teachers	1	1
Naval officers	2	..
Newsboys	3	..
No occupation	51	39
Nurses . . . . .	..	1
Orderlies	13	13
Organ makers	1	..
Painters and paper hangers	48	31
Peddlers	16	17
Photographers	2	2
Physicians	38	49
	<hr/>	<hr/>
<i>Carried forward</i>	1,202	1,027

PETER BENT BRIGHAM HOSPITAL

MALES	1915	1916
<i>Brought forward</i>	1,202	1,027
Plasterers	3	2
Plumbers	18	30
Police officers	6	10
Porters	7	9
Printers	20	12
Professors	2	1
Provision dealers . . . . .	..	3
Rabbis	3	2
Rag men . . . . .	..	3
Railroad employees	18	18
Ranchers . . . . .	..	1
Real estate dealers	1	5
Restaurant keepers	3	4
Retired	24	15
Roofers	3	2
Rubber workers	7	3
Salesmen	91	88
Seamen	7	2
Secretaries	1	3
Shippers	14	14
Shoemakers	15	15
Shoe shop employees	16	29
Social workers	1	2
Stationary engineers	2	5
Stewards	2	8
Stone cutters	3	2
Storekeepers	2	..
Street railway employees	21	25
Structural iron workers . . . . .	..	1
Students	184	190
Superintendents	21	11
Surveyors . . . . .	..	1
Tailors	49	47
Teachers	6	12
Teamsters . . . . .	..	32
Telegraph operators	2	1
Telephone operators . . . . .	..	2
Tinsmiths . . . . .	..	9
<i>Carried forward</i>	1,754	1,646

REPORT OF THE SUPERINTENDENT

MALES	1916	1915
<i>Brought forward</i>	1,754	1,646
Treasurers	1	3
Trustees . . . . .	..	2
Waiters	21	28
Watchmakers	7	2
Watchmen	6	6
Wheelwrights . . . . .	..	2
Others	180	150
	<hr/>	<hr/>
Total males.	1,969	1,839
FEMALES		
Actresses	1	2
Artists . . . . .	..	2
Authors . . . . .	..	1
Bookbinders	2	2
Bookkeepers	21	15
Candy makers	5	7
Canvassers . . . . .	..	1
Cashiers	3	3
Chemists	3	1
Cleaners . . . . .	..	5
Clerks	32	28
Cooks	18	11
Demonstrators . . . . .	..	1
Dietitians	1	..
Domestics	164	181
Dressmakers	12	15
Governesses . . . . .	..	1
Home	257	383
Housewives	701	434
Laundry maids	16	24
Matrons	1	1
Merchants . . . . .	..	2
Mill operatives	18	5
Milliners	1	5
Minors	28	24
Missionaries	1	1
Musicians	2	1
Music teachers	1	3
	<hr/>	<hr/>
<i>Carried forward</i>	1,288	1,159

PETER BENT BRIGHAM HOSPITAL

FEMALES	1916	1915
<i>Brought forward</i>	1,288	1,159
No occupations	60	32
Nurses	72	71
Physicians	5	3
Saleswomen	19	18
Seamstresses	17	13
Secretaries	2	2
Shoe shop employees.	15	6
Social workers	6	3
Stenographers	16	28
Students	126	135
Tailoresses	1	2
Teachers	30	22
Telephone operators	12	15
Typists . . . . .	..	2
Waitresses	24	34
Others	50	33
	<hr/>	<hr/>
Total females	1,743	1,578

Table V

Expense and Revenue Statement

ADMINISTRATION EXPENSES

	1916	1915
Salaries, officers and clerks	\$21,828.77	\$20,203.88
Office expenses	61.71	40.09
Stationery, printing and postage	3,057.60	2,331.20
Telephone and telegraph	2,706.85	2,237.29
Liability insurance	859.60	910.13
Miscellaneous	3,396.31	3,306.50
	\$31,910.84	\$29,029.09

PROFESSIONAL CARE OF PATIENTS

Salaries and wages:		
Physicians and surgeons	\$20,779.48	\$19,124.97
Supt. of nurses and assistants	4,495.83	4,002.29
Nurses	7,280.92	10,653.83
Special nurses	11,215.50	10,299.35
Orderlies	5,120.67	5,609.68
Druggists	1,816.24	1,647.22
Ward employees	4,853.15	3,925.68
Record clerks	5,001.75	4,603.78
	\$60,563.54	\$59,866.80
Training school:		
Salaries of instructors	\$2,079.20	\$2,328.20
Supplies	2,261.38	1,483.36
	4,340.58	3,811.56
Medical and surgical supplies:		
Apparatus and instruments	\$2,594.29	\$3,464.85
Medical and surgical supplies	15,342.11	12,590.35
Alcohol	659.62	428.15
Liquors and wines	70.54	
	18,666.56	16,483.35
Out-Door Department:		
Labor	\$4,577.97	\$3,436.33
Supplies	4,267.74	2,717.04
	8,845.71	6,153.37

PETER BENT BRIGHAM HOSPITAL

	1916	1915
Photography and X-Ray:		
Salaries and labor	\$4,979.47	\$3,564.55
Supplies	8,767.56	7,339.19
	<u>\$13,747.03</u>	<u>\$10,903.74</u>
Medical library	926.79	980.72
	<u> </u>	<u> </u>
Total professional care of patients	\$107,090.21	\$98,199.54

DEPARTMENT EXPENSES

Ambulance:		
Labor	\$1,779.86	\$1,655.00
Supplies	530.98	643.21
	<u>\$2,310.84</u>	<u>\$2,298.21</u>
Laboratories:		
Labor	\$8,796.72	\$6,013.60
Supplies	3,074.10	3,354.17
	<u>11,870.82</u>	<u>9,367.77</u>
Housekeeping:		
Labor	\$16,950.25	\$14,216.00
Supplies	11,505.58	6,585.42
	<u>28,455.83</u>	<u>20,801.42</u>
Kitchen:		
Labor	\$7,431.40	\$6,224.43
Supplies	276.35	186.10
	<u>7,707.75</u>	<u>6,410.53</u>
Laundry:		
Labor	\$4,705.03	\$4,485.77
Supplies	2,089.20	990.81
	<u>6,794.23</u>	<u>5,476.58</u>
Steward's department:		
Labor	\$1,795.01	\$1,573.96
Provisions:		
Bread	2,337.90	2,259.72
Milk and cream	10,304.74	8,763.57
Groceries	12,300.16	5,512.67
Butter and eggs	9,172.91	8,531.51
Fruit and vegetables	7,649.15	4,971.36
Meat, poultry and fish	18,210.20	16,154.13
	<u>61,770.07</u>	<u>47,766.92</u>
Total department expenses	\$118,909.54	\$92,121.43

REPORT OF THE SUPERINTENDENT

GENERAL HOUSE AND PROPERTY EXPENSES

	1916	1915
Electrical Department	\$2,594.30	\$2,500.58
Heat, light and power	30,000.00	30,000.00
Fuel and oil	51.35	31.05
Gas	1,765.75	2,075.44
Ice . . . . .	. . . . .	. . . . .
Water	2,854.80	1,985.80
Maintenance real estate and buildings	8,411.99	8,983.13
Maintenance machinery and tools	52.11	246.86
Plumbing and steam fitting	4,608.55	4,740.54
Insurance	150.80	. . . . .
Miscellaneous	13.57	. . . . .
	\$50,503.22	\$50,563.40
Total general house and property expenses		

EXPENSES FROM SPECIAL FUNDS

Asthma Fund	\$4,465.94	\$1,076.29
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CORPORATION EXPENSES

Salaries, officers and clerks		
Stationery, printing and postage		
Legal expenses		
Taxes		
Medical adviser	\$1,000.08	\$1,000.08
Miscellaneous		
	\$1,000.08	\$1,000.08
Total corporation expenses		

SUMMARY

EXPENSES

	1916	1915
Total administration expenses	\$31,910.84	\$29,029.09
Total professional care of patients expenses	107,090.21	98,199.54
Total department expenses	118,909.54	92,121.43
Total general house and property expenses	50,503.22	50,563.40
	\$308,413.81	\$269,913.46
Total hospital expenses		
Corporation expenses	1,000.08	1,000.08
	\$309,413.89	\$270,913.54
Choate Fund expenses	4,465.94	1,076.29
	\$313,879.83	\$271,989.83
GRAND TOTAL		

PETER BENT BRIGHAM HOSPITAL

REVENUE

	1916	1915
Administration receipts	\$2,600.13	\$1,279.90
Professional care of patients:		
Board of priv. rm. patients	\$28,749.93	\$24,699.93
Board of ward patients	46,583.53	35,512.13
Special nurses	13,226.81	12,534.05
Out-Door Department	9,797.01	6,449.33
Photography and X-Ray	6,685.40	4,189.87
Miscellaneous	6,302.89	2,432.99
	<u>111,345.57</u>	<u>85,818.30</u>
Department receipts:		
Ambulance	\$1,044.44	\$794.62
Miscellaneous	1,427.40	719.58
	<u>2,471.84</u>	<u>1,514.20</u>
General house and property receipts	101.46	39.15
	<u>\$116,519.00</u>	<u>\$88,651.55</u>
Refund on previous year's expense	2,076.15	
	<u>\$118,595.15</u>	<u>\$88,651.55</u>
Total hospital receipts		
Cash from Treasurer for current expenses	\$158,808.26	\$150,351.78
Bills paid by Treasurer	32,010.48	31,910.21
	<u>\$190,818.74</u>	<u>\$182,261.99</u>
Cash from Treasurer for expense from Choate Fund	4,465.94	1,076.29
	<u>195,284.68</u>	<u>183,338.28</u>
GRAND TOTAL	<u>\$313,879.83</u>	<u>\$271,989.83</u>

STATEMENT OF STOCK ON HAND

	1916	1915
Administration supplies	\$2,130.23	\$3,085.30
Professional care of patients supplies	10,231.64	7,196.09
Department supplies	17,880.11	8,802.69
General house and property supplies	3,067.78	3,048.70
	<u>\$33,309.76</u>	<u>\$22,132.78</u>

Report of the School of Nursing

December 31, 1916

THE year ends with the following staff of nurses and pupils on duty in the hospital:

Superintendent of Nurses	1
Assistant Superintendent of Nurses	1
Instructors	2
Supervisors	3
Night supervisor	1
Graduate head nurses and assistants	15
Nurse anesthetist	1
Pupils	70
Pupils in preliminary course	16
	<hr/>
Total	110

Forty-one probationers have been admitted during the year. Seventeen have been accepted into the school. Eight have withdrawn. Sixteen are now taking the preliminary course.

The school census varies greatly during the year, fluctuation being due to the departure of graduates and the incoming of new classes. It has been as high as 123.

The housing of so large a number has been a serious problem. Five sitting-rooms have been converted into double bedrooms. We are indebted to the House of the Good Samaritan for the use of six bedrooms in their new nurses' home.

Six graduates of this school are now serving as head

PETER BENT BRIGHAM HOSPITAL

nurses in the wards of this hospital. Miss Gerrard of the class of 1915 has been made nurse anesthetist.

A graduate of the school is now on full-time duty in the X-Ray Department.

More nurses, both graduates and pupils, have been supplied to the Out-Door Department during the year, owing to the opening of the new Medical Department and increase of work in other departments.

The employment of a large number of graduate nurses for special duty with private patients has been a perplexing feature of the Nursing Department. This has presented many difficulties owing chiefly to the fact that so many nurses have gone abroad for war service with the Harvard units.

The school has this year been registered with the Board of Regents of the State of New York in order that graduates of this school may be eligible for registration in that State.

In response to a request from Simmons College a course in home nursing has been given to a class of 58 Senior students from that college. This consisted of 15 lectures and demonstrations, and was given by Miss Johnson, Assistant Superintendent of Nurses.

Graduation of the second class occurred October 19, with Dr. Howard, Superintendent, presiding. Miss Mary M. Riddle, Superintendent of the Newton Hospital, made the address. There were twenty-two members in the class. The Dr. John P. Reynolds gold medal was awarded to Emily Josephine Vickery. An honorary diploma and pin of the school were awarded to Carrie M. Hall, the Principal of the School.

Several important changes have occurred in the permanent nursing staff. The resignation of Miss Sally Johnson at the close of the year deprives the school and the hospital of an able officer and loyal worker. She goes to fill the position of Superintendent of Nurses of

REPORT OF THE SCHOOL OF NURSING

the Albany Hospital, Albany, N. Y. She is succeeded by Miss Leone N. Ivers, who has been on the staff since the opening of the hospital and whose capabilities have been thoroughly tested.

(Signed) CARRIE M. HALL, R.N.,
*Superintendent of Nurses and
Principal of the School of Nursing.*

In Memoriam

SUMNER EDWARDS, M.D.

1890-1916

Medical House Officer

THE death of SUMNER EDWARDS, which occurred on January 6, 1916, ended suddenly a life of much promise. Edwards was twenty-six years of age and so just entering upon his life's work when the summons came. After spending his boyhood in Bethel, Maine, he entered Bowdoin College for his collegiate training. There he entered very keenly into the college life; he was a member of the Theta Delta Chi fraternity; he was prominent in track athletics; and in his senior year he was president of his class. He was an excellent student, as shown by his election to the Phi Beta Kappa. He graduated from Bowdoin in 1910 with the A.B. degree. He then spent a year at Hebron Academy, Maine, before entering upon the study of medicine at Harvard. At Harvard, as at Bowdoin, he was active in the student life, being a member of the Innominate, Aesculapian and Boylston societies and the Phi Rho Sigma Fraternity and, one year, president of his class. He graduated in 1915, receiving the M.D. degree *cum laude*. In a competitive examination in January, 1915, he won a place as medical house officer at the Peter Bent Brigham Hospital. About the middle of October, 1915, he came on duty for this work.

In his service at the hospital he was efficient, doing his work exceedingly well. His bearing was modest; he was pleasant in his relations to all of his associates on the hospital staff and to the patients, and so he came to be

IN MEMORIAM

greatly liked by all in the hospital. His illness began, as did many of the cases of the recent epidemic of grippe, with a high fever and great prostration. In a few days lobar pneumonia developed in one lower lobe of his lung and shortly the other lower lobe became involved. The infecting organism was type No. 1 pneumococcus, and from the early days of his illness he was very sick. His illness and death cast gloom over the entire institution. The medical staff has lost a very well liked member, whose presence will be missed for a long time to come.

On January ninth his funeral services were held in his old home at Bethel, Maine, and he was buried in the cemetery on a low knoll by the river with a distant view of that lovely range of hills which he doubtless loved to look upon when at Bethel.

At a recent meeting of the Governing Board of the Peter Bent Brigham Hospital the following resolution was adopted:

“The Board of Incorporators learns with deep regret of the death of Dr. Sumner Edwards, House Officer of the Peter Bent Brigham Hospital.

“We deplore the loss to the hospital of his efficient and faithful services, and realize that still greater is the ultimate loss of a man of his promise to his profession and the public. We offer our deep sympathy to his mother.”

HENRY A. CHRISTIAN.

Social Service

MEDICAL Social Service at the Peter Bent Brigham Hospital is apparently developing along the lines of special classes. At least at present there is distinctly more activity in the organization and management of classes or groups of patients with similar diseased conditions than in other lines of work. In these the social service worker has an active part, both in the special management of the case, and in seeing as far as is possible that home and social conditions conform to the professional needs of the patient.

So far we have social workers in the diabetic and in the cardiac classes. For a detailed account of these classes, see pages 135-139.

A follow-up system for patients discharged from House to O. D. D. and for patients of medical clinic in O. D. D. has been carried on the past year. The results are not wholly satisfactory on account of the irregularity of the service given to it, but enough has been done to prove the necessity of a strict follow-up for House and Out-patient cases.

As in the past, the help I have had in this department has been given me by volunteers. I cannot speak too highly of the splendid type of service they have given and the fine spirit of helpfulness they bring to the work. Yet an organization composed wholly of volunteer workers does not present that solidarity which gives a foundation upon which one can build with the assurance that the fabric will be enduring. I would strongly recommend a paid worker for the hospital wards and a stenographer whose time could be divided between the Social Service Office and the record room, to do the clerical work of the follow-up system.

SOCIAL SERVICE

I would also recommend an evening clinic for the Out-patients. I believe a hospital can increase its usefulness a hundredfold to the ones who really need it, the wage-earners, through an evening clinic. Many patients lose part of their pay by coming to a day clinic, and others do not dare to ask for time off to come.

Following are three cases which may give some idea of the possibilities of Medical Social Service work:

Patient: A young woman twenty years of age in the hospital ward — pretty and temperamental. Diagnosis: Cystitis of a gonorrheal origin. Reason referred: Patient needs long convalescence and regular medical treatment. Patient in this country a little over a year. She has no relatives or friends here. She had saved about \$100, but this had been stolen from her. Action taken: Application was made to two societies dealing with young women. One refused because patient was too old; and the other refused on account of the expense and time this kind of case would mean. Arrangements were then made through this department with a certain "Home" to board patient for light services rendered, near a good dispensary, where she could get the prescribed medical treatment. Patient's condition not improved through dispensary treatment. Hospital care recommended. Patient then sent to State hospital. Discharged from there "Well" after four months' stay. Visited twice while there and written to frequently. Met at station on return and taken to the Y. W. C. A., where she was given room and board for services. Later was given waitress's work with pay. Patient was found to have musical talent. Vocal lessons were then arranged for at South End Music School. At present time working steadily, health good, nearly \$200 saved in bank.

Patient: A girl fourteen years of age in hospital ward. Diagnosis: Severe case of chorea; chronic; middle ears. Reason referred: District nurse telephones that patient should not come home from hospital — mother works out all day — rooms hot and stuffy (time of year, July), food poorly prepared. Action taken: Patient sent to country (Farrington Memorial) for three weeks. Returns much improved. Mother in the interim has moved to Revere (sea-shore) for summer. Mother is shown how to take proper care of ears and given

PETER BENT BRIGHAM HOSPITAL

instruction in regard to the diet, exercise, rest and medical supervision patient should have. Present time patient, in splendid condition, fat and rosy, attending Horace Mann School for the Deaf.

Patient: A boy seven years old in hospital ward. Diagnosis: Cardiac. Referred to Social Service to find some place where patient can go from hospital. Mother is afraid she cannot give patient proper care at home — three other children, aged fourteen, thirteen and five years. Action taken: Home visited. Location good, rooms comfortable and very neat; a fair-sized yard. Income sufficient. Mother pleasant and prepossessing. Report from Milk and Baby Hygiene nurse shows mother is intelligent. Mother persuaded to take patient home. At first several visits made to encourage mother and teach her how to take pulse and temperature and carry out the doctor's orders. She coöperated splendidly, bringing patient to the heart clinic every week. This fall the patient returned to school, still under our supervision. On last visit to clinic, he was told he need not come again for three months. He is gaining in weight and strength.

During this year

470 patients dealt with in Social Service Department.

383 new.

87 old.

105 referred from House Medical Service.

53 referred from House Surgical Service.

139 referred from O. D. D. Medical Service.

53 referred from O. D. D. Surgical Service.

33 referred from other agencies.

333 calls made to patients in their homes.

240 calls made to patients in the wards.

200 interviews with patients in the O. D. D.

I cannot express too much appreciation for the splendid coöperation and help I have received from my associates within the hospital and from the outside. I want to thank especially those charitable agencies that have helped me in my work. I wonder if the majority of people in Boston appreciate the prompt and coöperative action given by the charities in this city to the response of need of same.

SOCIAL SERVICE

At Christmas time a tree and party for the children and a number of adult patients, who seemed especially in need of cheer, was made possible by the generosity of the visiting and resident staff and outside friends. We are greatly indebted to Mr. Robert Winsor and Mr. L. M. Sargent for the gay and contagious music furnished by them for the party.

The use of automobiles furnished on different occasions by various friends to take patients to their homes or other places of destination has been of great service.

The acknowledgment of gifts to the Social Service Department will be found in the list of donations to the hospital.

ALICE M. CHENEY.

Head Worker

MISS ALICE M. CHENEY

Volunteers

Miss KATHERINE HOMANS

Mrs. KENNETH MARK

Miss LAURA STEDMAN

Miss ELIZABETH DE FORD

Report of the Pathologist

DURING the past year there were 113 autopsies performed. Of these 58 were from the medical service and 55 from the surgical service. The total per cent of autopsies performed upon patients who died in the wards during the year is 49.54, an increase of about 2 per cent over last year. 56.52 per cent of all the cases dying in the surgical wards were autopsied, most of them coming from the neurological service. Of all cases dying in the medical wards 44.44 per cent were autopsied.

The number of reports on surgical specimens, bacteriological cultures and material for guinea pig inoculation is 1144. Of this total 97 came from the medical service. The number of examinations of last year was 1030.

The following papers have been prepared by the department during the past year:

S. B. MARLOW.

"Two Cases of Abdominal Aneurysm of the Aorta with Rupture into the Duodenum." To be published.

J. S. SHEN.

"Fibroma of the Mediastinum with Report of a Case." Boston Med. and Surgical Journal. In print.

E. W. GOODPASTURE.

"Senescence in Relation to Cell-Overgrowth and Cancer." Jour. Med. Research, 1916. xxviii, p. 455.

"Double Primary Abdominal Pregnancy." Jour. Med. Research, 1916. xxix, p. 359.

"Crystalline Hyalin." Jour. Med. Research, 1916. xxx, p. 259.

"A Contribution to the Study of Pancreas Intoxication." Jour. Expt. Med. 1917. xxv, p. 277.

REPORT OF THE PATHOLOGIST

N. C. FOOT.

"Use of Citrated Plasma in Tissue Cultures." A preliminary report. Jour. Amer. Med. Association. xlvii, No. 9.

W. T. COUNCILMAN.

"Further Reflections of a Medical Teacher." University of Maryland. Bulletin of Medical and Chirurgical Faculty. Vol. 9, No. 4.

S. B. WOLBACH, W. R. SISSON and F. C. MEIER. To be published.

"A New Pathogenic Sporotrichum found in a Case of Acute Arthritis of the Knee following Injury" (*Sporotrichum councilmani*).

S. B. WOLBACH.

"The Etiology of Rocky Mountain Spotted Fever." A preliminary report. Jour. Med. Research. xxxiv, No. 1.

"The Etiology of Rocky Mountain Spotted Fever. Occurrence of the Parasite in the Tick." Second preliminary report. Jour. Med. Research. xxxv, No. 1.

The resignation of the pathologist, Dr. W. T. Councilman, took effect December 1, 1916, one month earlier than was scheduled before his retirement on the basis of age limit. Dr. Councilman sailed in December with the Rice Exploration Expedition to the tributaries of the Amazon River. This expedition is essentially a Harvard University expedition, financed by Dr. Rice, and the personnel provides for the investigation of many subjects peculiar to the region, — geographical, geological, meteorological, zoological, botanical and ethnological. Dr. Councilman has gone equipped to make investigations of such diseases as may be encountered among man and animals.

During Dr. Councilman's term as pathologist, the Pathological Department has made a number of valuable contributions to medicine. A well-organized system has been developed in the laboratory, leaving possible

PETER BENT BRIGHAM HOSPITAL

only minor improvements and such changes inevitable with a change in personality in direction.

One important change now under way is the development of an efficient bacteriological routine, to be accomplished with the coöperation of the medical and surgical services. The purpose of this change from the system previously maintained is to raise the standard of the bacteriological routine and to standardize the bacteriological methods of the hospital. It is hoped that within a short time all the bacteriological work of the hospital will be supervised and controlled by the Pathological Department, a system which should increase the material for research and which will make the bacteriological records of permanent value. Additional space in the laboratory has been obtained by transferring the collection of pathological material to a room in the basement under E corridor. A new bacteriological incubator and other apparatus for bacteriological work have been installed.

S. B. WOLBACH.

Pathologist.

Report of the Surgical Service

OWING to the unexpected call for active foreign service of Red Cross Base Hospital No. 5, under the directorship of the Surgeon-in-Chief, Dr. Cushing, it has been impossible for him to write his usual report for the Surgical Department before his departure. The following brief report is submitted by his junior colleagues.

The surgical work has shown a satisfactory and healthy growth, and probably now approximates the capacity of the present plant to care for it. In the years 1913 and 1914 included together in the first report there were 2284 surgical admissions, an average of 1142 per year. In 1915 the admissions were 1783 and in 1916 they reached 1924. As pointed out in the last report, with a capacity of 110 surgical beds and an average stay of 17 days, 2310 patients could be cared for, or with a stay of 15 days the total would be 2640, which may be regarded as the limit in the experience of other hospitals. The large proportion in our service of neurological cases which require prolonged investigation and protracted convalescence, and the desirability of keeping certain cases under observation for purposes of study or instruction afford an explanation of the somewhat reduced surgical capacity in comparison with the average hospital. It is probable that no great difference exists if only the routine general surgical cases are considered. In the Surgical Out-Door Department the growth has been even more marked: in 1914 there were 15,713 visits, in 1915 there were 19,924 and in 1916 the number of visits reached 26,134. Here the limit of effective service with the present plant and staff has clearly been reached.

PETER BENT BRIGHAM HOSPITAL

The plan has been continued of having the routine work carried on by the sub-senior house officers during the third quarter of their service, under the guidance of the members of the Visiting and Resident staffs and with the invaluable aid of the Associates in Surgery, Dr. Henry M. Chase and Dr. Hilbert F. Day.

In accordance with the plan to foster when expedient specialization in groups of cases within the field of general surgery, the urological diseases have been placed in charge of Dr. William C. Quinby, who was officially connected with the staff as Associate in Urology and who began active work in June, 1916. Thus the burden of surgical work is distributed, and the establishment of a much-needed out-door clinic in these diseases is well under way. It will be recalled that our first recognition of a specialty was the placing of eye, ear, nose, and throat cases in charge of Dr. C. B. Walker, who continues to cover this important and extensive field.

Two valued members of the staff have resigned to accept posts in other institutions,—Dr. Ernest G. Grey, Assistant Resident Surgeon, who has become Associate in Surgery at Johns Hopkins, and Dr. Walter M. Boothby, Supervisor of Anesthesia, who has become Assistant Professor of Medicine in the Graduate Department of the University of Minnesota at Rochester. This vacancy has not been filled, and constitutes one of the pressing needs of the surgical service. A skilled anesthetist to conduct difficult cases and to foster high standards and traditions among the successive groups of house officers is an indispensable factor in successful surgery.

The hospital has continued to contribute aid to the cause of the Allies in Europe. The second contingent of the Harvard unit under the leadership of Dr. David Cheever and including Dr. E. B. Towne, Dr. W. D. Jack and Dr. George Benet, formerly of the house staff,

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sailed in November, 1915, and returned during the spring of 1916.

The close coöperation noted last year with members of the staffs of neighboring and complementary institutions, especially the Children's Hospital, the Huntington Memorial and the faculty of the Harvard Medical School, has been continued this year to the great advantage of our work. Especially profitable have been the weekly exchange ward visits with the orthopedic staff of the Children's Hospital.

The need mentioned in the last report for more adequate quarters for residential house officers and for suitable studies and examining rooms for each member of the visiting staff is still pressing. Though in theory not required to do so, the junior members of the visiting staff give practically their entire time to the hospital, and their effectiveness suffers as a result of the lack of suitable accommodations.

In the present report the tabulation of surgical statistics has been carried out in accordance with a plan proposed by a committee who have been at work on the matter in the hope of unifying the methods of the institutions in this community. The work of ascertaining the "end results" on surgical cases has been systematized and is now an integral part of the hospital record system, and is affording the expected benefit for the prosecution of our work.

DAVID CHEEVER

For the Surgical Staff.

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DAVID CHEEVER.

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Etiology of epidemic poliomyelitis. Preliminary note. *J. Am. M. Assoc.*, 1916, lxvii, pp. 1202-1205.

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Is the employment of the actual cautery in the treatment of chronic ulcer of the stomach a safe procedure? *Surg. Gynec. & Obst.*, 1916, xxiii, pp. 719-724.

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Surgical Diagnoses and Operations

JANUARY 1, 1916, TO JANUARY 1, 1917

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
SECTION I				
SPECIFIC INFECTIOUS DISEASES, GENERAL DISEASES				
Adenitis, inguinal.	1			
Chancroid	2			
Erysipelas	3			
Gumma	4			
<i>Subtemporal decompression</i>			2	
Meningitis, epidemic cerebro-spinal	2			
Mumps	1			
Pneumonia, broncho	2			
Pneumonia, lobar	3			
Poliomyelitis (abdominal symptoms)	1	1		
<i>Appendicectomy</i>			1	1 ¹
Poliomyelitis, old (weakness of thigh muscles)	1			
Pott's disease (to include abscess of vertebra)	3			
<i>Incision — drainage</i>			1	
Purulent infection — general septicemia and pyemia, streptococcus and staphylococcus infections	6	2		
<i>Multiple incisions and drainage</i>			3	2 ^{2,3}
Rheumatism, acute articular.	5			
<i>Aspiration of knee</i>			1	
Syphilis	6			
Syphilis, congenital	1			
Syphilis of digestive system	1			
(For other cases of syphilis see special organs)				
Tetanus	2			
Tuberculosis, abdominal	3			
<i>Laparotomy, exploratory</i>			1	
<i>Salpingectomy</i>			1	
Tuberculosis, acute miliary	1			
Tuberculosis, chronic pulmonary	11	1		

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Tuberculosis, unspecified (For other cases of tuberculosis see special organs)	1			
Typhoid fever	1			
Wassermann reaction	5			
SECTION II				
DISEASES DUE TO ANIMAL PARASITES				
Ascariasis	1			
SECTION III				
DISEASES OF METABOLISM				
Diabetic gangrene	5	1		
<i>Amputation of foot</i>			1	
<i>Amputation of thigh</i>			1	1 ⁴
<i>Amputation of toe</i>			2	
Diabetes mellitus.	11	1*		
SECTION IV				
CONDITIONS PECULIAR TO INFANCY				
Cerebral hemorrhage	1			
Nursling (without disease).	1			
SECTION V				
DISEASES DUE TO PHYSICAL AGENTS				
Burns.	5	1		
<i>Skin graft</i>			3	
SECTION VI				
POISONINGS, INTOXICATIONS				
Delirium tremens	1			
Wood alcohol poisoning	1			

* Re-entry — patient died on 2d admission. See abstract under Fatalities (a).

REPORT OF THE SURGICAL SERVICE

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
SECTION VII				
CARCINOMA, SARCOMA, AND OTHER MALIGNANT GROWTHS AND BENIGN TUMORS				
Angioma cavernosum (face and head)	2			
Carcinoma of neck (branchial cleft?)	1			
Carcinomatosis, general	6			
Cyst of forehead	1			
<i>Excision</i>			1	
Cyst of neck (thyroglossal?)	1			
<i>Excision</i>			1	
Cyst of submaxillary gland	1			
<i>Excision</i>			1	
Dermoid cyst of buttock	1			
<i>Excision</i>			1	
Dermoid cyst, intrathoracic	1	1		
<i>Resection of ribs, incision and drainage, and removal of cyst</i>			1	1 ⁵
Epithelioma (carcinoma) of skin	3			
<i>Excision</i>			1	
<i>Excision — skin graft</i>			1	
Lipoma	5			
<i>Excision</i>			5	
Malignant lymphoma (Hodgkin's disease)	1	1		
<i>Tracheotomy</i>			1	1 ⁶
Neuroma (see peripheral nerve group)				
Non-malignant tumor of nares	1			
<i>Removal</i>			1	
Osteitis fibrosa cystica	1			
Sarcoma of groin	1			
Sarcoma (melanotic) skin	1			
Tuberculoma (see dyspituitarism and brain tumors)				
Unknown tumor of neck (see spinal cord tumor uncertified)				
(For other tumors see special organs)				

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
SECTION VIII				
CONGENITAL MALFORMATIONS				
Cervical rib (venous obstruction)	1			
Congenital heart lesions (persistent ductus arteriosus)	1			
Meningocele, occipital	2			
<i>Excision</i>			2	
Oxycephaly	2			
<i>Subtemporal decompression</i>			2	
Pilo-nidal sinus	1			
<i>Excision</i>			1	
Unclassified (congenital malformation of hands) (For other cases see special organs)	1			
SECTION IX				
GENERAL INJURIES AND DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES				
Abrasion of scalp	1			
Abscess of arm	2			
<i>Incision and drainage</i>			2	
Abscess of buttock	1			
Abscess, cervical	8			
<i>Incision and drainage</i>			8	
Abscess of foot	2			
<i>Incision and drainage</i>			2	
Abscess of groin	1			
<i>Incision and drainage</i>			1	
Abscess of leg	4			
<i>Incision and drainage</i>			4	
Abscess, multiple	1			
Carbuncle	6	1		
<i>Excision</i>			2	1 ⁷
<i>Incision — drainage</i>			2	
Cellulitis	3			
<i>Incision and drainage</i>			1	
Contusions, various	12			
Crush of toes	1			

REPORT OF THE SURGICAL SERVICE

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Gangrene of foot	3			
<i>Amputation leg — incision and drainage</i>				
<i>gluteal abscess — reamputation of leg</i>			1	
Gangrene of leg	1			
<i>Amputation of thigh</i>			1	
Gangrene of toe	2			
<i>Amputation of toe.</i>			2	
Gangrene, unspecified (penis)	1			
Hematoma of broad ligament	1			
<i>Vaginal puncture</i>			1	
Hematoma of thigh.	2			
<i>Incision</i>			1	
Raynaud's disease	2			
<i>Amputation of leg.</i>			1	
<i>Amputation of toe.</i>			1	
Septic finger	2			
<i>Amputation of finger</i>			1	
<i>Incision — drainage</i>			1	
Septic hand	4	1		
<i>Incision — drainage</i>			2	
Septic leg	4	1		
<i>Multiple incisions</i>			2	
<i>Suturing and drainage lacerated wound</i>			1	
Septic scalp	1			
Sinuses, multiple	1			
<i>Excision</i>			1	
Ulcer, unclassified	5			
<i>Excision — Thiersch graft</i>			1	
Wound, gunshot (heel)	1			
Wounds, lacerated	9			
<i>Incision — drainage, skin graft</i>			1	
<i>Suture</i>			4	
Wound, punctured	1			

SECTION XI

DISEASES OF CIRCULATORY SYSTEM

Aneurism	2	1		
<i>Ligation of brachial artery — closure aneurismal sac</i>			1	1 ^s
Angina pectoris	1			

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Arteriosclerosis	1			
Arteriosclerosis, cerebral	3			
Embolism and thrombosis, pulmonary	1			
Endarteritis, obliterative	1			
Endocarditis, chronic	1			
Mitral insufficiency	2			
Mitral stenosis and insufficiency	4			
Myocardial insufficiency	1			
Pericarditis, fibrinous	1			
Phlebitis	4			
Senile gangrene	1	1		
<i>Amputation of thigh</i>			1	1 ^o
Thrombophlebitis	1			
<i>Excision of veins</i>			1	
Thrombosis, cerebral with softening	1			
Ulcer, varicose	17			
<i>Excision</i>			1	
<i>Excision and skin graft</i>			8	
<i>Skin graft</i>			1	
Varix	25			
<i>Excision</i>			22	
SECTION XII				
DISEASES OF THE LYMPHATIC SYSTEM				
Lymphadenitis, acute	6			
<i>Exploration — drainage</i>			1	
<i>Incision</i>			1	
Lymphangitis	5			
<i>Multiple incisions</i>			1	
Tuberculosis of lymph nodes	22			
<i>Excision of glands</i>			18	
<i>Incision — drainage</i>			2	
Tumors of the lymph glands				
Carcinoma of lymph glands	2			
<i>Excision</i>			2	
SECTION XIII				
DISEASES OF THE BLOOD				
Anemia, pernicious	4			
<i>Transfusion</i>			4	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Anemia, secondary	1			
Leukemia, myeloid	1	1		
Polycythemia	2			
SECTION XIV				
DISEASES OF THE DUCTLESS GLANDS				
C. THYROID GLAND				
Dysthyroidism	3			
<i>Thyroidectomy</i>			1	
<i>Thyroidectomy, partial</i>			1	
Exophthalmic Goitre	6	1		
<i>Ligation of superior thyroid vessels</i>			1	
<i>Thyroidectomy, partial.</i>			4	1 ¹⁰
Tumors of thyroid gland				
Adenoma of thyroid	3			
<i>Excision</i>			3	
Cyst of thyroid	3			
<i>Excision</i>			3	
Diffuse colloid goitre	1			
E. PITUITARY GLAND				
Acromegaly with tumor	8	1		
<i>Transphenoidal</i>			1	
<i>Transphenoidal—partial removal of struma</i>			3	1 ¹¹
Acromegaly without tumor	6			
Dyspituitarism with pituitary tumor or cyst	36	5		
<i>Excision of turbinate—enlargement of sphenoidal opening</i>			1	
<i>Frontal exploration</i>			1	
<i>Puncture of cyst</i>			1	
<i>Puncture of cyst—implantation of tube</i>			1	1 ¹²
<i>Subtemporal decompression</i>			1	1 ¹³
<i>Subtemporal decompression—puncture ventricle</i>			1	
<i>Transphenoidal.</i>			14	2 ^{14,15}
<i>Transphenoidal with evacuation.</i>			2	
<i>Transphenoidal with partial removal of struma</i>			5	1 ¹⁶
Dyspituitarism without tumor	8			
<i>Subtemporal decompression</i>			1	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Dyspituitarism with endothelioma	2			
<i>Frontal osteoplastic exploration — removal of tumor</i>			1	
<i>Tapping of herniation transphenoidal—lumbar puncture</i>			1	
Dyspituitarism with interpeduncular cyst . . .	3		1	
<i>Transfrontal operation</i>			1	
Dyspituitarism with syphiloma	2			
Dyspituitarism with teratoma	1	1		
Infantilism	4			
F. PINEAL				
Pineal syndrome	1			
Pineal uncertified	1			
<i>Suboccipital exploration</i>			1	
G. POLYGLANDULAR SYNDROME . . .				
<i>Subtemporal decompression</i>	3		1	
SECTION XV				
DISEASES OF THE NERVOUS SYSTEM				
A. INJURIES TO THE NERVOUS SYSTEM				
Injury to brain				
Concussion	6			
Contusion	1			
Gunshot wound of skull	2			
<i>Excision of scar — removal of necrotic piece of outer table</i>			1	
Meningeal hemorrhage	2			
Skull fracture	11	2	7	2 ^{17/18}
<i>Subtemporal decompression</i>			7	
Skull fracture (old)	7			
<i>Subtemporal decompression</i>			1	
Injuries to special nerves				
Circumflex	1			
<i>Exploration</i>			1	
Median	1			
<i>Repair of branch of nerve</i>			1	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Popliteal	1			
<i>Suture of nerve</i>			1	
Radial	1			
Injury to spinal cord				
Dislocation of vertebrae	1			
Fracture of vertebrae	4	1		
<i>Exploratory laminectomy</i>			2	
Hematomyelia	3			
Stab wound (old)	1			
Injury to spinal nerves				
Brachial plexus	1			
Obstetrical paralysis	3			
B. INFECTIONS OF THE NERVOUS SYSTEM				
Arachnoiditis, chronic serous.	2			
Athetosis	1			
Meningitis	4			
Meningo-encephalitis	2			
Syphilis of nervous system	10			
<i>Subtemporal decompression</i>			1	
C. INFLAMMATION AND DEGENERATION OF NERVES				
Facial paralysis	4			
Herpes Zoster	1			
Tumors of peripheral nerve group				
Neuromata, amputation.	1			
Neurofibromata (Von Recklinghausen's disease)	1	1		
Obturator nerves	1	1		
Peroneal nerve (cystic)	1			
<i>Excision</i>			1	
D. SPINAL CORD DISEASE				
Abscess, epidural	1			
<i>Laminectomy.</i>			1	
Atrophy, progressive neuromuscular (peroneal type?)	1			
<i>Bilateral achilles tenotomy — tenotomy of plantar fascia</i>			1	
Myelitis, transverse	1			

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Sclerosis, lateral	6			
<i>Exploratory laminectomy</i>			1	
Sclerosis, multiple	1			
Spina bifida	3			
<i>Excision of sac</i>			1	
<i>Resection of sac — ventricular drainage</i>			1	
Spinal cord disease, unclassified	1			
Syringomyelia	1			
Tabes dorsalis	9			
Tumors of spinal cord				
Carcinoma of spine (metastatic)	1			
<i>Exploratory laminectomy — division of three nerve roots</i>			1	
Endothelioma (extradural)	1	1		
<i>Laminectomy and partial enucleation of tumor</i>			1	1 ¹⁹
Sarcoma (metastatic)	2			
Uncertified	2	1		
E. BRAIN DISEASE				
Abscess, cerebral	4	3		
<i>Exploration temporal lobe — evacuation of ventricle decompression</i>			1	
Apoplexy, cerebellar	1			
Dementia paralytica	2	1		
<i>Subtemporal decompression</i>			1	1 ²⁰
Diplegia	3			
Ependymitis, septic	1			
Epilepsy, Jacksonian	16			
<i>Exploration</i>			3	
Fistula, cerebrospinal	1	1		
<i>Excision through old sinus — curettage of neighboring area</i>			1	1 ²¹
Hemiplegia	5			
Hemorrhage, extradural	1			
Hemorrhage, intracranial	2			
Hydrocephalus, congenital	4			
Hydrocephalus, internal	1			
Paraplegia, traumatic	1			
Retarded mental development	3			

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Tumors of brain (for pituitary and pineal tumors of ductless glands)				
Cerebrum				
Carcinoma (metastatic)	2	2		
Endothelioma	16	2		
<i>Extirpation</i>			8	1 ²²
<i>Subtemporal decompression</i>			2	
<i>Subtemporal decompression — osteoplastic exploration fragmentary removal</i>			1	
<i>Transverse muscle implanture</i>			1	
Glioma	20	6		
<i>Curettage of tumor</i>			1	
<i>Exploration with evacuation of cyst</i>			1	1 ²³
<i>Exploration and decompression with evacuation of cyst</i>			1	
<i>Exploratory craniotomy — fragmentary extirpation</i>			1	
<i>Exploratory craniotomy — incision of cortex</i>			1	1 ²⁴
<i>Exposure of tumor</i>			1	
<i>Extirpation</i>			3	2 ^{25,26}
<i>Extirpation, partial</i>			3	
<i>Puncture of cyst</i>			1	
<i>Radium implantation</i>			3	
<i>Subtemporal decompression</i>			4	2 ^{27,28}
Gliomatous cyst	2			
<i>Partial extirpation — evacuation of cyst — implantation of radium tube</i>			1	
<i>Subtemporal decompression — evacuation of cyst</i>			1	
Sarcoma (metastatic)	2			
<i>Exploration — bone flap removed</i>			1	
Sarcoma (primary)	1	1		
<i>Extirpation</i>			1	1 ²⁹
Syphiloma	1			
<i>Subtemporal decompression</i>			1	
Tuberculoma	2			
Uncertified	29			
<i>Exploration of frontal lobe</i>			1	
<i>Exploration, suboccipital</i>			1	
<i>Exploration, subtemporal</i>			1	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
<i>Exploration and decompression</i>			2	
<i>Exploratory craniotomy</i>			1	
<i>Osteoplastic exploration with decompression — incision of temporal lobe</i>			1	
<i>Puncture of ventricle</i>			4	
<i>Subtemporal decompression</i>			10	
<i>Subtemporal decompression — aspiration of ventricle</i>			1	
Pons				
Glioma	2			
Suboccipital exploration			1	
Uncertified	1			
Cerebellum				
Intracerebellar				
Glioma	7	4		
<i>Cerebellar exploration — partial extirpation</i>			1	1 ³⁰
<i>Cerebellar exploration — puncture of ventricle — fragmentary removal</i>			1	1 ³¹
<i>Extirpation</i>			3	1 ³²
Suboccipital exploration			1	1 ³³
Suboccipital exploration — puncture of ventricle			1	
Gliomatous cyst	8	3		
Suboccipital exploration			1	
Suboccipital exploration — puncture of ventricle			1	
Suboccipital exploration — puncture of ventricle — removal of arch of atlas — partial removal of tumor			1	
Suboccipital extirpation			1	1 ³⁴
Suboccipital extirpation, partial			1	
Suboccipital evacuation			1	1 ³⁵
Subtemporal decompression			1	1 ³⁶
Neuroblastoma	1			
Tuberculoma	1			
Extracerebellar				
Uncertified	14			
Suboccipital exploration			7	
Suboccipital exploration — puncture of ventricle			2	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
<i>Suboccipital exploration — puncture of ventricle — incision of hemisphere — puncture of cerebellum</i>			1	
<i>Subtemporal decompression — aspiration of ventricle</i>			1	
Extracerebellar — cerebello-pontine				
Acusticus neuroma	4			
<i>Suboccipital exploration</i>			1	
<i>Suboccipital exploration — partial excision of tumor</i>			2	
Cyst (see pseudo cerebello-pontine)				
Endothelioma	3			
<i>Extirpation</i>			1	
<i>Occipital exploration with partial removal of tumor and puncture of ventricle</i>			1	
<i>Suboccipital exploration</i>			1	
Uncertified	10			
<i>Suboccipital exploration</i>			2	
<i>Suboccipital exploration — incision of hemisphere</i>			1	
<i>Suboccipital exploration — stimulation of cerebellum</i>			1	
Pseudo tumor				
Cerebelli	2			
Cerebello-pontine	1			
<i>Exploration of lateral recess</i>			1	
Cerebri	3	1		
<i>Exploratory craniotomy</i>			1	
<i>Subtemporal decompression</i>			1	1 ³⁷
Spinal cord	1			
F. PSYCHOSES				
Dementia	3			
Psychoses, senile	1			
J. NERVOUS DISEASES WITHOUT RECOGNIZED PATHOLOGY				
Epilepsy	31			
<i>Exploration</i>			2	
<i>Lumbar puncture</i>			1	

PETER BENT BRIGHAM HOSPITAL

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Facial spasm	1			
Hiccoughing, paroxysmal	1			
Hysteria	2			
Migraine	3			
Neuralgia, facial	2			
Neuralgia, occipital	1			
<i>Excision of occipital nerves</i>			1	
Neuralgia, trigeminal — major	34			
<i>Avulsion of sensory root</i>			27	
<i>Intracranial excision of left 2d division</i>			1	
<i>Neurectomy</i>			4	
Neuralgia, trigeminal — minor	19			
<i>Alcohol injection</i>			16	
<i>Neurectomy</i>			7	
Neurasthenia	4			
Neurosis, traumatic	3			
Paralysis agitans	2			
Psychoneuroses, unspecified	3			
Torticollis	2			
<i>Division of sterno-cleido-mastoid</i>			2	
SECTION XVI				
DISEASES OF BONES, JOINTS, MUSCLES, TENDONS, AND FASCIA				
A. DISEASES OF BONES				
Abscess of bone	1			
Exostosis	3			
<i>Excision</i>			2	
Fractures				
Ankle	1			
Astragalus	1			
Calcaneus	2			
Clavicle	4			
Colles	3			
Femur	6			
<i>Forcible impaction</i>			1	
<i>Immobilization — bone plating — skin graft — removal of bone plate</i>			1	

REPORT OF THE SURGICAL SERVICE

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
<i>Plating</i>			2	
<i>Reduction</i>			1	
Humerus	9			
<i>Reduction — fixation</i>			1	
Metatarsal	2			
Nose	1			
Olecranon	2			
<i>Open reduction — suture</i>			1	
<i>Suture</i>			1	
Patella	3			
<i>Repair</i>			3	
Pelvis	1			
Radius	6			
<i>Open reduction</i>			1	
<i>Resection of head of radius</i>			1	
<i>Wiring</i>			1	
Rib	2			
Scapula	1			
Temporal bone	1			
Thumb	1			
<i>Partial removal of 1st phalanx</i>			1	
Thumb, compound	1			
<i>Suturing of lacerations — splints</i>			1	
Tibia	3			
<i>Incision of hematoma</i>			1	
Tibia and fibula	5			
<i>Reduction</i>			1	
Tibia and fibula, compound	3			
<i>Incision — drainage</i>			2	
<i>Open reduction — cast — plating of fracture — removal of bone plate (4 stages)</i>			1	
Ulna	1			
<i>Open reduction</i>			1	
Wrist	2			
<i>Excision of dislocated semilunar and proximal fragment</i>			1	
Necrosis	1			
Osteitis deformans (Paget's disease)	3			
Osteomyelitis	14			
<i>Amputation (foot — toe)</i>			3	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
<i>Incision — drainage (femur — foot — jaw — tibia)</i>			4	
<i>Removal of sequestrum (clavicle — skull — tibia)</i>			5	
<i>Resection of bone (cuneiform — metatarsal)</i>			2	
Oxycephaly (see Congenital malformations)				
Periostitis	2			
<i>Drainage of periosteal abscess</i>			1	
<i>Exploratory incision — drainage</i>			1	
Syphilis of bones	1			
Tuberculosis of bones	4			
<i>Amputation of finger</i>			1	
<i>Incision — curettage of ankle joint (2 stages)</i>			1	
<i>Incision — drainage abscess of thigh — sequestrotomy</i>			1	
Tumors of bone				
Endothelioma of skull	1			
Osteoma of skull	1			
Sarcoma of humerus	1			
B. DISEASES OF THE JOINTS (EXCEPT RHEUMATISM)				
Achondroplasia	1			
Arthritis, gonorrheal	1			
<i>Incision — drainage of vesicles</i>			1	
Arthritis and synovitis (non-traumatic)	2			
<i>Arthrotomy — irrigation</i>			1	
Arthritis and synovitis (traumatic)	1			
<i>Manipulation of joint</i>			1	
Dislocation				
Clavicle	1			
Jaw	1			
Radius	1			
<i>Excision of head of radius</i>			1	
Semi-lunar bone	1			
Shoulder	2			
<i>Reefing of capsule</i>			1	
Ulna	1			
Scoliosis	1			

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Glaucoma, chronic	1			
<i>Corneal trephine</i>			1	
Glaucoma, secondary	2			
Glaucoma, simplex	1			
<i>Corneal trephine</i>			1	
C. LACRIMAL APPARATUS				
Dacryocystitis, acute suppurative	1			
<i>Drainage of lacrimal sac</i>			1	
D. CONJUNCTIVA				
Conjunctivitis, unclassified	1			
E. CORNEA				
Keratitis, interstitial	1			
Keratitis, neurotrophic	1			
Keratitis, ulcerative	2			
Keratitis, ulcerative with hypopyon	1			
G. LENS				
Cataract	1			
<i>Simple excision</i>			1	
Cataract, capsular	1			
<i>Discission</i>			1	
Cataract, senile	1			
Cataract, senile hypermature	2			
<i>Cataract extraction in capsule</i>			1	
<i>Extraction with iridectomy</i>			1	
Cataract, senile immature	3			
<i>Cataract extraction with iridectomy</i>			1	
<i>Extraction of lens in capsule</i>			1	
Cataract, senile mature	3			
<i>Cataract extraction</i>			2	
<i>Cataract extraction — buttonhole iri-</i> <i>dectomy</i>			1	
H. UVEAL TRACT				
Occluded pupil	1			
<i>Optical iridotomy</i>			1	

REPORT OF THE SURGICAL SERVICE

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Uveitis	1			
I. RETINA				
Hemianopsia	2			
K. OPTIC NERVE				
Neuritis, retrobulbar	1			
Optic atrophy, primary	1			
Optic atrophy, unspecified	4			
Tumor of optic nerve	1			
M. ORBIT				
Cellulitis of Orbit	1			
<i>Killian incision — plastic on lower lid</i>			1	
N. DISTURBANCES OF MOTION				
Paralysis of 3d nerve (ptosis eyelid)	1			
<i>Resection of eyelid</i>			1	
Strabismus	1			
<i>Tenotomy and advancement of recti of eye</i>			1	
Strabismus, convergent	1			
<i>Tenotomy and advancement O. D.</i>			1	
DISEASES OF THE EAR				
C. EXTERNAL AUDITORY CANAL				
Otitis externa, diffuse, acute	1			
<i>Incision of furuncle of canal</i>			1	
E. MIDDLE EAR AND MASTOID				
Mastoiditis, acute	2			
<i>Simple mastoid operation</i>			2	
Otitis media, acute suppurative	6			
<i>Myringotomy</i>			3	
Otitis media, chronic suppurative	3			
Otitis media, suppurative with acute suppurative mastoiditis	3	1		
<i>Incision — drainage</i>			1	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
<i>Mastoid exploration</i>			1	1 ³⁹
<i>Myringotomy — incision of canal for fu- runcle — simple mastoid</i>			1	
Otitis media, unclassified	3	1		
<i>Myringotomy</i>			1	1 ⁴⁰
F. INTERNAL EAR				
Labyrinthine syndrome	1			
SECTION XVIII				
DISEASES OF THE NOSE				
Deformity of nose (acquired)	6			
<i>Correction of deformity</i>			5	
<i>Correction of deformity — turbinal ex- cision</i>			1	
Deviation of septum	19			
<i>Submucous resection.</i>			18	
<i>(Removal of turbinates — incidental)</i>			2	
Ethmoiditis, etc.	2			
<i>Double ethmoidal exenteration — puncture both antrums</i>			1	
<i>Right ethmoidal exenteration — sphenoidal drainage</i>			1	
Hypertrophy of bulbous middle turbinate	10			
<i>Excision of turbinates</i>			8	
<i>Excision, partial, of turbinates</i>			2	
Septum spur	1			
<i>Resection of spur</i>			1	
Sinusitis, acute and chronic	12			
<i>Drainage</i>			7	
Tumor of nose				
Polyp	3			
<i>Removal</i>			3	
SECTION XIX				
DISEASES OF THE MOUTH, LIPS, CHEEKS, PHARYNX, TONSILS, PALATE				
Abscess of mouth	1			
<i>Puncture — drainage</i>			1	

REPORT OF THE SURGICAL SERVICE

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Abscess, peritonsillar	5			
<i>Incision — drainage</i>			3	
Abscess of salivary gland	2	1		
Adenoids	2			
<i>Adenoidectomy</i>			2	
Elephantiasis of lip	1			
<i>Plastic on lip</i>			1	
Hypertrophy of tonsils	6			
<i>Tonsillectomy</i>			6	
Inflammation of salivary glands				
<i>Exploratory incision</i>			1	
Pharyngitis	2			
Tonsillitis	71			
<i>Tonsillectomy</i>			65	
Tonsillitis, chronic with hypertrophied adenoids	92			
<i>Resection of uvula</i>			1	
<i>Tonsillectomy and adenoidectomy</i>			92	
(<i>Tonsillectomy, incidental</i>)*				
Tuberculosis of mouth and pharynx	1			
<i>Excision of ulcer</i>			1	
Tumors of mouth, lips, cheeks, etc.				
Carcinoma of mouth	1			
<i>Excision (cautery) of epithelioma with</i>				
<i>excision of glands of neck</i>			1	
Carcinoma of naso-pharynx	1			
<i>Excision</i>			1	
Carcinoma of parotid gland	1			
<i>Excision</i>			1	
Cyst of parotid gland	1			
<i>Excision</i>			1	
Sarcoma of nasal pharynx	1			
SECTION XX				
DISEASES OF THE JAW, TEETH, AND GUMS				
Alveolar abscess	3			
<i>Incision — drainage</i>			2	
Caries of teeth	6			
<i>Extraction of teeth</i>			6	

* In addition 1 incidental tonsillectomy was done without mortality.

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Impacted and embedded teeth	1			
<i>Extraction of tooth</i>			1	
Tumors of jaw				
Carcinoma of jaw	1			
<i>Excision of mandible — dissection of neck</i>			1	
SECTION XXI				
DISEASES OF THE TONGUE				
Tumors				
Carcinoma of tongue	5			
<i>Excision of carcinoma</i>			1	
<i>Excision of glands of neck and half of tongue</i>			2	
<i>Ligation of carotid artery — dissection of neck — partial excision of tongue</i>			1	
SECTION XXII				
DISEASES OF THE ESOPHAGUS				
Tumors				
Carcinoma of esophagus.	3	1		
<i>Gastrostomy</i>			1	1 ⁴¹
<i>Gastrostomy — Repair of gastrostomy</i>			1	
SECTION XXIII				
DISEASES OF THE STOMACH				
Deformity, acquired	3			
<i>Plastic for hour glass stomach</i>			1	
Hypochlorhydria	1			
Pylorospasm	1			
Tumors of stomach				
Carcinoma	12	1		
<i>Exploratory laparotomy</i>			2	1 ⁴²
<i>Partial gastrectomy</i>			1	
<i>Posterior gastrojejunostomy</i>			5	
Ulcer, peptic.	19	1		
<i>Drainage of peritonitis</i>			1	1 ⁴³
<i>Gastrectomy, partial</i>			1	

REPORT OF THE SURGICAL SERVICE

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
<i>Gastrojejunostomy, posterior</i>			3	
<i>Pylorotomy, posterior gastrojejunostomy</i>			1	
<i>Pyloroplasty, Finney</i>			1	
<i>Resection, cauterization, infolding of ulcer</i>			7	
SECTION XXIV				
DISEASES OF THE INTESTINES				
Appendicitis	1			
Appendicitis, acute	44			
<i>Appendicectomy</i>			38	
<i>Appendicectomy with drainage</i>			4	
Appendicitis, acute, with abscess	18			
<i>Appendicectomy</i>			4	
<i>Appendicectomy with drainage</i>			11	
<i>Drainage of pelvic abscess</i>			1	
<i>Incision and drainage of retro-cecal abscess</i>			1	
Appendicitis, acute, with peritonitis	21	2		
<i>Appendicectomy</i>			4	
<i>Appendicectomy — drainage</i>			14	
<i>Appendicectomy — drainage, cecostomy</i>			1	
<i>Appendicectomy — enterostomy</i>			2	2 ⁴⁴ , ⁴⁵
Appendicitis, chronic	72			
<i>Appendicectomy</i>			59	
Appendicitis, subacute	28	1		
<i>Appendicectomy</i>			26	
(<i>Appendicectomy, incidental</i>)*				
Constipation	2			
Diarrhea, unclassified	2			
Duodenal fistula	1			
<i>Closure of fistula, gastrojejunostomy, tran-</i> <i>section of pylorus</i>			1	
Duodenal ulcer, perforated	2			
<i>Gastrojejunostomy, posterior</i>			1	
<i>Pylorotomy, gastrojejunostomy</i>			1	
Enteritis, acute	1			
Enteroptosis	1			

* In addition 24 incidental appendicectomies were done with one mortality (see Peritonitis)

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Fecal fistula (postoperative)	1			
<i>Closure of fecal fistula</i>			1	
Gangrene of intestine	2			
<i>Enterostomy (2)</i>			2	
<i>Resection of cecum — lateral anastomosis</i>			1	
Gastroenteritis	1			
Intestinal adhesions (including congenital bands)	8			
<i>Division of bands</i>			3	
<i>Division of bands — Finney pyloroplasty</i>			1	
<i>Division of sigmoid adhesions — fixation of uterus</i>			1	
Intestinal autointoxication	1			
Intestinal indigestion	8			
Intestinal obstruction				
Adhesions, postoperative	6	2		
<i>Appendectomy — enterostomy</i>			1	1 ⁴⁶
<i>Cecostomy</i>			1	
<i>Enterostomy</i>			1	
<i>Enterostomy — end-to-end anastomosis — closure of fecal fistula — enterostomy</i>			1	1 ⁴⁷
<i>Iliostomy</i>			1	
Appendicitis, chronic	1			
<i>Appendectomy</i>			1	
Carcinoma of intestine	1			
<i>Cecostomy</i>			1	1 ⁴⁸
Gangrene of intestine	1	1		
<i>Closure of fecal fistula — ileocolostomy</i>			1	1 ⁴⁹
Inguinal hernia, strangulated	1			
<i>Resection of ileum</i>			1	
Meckel's diverticulum	1	1		
<i>Excision of Meckel's diverticulum — colostomy</i>			1	1 ⁵⁰
Intestinal stasis	4			
<i>Cholecystectomy, partial</i>			1	
<i>Colectomy, partial</i>			1	
Splanchnoptosis (visceroptosis)	15			
<i>Closure of enteroptosis</i>			1	
Tuberculosis of intestine	4			
<i>Exploratory laparotomy</i>			1	
<i>Resection of hepatic flexure and ileum, end-to-side anastomosis</i>			1	

REPORT OF THE SURGICAL SERVICE

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
<i>Resection of lower ileum, cecum and ascending colon — end-to-end anastomosis to transverse colon</i>			1	
Tumors of intestine				
Carcinoma	8			
<i>Colostomy</i>			2	
<i>Colostomy — resection of colon — end-to-end anastomosis</i>			1	
<i>Lateral anastomosis</i>			1	
Ulcer of duodenum	8			
<i>Posterior gastrojejunostomy</i>			5	
<i>Pylorotomy</i>			2	
<i>Transection of stomach</i>			1	
Unclassified diseases of intestines				
Redundant colon	1			
<i>Colectomy, partial — lateral anastomosis</i>			1	
Transposition of viscera	1			
SECTION XXV				
DISEASES OF THE LIVER AND GALL DUCTS				
Abscess of liver	2			
Adhesions about gall bladder (cholecystoduodenal band)	1			
<i>Exploratory laparotomy</i>			1	
Cholecystitis, acute	2	1*		
<i>Cholecystectomy — drainage</i>			1	
Cholecystitis, acute — cholelithiasis	11			
<i>Cholecystectomy</i>			9	
Cholecystitis, chronic	19			
<i>Cholecystectomy</i>			10	
<i>Cholecystectomy — choledochostomy</i>			2	
<i>Cholecystectomy — choledochotomy</i>			1	
Cholecystitis, chronic — cholelithiasis	9	1		
<i>Cholecystectomy</i>			5	1 ⁵¹
<i>Cholecystectomy — closure fistula into duodenum</i>			1	
<i>Cholecystostomy</i>			1	

* Re-entry — patient died on 2d admission. See Abstract under Fatalities (b).

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Cholelithiasis	16			
<i>Cholecystectomy</i>			10	
<i>Cholecystectomy — choledochostomy</i>			1	
Cirrhosis	5			
<i>Abdominal paracentesis</i>			1	
<i>Exploratory laparotomy</i>			1	
Jaundice, unspecified	1			
Passive congestion	1	1		
<i>Exploratory laparotomy</i>			1	1 ⁵²
Obstruction of portal vein	1			
Rupture of liver	1			
<i>Suture — Transfusion</i>			1	
Stone in common duct	5			
<i>Choledochostomy</i>			1	
<i>Choledochotomy</i>			4	
Tumors of liver and gall ducts				
Carcinoma of liver	2	1		
<i>Exploratory laparotomy</i>			2	1 ⁵³
Carcinoma of liver and gall bladder	1	1		
<i>Exploratory laparotomy</i>			1	1 ⁵⁴
SECTION XXVI				
DISEASES OF THE PANCREAS				
Pancreatitis, acute and chronic	3	1		
<i>Draining of abdomen</i>			2	1 ⁵⁵
Tumors of pancreas				
Carcinoma	1			
<i>Cholecystoduodenostomy</i>			1	
SECTION XXVII				
DISEASES OF THE ABDOMEN AND PERITONEUM IN GENERAL				
Epigastric hernia	5			
<i>Repair</i>			5	
Femoral hernia	10			
<i>Repair</i>			10	
Femoral hernia, strangulated	3			
<i>Repair</i>			3	

REPORT OF THE SURGICAL SERVICE

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Inguinal hernia	170			
<i>Orchidectomy</i>			1	
<i>Repair</i>			167	
Inguinal hernia, strangulated	3	1		
<i>Colostomy</i>			1	1 ⁵⁶
<i>Repair</i>			1	
Umbilical hernia	5			
<i>Repair</i>			4	
Ventral hernia, incarcerated	2			
<i>Repair</i>			2	
Ventral hernia, postoperative	7			
<i>Repair</i>			6	
Pelvic abscess in the male	2			
<i>Drainage</i>			2	
Peritonitis, acute general	2	1		
<i>Appendectomy — incidental — drainage</i>			1	1 ⁵⁷
Peritonitis, acute local	2	1		
<i>Drainage of abscess — inguinal colostomy</i>			1	1 ⁵⁸
<i>Incision — drainage of abscess</i>			1	
Peritonitis, pelvic	4			
Relaxed abdominal wall (operative wound)	1			
Subphrenic abscess				
<i>Resection of rib — drainage</i>			1	
Tumors of abdomen and peritoneum				
Carcinoma of peritoneum	2			
<i>Exploratory laparotomy</i>			1	
SECTION XXVIII				
DISEASES OF RECTUM AND ANUS				
Abscess, ischio-rectal and peri-rectal	9			
<i>Incision — drainage</i>			8	
Fissure of anus	3			
<i>Excision</i>			2	
Fistula in anus	17			
<i>Incision drainage</i>			12	
Hemorrhoids, external	10			
<i>Clamp and cautery</i>			1	
<i>Excision</i>			4	
<i>Ligation — excision</i>			3	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Hemorrhoids, internal	16			
<i>Clamp and cautery</i>			11	
<i>Excision</i>			3	
<i>Ligation — excision</i>			2	
Hemorrhoids, external and internal	16			
<i>Clamp and cautery</i>			4	
<i>Excision</i>			9	
<i>Ligation — excision</i>			4	
<i>Ligation — suture</i>			1	
Prolapse of rectum	1			
<i>Resection of rectum</i>			1	
Spasm of rectum	1			
<i>Dilatation of sphincter</i>			1	
Stricture of rectum	3			
<i>Colostomy — excision of stricture — repair</i> <i>of colostomy — end-to-end anastomosis</i>			1	
<i>Excision</i>			1	
<i>Manual dilatation of rectum</i>			1	
Tuberculosis of rectum and anus	2			
Tumors of rectum and anus				
Carcinoma of rectum	9	1		
<i>Amputation of rectum and lower sigmoid</i> <i>— permanent colostomy</i>				
<i>Repair of colostomy</i>			1	
<i>Cauterization</i>			2	
<i>Colostomy</i>			1	1 ⁵⁹
<i>Colostomy — drainage of multiple fistulae</i> <i>in ano</i>			1	
<i>Cecostomy — Lateral anastomosis sigmoid</i> <i>to trans-verse colon</i>				
<i>Closure of cecostomy</i>			1	
Papilloma of rectum	1			
<i>Removal</i>			1	
Polyp of rectum	1			
<i>Removal</i>			1	
Ulcer of rectum	1			

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
SECTION XXIX				
DISEASES OF THE LARYNX				
Tumors of larynx				
Carcinoma	1			
<i>Tracheotomy</i>			1	
SECTION XXX				
DISEASES OF THE TRACHEA AND BRONCHI				
Asthma	2			
Bronchiectasis	1			
Bronchitis, acute	1			
SECTION XXXI				
DISEASES OF THE LUNGS				
Abscess of lung	5	1		
<i>Incision — drainage</i>			1	
<i>Resection of rib — drainage</i>			2	
<i>Thoracostomy</i>			1	
<i>Thoracotomy</i>			1	1 ⁰⁰
SECTION XXXII				
DISEASES OF THE PLEURA AND MEDIASTINUM				
Empyema (suppurative pleurisy)	13			
<i>Resection of rib — chest wall</i>			4	
<i>Thoracostomy</i>			4	
<i>Thoracotomy</i>			2	
Hemothorax	1			
SECTION XXXIII				
DISEASES OF THE KIDNEY AND URETER				
Abscess, perinephritic	2			
<i>Incision — drainage</i>			2	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Calculus in ureter	13			
<i>Exploration</i>			1	
<i>Pyelotomy</i>			1	
<i>Suprapubic cystostomy—transvesical (1)</i>				
<i>removal of stone</i>			2	
<i>Ureterotomy</i>			3	
Hematogenous infection, acute	2			
<i>Nephrectomy</i>			1	
Hematuria	2			
Hydronephrosis	2			
<i>Nephrectomy</i>			1	
Injury to kidney (perinephric hemorrhage)	1			
<i>Exploration of kidney</i>			1	
Nephritis, acute	2			
Nephritis, chronic (unspecified)	5	1		
<i>Exploration of kidney</i>			1	
Nephritis, chronic interstitial	1			
Nephroptosis	3			
<i>Nephropexy</i>			1	
Nephrolithiasis	17	1		
<i>Exploratory laparotomy (colostomy)</i>			1	1 ⁶¹
<i>Nephrectomy</i>			1	
<i>Pyelotomy</i>			5	
Pyelitis	6			
Pyelonephritis (pyonephrosis)	16			
<i>Incision—drainage</i>			2	
<i>Nephrectomy</i>			4	
<i>Pyelotomy</i>			2	
Tuberculosis of kidney and ureter	8	1		
<i>Excision of old tuberculous ureter</i>			1	
<i>Nephrectomy</i>			6	1 ⁶²
Tuberculosis of kidney with pyonephrosis	2			
<i>Nephrectomy</i>			1	
<i>Nephrotomy—Nephrectomy</i>			1	
Tumors of kidney and ureter				
Hypernephroma of kidney	1	1		
<i>Cystotomy—nephrectomy</i>			1	1 ⁶³
Uremia, acute	1			
Uremia, chronic	2			
Ureteral colic (to include renal colic)	5			
<i>Exploration of ureters</i>			1	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Ureteral fistula	1			
<i>Nephrectomy</i>			1	
SECTION XXXIV				
DISEASES OF THE BLADDER				
Contraction of neck of bladder	1			
<i>Pyleotomy — suprapubic cystotomy — (incision of trigone) division of inter- ureteric bar</i>			1	
Calculus in bladder	1			
<i>Litholopaxy</i>			1	
Cystitis	3			
Cystitis, chronic	5			
Diverticulum of bladder	1			
<i>Excision of diverticulum</i>			1	
Frequent micturition	2			
Painful micturition	1			
Retention	4			
Rupture of bladder	2	1		
<i>Suprapubic cystostomy — drainage</i>			1	1 ⁶⁴
Tumors of bladder				
Papilloma	3	1*		
<i>Suprapubic cystotomy — cauterization</i>			1	
Ulcer of bladder	1			
Unclassified diseases of the bladder				
Herniation of diverticulum of bladder	1			
<i>Excision</i>			1	
SECTION XXXV				
DISEASES OF THE URETHRA (MALE AND FEMALE)				
Extravasation of urine (gangrenous periure- thritis)	2	1		
<i>Perineal section — drainage</i>			1	1 ⁶⁵
Hypospadias	1			
<i>External urethrotomy (perineal) plastic on urethra</i>			1	

* Operation in O. D. D., see abstract under Fatalities (c).

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Rupture of urethra	1			
Stricture of urethra	7			
<i>Dilatation</i>			2	
<i>Instrumentation</i>			1	
<i>Internal and external urethrotomy</i>			1	
<i>Perineal section</i>			2	
<i>Resection of urethra</i>			1	
Urethritis, chronic gonorrhoeal	1			
SECTION XXXVI				
DISEASES OF THE MALE GENERATIVE ORGANS				
B. PENIS				
Balanitis	1			
<i>Dorsal incision of prepuce</i>			1	
Phimosis	3			
<i>Circumcision</i>			2	
Paraphimosis	1			
<i>Anterior incision of prepuce</i>			1	
C. PROSTATE				
Hypertrophy of prostate	17	2		
<i>Cystostomy — suprapubic prostatectomy</i>			1	1 ⁰⁶
<i>Cystotomy, suprapubic</i>			1	
<i>Cystotomy — prostatectomy, suprapubic</i>			2	
<i>Prostatotomy, perineal</i>			1	
<i>Prostatectomy, perineal</i>			1	
<i>Prostatectomy, suprapubic</i>			2	
<i>Removal of prostate, partial by urethral punch</i>			1	
Prostatitis	1			
Tumor of male genital organs				
Carcinoma of prostate	2			
<i>Perineal prostatectomy</i>			2	
D. SEMINAL VESICLES				
Vesiculitis	2			
<i>Vesiculotomy</i>			1	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
E. SCROTUM				
Foreign body	1			
<i>Orchidectomy</i>			1	
Hydrocele	13			
<i>Excision of sac</i>			8	
<i>Inversion of sac</i>			4	
Hydrocele of cord	5			
<i>Excision</i>			4	
Redundant scrotum	1			
<i>Resection of scrotum</i>			1	
Varicocele	14			
<i>Circumcision (incidental)</i>			1	
<i>Excision</i>			13	
F. TESTICLE				
Epididymitis, acute	7			
<i>Epididymectomy</i>			2	
<i>Epididymotomy</i>			2	
<i>Incision — drainage tunica vaginalis</i>			1	
<i>Orchidectomy</i>			1	
Epididymitis, gonorrhoeal	1			
<i>Incision — drainage of epididymis and tunica vaginalis</i>			1	
Tuberculosis of epididymis	1			
<i>Orchidectomy</i>			1	
Undescended testicle	6			
<i>Excision of testicle</i>			1	
<i>Plastic on cord</i>			5	
SECTION XXXVII				
DISEASES OF THE FEMALE GENERATIVE ORGANS				
A. VULVA				
Abscess of Bartholin's gland	1			
<i>Excision</i>			1	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
B. VAGINA				
Cystocele	4			
<i>Anterior colporrhaphy</i>			4	
Cystocele and rectocele	15			
<i>Colporrhaphy, anterior</i>			2	
<i>Colporrhaphy, posterior</i>			1	
<i>Colporrhaphy, anterior and posterior</i>			6	
<i>Perineorrhaphy</i>			6	
Rectocele	1			
<i>Perineal repair — dilatation and curettage</i>			1	
Recto-vaginal fistula	1			
<i>Repair</i>			1	
Tumors of vagina				
Carcinoma	1			
C. UTERUS				
Endocervicitis	7			
<i>Amputation of cervix</i>			1	
<i>Cauterization of cervix</i>			1	
<i>Dilatation and curettage</i>			5	
Endometritis	1			
<i>Dilatation and curettage</i>			1	
Endometritis, chronic	4			
<i>Dilatation and curettage</i>			3	
Endometritis, hyperplastic	5			
<i>Dilatation and curettage</i>			4	
<i>Hysterectomy</i>			1	
Hypertrophy of cervix	1			
<i>Amputation of cervix</i>			1	
Metrorrhagia	1			
<i>Hysterectomy</i>			1	
Procidentia	2			
<i>Ventral fixation</i> *			1	
Prolapse of uterus	5			
<i>Suspension of uterus</i>			2	
<i>Ventral fixation</i>			3	
Retroversion of uterus	20			
<i>Dilatation and curettage (incidental)</i>			2	
<i>Suspension</i>			2	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
<i>Ventral fixation</i>			1	
<i>Ventral suspension</i>			15	
Tumors of uterus				
Carcinoma of cervix	7	1		
<i>Cauterization</i>			1	
<i>Dilatation — curettage, hysterectomy, salpingo-oöphorectomy</i>			1	
<i>Hysterectomy</i>			2	1 ⁶⁷
<i>Hysterectomy — resection of ureter</i>			1	
<i>Ligation of internal iliac arteries, Percy cauterization</i>			1	
Fibromyoma of uterus	25	2		
<i>Hysterectomy</i>			7	
<i>Hysterectomy — salpingectomy</i>			3	
<i>Hysterectomy — salpingectomy — oöphorectomy</i>			2	
<i>Hysterectomy — salpingo-oöphorectomy</i>			5	
<i>Myomectomy</i>			3	
<i>Panhysterectomy</i>			1	
Polyp, uterine	4			
<i>Excision of polyp</i>			4	
D. FALLOPIAN TUBES				
Pyosalpinx	8			
<i>Salpingectomy</i>			3	
<i>Salpingectomy — hysterectomy</i>			1	
<i>Salpingectomy — oöphorectomy</i>			2	
<i>Salpingo-oöphorectomy — hysterectomy</i>			1	
Salpingitis, acute	2			
<i>Salpingectomy</i>			2	
Salpingitis, chronic	5			
<i>Salpingectomy</i>			1	
<i>Salpingectomy — oöphorectomy</i>			2	
<i>Salpingo-oöphorectomy</i>			1	
Salpingitis, gonorrhœal	6			
<i>Salpingectomy</i>			2	
<i>Salpingectomy — oöphorectomy</i>			3	
<i>Salpingo-oöphorectomy</i>			1	
Salpingitis — oöphoritis	2			
<i>Salpingo oöphorectomy</i>			2	

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Tuberculosis of fallopian tubes and ovaries . . .	2			
<i>Salpingectomy</i>			1	
<i>Vaginal puncture — Salpingo-oöphorectomy</i>			1	
E. OVARY				
Pelvic adhesions	2			
<i>Freeing of adhesions.</i>			1	
Tumors of ovary				
Carcinoma	2	1		
<i>Exploratory laparotomy</i>			1	
Cyst	5			
<i>Removal of cyst</i>			5	
<i>Salpingo-oöphorectomy</i>			1	
Cyst — adenoma	1			
<i>Removal of cyst</i>			1	
F. GENERAL AND FUNCTIONAL				
Dysmenorrhea	7			
<i>Dilatation and curettage</i>			4	
<i>Discission of cervix — insertion of aluminum pessary</i>			1	
<i>Oöphorectomy, partial</i>			1	
Leucorrhœa	1			
Menopause	1			
Menorrhagia	5			
<i>Dilatation — curettage</i>			1	
Menstruation, irregular	3			
<i>Dilatation — curettage</i>			2	
Sterility	5			
<i>Dilatation — curettage</i>			3	
G. BREAST				
Abscess of breast, non-puerperal	1			
<i>Incision</i>			1	
Cystic disease of breast	3			
<i>Removal of breast</i>			2	
Tuberculosis of mammary gland	3			
<i>Removal of breast</i>			2	
<i>Partial removal of breast</i>			1	

REPORT OF THE SURGICAL SERVICE

DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Tumors of breast				
Adeno-fibroma	1			
<i>Excision of tumor</i>			1	
Carcinoma	20	1		
<i>Removal of breast and axillary glands</i>			16	
<i>Skin graft</i>			1	
Cyst — adenoma, papillary	1			
<i>Removal of breast</i>			1	
Fibroma	1			
<i>Excision of tumor</i>			1	
SECTION XXXVIII				
PUERPERAL STATE				
Abortion	8			
<i>Dilatation and curettage</i>			3	
Abortion, threatened	2			
<i>Exploratory laparotomy</i>			1	
Abscess of breast, puerperal	3			
<i>Incision and drainage</i>			3	
Deformed pelvis — pregnancy	1			
<i>Caesarean section</i>			1	
Extra-uterine pregnancy	6	1		
<i>Excision of cornu of uterus and Fallopian tube</i>			1	
<i>Salpingectomy</i>			4	1 ⁶⁸
<i>Salpingo-oöphorectomy</i>			1	
Galactocoele	1			
<i>Excision</i>			1	
Lacerated cervix	6			
<i>Amputation of cervix</i>			2	
<i>Dilatation and curettage</i>			2	
<i>Trachelorrhaphy</i>			5	
Laceration of perineum	5			
<i>Dilatation and curettage</i>			2	
<i>Colporrhaphy, posterior</i>			1	
<i>Perineorrhaphy</i>			3	
Miscarriage	13			
<i>Dilatation and curettage</i>			7	
Peritonitis	1			

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DISEASES AND CONDITIONS	DIAGNOSES		OPERATIONS	
	Total	Deaths	Total	Deaths
Placenta previa	1			
<i>Premature delivery induced</i>			1	
Pregnancy.	9			
<i>Laparotomy, exploratory</i>			1	
<i>Laparotomy for incarcerated uterus— closure</i>			1	
SECTION XXXIX				
ILL-DEFINED OR UNCLASSIFIED DISEASES				
Acidosis, non-diabetic (abdominal symptoms).	1			
Backache	1			
Debility.	2			
Diabetes insipidus	4			
Exhaustion (cause unknown)	1			
Fever (cause unknown)	1			
Headaches (including cephalalgia)	11			
Hemophilia	1			
Hemorrhage, postoperative	2			
No diagnosis — unknown disease	1			
Operation wound	5			
<i>Removal of foreign body</i>			1	
Phantom tumor	1			
Purpura (to include rheumatica and hemorrha- gica)	1			
Shock.	2			

Summary of Statistics

JANUARY 1, 1916, TO JANUARY 1, 1917

Total number of surgical admissions in 1916	1,924	
Total number of surgical cases remaining in the wards Jan. 1, 1916	89	
	<hr/>	2,013
Total number of surgical cases discharged relieved	1,828	
Total number of deaths	93	
	<hr/>	
(<i>Postoperative deaths, 68 — Non-operative, 25 — total, 93</i>)	1,921	
Surgical cases remaining in the wards Jan. 1, 1917	92	
	<hr/>	2,013

Fatalities

1. EXPLORATORY LAPAROTOMY AND APPENDICECTOMY; ANTERIOR POLIOMYELITIS WITH ABDOMINAL SYMPTOMS. 5682.

Female, 17 years. Two days of increasing abdominal pain, nausea, vomiting, headache and obstipation. Temperature 103°, pulse 120, leucocytes 20,000. Generally tender abdomen, especially in right iliac region; general examination otherwise negative. Diagnosis: appendicitis with peritonitis and ileus. Immediate exploration under ether showed slightly irritated appendix containing a fecolith, no peritonitis. Good ether recovery. In twelve hours symptoms of anterior poliomyelitis were definitely established, and death occurred in 24 hours from respiratory paralysis.

Autopsy: Anterior poliomyelitis.

2. DRAINING ABSCESS OF LEFT FLANK FOR PYEMIA (MULTIPLE ABSCESSSES). 5183.

Female, 50 years, who entered hospital with abscess behind the right breast which had been drained previously at another institution. Recently pain in left hip. In hospital for three weeks with normal temperature and pulse but steady failure of strength. Diagnosis undetermined, possibly tuberculosis.

Operation August 31, 1916. Novocain. Drainage of large abscess of unknown origin in left flank and left iliac region. Material inoculated into guinea pigs negative for tuberculosis. No growth on any media. Gradual steady failure and death 8 days after operation.

Autopsy: None permitted.

3. MULTIPLE INCISIONS AND DRAINAGE OF PYEMIC ABSCESSSES ON LEFT LEG — GENERAL SEPTICEMIA — DIABETES MELLITUS. 5397.

Female, housewife, age 54 years. Transferred to surgical service for multiple abscesses of left leg; gangrene of some 15 days' duration. History of mild diabetes of many years' duration; has had no particular or consistent treatment for the same. Multiple abscesses on the left leg and thigh began some 15 days ago with no history of trauma preceding their appearance; some of them ruptured and some were opened with discharge of serous material; tissues became black and gangrenous in vicinity of the incisions and sinuses; had marked chills and fever. On entrance appeared to be a very sick woman; temperature 102°, pulse 112, white count 27,000. Multiple abscesses, gangrenous areas and marked inflammatory condition of the whole left leg and thigh; blood cultures taken day before, on medical service, showed streptococcus. Urine had considerable amount of sugar. Diagnosis of general septicemia, multiple abscesses and cellulitis of the left leg was made and immediate operation advised.

Operation — ether anesthesia — multiple incisions made in the left leg and thigh over the indurated and abscessed areas — tissues seemed infiltrated with thin streptococcus pus — large gangrenous areas excised; wounds drained, wet Dakin-Carrel solution dressing applied. Operative

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recovery good, but steady rise in temperature and pulse, death occurring on the fifth day.

Autopsy: None permitted.

4. AMPUTATION OF RIGHT THIGH FOR DIABETIC GANGRENE. 4341.

Male, 55 years, who was treated 9 years before for diabetes and after 8 months of glycosuria has remained well, the urine sugar free. Four weeks before admission a box fell upon the right little toe. Two weeks later the toe became red and swollen — sulpho-naphthol applied. Gangrene of toe; spreading infection of foot found on entrance. No pulsation in arteries of foot; X-ray shows considerable arteriosclerosis. Patient runs temperature of 102°. Moderate cardiorenal disease.

Operation March 2, 1916. Spinal anesthesia (novocain) and local infiltration. Amputation at mid-thigh. Flaps noticeably bloodless. Poor prognosis given. Rapid fall of temperature on evening of operation. The next day rising temperature and pulse, left hemiplegia, general failure. Death on third day after operation. Amputation stumps show a small area of skin gangrene. Otherwise not remarkable.

Autopsy: Cerebral softening with arteriosclerosis and infarcts of streptococci. Lobar pneumonia. General streptococcic infection.

5. ATTEMPTED EXTIRPATION OF INTRATHORACIC DERMOID CYST OF MEDIASTINUM IN THREE STAGES. 4135.

Male, 56 years. Symptoms for four years: cough, expectoration of hairs and cheesy material, evidence of intrathoracic tumor. Operation January 20, 1916. Ether. Resection of the right III, IV, and V ribs. Second operation January 31, 1916. Ether. Attempt made to enucleate the enormous dermoid cyst from the mediastinum and right pleural cavity abandoned. Cyst incised and drained. Fair convalescence. Drainage became insufficient. Third operation June 7, 1916. Ether. Another attempt made to enucleate prevented by attachments to pericardium, root of lung, and diaphragm. A large secondary cyst pendent within the first one, apparently having connection with esophageal diverticulum, was found and removed. Much coughing and expectoration of mucopurulent secretion. Exhaustion. Death in four days.

Autopsy: Rupture of bronchus into cyst cavity. Bronchial pneumonia and acute pleuritis. Caseous tuberculosis right apex.

6. TRACHEOTOMY FOR MALIGNANT LYMPHOMA (HODGKIN'S DISEASE). 4859.

Female, 67 years. Dyspnoea and stridor from large tumor, probably lymphosarcoma of mediastinum and neck. Tracheotomy under novocain infiltration, relief of dyspnoea, death in two days from exhaustion.

Autopsy: None permitted.

7. (1) EXCISION CARBUNCLE OF NECK. (2) INCISION OF CELLULITIS. 5516.

Male, 47 years. Extensive deep furunculosis of back of neck for one month, becoming a typical carbuncle one week ago. Marked toxemia. Immediate excision under primary ether. Culture from lesion and from blood stream showed staphylococcus. Incision of secondary cellulitis under novocain infiltration four days later. No glycosuria. Death from septicemia in nine days.

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8. LIGATION OF THE BRACHIAL ARTERY FOR ANEURISM OF THE ULNA AND CLOSURE OF THE ANEURISMAL SAC. 5694.

Male, 55 years. A markedly debilitated man with aortic insufficiency, cardiac hypertrophy, secondary anemia. Pain in left forearm for six weeks, later an increasing semi-fluctuant non-pulsating swelling. X-ray suggests neoplasm eroding radius and ulna. Circulation in hand normal. Tentative diagnosis sarcoma. Exploration under ether, large aneurism of ulna artery found. Ligation of brachial with partial obliteration of sac. Hand viable. One week later, complete right hemiplegia; death two weeks later; local condition good.

9. AMPUTATION OF THIGH FOR SENILE GANGRENE. 4783.

Male, 78 years. Senile arteriosclerotic old man; right thigh amputated eight years ago for gangrene. Progressive dry gangrene of left foot for six months. Amputation of thigh under novocain spinal anesthesia. Wound healed, progressing well in spite of decubitus when cerebral hemorrhage or embolism supervened; death six weeks after operation.

10. PARTIAL THYROIDECTOMY FOR EXOPHTHALMIC GOITRE. 4971.

Female, 32 years. Negress with typical hyperthyroidism and exophthalmos, cardiac hypertrophy with mitral insufficiency (compensated) of 2½ years' duration, much increased metabolism, obviously a very toxic case, but after prolonged rest and forced feeding in medical wards she seemed a fair operative risk. Under light ether anesthesia about two thirds of the thyroid was removed without difficulty. Good immediate ether recovery, condition satisfactory twelve hours after operation. Then an overwhelming toxemia developed, with cardiac dilatation and death in twenty-four hours.

11. TRANSPHENOIDAL REMOVAL OF PITUITARY STRUMA FOR ACROMEGALY WITH TUMOR. 4310.

Male, 48 years. Previous partial removal January, 1914. Since previous admission steady increase of both neighborhood and glandular symptoms of dyspituitarism. No general pressure symptoms. Operation March 3, 1916. Ether. Transphenoidal approach, partial removal of pituitary struma. No complications. Normal convalescence until the fifth day. Sudden fever, headache, unconsciousness, cyanosis, failure of respiration. Death.

Limited autopsy: Large hypophyseal struma. Brain otherwise normal.

12. ASPIRATION OF HYPOPHYSEAL CYST. 5733.

Female, 26 years. Previous operation, April 1916. Partial removal of hypophyseal struma for dyspituitarism. Felt well since operation. Failure of eyesight began six weeks ago. More recently headaches, bitemporal hemianopsia, optic atrophy, no general pressure symptoms. Few glandular or polyglandular manifestations. Operation November 18, 1916, under cocaine and adrenalin. Hypophyseal cyst punctured by a long needle through the nose with evacuation of 7 c.c. of fluid contents. Improvement in vision. Repeated nine days later. Evacuated 14 c.c. Two weeks later puncture repeated, and a glass tube implanted for permanent drainage. Death in six days from meningitis.

Autopsy: None permitted.

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13. SUBTEMPORAL DECOMPRESSION FOR INOPERABLE PITUITARY TUMOR. 4710.

Female, 28 years. Five years of hypophyseal and neighborhood symptoms as well as general pressure symptoms, becoming more marked lately. Drowsy and disoriented when admitted. Operation May 20, 1916. Right subtemporal decompression without complications. Increasing stupor and death in three days.

Autopsy: Glioma floor of III ventricle.

14. TRANSPHENOIDAL REMOVAL OF PITUITARY STRUMA. 5306.

Male, 21 years. Headaches for eleven months. Failing vision with bitemporal defect for seven months. Deformity of sella by X-ray. No other general pressure or polyglandular manifestations. Operation August 31, 1916. Ether. Transphenoidal approach with partial removal of struma. No complications. Satisfactory rally, relief of headaches at first. Onset of headache and temperature on the third day. Operative tract reopened and explored under ether, six days after operation with negative findings. Positive culture of pneumococcus from blood and spinal fluid. Death on eighth day.

Autopsy: Pneumococcus meningitis and bronchopneumonia. Acute fibrinous peritonitis.

15. TRANSPHENOIDAL REMOVAL OF PITUITARY STRUMA. 4335.

Female, 42. Evidence of slight polyglandular disturbance for years. Headache, nausea, vomiting for three weeks. Slight neighborhood symptoms. Operation March 2, 1916. Ether. Transphenoidal removal of large pituitary struma without special complications. Convalescence characterized by persistent headaches. Six days after operation sudden cyanosis, gasping respiration. Death.

Autopsy: None permitted.

16. TRANSPHENOIDAL PARTIAL REMOVAL OF PITUITARY STRUMA. 4172.

Female, 33 years. For eighteen months headache, failing vision, nausea and vomiting. Drowsiness for two years. Increase in weight ten years. Presents the usual polyglandular syndrome and neighborhood symptoms of dyspituitarism. Operation January 30, 1916. Ether. Transphenoidal approach with partial removal of struma, which had invaded and filled the sphenoidal air cells. No operative complication except rather more bleeding than usual. Patient regained consciousness. Two hours later relapsed into coma, and died eight hours after operation, probably from intracranial pressure and bleeding into the portion of the growth which remained.

Autopsy: None permitted.

17. EXPLORATORY CRANIOTOMY AND DECOMPRESSION FOR FRACTURE OF THE BASE OF SKULL. 5252.

Boy, 4 years old. Admitted in comatose condition twenty-four hours after automobile accident. X-ray showed fracture of the base, cerebrospinal fluid coming from the left ear. Condition critical. Operation. Immediate left subtemporal decompression under ether. Contused brain. Excess of cerebrospinal fluid slightly blood-stained. No blood or clots.

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Recovery anticipated, but death in three hours, probably from contusion of brain stem.

Autopsy: None permitted.

18. EXPLORATORY CRANIOTOMY AND DECOMPRESSION FOR FRACTURE OF SKULL. 5529.

Female, 6 years. Unconscious child brought to the hospital some hours after automobile accident. Cheyne-Stokes respiration. Blood and brain tissue extruding from right ear. Immediate exploration without anesthesia. Elevation of depressed bone. Arrest of dural and cortical hemorrhage. Decompression. Death one hour later.

Autopsy: None permitted.

19. LAMINECTOMY FOR EXTRADURAL ENDOTHELIOMA. 4044.

Female, 53 years. Pain in the back for three and a half months. Partial motor and sensory paraplegia below 3d dorsal segment. Operation December 30, 1915. Ether. Laminectomy VI cervical to IV dorsal inclusive. Partial removal of extradural endothelioma. Normal convalescence until the fourteenth day. Sudden death with symptoms of pulmonary embolism.

Partial autopsy: Extradural endothelioma originating from the left pleura. Embolism pulmonary artery, origin unknown.

20. SUBTEMPORAL DECOMPRESSION. NEGATIVE FINDINGS (DEMENTIA PARALYTICA). 4752.

Male, 37 years. Admitted in a stuporous condition. History of marked alcoholism. Four weeks of rapidly increasing mental confusion, disorientation, lethargy, and general weakness, choked disc. Diagnosis: probable cerebral tumor. Operation May 23, 1916. Ether. Right subtemporal decompression. Negative findings. Some improvement for three weeks, increasing lethargy, weakness. Death four weeks after operation.

Autopsy: None permitted.

21. CURETTAGE OF OLD SINUS AND FRONTAL LOBE CAVITY. CEREBROSPINAL FISTULA. CEREBRAL GLIOMA. 4581.

Female, 47 years. Three previous admissions to the hospital, during which osteoplastic exploration of frontal lobe tumor with implantation of radium had been done. Reentered with persistent sinus left frontal region discharging cerebrospinal fluid, left exophthalmos, uncinata attacks, slight right-sided motor and sensory disturbances. Operation May 13, 1916. Nitrous oxide and ether. Incision and curettage of old sinus and of the cavity in the frontal lobe. Death in five weeks from meningitis.

Autopsy: Cerebrospinal meningitis. Glioma of left cerebral hemisphere with marked destruction of tumor, presumably from the use of radium.

22. SUBOCCIPITAL EXPLORATION. CEREBRAL ENDOTHELIOMA. REMOVAL OF TUMOR OF OCCIPITAL LOBE. 5475.

Female, 47 years. In August 1914 removal of occipital tumor. Improved for six months. Then gradual recurrence of headache, weakness of the left side, failing vision, bulging of operative area. Operation Sep-

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tember 29, 1916. Ether. Flap reopened. Removal for the third time of a large tumor from the occipital hemisphere the size of two fists. Much loss of blood. Transfusion twice repeated. Recovery of consciousness, but death in seven hours.

Autopsy: None permitted.

23. OSTEOPLASTIC EXPLORATION. GLIOMA LEFT HEMISPHERE. EVACUATION OF CYST. 5881.

Female, 8 months. Enlargement of head (hydrocephalus) noted four months ago. Two months ago right decompression, six months ago left decompression, four weeks ago enlargement of left decompression and evacuation of cyst performed (elsewhere). Now enlargement of head, slight convulsive seizures, diminished vision, slight strabismus, nystagmus, optic atrophy. Operation December 14, 1916. Ether. Left osteoplastic flap. Exposure of extensive glioma of left hemisphere. Evacuation of huge cyst. Closure. Death eighteen hours after operation.

24. EXPLORATORY CRANIOTOMY CEREBRAL GLIOMA. 5864.

Male, 10 years. Symptoms for one year of weakness on left side, suboccipital headaches, choked disc, etc. Operation December 19, 1916. Ether. Osteoplastic bone flap. Marked tension of brain relieved by ventricular puncture. Cortex normal. Tumor not found. Twelve hours later lapsed into coma. Wound reopened and clot evacuated. Temporarily improved, but patient again relapsed into coma, from which he was temporarily aroused by repeated ventricular puncture, and died ten days after operation.

Autopsy: Glioma right hemisphere.

25. EXTIRPATION OF GLIOMA FROM RIGHT PARIETAL REGION. 4072.

Male, 54 years. For nine months attacks of twitching of the face. Nine weeks ago general convulsion. Since then weakness and numbness on the left side with incontinence of urine. Slight general pressure symptoms. Operation January 7, 1916. Ether. Osteoplastic bone flap. Extirpation of glioma the size of a golf-ball from the right precentral region. In stupor after operation. Wound reopened on third day and found in good condition. No hemorrhage. Lumbar puncture negative. Death three and a half days after operation.

Autopsy: None permitted.

26. EXPLORATORY CRANIOTOMY AND EXTIRPATION OF CEREBRAL GLIOMA. 5817.

Male, 61 years. For four years attacks of right facial spasms, aphasia dysphagia, more recently agraphia. No general pressure symptoms. Operation December 7, 1916. Ether. Left osteoplastic craniotomy. Extirpation of glioma from lower precentral area. Partial recovery from ether followed by coma. Wound reopened twelve hours later, and large extradural clot removed. Death from pneumonia two weeks later, due to inhalation incidental to pharyngeal paralysis.

Autopsy: Lobar pneumonia and arteriosclerosis.

27. SUBTEMPORAL DECOMPRESSION. FRONTAL GLIOMA. 4663.

Female, 38 years. History of convulsions and headaches for four years. Nausea, vomiting, failing vision, impaired mentality and marked

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pressure symptoms for six weeks. Operation May 16, 1916. Right subtemporal decompression without complication. Increasing stupor and death in seven days.

Autopsy: Glioma of the frontal lobe.

28. SUBTEMPORAL DECOMPRESSION FOR BRAIN TUMOR. 5423.

Female, 39 years. Two months of headaches, failing vision. Five weeks of nausea, vomiting, weakness and parasthesia of right leg. Uncinate attacks; drowsy woman confined to bed. Operation September 22, 1916. Ether. Right subtemporal decompression. Brain under great pressure, marked herniation, negative puncture of lateral ventricle. No surface abnormalities noted. Difficult closure. Partial recovery from ether, but then lapsed into coma. Death nine hours after operation.

Autopsy: Large diffuse glioma, subcortical occupying the whole of the temporal lobe.

29. OSTEOPLASTIC EXPLORATION AND EXTIRPATION OF SARCOMA OF THE TEMPORAL LOBE. 5017.

Male, 45 years. Previous decompression three months ago. Readmission on account of increasing headaches, mental confusion, marked pressure symptoms. Operation July 13, 1916. Ether. Right osteoplastic exploration. A large sarcoma of the temporal lobe measuring $8 \times 6 \times 6$ cm. was enucleated. Much bleeding. Great postoperative tension of wound. Repeated local aspiration. Leakage of cerebrospinal fluid. Later, slight improvement for four weeks, then irregular temperature, stupor and death six and a half weeks after operation.

Autopsy: None permitted.

30. SECONDARY SUBOCCIPITAL EXPLORATION. PARTIAL REMOVAL GLIOMA OF CEREBELLUM. 4774.

Male, 7 years. Suboccipital exploration and decompression at former admission August 1915. Improved until six weeks ago. Since then headache, vomiting, staggering ataxia, choked disc. Operation May 31, 1916. Cerebellar wound reopened. Partial removal of large, tense, vascular glioma of cerebellum. Much loss of blood; transfusion. Death in about three hours.

Autopsy: Neuroblastoma (glioma) of cerebellum invading IV and III ventricles.

31. SUBOCCIPITAL EXPLORATION. PARTIAL REMOVAL OF GLIOMA OF CEREBELLUM. 4764.

Female, 11 years. Headache, diplopia, vomiting, vertigo, ataxia, pressure symptoms for six months. Operation May 26, 1916. Ether. Suboccipital exploration. Fragmentary removal of tumor of cerebellum. Puncture of lateral ventricle. Operation could not be completed on account of shock and hemorrhage, and the patient died eight hours later without regaining consciousness.

Autopsy: Neuroblastoma of cerebellum.

32. SUBOCCIPITAL EXPLORATION AND PARTIAL EXTIRPATION OF CEREBELLAR GLIOMA. 4254.

Male, 12 years. Suboccipital decompression thirteen months ago for cerebellar symptoms. Since then has had eight months of well-being.

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Then onset of occipital pain, nausea, diplopia and dizziness. Finally confined to bed with much suffering. Operation February 11, 1916. Ether. Suboccipital wound reopened and extensive median glioma of cerebellum incompletely removed with much loss of blood. Death in six hours.

Autopsy: None permitted.

33. SUBOCCIPITAL EXPLORATORY CRANIOTOMY FOR CEREBELLAR GLIOMA. 5627.

Female, 10 years. Headache, vomiting, failure of vision for one and one-half years. Right decompression (done elsewhere) with improvement. Then recurrence of symptoms. Staggering gait, deafness. Operation October 31, 1916. Ether. Suboccipital exploration. Chronic serous meningitis. Never regained consciousness. Marked rise in temperature. Cheyne-Stokes respiration. Died nine days later.

Autopsy: Deeply seated glioma apparently originating in the wall of the III ventricle.

34. SUBOCCIPITAL EXPLORATION AND REMOVAL OF CYSTIC GLIOMA OF CEREBELLUM. 5524.

Female, 12 years. Eleven months of headaches. Two months of vomiting, photophobia, diplopia, tinnitus. Romberg, choked disc, cerebellar symptoms rather inconclusive. Operation October 10, 1916. Ether. Suboccipital exploration. Enucleation of large cystic tumor from between the lobes of the cerebellum and the roof of the IV ventricle. Regained consciousness, but died in twenty-four hours.

35. EVACUATION OF CYSTIC GLIOMA OF CEREBELLUM, WITH FORMALIN FIXATION OF CYST WALL. 5077.

Female, 49 years. Suboccipital exploration and puncture of right cerebello-pontine cyst one year ago, with temporary relief of symptoms. Lately recurrence of headache, vomiting, tinnitus, dizziness, diplopia and ataxia. On reentry presents signs of cerebello-pontine tumor. Operation July 20, 1916. Ether, cerebellar exploration. Wound reopened, a large cyst of the left cerebellar hemisphere found and evacuated. Its wall partially removed and the remainder fixed with 40% formalin for 15 minutes. Closure without drainage. Increasing temperature lethargy, coma, death on third day.

Autopsy: None permitted.

36. SUBTEMPORAL DECOMPRESSION. GLIOMATOUS CYST OF THE CEREBELLUM. 5780.

Male, 41 years. History of ten weeks of headaches, dizziness, drowsiness, two attacks of unconsciousness without convulsions, unsteady gait, nystagmus, slight ataxia, beginning choked disc. Operation December 1, 1916. Ether. Right subtemporal decompression. Much tension relieved by puncture of lateral ventricle. Good immediate recovery. Later, increase of headaches, irrationality, vomiting, convulsions. Death eighteen days after operation.

Autopsy: Gliomatous cyst occupying whole right cerebellar hemisphere.

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37. SUBTEMPORAL DECOMPRESSION. PSEUDO TUMOR CEREBRI. CEREBRAL THROMBOSIS AND SOFTENING. 5778.

Male, 56 years. Nervousness for five months; failure of vision two to three months; vertigo three weeks; shuffling gait, weakness and headaches for two weeks. Lately, disorientation, failure of memory, weakness of left arm and leg, becoming drowsy and stuporous, and Cheyne-Stokes respiration. Operation November 25, 1916. Right subtemporal decompression. Tense brain. Slight improvement. Consciousness not regained. Died on the fourth day.

Autopsy: Cerebral arteriosclerosis with softening. Bronchopneumonia.

38. AMPUTATION OF LEG—UPPER THIRD FOR SEPTIC LEG. EXTENSIVE OSTEOMYELITIS OF THE FOOT. 5602.

Colored male, 52 years. Heavy-statured anemic man, a tabetic transferred to the surgical service for a septic foot and leg of some four months' duration. Initial trauma, nail in right heel some 12 months previous to acute symptoms, though there was more or less constant irritation at primary focus. Abscess with subsequent ulceration began some four months ago on outer side of the right heel; gradual involvement of the whole foot and leg with multiple discharging sinuses. On entrance had temperature of 103.4°, white count 12,000, pulse 90. Right foot and leg hugely swollen and edematous; several sinuses on plantar and dorsal surfaces of the foot discharging a foul-smelling pus; whole lower leg and foot cold to touch, pulsations indefinitely made out owing to the edema and induration. X-ray showed extensive osteomyelitis of practically all the bones of the foot and marked syphilitic periostitis of the long bones of the leg. Operation. Ether anesthesia. Tourniquet on upper thigh—amputation at upper third of the leg—long lateral and shorter medial flap; leg three to four times normal size owing to edema and pus in the tissues; vessels ligated with catgut; moderate amount of bleeding after release of tourniquet; flaps loosely brought together with catgut; several drains inserted; protective and dry gauze dressing. Small amount of ether required. Operative recovery poor after regaining consciousness; blood pressure became low and pulse very feeble; did not react well to stimulants. Death in two hours after the operation.

Autopsy: Tabes dorsalis, Congestion of the lungs, emphysema, syphilitic aortitis, gangrene of the tissues of the leg and foot, marked osteomyelitis of bones of the foot, perforating ulcers.

39. (1) RIGHT SIMPLE MASTOID. (2) EXPLORATION OF TEMPORAL LOBE FOR ABSCESS FOR SUPPURATIVE OTITIS MEDIA WITH ACUTE SUPPURATIVE MASTOIDITIS. 5104.

Female, 7 years, entered the hospital in a practically comatose condition with the following findings: Otitis media for four and one half weeks with drainage during this time. Vomiting, irritability, anorexia, and up and down fever for 5 or 6 days. Semi-stuporous condition for the last 15 hours. Photophobia, bilateral choke disc of 2 to 3 d. Partial paralysis of the right trigeminus. Partial paralysis of the right facial. Absent K.K. and Achilles jerks. Slight oedema over the right mastoid. Mastoiditis on the right shown by X-ray. Increased spinal fluid pressure with a turbid fluid containing 2000 cells per cm. White blood is 17,200. Rectal temperature of 105°. Right simple mastoid operation exposed a

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large mastoid abscess which had perforated through to the dura above so that an extra dural abscess was present. Iodoform packing and drainage. Following operation, temperature rapidly dropped to 99° in the course of the next 7 days, facial paralysis and mentality almost entirely clearing up until suddenly the symptoms were exaggerated, and the comatose condition returned. The wound was reopened and the brain was probed through the opening for a temporal lobe abscess, but none was found. The patient rallied poorly after the operation and finally died of meningitis 8 days later.

Autopsy disclosed a large mass of exudate around the meninges and marked evidence of meningitis due to a diplococcus of the pneumococcus group.

40. MYRINGOTOMY FOR OTITIS MEDIA. INCISION PYEMIC ABSCESSSES. 4763.

Male, 12 years. History of two weeks of acute suppurative otitis media. Lately chills, vomiting, irritability and drowsiness. Multiple pyemic abscesses. Positive blood culture (streptococcus). Operation. Double paracentesis. Incision and drainage of multiple foci. Negative lumbar puncture. Death in four weeks from septicemia.

41. GASTROSTOMY (WITZEL) FOR CARCINOMA OF ESOPHAGUS. 5211.

An exhausted emaciated male, 64 years, who had previously been in this hospital with a diagnosis of carcinoma (inoperable) of the cardiac end of the esophagus. Operation August 11, 1916. Novocain. Witzel gastrostomy. Patient died four days later without having received any benefit from gastrostomy.

Autopsy: Carcinoma of esophagus with metastases in the liver. Bronchopneumonia. Arteriosclerosis.

42. EXPLORATORY LAPAROTOMY FOR CARCINOMA OF THE STOMACH. 5228.

Male, 35 years, who entered August 14, 1916, complaining of pain in upper abdomen; vomiting for two weeks. History of gastric ulcer for 10 years. For the last two years increase in severity of symptoms. Gripping pain in epigastrium for 6 weeks. Obstructive (?) vomiting of large amounts for two weeks. Diagnosis: advanced carcinoma of stomach. August 17, 1916, operation. Ether (drop method). Exploration through small incision. Advanced cancer occupying whole antrum — inoperable. Rapid failure, and death 19 days after exploration.

Autopsy: Carcinoma of stomach with metastasis in pancreas, liver and regional lymph nodes. Evidently this exploration was ill-advised and would not have been undertaken had it not been for patient's youth and desire to leave nothing untried.

43. EXPLORATION AND DRAINAGE FOR PERFORATED GASTRIC ULCER. 4688.

Female, 49 years. Acutely sick-appearing woman, history of years of "stomach trouble," with attacks suggesting partial perforation. Present attack of acute upper abdominal symptoms began 1 week ago. Nothing to indicate exact time of perforation. Exploration under 1% novocain anesthesia; perforating indurated ulcer lesser curvature adherent to liver; free turbid fluid, drainage. Recovery hoped for, but it was not realized that a general peritonitis already existed. Death in 4 days.

Autopsy: General peritonitis, streptococcus.

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44. APPENDICECTOMY — RUPTURED APPENDIX — PERITONITIS — DRAINAGE. ENTEROSTOMY FOR SUBSEQUENT ILEUS. 5144.

Male, 20 years. Admitted as an emergency case for severe abdominal pain, nausea and vomiting of 4 to 5 days' duration. Poorly nourished, ill-looking man; temperature 100.4°, pulse 96, white count 25,000; abdominal spasm and rigidity, shifting dullness led to diagnosis of ruptured appendix with peritonitis and immediate operation advised. Appendicectomy — right rectus — general peritonitis — colon pus — perforated appendix — drainage of abdomen and pelvis. Poor operative recovery followed by ileus with fecal vomiting on the third day. Enterostomy under novocain — midline laparotomy, loop of ilium brought out and Mixer tube inserted — drainage; peristalsis began 24 hours later. Death on the tenth day.

Autopsy: General peritonitis, septicemia, pyemia, bronchopneumonia.

45. APPENDICECTOMY AND ENTEROSTOMY. 5685.

Female, 84 years. A feeble old woman with acute abdominal symptoms for 5 days. Immediate exploration under light ether anesthesia; acute general peritonitis due to gangrenous appendicitis. Cultures. Streptococcus and colon bacillus. Death in 12 hours.

46. APPENDICECTOMY — SUBACUTE APPENDICITIS — OLD ABSCESS — DRAINAGE. SUBSEQUENT ENTEROSTOMY FOR ILEAL OBSTRUCTION. 4977.

Male, 19 years of age. Admitted to the hospital for lower right abdominal pain of two days' duration. History of repeated attacks of pain in the right lower quadrant for the past 3 or 4 years; last two attacks, one month and two days before admission, were quite severe but unaccompanied by nausea and vomiting. On admission did not appear ill; temperature 100°, pulse 90, white count 13,800; abdomen showed slight tenderness over McBurney area, slight muscle spasm, no evidence of fluid, no acute tenderness. Diagnosis of chronic appendicitis with recent acute but subsiding exacerbation was made: temperature became normal on the second day and all symptoms had disappeared by that time. Operated on the third day after admission. Appendicectomy — right rectus — cecum bound down by a large hard mass posteriorly which included a retrocecal appendix surrounded by hard inflammatory tissue; no pus encountered but free dry fecolith found in evidently old abscess cavity from previous ruptured appendix; no particular difficulty experienced in removing the appendix; drainage; good uneventful convalescence until the third and fourth day, when vomiting began, which became progressively fecal indicating obstruction. Operation — ether anesthesia — former incision reopened — no fluid or evidence of peritonitis — cecum appeared normal; pelvis contained collapsed and distended loops of bowel those on the left side of abdomen all distended; loop of bowel with mesentery held down in the pelvis on great tension and when released showed constricted gangrenous loop of small intestine some six or seven feet from the cecal junction; release of obstruction allowed passage of gas from distended to collapsed bowel. Mixer tube sutured into the gangrenous bowel for drainage — large amount of blood-stained fecal material drained from the bowel through the tube. Cigarette drain led into the abdomen beside the Mixer tube; owing to poor condition of the patient stimulants and subpectoral salt given at the middle of the operation. Small amount of ether required

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throughout. Did not rally well from the operation. Death in about one hour after closure.

Autopsy was not permitted in the hospital. Subsequently limited examination was allowed after the body had been embalmed. There was evidence of a pelvic peritonitis and marked dilatation of the small intestine above the enterostomy opening some eight feet below the duodenum.

47. (1) ACUTE INTESTINAL OBSTRUCTION — POST OPERATIVE BAND AND ADHESIONS — ENTEROSTOMY. (2) RESECTION OF ILEUM FOR CLOSURE OF FECAL FISTULA. (3) ACUTE INTESTINAL OBSTRUCTION — RECURRENT — SEPARATION OF INTESTINAL ADHESIONS — ENTEROSTOMY.

Male, 26 years. Admitted to surgical service for abdominal pain, constipation, vomiting of some four days' duration. Operated on in this hospital for acute appendicitis of some four days' duration about 11 months previously; at this time there was found a gangrenous ruptured appendix, retrocecal in position with large abscess cavity and inflammatory mass behind and including the cecum and the terminal ileum; appendectomy and drainage was done and there was a rather uneventful convalescence; general health good until present illness some four days ago. At this time had a sudden attack of lower right abdominal pain followed by vomiting, increasing in frequency and finally becoming fecal in character, absolute constipation both for flatus and feces. Was admitted to hospital for constipation. On entrance abdomen was seen to be uniformly distended and quite tender in the lower right quadrant, tympanitic throughout with no evidence of fluid. Temperature 100°, pulse 120, white count 8500. There was definite fecal vomiting and enemata were ineffectual. Diagnosis of intestinal obstruction from post-operative bands was made and immediate operation advised.

Operation — novocain — median laparotomy — fecal material between loops of ileum — peritonitis; terminal ileum obstructed by a hard fibrous band at site of previous operation; obstructed area, perforated, gangrenous and discharging fecal material; obstruction released and Mixer tube sutured in the perforated portion for an enterostomy; abdomen drained. Uneventful convalescence after the first few days.

Repair of the fecal fistula attempted on the twenty-fourth day after the first operation. Ether anesthesia — resection of the exposed loop of bowel with the enterostomy opening — end to end anastomosis — drainage. Good operative recovery and good fecal and gas results by enemata until the sixth when patient began to vomit fecal material suggestive of recurrent obstruction and with marked peristalsis in the upper abdomen. Operation — midline incision above the umbilicus — upper small intestine distended; obstruction located at upper end of former appendix wound — loop of ileum adherent to the posterior abdominal wall and kinked by the mesentery of another loop to which it was adherent; obstruction released and an enterostomy done. Fair operative recovery, bowel draining well; on the third and fourth day pulse and temperature began to go up and patient became cyanotic, respirations labored; death on the fifth day after the last operation.

Autopsy: None permitted.

48. CECOSTOMY FOR CARCINOMA OF INTESTINE. 5224.

Female, 55 years, who entered the medical service with history of abdominal pain and attacks of nausea and vomiting for three months.

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Probably diagnosis of inoperable peritoneal carcinomatosis made, but as patient appeared to be starving and X-ray studies suggested a large intestine obstruction, operation was advised several weeks after entering the hospital.

Operation August 15, 1916. Ether (drop method). Inoperable carcinoma involving transverse colon and lower border of stomach. Hugely dilated cecum. Metastatic mass in pelvis. A cecostomy was performed by Mixer tube. Patient much relieved by operation, but some days later complained of pain in region of operative wound. No evidence of peritonitis. Death 19 days after operation without obvious cause other than the nature of the original disease.

49. CLOSURE OF FECAL FISTULA — ILEO-COLOSTOMY FOR GANGRENE OF INTESTINE. 4659.

Male, 37 years. Six months ago, venous thrombosis of the cecum with gangrene; resection of cecum and ileo-colostomy, persistent fecal fistula which finally nearly healed. Readmitted for recurring discharge, abdominal pain especially in epigastrium, vomiting. Bismuth radiographs show marked ileal stasis and distortion of the colon. Ether anesthesia, separation of adhesions between gall bladder and duodenum, excision of fecal fistula, anastomotic stoma found much contracted; anastomosis freed, repaired, a new lateral ileo-colostomy made. A prolonged and severe procedure on a much reduced patient. Death in two days. No evidence of peritonitis.

Autopsy: None permitted.

50. EXCISION OF MECKEL'S DIVERTICULUM. COLOSTOMY FOR ACUTE INTESTINAL OBSTRUCTION. 5209.

Female, 28 years. Entered hospital August 9, complaining of "acute indigestion."

Had been operated upon five years before at another institution and the appendix and right ovary had been removed. For the last two or three years, intermittent attacks of violent epigastric pain with vomiting. Present attacks began ten days before entrance — violent epigastric pain, nausea and vomiting (no blood). Complete obstruction (?) since that time. Enemata are said to have resulted in some gas and blood. Sent in as a medical case for bismuth studies. Present picture of acute high obstruction of many days' duration. Diagnosis: intestinal obstruction from band associated with previous operation.

August 10, 1916. Operation. Ether (drop method). Free fluid. Small intestine everywhere distended, thin-walled and injected. Obstruction close to ileocecal junction by an inflamed Meckel's diverticulum. Evisceration found necessary (hot salt irrigation of eviscerated bowel). Diverticulum ruptured accidentally, base excised and intestine closed. Mixer tube inserted above. Operation lasted a little over an hour and pulse was thready at end. Given susceptor saline, Murphy drip. Patient died the following morning after rapid rise of temperature and pulse with cyanosis and dyspnoea (evidently profoundly toxic).

Autopsy: Acute fibrinous peritonitis. Evidence of toxemia. Surgica resection of gut.

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51. CHOLECYSTECTOMY FOR CHRONIC CHOLECYSTITIS AND CHOLELITHIASIS. 4061.

Female, 57 years, complaining of upper right abdominal pain. History suggestive of gall stones for many years with evidence of recent mild acute cholecystitis. Patient has had dyspnoea and some edema of ankles on exertion for several years. Lungs negative. Urine normal. Blood pressure normal. Heart negative except for a slight systolic murmur.

Operation December 30, 1915. Ether, Connell method. Cholecystectomy for acute exacerbation of chronic cholecystitis (gall bladder tense, cystic duct obstructed.) Acute inflamed glands about cystic and common duct. Patient under poor relaxation at all times and closure was slow and difficult. The operation was not started until forty minutes after anesthesia was begun owing to difficulty with ether apparatus. Duration of operation one hour and fifteen minutes. It appeared to be well borne by patient and pulse was 84 at end. Patient made good immediate recovery from ether, but soon began to vomit and complain of epigastric pain. Bowels evidently paralyzed. Pulse, temperature and respirations rose rapidly on second day after operation.

Autopsy: Not permitted. Death due to peritonitis?

52. EXPLORATORY LAPAROTOMY (UNCOMPLETED) FOR PASSIVE CONGESTION. 4233.

Male, 39 years, who entered hospital after an acute illness of four days. Previous to this he had had "indigestion" for a year. Present illness characterized by violent epigastric pain. At first there was marked cyanosis and a very poor pulse. Later pulse improved. Mass felt in epigastrium. Moderate bronchitis. Examination shows a peculiar dyspnoea allied to air hunger. Heart not enlarged. Pulse 126. Temperature 101.8°, white count 21,000. Exploration advised with very uncertain diagnosis, possibly perforated gastric ulcer. Operation. Ether (light). Novocain infiltration. Patient died on the table before the abdominal wall had been opened. After apparent death abdomen rapidly opened and heart massaged without response. It was found that the epigastric mass was an acutely congested liver and the only abdominal lesion was a chronic cholecystitis.

Autopsy: Chronic myocarditis. General arteriosclerosis. Bronchopneumonia. Hypertrophy and dilation of heart with infarction of myocardium and mural thrombi. General chronic passive congestion.

53. EXPLORATORY LAPAROTOMY FOR CARCINOMA OF THE LIVER. 4108.

Female, 57 years, who has lost ground rapidly for 8 months with evidence suggestive of gastric carcinoma. Hard mass in right upper quadrant suggested alternative diagnosis of gall bladder disease with adherent mass of inflammatory omentum. Preoperative diagnosis: cancer.

Operation January 20, 1916. Novocain. Metastatic cancer in liver. Origin of growth not determined as between stomach and gall bladder. Short incisions admitting two fingers. Four days later left lobar pneumonia. Six days after operation facial erysipelas. Death on ninth day after operation.

Autopsy: None permitted.

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54. EXPLORATORY LAPAROTOMY FOR PRIMARY CARCINOMA OF THE GALL BLADDER. 5709.

Female, 68 years. Typical gall stone history for 13 years. Last attack three years ago. Painless jaundice for four weeks with marked debility. Palpable mass in gall bladder region; free fluid in abdomen. Diagnosis: probable inoperable carcinoma, superimposed on gall stone disease. At patient's request, exploration was made under ether on the chance that a common duct stone existed, or that a cholecystenterostomy might be done. Death in twelve days from exhaustion.

55. DRAINAGE OF ABDOMEN FOR PANCREATITIS. 4967.

Male, 48 years. Adipose man; very acute upper abdominal symptoms for 72 hours; marked prostration and lethargy on admission; temperature 104°, pulse 140, respiration 40. Immediate incision under 1% novocain infiltration in right hypochondrium; free bloody fluid, extensive fat necrosis and destruction of head of pancreas. Death in nine days from exhaustion.

Autopsy: Acute hemorrhagic pancreatitis; no general peritonitis.

56. COLOSTOMY FOR STRANGULATED, PERFORATED RIGHT INGUINAL HERNIA. 4268.

Female, single, age 65. Brought to the hospital as an emergency case complaining of abdominal pain, increasing distention, constipation and vomiting of some two weeks' duration. Gives history of having had a reducible right inguinal hernia for many years; no special discomfort until about two weeks ago, when it became irreducible, tender and swollen; this was followed by increasing distention, nausea and vomiting; absolute constipation for 5-6 days.

Thin, poorly nourished, extremely ill woman; temperature 101°, pulse 130, respirations 30, white count 4400. Large, tender, excoriated, gangrenous-looking swelling in the right inguinal region and extending into the labium; tense and dull to percussion, evidently containing fluid. Diagnosis of acute intestinal obstruction due to strangulated inguinal hernia was made and immediate operation advised.

Operation — novocain anesthesia. Incision over inguinal region showed gangrenous, perforated loop of bowel in hernial sac filled with fluid and fecal material. Strangulation released, enterostomy done and abdomen drained through the widened external ring. Fowler position, Murphy salt; patient treated as a case of general peritonitis. Death on the tenth day after making fair operative recovery; incontinent both for feces and urine during the greater part of the time.

Autopsy: multiple abscesses in both kidneys, bilateral pyonephrosis, bilateral nephrolithiasis, chronic adhesive tuberculous peritonitis, emphysema of the lungs, bronchopneumonia.

57. GENERAL PERITONITIS — UNKNOWN ORIGIN — INCIDENTAL APPENDICECTOMY — DRAINAGE. 4388.

Female, 19 years. Domestic. Admitted as an emergency case complaining of severe abdominal pain of three days' duration with acute exacerbation of some five hours' duration — nausea and vomiting. Extremely ill on entrance; temperature 105°, pulse 130, respirations 30. Marked abdominal spasm and rigidity, suggestive dullness in flanks; vaginal examina-

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tion negative essentially. Diagnosis of ruptured appendix made and immediate operation advised. Right rectus incision, free purulent fluid without colon odor, extensive general peritonitis; small atrophied retrocecal appendix involved only as part of the general process; appendicectomy; pelvic organs failed to show primary focus of infection. Origin of peritonitis not found. Abdomen drained. Death on the third day following moderate drainage from the abdominal cavity.

Autopsy: Extensive general peritonitis — streptococci and bacilli (Gram positive encapsulated). No cause or primary focus found except perhaps small microscopic abscesses found in the ovaries.

58. DRAINAGE OF PELVIC ABSCESS FOR CHRONIC DIVERTICULITIS OR PERFORATING CARCINOMA OF THE SIGMOID. INGUINAL COLOSTOMY. 4630.

Female, 64 years. Emaciated old woman; marked increasing constipation for 10 years; attacks of severe abdominal pain and vomiting for 6 months. Diagnosis: abdominal carcinomatosis, probably primary in sigmoid. Exploration under ether anesthesia; evacuation of large pelvic abscess due to perforation of carcinomatous sigmoid. Drainage and colostomy. Operative recovery; death in 2 months from the normally progressing disease.

59. COLOSTOMY FOR CARCINOMA OF RECTUM. 4372.

Male, 39 years, suffering from advanced carcinoma of sigmoid. Operation had been refused by patient a year before. Operation advised at present entrance on ground of possible mistake in diagnosis or of palliating the condition of nearly complete obstruction. Operation, March 7, 1916. Novocain and ether. Cancer found to be unoperable. Mixer tube tied into bowel above obstruction with slight soiling. Death on following day, thought to be due to pulmonary embolism.

Autopsy: Colloid cancer of sigmoid. Perforation of ileum and sigmoid below cancer forming communicating sinus. Pulmonary embolus. Fatty degeneration of liver and kidney. Acute splenic tumor.

60. THORACOTOMY — RESECTION OF RIB — DRAINAGE OF LUNG ABSCESS. 5029.

Male, 45 years, complains of pain in left side and cough. Illness of three and one half weeks, with pain in left side, cough and foul sputum. Patient sick and emaciated. Evidence of lung abscess of unknown etiology.

Operation, July 10, 1916. Novocain anesthesia. Rib resection and opening of lung abscess through thick adherent pleura. Patient died on fourth day with dyspnoea and cyanosis. No definite cause of death determined.

Autopsy: None permitted.

61. (1) COLOSTOMY. (2) EXPLORATORY LAPAROTOMY FOR NEPHROLITHIASIS. 4067.

Male, 70 years, previously well, complained of "stoppage of bowels and gas" for three days previous to entrance, violent catharsis produced vomiting and many watery movements without relief of distention. Fecal vomiting. Pain in left side of abdomen. Urine negative. Diagnosis of incomplete obstruction in the sigmoid due to carcinoma.

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Operation. Novocain. Dec. 31, 1915. Muscle splitting incision in left flank. No tumor found. Moderate distention of large intestine. Colostomy in upper sigmoid.

Patient continued to have pain in left side of abdomen though distention was relieved. Operation, Jan. 10, 1916. Novocain and ether. Midline incision. Negative exploration. Following operation pain in left loin continued and urine showed blood and pus. Pain now gave impression of ureteral colic. Patient evidently dying of bronchopneumonia. Died on Jan. 16, 1916.

Autopsy: Showed acute pyelitis (left). Small calculus in bladder. Bronchopneumonia. Pulmonary infarcts. Focal necrosis of liver.

This case illustrates failure to recognize that apparent intestinal obstruction was really secondary to ureteral colic with atypical distribution of pain.

62. NEPHRECTOMY — LEFT — FOR TUBERCULOSIS. 4073.

Male, 49 years. Had had urinary symptoms of a year's duration. Recently hematuria. Evidence of bleeding from left kidney. Phthalein output 43% in two hours from right kidney. No enlargement of left kidney or evidence of stone. Heart and lungs negative. Diagnosis of hypernephroma, tuberculosis or "essential" hematuria of left kidney.

Operation Jan. 18, 1916. Ether. Nephrectomy (left) for generalized tuberculosis of left kidney. Immediately after operation patient began to run irregular fever with rapid pulse and respirations. Died 11 days after operation after steady general failure.

Autopsy: Not obtained. Death considered to be due to generalized miliary tuberculosis. Pathological report upon kidney. Tuberculosis of kidney; tuberculous pyelitis.

63. (1) CYSTOTOMY. (2) NEPHRECTOMY. (3) EXPLORATORY LAPAROTOMY — CLOSURE OF FISTULA. (4) GASTROJEJUNOSTOMY — TRANSECTION OF PYLORUS. 5137.

Male, 56 years, who has had a bloody urine intermittently for 10 months before entrance, due to a large hypernephroma filling the whole left flank. At operation it was found that the tumor which arose from the lower pole of the kidney had broken through its capsule, and was intimately adherent to the peritoneum. This area was cauterized with heat and 10% formalin. About one month later a local recurrence took place leading to a fistula of the small intestine, which greatly interfered with the patient's nutrition. At an exploratory laparotomy this fistula was found situated in the descending portion of the duodenum, and thus incapable of closure. An attempt was later made to divert the intestinal contents by transection of the pylorus and the establishment of a gastrojejunostomy. Death occurred the following day.

At autopsy no evidence of tumor other than the local recurrence was found.

64. SUPRAPUBIC CYSTOSTOMY — DRAINAGE FOR RUPTURE OF BLADDER. 5795.

Male, 35 years. As a result of a motor vehicle accident this patient suffered from a fracture of the pelvis and ribs; extraperitoneal rupture of the bladder; extravasation of urine followed by toxemia, and gas bacillus

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infection. Under local anesthesia followed by ether an exploratory operation was done at which the bladder and extravasical areas were drained. Death occurred on the fourth day after entrance to the hospital.

65. PERINEAL SECTION WITH DRAINAGE FOR EXTRAVASATION OF URINE. 4996.

Male, 52 years, who enters the hospital complaining of inability to urinate. Before entrance his urethra has been explored by various instruments without any marked relief. Shortly after entrance edema appeared in the perineum. The urine contained sugar, pus and blood. By perineal section the stricture was incised and the bladder drained. Death occurred three days later with gradually increasing anuria and coma.

66. (1) CYSTOSTOMY. (2) SUPRAPUBIC PROSTATECTOMY FOR HYPERTROPHY OF PROSTATE. 5740.

Male, 64 years. For two years patient has complained of the signs and symptoms of prostatic obstruction. Examination showed an infected bladder behind an apparently benign prostatic hypertrophy. The phthalein output for two hours was 50%. Drainage of the bladder was procured by a suprapubic opening made under novocain. Twenty-three days later a suprapubic prostatectomy was done under gas and oxygen anesthesia. The enucleation was easy and was not accompanied by any considerable hemorrhage. Following this operation there was considerable bronchitis, and persistent evidence of absorption from the wound, which became badly infected. Drainage of urine was at no time infected. Death occurred two weeks after the second operation, during which time the mental as well as physical condition of the patient steadily became worse.

No autopsy was obtained, but the clinical signs would indicate that death was due to bronchitis and bronchopneumonia, in the absence of any signs of renal insufficiency.

67. (1) ETHER EXAMINATION, EXCISION OF SPECIMEN (CAUTERY). (2) COMPLETE HYSTERECTOMY (WERTHEIM) FOR CARCINOMA OF CERVIX. 4243.

A healthy-appearing female, 56 years. Uterine bleeding for 1½ months. Early carcinoma of cervix. Operation Feb. 10, 1916. Removal of specimen with cautery. Cauterization of growth.

Operation Feb. 17, 1916. Complete hysterectomy. Ether (drop method). Operation difficult on account of gaseous distention of intestines. Considerable venous oozing in dissection of lower pelvis and more blood was lost than was thought safe. Duration of operation, 2½ to 3 hours. Vaginal and abdominal drainage. Marked shock after operation with improvement on following day. Rapid loss of ground on fourth or fifth day and death on fifth day with vomiting and evidence of peritonitis.

Autopsy: Infected operative wound of carcinoma of cervix. Acute peritonitis. Carcinoma metastasis in pelvic retroperitoneal lymph glands. Oedema of lungs.

68. RIGHT SALPINGECTOMY FOR EXTRA-UTERINE PREGNANCY. 5143.

Female, 26 years. Healthy-appearing woman; one menstrual period missed; ten days of crampy abdominal pain; slight temperature and

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leucocytosis; diagnosis lay between extra-uterine pregnancy and sub-acute pelvic peritonitis. Improvement under expectant treatment for 3 days. Sudden collapse; immediate laparotomy under ether; ruptured ectopic gestation in right tube which was removed. Satisfactory operative rally; steadily rising pulse and temperature; occasional vomiting, soft abdomen, low white count. Blood culture negative. Hemoglobin, 45%. Transfusion without benefit. Death seven days after operation, probably due to septicemia; no evidence of peritonitis.

Autopsy: None permitted.

(a) **TRANSPHENOIDAL REMOVAL OF PITUITARY STRUMA. 3234-4155.**

Female, 51 years. Symptoms for twenty years of acromegaly, bitemporal hemianopsia, and general pressure symptoms. Operation July 16, 1915, without complications. Left the hospital in ten days with vision and other symptoms improved. Reentered Jan. 21, 1916, with acute diabetes, and died four days later in coma. There had been symptoms of glycosuria for five weeks.

Autopsy: Struma of the pituitary body. Terminal bronchopneumonia.

(b) **INCISION AND DRAINAGE OF PERIRECTAL ABSCESS. 4757.**

Male, 75 years, who entered the surgical service March 23, 1916, complaining of general weakness and shortness of breath for weeks; perirectal abscess for 6 weeks which had been operated upon before entrance. Speaks no English. Operation March 29, 1916. Spinal anesthesia. Novocain. Sinus tracks about rectum explored and drainage of very extensive diffuse perirectal abscess. Slow convalescence. Left hospital much improved, April 30, 1916, with directions to return to O.D.D. for treatment.

May 20, 1916, referred to the hospital without history other than that he was found in comatose condition. He points to gall bladder region as seat of his pain. On entrance a mass thought to be a large tender gall bladder was felt, but one half hour later this had disappeared. Patient semistuporous. High temperature and white count. Operation was not considered advisable in view of patient's very obvious general failure. Death 27 days later without change in symptoms. The perirectal abscess had never healed.

Autopsy: Cholecystitis with perforation giving rise to large subdiaphragmatic abscess.

(c) **FULGURATION OF BLADDER TUMOR DONE IN O.D.D. 5356.**

Male, 86 years. While this patient was in the hospital for treatment of hematuria due to a papilloma of the bladder he was found dead in bed, having appeared in his usual condition ten minutes before. The treatment of the papilloma had been by fulguration with the high-frequency current and the last treatment was three days previous to the sudden death. The patient had at no time been confined to bed. Death was probably due to cardiac or cerebral failure.

Autopsy: None permitted.

Report of the Physician-in-Chief

GROWTH OF THE MEDICAL WORK

THE year 1916 has marked a distinct epoch in the history of the Peter Bent Brigham Hospital. Prior to this year we have been in a developmental period. With 1916 our wards have reached an almost continuous maximum of patients; not infrequently they have been crowded and extra beds have had to be introduced. In other years the wards have not been filled continuously. Prior to 1916 the funds of the hospital allowed a margin for increased expenditure. In 1916 our maintenance utilized all available moneys. It can be said that our development so far has been satisfactory and that on the whole what we have done has been well done. However, from now on growth must cease unless our earnings and endowment funds are increased; in fact retrenchment may be forced upon us on account of the increased cost of almost everything.

Two courses lie before us. The one consists in continuing to do from year to year what we have done in 1916, decreasing or increasing the work with annual fluctuations in the cost of materials and the earning power of invested funds. The other course depends on securing additional funds to allow of expansion and growth.

If we determine on the first course, we run the grave risk of retrogression, for the institution which ceases to grow almost inevitably stagnates and begins to decay. It seems to be an attribute of the human being to be unable to remain stationary in equilibrium, and this is

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certainly true of medical institutions. Owing to these conditions it seems only reasonable to sound a warning in this report, and to emphasize the needs of the institution, for I feel sure that all connected with and interested in the Peter Bent Brigham Hospital are concerned keenly in its future development.

DEVELOPMENT BY INCREASING THE EFFICIENCY OF THE MANAGEMENT OF THE PRESENT NUMBER OF PATIENTS

If it is our ambition to enlarge and develop our work, we must take the second course and strive for an increase in our resources for both general and special purposes. If we succeed in increasing our endowment, we should have in view a definite policy as to how the hospital should grow. Growth can take place in several ways. We can increase the size of the Institution in so far as accommodations for patients are concerned, or we can increase the efficiency of the study and treatment of the present number of patients, or we can do both. Obviously, if sufficient funds are available, the last is ideal. If not, it would seem far better to allow the number of patients to remain unchanged and for the present to concentrate on ways and means of increasing the efficiency with which we manage them. Personally I am strongly of the opinion that for the present and possibly for some time in the future the number of medical patients in both wards and Out-Door Department should not be increased, but that funds should be sought to permit of a more thorough study of the present number of patients. I believe that with more thorough study our patients will receive better treatment and the Institution will contribute more to the advance of medicine, and in this larger sense accomplish more for the benefit of humanity. Such a course would seem wiser than without additional funds to give poorer treatment to a larger

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number of patients, or with additional funds to give no better treatment than at present to more patients.

NEW STAFF BUILDING

The best way to accomplish this sort of development would be to have more workers with funds to provide for their salary and maintenance and for the cost of their studies. Both a larger staff and more technicians and clerical help are desirable. Although our need is for more workers rather than for more buildings, the need of a larger staff carries with it the need for amplified quarters for resident staff. The present staff quarters are not large enough to house the men required to do the work for our patients in the way we would like when the wards are filled. This has come about because with advances in medicine so many new and time-consuming tests have been developed which should be applied in a thorough study of our patients. Furthermore it has become very evident that in hospital work the greatest efficiency is not attained in Institutions in which the resident staff is occupied continuously in routine work. To each of them there should be given some time for special investigations and special study. So, one of our very great needs is for money for a new staff building to make possible a larger resident staff. With this should go funds to provide the added workers with needed equipment and help in their work, and to provide for additions to the clerical staff to maintain patients' records at a high level of efficiency.

CHEMISTS

One of the important differences between present-day methods in medicine as contrasted with those of the past lies in the frequent application of chemical methods to the study of patients. Many of these methods

of applied chemistry are quite complicated and their complexity is ever increasing. To be able to use chemical tests accurately, and particularly to be able to learn and apply new tests as they are developed, a trained chemist is needed to guide such work and to instruct members of the staff in it, and chemical technicians are needed to aid in carrying out such chemical tests. Since the hospital was opened the importance of the chemical work has increased very greatly, and it seems likely that such an increase will continue. At the present time we should have a trained chemist and chemical technicians available if our medical work is to keep pace with that in the best of other hospitals. At least \$5000 per annum is needed for this chemical work. Such an addition of chemists would do more than any one single thing to increase the efficiency of the work of the medical staff.

MEDICAL STATISTICS

In the two preceding annual reports several questions in relation to hospital statistics have been discussed. This year, as indicated in the 1915 report, a terminology for disease conditions based on the International Nomenclature has been used. This terminology is now in use by the larger hospitals of Boston under the supervision of a central committee, so that their several annual reports may be expected to speak in terms of a common language. The arrangement of our tables remains the same as for last year, and our method of making and recording diagnoses is unchanged.

The statistical Table A (see p. 110) which we present this year is a table of diagnoses and does not include any but the first admission of a case except when added diagnoses were made on subsequent admissions. Consequently our figures represent the actual relative frequency of the diseases and pathological conditions as they

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appeared on the Medical Service, and larger statistics can be obtained by adding the figures for this year to those which appear in other years, so long as the present system is followed, because there will be no repetitions by reason of readmissions. However, the table represents only the conditions met with on the Medical Service; a correct total for the entire hospital cannot be obtained by adding the figures for a given diagnosis found in the medical and surgical tables, because a patient transferred from one service to the other appears in the table of each service as one diagnosis, which will lead to totals being too large if the figures for these services are added in conditions where transfer frequently takes place.

Table B (see p. 116) is essentially a table of causes of death grouped according to the International Classification of Causes of Death. The chief diagnosis in each case represents the patient. Even if several diagnoses are made on the patient, the patient appears under but one, and that the one representing the most important cause of his illness. This being the case, the figures in Table B will not agree with those in Table A, which is a table of diagnoses. In order that the number of deaths should show the per cent mortality of a given condition readmissions are counted but once. Unless this is done, the relative mortality would appear smaller than is actually the case.

Table C (see p. 121) gives a summary of the medical statistics for 1916.

Table D (see p. 122) gives the various types of cardiac arrhythmia and other disturbances in cardiac action made out in our cases by electrocardiographic studies.

Table A

Table of Medical Conditions

JANUARY 1, 1916, TO JANUARY 1, 1917

Abscess, Alveolar (? — 1) *	7	Appendicitis, Acute, with Peri-	
Abscess of Bartholin's Gland	1	tonitis	2
Abscess of Bone	1	Appendicitis, Chronic (?)	1
Abscess of Brain (? — 1)	1	Appendicitis, Subacute	1
Abscess of Breasts	1	Arrhythmia, Cardiac (for	
Abscess of Buttock	1	various forms <i>see</i> special	
Abscess of Leg	1	Table D, page 122)	
Abscess of Lung (? — 3)	10	Arteriosclerosis, Cerebral	4
Abscess, Pelvic (Male)	1	Arteriosclerosis, General	111
Abscess, Perinephritic	1	Arthritis, Acute (<i>see also</i>	
Abscess, Perirectal	4	Rheumatism, Acute Artic-	
Abscess, Peritonsillar	2	ular)	4
Abscess of Toe	2	Arthritis, Chronic	40
Acidosis, Non-Diabetic	1	Arthritis, Gonorrhoeal	2
Acromegaly	3	Arthropathy of Tabes Dorsalis(?)	1
Addison's Disease (? — 1)	2	Ascites	4
Adhesions about Gall Bladder	2	Asthma, Bronchial (? — 4)	34
Adhesions, Intestinal	3	Atrophia Cutis Idiopathica Pro-	
Alcoholism, Acute and Chronic	15	gressiva	1
Anemia, Pernicious	28	Atrophy of Optic Nerve	3
Anemia, Chlorotic Type	1	Banti's Disease (? — 1)	2
Anemia, Secondary	58	Bronchiectasis	4
Anemia, Splenic	1	Bronchitis, Acute (? — 1)	38
Aneurysm of Aortic Arch	5	Bronchitis, Chronic	22
Aneurysm, Mycotic, of Abdominal		Bronchitis, Unclassified	5
Aorta	1	Bronchitis with Emphysema	29
Aneurysm of Cerebral Artery	1	Burns, 1st, 2d, 3d degree	1
Angina Pectoris (? — 4)	11	Bursitis, Acute (Knee)	1
Aortitis, Syphilitic, including		Caisson Disease	1
Dilatation of Aorta	10	Calcification of Prostate	1
Appendicitis, Acute	2	Calculus in Bladder	1

* The question marks mean that diagnoses in these cases were made with reservation, there being enough factors in the case of uncertainty to throw some doubt on the correctness of the diagnosis and yet the diagnosis given expresses as well as we can the patient's condition. To obtain the number of patients in whom diagnosis was made without reservation subtract the number following the question mark from the total.

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Calculus in Ureter — Impacted (? — 1)	3	Constipation	19
Carbuncle	2	Cribbing (<i>see</i> Pneumophagia)	
Carcinoma of Breast	2	Cystitis, Unclassified	10
Carcinoma of Esophagus	5	Cystitis, Acute	2
Carcinoma of Female Genital Organs (Ovary, Uterus)(? — 1)	2	Cystitis, Chronic	7
Carcinoma of Gastro-Intestinal Tract (? — 1)	1	Cystitis, Tuberculous (<i>see</i> Tuberculosis, Urinary Tract)	
Carcinoma of Intestine	2	Debility	3
Carcinoma of Liver (? — 1)	4	Decubitus	1
Carcinoma of Omentum	1	Delirium Tremens (? — 1)	2
Carcinoma of Pancreas (? — 1)	2	Dementia (? — 1)	2
Carcinoma of Peritoneum	1	Dementia Paralytica (? — 9)	19
Carcinoma of Peritoneum, Omentum, Mesentery, Intestines, Retroperitoneal Glands	1	Dementia Senilis (? — 1)	1
Carcinoma of Pleura	1	Dermatitis Actinica	1
Carcinoma of Prostate	2	Dermatitis Medicamentosa	1
Carcinoma of Rectum (? — 1)	4	Dermatitis, Unclassified	1
Carcinoma of Stomach (? — 8)	18	Dermatitis Venenata	2
Carcinoma of Stomach and Liver	2	Dermoid Cyst (<i>see</i> Mediastinum)	
Carcinoma of Urinary Organs (? — 1)	1	Diabetic Gangrene	2
Carcinomatosis of Abdomen	1	Diabetes Insipidus (? — 1)	1
Cardiac Neurosis	1	Diabetes Mellitus (? — 3)	70
Cardiospasm	3	Diarrhea, Unclassified	4
Cellulitis of Foot	1	Dilatation of Aorta, Non-syphilitic (Including Arteriosclerosis of Aorta)	7
Cerebral Hemorrhage	11	Dilatation of Colon	1
Chlorosis (<i>see</i> Anemia, Chlorotic Type)		Dilatation of Esophagus	1
Cholecystitis, Acute (? — 1)	4	Diphtheria	2
Cholecystitis, Chronic (? — 1)	5	Dislocation of Hip	1
Cholelithiasis (? — 9)	14	Diverticulitis	1
Chorea (? — 2)	14	Dysentery, Amebic	1
Chylothorax (? — 1)	1	Dysentery, Bacillary	6
Cirrhosis of the Liver (? — 5)	16	Eczema	2
Colitis, Acute	1	Embolism and Thrombosis	
Colitis, Chronic (? — 1)	3	Embolism, Cerebral	3
Colitis, Mucous	1	Thrombosis of Coronary Artery	2
Congenital Dislocation of Hip	1	Thrombosis of Portal Vein	1
Congenital Dislocation of Lumbar Vertebra	1	Emphysema, Pulmonary	4
Congenital Heart Disease		Empyema of Antrum of High- more	1
Patent Ductus Arteriosus	1	Empyema (Suppurative Pleurisy) (? — 1)	1
Pulmonary Stenosis (? — 1)	1	Enderteritis Obliterans	2
Congenital Polycystic Kidneys	1	Endocarditis, Acute	1
		Endocervicitis	2
		Enlarged Spleen	7
		Eosinophilia (Cause Unknown)	3

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Epilepsy (? — 3)	9	Hypertension, Nephritic (<i>see</i>	
Epilepsy, Jacksonian	1	Nephritis with Hypertension)	
Equino Valgus	1	Hyperthyroidism (Exophthalmic	
Erysipelas	1	Goitre) (? — 4)	16
Erythema Exudativum	1	Hypertrophy of Liver	1
Erythema Multiforme	1	Hypertrophy of Prostate	5
Erythema Nodosum	7	Hypochlorhydria (? — 1)	13
Facial Paralysis	1	Hypoovarianism	2
Fever of Unknown Cause	19	Hypopituitarism (? — 4)	5
Fibromyomata of Uterus	3	Hypotension (? — 1)	1
Gangrene of Lung	1	Hypothyroidism (Myxoedema)	
Gastric Spasm (Fundus)	1	(? — 1)	7
Gastritis, Chronic	1	Hysteria (? — 4)	25
Gastritis, Unclassified	1	Hysterical Tachypnoea	1
Gastroptosis (<i>see also</i> Splanchno-		Idiocy and Imbecility	1
ptosis) (? — 1)	14	Infarct of Heart	2
Glaucoma, Acute	1	Infarct of Lung (Pulmonary	
Glaucoma, Chronic	2	Embolus)	2
Goitre, Diffuse Colloid	2	Infection, Acute Hematogenous,	
Goitre, Exophthalmic (<i>see</i>		of Kidney	2
Hyperthyroidism)		Influenza, so-called Grippe	6
Gout	2	Insolation (? — 2)	3
Gumma of Throat	1	Intestinal Stasis	2
Hemochromatosis	3	Iritis, Rheumatic	1
Hairy Tongue	1	Jaundice, Catarrhal	6
Headache (Unknown Cause)	8	Jaundice, Unspecified	2
Hemaglobinuria (? — 1)	1	Keratitis, Interstitial	1
Hematemesis	2	Keratoses Senilis	1
Hematoma of thigh	1	Korsakoff's Syndrome	1
Hematuria (Cause Unknown)	1	Laryngitis, Acute	19
Hemiplegia (<i>see</i> Cerebral Hemorrhage)		Leukemia, Lymphoid	2
Hemophilia (? — 1)	1	Leukemia, Myeloid	2
Hernia, Inguinal	5	Lipomatosis	1
Hernia, Internal Diaphragmatic	1	Lymphadenitis, Acute	1
Hernia, Umbilical	1	Lymphadenitis, Chronic	1
Herpes Zoster	3	Lymphocytosis of Unknown	
Hydrocele	3	Etiology	1
Hydronephrosis (Intermittent)	2	Lymphoma, Malignant (Hodg-	
Hydropneumothorax	2	kin's Disease) (? — 1)	3
Hydrops of Gall Bladder	1	Malaria (Aestivo-Autumnal)	1
Hydrothorax	5	Malnutrition	1
Hyperchlorhydria	4	Maniac Depressive Insanity	1
Hyperemesis	1	Mastitis, Chronic (Non- <i>puer-</i>	
Hypernephroma of Kidney	2	peral)	1
Hypertension, Non-nephritic		Mastoiditis, Acute	1
(? — 3)	56	Mediastinum, Dermoid Cyst of	1
		Mediastinitis (? — 1)	1

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Meniere's Disease	1	Papilloma of Bladder	1
Meningitis, Cause Unknown (? — 1)	5	Paresthesia of Head (? — 1)	1
Meningitis — Staphylococcus Aureus	1	Paresthesia of Tongue (? — 1)	1
Meningitis, Epidemic Cerebro- spinal	1	Paralysis Agitans (? — 1)	4
Meningitis, Tuberculous	5	Paralysis, Laryngeal—Recurrent	1
Menopause	3	Paraplegia, Ataxic (? — 2)	2
Metrorrhagia	2	Pellagra	2
Migraine (? — 2)	2	Pelvic Cellulitis	1
Miscarriage	1	Pemphigus (Septic)	1
Monoplegia	1	Pericarditis, Chronic Adhesive (? — 2)	3
Mumps	1	Pericarditis with Effusion	5
Myelomata, Multiple	1	Pericarditis, Acute Fibrinous	9
Myocarditis, Chronic (? — 2)	158	Pericarditis, Purulent	1
Myositis	3	Pericarditis, Unclassified	1
Neoplasm, Femorae and Verte- brae (? — 1)	1	Perihepatitis (? — 1)	3
Neoplasm of Lung	1	Perisplenitis	1
Nephritis, Acute	23	Peritonitis, Acute General	3
Nephritis, Chronic (? — 29)	79	Peritonitis, Acute Local	1
Nephritis, Chronic with Hyper- tension (? — 1)	132	Pharyngitis	47
Nephrolithiasis	1	Phlebitis	3
Nephroptosis	1	Pleurisy, Acute Fibrinous (? — 2)	23
Neuralgia, Intercostal	1	Pleurisy, Chronic	7
Neuralgia, Trigeminal	1	Pleurisy, Chronic Fibrous	2
Neurasthenia (? — 1)	27	Pleurisy with Adhesions	1
Neuritis, Alcoholic (? — 1)	3	Pleurisy, Sero Fibrinous	17
Neuritis, Multiple	1	Pleurisy, Unclassified (? — 1)	3
Neuritis, Retrobulbar	1	Pneumonia, Broncho (? — 2)	13
Neuritis, Unspecified (? — 2)	5	Pneumonia, Interstitial	2
Neurosis, Gastric	18	Pneumonia, Lobar (? — 3)	68
Neurosis, Intestinal	1	Pneumophagia	1
Neurosis, Traumatic (? — 1)	1	Pneumothorax	1
No Diagnosis — Unknown Dis- ease	2	Poisoning, Acute — Arsenic (? — 1)	1
No Disease	38	Poisoning, Acute — Sulpho- Naphthol	1
Obesity	5	Poisoning, Chronic — Picric Acid	1
Obstruction, Intestinal	4	Poisoning, Chronic Heroin (? — 1)	2
Oophoritis of Mumps	1	Poisoning, Chronic — Morphin (? — 1)	2
Osteoarthritis (? — 1)	3	Poisoning, Chronic Lead (? — 2)	4
Osteomyelitis, Chronic	6	Poliomyelitis, Acute (? — 1)	7
Otitis Media	11	Polycythemia (? — 1)	2
Ovarian Cyst	2	Polyserositis (? — 1)	2
Pancreatitis, Chronic (? — 1)	1	Pott's Disease	2
		Pregnancy (? — 1)	10
		Premature Delivery	1

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Pronated Feet	1	Syphilis (? — 7)	159
Prostatitis, Gonorrheal	1	Syphilis of Bones and Joints	
Psoriasis	2	(Necrosis)	1
Psychoneurosis, Hypochondriacal Type	2	Syphilis, Congenital	6
Psychoneurosis, Undefined	4	Syphilis of Digestive System	
Psychoneurosis, Anxiety Type		(Stomach)	1
(? — 1)	1	Syphilis of Eye	1
Psychoneurosis, Sex Hypochondriac Type	1	Syphilis of Central Nervous System (? — 3)	25
Psychosis, Symptomatic	1	Syringomyelia	1
Purpura	5	Tabes Dorsalis (? — 3)	37
Pyelitis	4	Telangiectasis	1
Pyelonephritis	2	Tenia Bothriocephalus	2
Pylorospasm (? — 2)	3	Tenia Saginata	4
Pyonephrosis	2	Tenosynovitis	2
Pyopneumothorax	2	Thrombophlebitis	1
Retarded Mental Development	2	Tic Convulsif	1
Rheumatism, Acute Articular		Tonsillitis	80
(? — 1)	43	Toxemia of Pregnancy	1
Rhinitis	20	Toxic Amblyopia	1
Rhinitis, Vaso Motor (Hay		Tracheitis	1
Fever)	1	Tuberculosis, Abdominal (? — 2)	5
Salpingitis, Acute Bilateral	1	Tuberculosis of Bones	1
Salpingitis, Chronic	1	Tuberculosis of Lungs (? — 12)	45
Sarcoma, Retroperitoneal	1	Tuberculosis of Lymph Nodes	
Sciatica (? — 1)	2	(? — 1)	3
Scleroderma	1	Tuberculosis, Miliary	4
Sclerosis, Lateral (? — 1)	3	Tuberculosis of Tendon Sheath	1
Sclerosis, Multiple (? — 3)	9	Tuberculosis, Urinary Tract	
Senility (not Arteriosclerotic)	4	(? — 2)	4
Septicemia		Tumor of Brain (? — 2)	4
Bacillus Coli	1	Tumor of Spinal Cord	1
Bacillus Pyocaneus	1	Typhoid Bacillus Carrier (? — 1)	1
Post Puerperal	1	Typhoid Fever	15
Organism not Isolated	2	Typhus Fever	1
Sinusitis, Chronic Frontal	1	Ulcer of Duodenum (? — 2)	13
Splanchnoptosis (Visceroptosis)	12	Ulcer of Stomach (? — 1)	12
Splenomegaly, Primary (? — 1)		Ulcer, Syphilitic (Arm)	1
(see also Enlarged Spleen)	2	Ulcer of Skin	4
Stomatitis, Acute	2	Ulcer, Varicose	1
Strain of Muscles	4	Uremia, Acute (? — 2)	11
Stricture of Esophagus	1	Uremia, Chronic	6
Stricture of Rectum	1	Ureteral Colic	1
Stricture of Urethra	1	Urethritis, Chronic Gonorrheal	2
Subinvolution of Uterus	1	Urticaria	3
		Uterine Polyp	1

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VALVULAR DISEASE, CHRONIC CARDIAC		Mitral Stenosis and Insuffi- ciency (? — 1)	30
Aortic Insufficiency (? — 4) .	13	Mitral Stenosis and Insuffi- ciency and Tricuspid In- sufficiency	1
Aortic Stenosis (? — 5) . . .	5	Mitral Stenosis and Insuffi- ciency and Tricuspid Steno- sis	2
Mitral Insufficiency (? — 7) .	24	Mitral Stenosis and Insuffi- ciency, Tricuspid Steno- sis and Insufficiency . . .	2
Mitral Stenosis (? — 6) . . .	18	Aortic and Mitral Insuffi- ciency and Stenosis	3
Tricuspid Insufficiency (? — 3)	3	Aortic Insufficiency, Aortic Stenosis, Mitral Insuffi- ciency	2
VALVULAR DISEASE, COMBINED CHRONIC CARDIAC		Aortic Insufficiency, Aortic Stenosis, Mitral Insuffi- ciency and Tricuspid In- sufficiency	1
Aortic Insufficiency and Aortic Stenosis	1	Tricuspid Insufficiency and Stenosis (? — 1)	1
Aortic Insufficiency and Mitral Stenosis	3	Varicella (? — 1)	4
Aortic Insufficiency and Mitral Stenosis	3	Varix of Leg	5
Aortic Insufficiency and Mitral Insufficiency	11	Vertigo	1
Aortic Insufficiency and Mitral Insufficiency and Tricuspid Insufficiency	1	Vomiting	1
Aortic Insufficiency, Mitral Stenosis and Mitral Insuffi- ciency	6	Vomiting, Recurrent	1
Aortic Stenosis and Mitral Insufficiency	1	Wound, Lacerated, of Foot . . .	1

Table B

Report of Medical Diseases in Terms of International Classification

JANUARY 1, 1916, TO JANUARY 1, 1917

Nos. of International Nomenclature	DISEASES AND CONDITIONS	Total No. of discharges	Discharges of patients admitted more than once	Actual No. of patients completing their stay in the hospital	No. of deaths
GENERAL DISEASES					
1	Typhoid fever	15	..	15	..
2	Typhus fever	1	..	1	..
4	Malaria	1	..	1	..
9	Diphtheria	2	..	2	..
10	Influenza	2	..	2	..
14	Dysentery	5	..	5	..
19	Other epidemic diseases	4	..	4	..
20	Purulent infection and septicemia	3	..	3	1
26	Pellagra	2	..	2	..
28	Tuberculosis of the lungs (? — 5)	32	1	31	1
29	Acute miliary tuberculosis	2	..	2	2
30	Tuberculous meningitis	4	..	4	4
31	Abdominal tuberculosis	1	..	1	..
34	Tuberculosis of other organs (? — 1)	3	..	3	..
36	Scoliosis	1	..	1	..
37	Syphilis (? — 2)	374	273	101	2
38	Gonococcus infection	2	..	2	..
40a	Carcinoma of stomach and liver (? — 3)	21	..	21	3
41a	Carcinoma of peritoneum, intestines, rectum	3	..	3	1
41f	Sarcoma of retroperitoneal glands (? — 1)	1	..	1	..
42a	Carcinoma of female genital organs (? — 1)	2	..	2	1
45a	Carcinoma of other organs, and organs not specified (? — 1)	6	..	6	1
45e	Hypernephroma of other organs, and of organs not specified	1	..	1	..

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Nos. of International Nomenclature	DISEASES AND CONDITIONS	Total No. of discharges	Discharges of patients admitted more than once	Actual No. of patients completing their stay in the hospital	No. of deaths
45h	Uncertified tumor of spinal cord	1	..	1	..
46	Other tumors (tumors of the female genital organs excepted)	3	..	3	1
47	Acute articular rheumatism	38	2	36	..
48	Chronic rheumatism and gout	20	2	18	..
50	Diabetes	75	5	70	10
51	Exophthalmic goitre	14	3	11	..
52	Addison's disease (? — 1)	2	..	2	..
53	Leukemia (? — 1)	2	..	2	..
54	Anemia, including chlorosis	44	8	36	5
55	Other general diseases (? — 3)	11	1	11	..
56	Alcoholism (acute and chronic)	6	..	6	..
57	Chronic lead poisoning	2	..	2	..
59	Other chronic poisonings	2	..	2	..
DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE					
61	Simple meningitis (? — 1)	7	..	7	..
62	Locomotor ataxia (? — 3)	174	142	32	..
63	Other diseases of the spinal cord (? — 2)	16	..	16	1
66	Paralysis without specified cause (? — 1)	8	..	8	2
67	General paralysis of the insane	33	25	8	..
68	Other forms of mental alienation	1	..	1	..
69	Epilepsy (? — 2)	13	6	7	..
72	Chorea (? — 1)	12	..	12	1
73	Neuralgia and neuritis (? — 1)	5	..	5	..
74	Other diseases of the nervous system (? — 6)	48	2	46	..
75	Diseases of the eye and their adnexa	3	..	3	..
76	Meniere's disease	1	..	1	..
DISEASES OF THE CIRCULATORY SYSTEM					
77	Pericarditis (? — 1)	8	1	7	..
79	Organic diseases of the heart (? — 2)	153	43	110	28

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Nos. of International Nomenclature	DISEASES AND CONDITIONS	Total No. of discharges	Discharges of patients admitted more than once	Actual No. of patients completing their stay in the hospital	No. of deaths
80	Angina pectoris	4	..	4	..
81	Diseases of the arteries, atheroma, aneurism, etc.	50	2	48	14
82	Embolism and thrombosis.	1	..	1	1
84	Diseases of the lymphatic system	1	1	..	..
85	Hemorrhage, other diseases of the circulatory system	22	1	21	2
DISEASES OF THE RESPIRATORY SYSTEM					
86	Diseases of the nasal fossae	15	..	15	..
87	Diseases of the larynx	5	2	3	..
88	Diseases of the thyroid body (? — 1)	6	1	5	1
89	Acute bronchitis	23	1	22	1
90	Chronic bronchitis	26	4	22	2
91	Bronchopneumonia (? — 1)	6	..	6	1
92	Pneumonia (does not include terminal pneumonias).	58	..	58	15
93	Pleurisy	26	..	26	1
96	Asthma	30	7	23	..
98	Other diseases of the respiratory system (tuberculosis excepted) (? — 2)	7	..	7	..
DISEASES OF THE DIGESTIVE SYSTEM					
99	Diseases of the mouth and adnexa	2	..	2	..
100	Diseases of the pharynx	79	10	69	..
101	Diseases of the esophagus	1	..	1	..
102	Ulcer of the stomach	12	1	11	..
103	Other diseases of the stomach (cancer excepted)	33	1	32	..
105	Diarrhea and enteritis (over 2 years) (? — 2) .	16	1	15	..
107	Intestinal parasites	1	..	1	..
108	Appendicitis.	3	..	3	..
109	Hernias: Intestinal obstructions	5	..	5	..
110B	Other diseases of the intestines	22	..	22	..
113	Cirrhosis of the liver (? — 2)	14	3	11	1

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Nos. of International Nomenclature	DISEASES AND CONDITIONS	Total No. of discharges	Discharges of patients admitted more than once	Actual No. of patients completing their stay in the hospital	No. of deaths
114	Biliary calculi (? — 1)	5	..	5	..
115	Other diseases of the liver	14	1	13	..
116	Diseases of the spleen	1	..	1	..
117	Simple peritonitis (non-puerperal)	4	..	4	..
DISEASES OF THE GENITO-URINARY TRACT					
119	Acute nephritis	22	3	19	1
120	Bright's disease (? — 3)	118	31	87	19
122	Other diseases of the kidneys and adnexa	9	1	8	..
123	Calculi of the urinary passages	7	2	5	..
124	Diseases of the bladder	7	1	6	..
126	Diseases of the prostate	4	..	4	..
128	Uterine hemorrhage (non-puerperal)	1	..	1	..
130	Other diseases of the uterus	1	..	1	..
131	Cysts and other tumors of the ovary	1	..	1	..
132	Salpingitis and other diseases of the female genital organs	2	..	2	..
THE PUERPERAL STATE					
134a	Normal labor	4	1	3	..
134b	Accidents of pregnancy	1	..	1	1
138	Puerperal albuminuria and convulsions	1	..	1	..
DISEASES OF THE SKIN AND THE CELLULAR TISSUE					
145c	Other diseases of the skin and adnexa	21	..	21	1
DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION					
146	Diseases of the bones (tuberculosis excepted)	4	..	4	..
147	Diseases of the joints (tuberculosis and rheumatism excepted)	9	..	9	..
149	Other diseases of the organs of locomotion	9	..	9	..

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Nos. of International Nomenclature	DISEASES AND CONDITIONS	Total No. of discharges	Discharges of patients admitted more than once	Actual No. of patients completing their stay in the hospital	No. of deaths
MALFORMATIONS					
150	Congenital malformations	3	1	2	..
AFFECTIONS PRODUCED BY EXTERNAL CAUSES					
165	Other acute poisonings	1	..	1	..
167	Burns (conflagration excepted)	1	..	1	..
179	Effects of heat	2	..	2	..
186	Other external violence	1	..	1	..
ILL-DEFINED DISEASES					
189	Unclassified or ill-defined	72	1	71	..
Total all cases discharged		1392	591	1983	125
Medical cases remaining in the wards January 1, 1917 . . . . .		..	..	75	..
				2058	

Table C

Summary of Medical Report

JANUARY 1, 1916, TO JANUARY 1, 1917

Total number of medical admissions in 1916		1980	
Total number of medical new cases remaining in the wards January 1, 1916.		78	
			2058
Total number of medical re-admissions discharged in 1916	591		
Total number of medical new cases discharged in 1916. .	1392		
		1983	
Total number of medical cases remaining in the wards January 1, 1917		75	
			2058
Results on medical cases discharged in 1916 were as follows:			
Total number discharged well	240		
improved	1293		
unimproved	177		
untreated	11		
transferred to Surgical Service	137		
dead	125		
		1983	
Total number of medical cases remaining in the wards January 1, 1917		75	
			2058

Table D

Electrocardiographic Studies

Abnormal form of curve (Type not Diagnosed)	2
Alternation of the Pacemaker	2
Auricular Disturbance (Unknown Origin)	11
Auricular Fibrillation	79
Auricular Fibrillation, Paroxysmal	5
Auricular Fibrillation and Flutter	3
Auricular Flutter	5
Auricular Flutter, Paroxysmal	1
Bradycardia	3
Defective Conduction of Both Branches of the Bundle of His	2
Defective Conduction of the Right Branch of the Bundle of His	13
Delayed Conduction Time.	11
Digitalis Effect	5
Digitalis Intoxication	4
Heart Block, Complete	10
Heart Block, Partial	4
Hypertrophy, Auricular	24
Hypertrophy, Left Ventricular	159
Hypertrophy, Right Ventricular	62
Nodal Rhythm	1
Premature Auricular Beats	24
Premature Auricular Beats, Blocked	3
Premature Nodal Beats	12
Premature Ventricular Beats	66
Premature Ventricular Beats, Interpolated	1
Pulsus Alternans	9
Sino-Auricular Block	1
Sinus Arrhythmia	18
Tachycardia, Auricular	5
Tachycardia, Auricular Paroxysmal	2
Tachycardia, Normal	4
Tachycardia, Ventricular	1
Tachycardia, Ventricular Paroxysmal	1

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In these tables the distribution of diseases is of interest. The Peter Bent Brigham Hospital is a general hospital and does not wittingly admit cases of disease ordinarily considered to be contagious. A few such enter for one reason or another or develop within the Institution's population.

Of the infectious diseases syphilis in its various forms makes up the largest number of diagnoses, 259 in number. Tuberculosis 63 diagnoses, broncho and lobar pneumonia 81, acute articular rheumatism 43 and typhoid 15 are the other infectious diseases encountered with any great frequency.

Circulatory disease brings many patients to the hospital, 194 in 1916, as do nephritis with 106 patients, diabetes with 70 patients, malignant tumors with 36 patients, and anemia, chiefly of the pernicious type, with 36 patients. Of these nearly all are chronic progressive diseases.

During the year 125 medical patients died within the hospital. Of these the largest number were cases of organic heart disease, 28 patients; the next largest number had nephritis, 20 patients; while 15 had pneumonia and 14 various arterial lesions. In no other group was the number of deaths higher than six.

With the exception of pneumonia, not many cases of acute infectious disease die in the hospital. Probably a considerable proportion of the cases of tuberculosis eventually succumb to the disease. Acute rheumatism, though rarely fatal, is a frequent point of origin of cardiac lesions which progress. A not inconsiderable part of the heart cases, from which come the largest number of hospital deaths, had their beginning in attacks of rheumatism. In a somewhat similar sense syphilis is the cause of many chronic progressive disturbances, and herein lies the great importance of these two diseases, rheumatism and syphilis. If we can cure or prevent these,

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we can reduce greatly the incidence of chronic progressive disease and hence the importance of devoting so many of our beds to these two diseases.

CHRONIC CARDIAC CASES

With chronic cardiac cases, though we are not in a position to cure the condition, the hospital is of much service in two ways. Many of these patients by hospital treatment can be restored to a fair degree of activity and comfort and be returned home to recommence many of their previous pursuits. For others the hospital can render far more comfortable their declining days and take from their family a large burden in home care of such patients. Much more could be done to help the less advanced cardiac cases, particularly such as come in large numbers to our Out-Door Department, if the hospital had the funds for a better follow-up work for these patients and some sort of shop or work place for their employ. (See Report of Cardiac Class on p. 137.) I know of no better way than this for some generous friend to further the work of the hospital in aiding suffering humanity. A gift of three to five thousand dollars per year for a period of five or more years would enable us to do a good piece of constructive work with cardiac patients.

BRIGHT'S DISEASE

Bright's disease, or nephritis, brings to the hospital many patients, in the wards 106 in 1916, and many more in the Out-Door Department. As matters now stand a very large majority of these patients must die because of their nephritis. Nephritis is a problem to which the Medical Staff of the Peter Bent Brigham Hospital has devoted much attention. Practical means of measuring renal function and the progression of kidney damage are now

REPORT OF THE PHYSICIAN-IN-CHIEF

available. Such tests serve to evaluate methods used in treatment of this disease, and with them we are in a position to test out different forms of treatment with a reasonable hope of so improving them that we can decrease the frightful toll of this disease among the older adults of the community. What is needed for this is money to pay trained workers for a study of at least five years to properly judge of results, because this disease must be followed for a long time, inasmuch as in many of these patients the disease progresses slowly though steadily.

Such an investigation has seemed so important and the present time so opportune that work has been begun on the basis of a grant of \$2000 per year for three years from the Proctor Fund of the Harvard Medical School for the Study of Chronic Disease, which sum pays the salary of one investigator (Dr. O'Hare). A trained nurse and a chemical technician have been employed in addition, although no money so far has been forthcoming for such salaries. To finance adequately a study of nephritis we should have available \$5000 to \$10,000 per year for five years. I hope very much some donor or donors will be found during the coming year ready to back up this work with the needed funds.

BRONCHIAL ASTHMA

The gift to the hospital by Mr. Charles F. Choate, Jr., for the study of bronchial asthma has made it possible to investigate very thoroughly a number of such patients. Especial attention has been given to the reaction of asthmatics to proteid substances from various sources, plant, animal and bacterial. In many cases a high degree of sensitivity to a single proteid is found, and this sensitivity appears to be a very important causative factor in the disease, though not the sole factor; for it is

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very evident that heredity and the nervous habitus of the patient play a not inconsiderable part. However, by appropriate methods of desensitization many of these patients can be freed in a striking way from their most annoying paroxysms of dyspnea. From the asthma work already a number of very interesting studies have come, but since these are still in press their discussion will be postponed until another report.

STAFF

No important changes have been made in staff organization. During the year Dr. Francis G. Blake resigned as Resident Physician to work at the Rockefeller Hospital in New York on a traveling fellowship from Harvard University. His place has been taken by Dr. David A. Haller, formerly Assistant Resident Physician.

Vacancies by resignation in the positions of Assistant Resident Physicians were filled by the appointment of Dr. Paul G. Weisman, a graduate of the University of Michigan, who came to us after a service at the Rhode Island General Hospital; of Dr. C. W. McClure, a graduate of the Ohio State University, who came to us after a service at the Hospital of the University of Iowa; of Dr. Harry L. Alexander, a graduate of Columbia University, who came to us after a service at the Presbyterian Hospital of New York, and of Dr. Donald J. MacPherson, a graduate of Harvard, formerly Medical House-Officer at the Peter Bent Brigham Hospital.

PHYSICIAN PRO TEM.

The plan of having an outsider come to the hospital for a week's residence in charge of the Medical Service has been continued. During the year Dr. Frank Billings of Chicago served in this way, bringing to us the stimulus of his very large experience in clinical medicine and his broad-minded grasp of medical problems.

REPORT OF THE PHYSICIAN-IN-CHIEF

A SURVEY OF THE MEDICAL OUT-DOOR DEPARTMENT WITH SUGGESTIONS AS TO HOW TO IMPROVE THAT SERVICE

IN January, 1916, in writing the Annual Report of the Medical Service I included the following statement: "In the wards the number of patients treated is largely limited by the number of beds and the types of patients admitted. In the ambulatory Out-Door Department such limitation does not exist. A faulty Out-Door Department Service is likely to come as the result of admitting more patients than can be attended to. Our own Out-Door Department Medical Service is growing rapidly, and now it can be truly said that the more additional patients we get the less attention will they have. What is the remedy? Either increase the number of physicians on duty, if funds are available, or limit the number of patients that will be admitted daily. The alternative is to allow the number to continue to increase until the poor service rendered to the patients automatically limits the number coming to the Out-Door Department. The policy which we are to adopt in this part of our work will need soon careful consideration."

Since this was written the Medical Out-Door Department has progressively increased in size. This is well shown by the number of patients treated in successive months from July, 1915, to September, 1916. This growth in the size of the Out-Door Department has made it impossible in the recent months to give satisfactory service. In the first place many patients under the system now in use are required to wait for a very long time before they can receive attention. This applies particularly to new patients. This is very well shown in a study of the Out-Door Department, made during the month of September by one of the Assistant Superintendents, Dr. Stone. Dr. Stone found that patients frequently

were required to wait three to four hours before being seen by the doctor, and on many days it was necessary for the physicians in charge of the Out-Door Department to seek help from the members of the resident staff (thereby taking these men away from duties in the house) in order to finish the day's work. In the second place a large number of patients seen by each physician means that each individual patient receives but a small period of time for examination and instruction as to treatment.

In connection with this, the experience at the Massachusetts General Hospital, as published in the Annual Report for 1915, is of interest. In their report they say: "In the Out-Patient Medical Service we find that a staff of three physicians, with one externe, with the assistance of one paid technician and one unpaid clinical secretary, deals satisfactorily and unhurriedly with a clinic of 50 to 100 patients a day (old and new cases) without keeping any one of the house-officers more than three hours in the clinic daily. . . . No physician should see more than six new cases or twenty old ones (requiring little or no physical examination) within three hours." On the basis of the last sentence the experience at the Massachusetts General Hospital indicates that a single physician should see no more than two new cases per hour, or 6.6 old cases per hour. Let us contrast with this our own figures for September, 1916, taking into account the organization of our clinic.

We have on duty all day two physicians, resident in the hospital, who have completed a year's training in the wards of the hospital and who are serving for four months in the Out-Door Department. We have no paid technician. We have no one corresponding to the clinical secretary, referred to in the Massachusetts General Hospital Report, though from now on we are to have the help of a volunteer social service worker to aid in the following up of old cases. We should assume that the

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physicians on duty can work effectively not more than eight hours. Omitting Sundays and holidays, when the clinic was closed, in September, 1916, there were twenty-five working days each of eight hours a day, which gives 200 hours for each man's work. The work is divided so that each day one man takes charge of old cases and one man takes charge of new cases. In this way there was available in September for old cases 200 hours and for new cases 200 hours. During September, 1916, there was 1396 old cases seen in 200 hours, or 6.98 cases per hour, or 8.5 minutes for each old patient as an average. During the same period there were 500 new cases, or 2.5 patients per hour, or an average of 24 minutes for each patient seen by the doctor. As the number attending the clinic varies greatly from day to day, there were necessarily many periods due to overcrowding in which old patients received less than an average of 8.5 minutes of attention and new patients less than 24 minutes of attention. It is to be borne in mind that these are average figures, and as some patients require less study and less attention, whether coming as old or new cases, than do others, by reducing the time given to such cases more time becomes available for the cases requiring more detailed study.

Now, in accordance with the statement of the Annual Report of the Massachusetts General Hospital that no physician should see more than six new or twenty old cases within three hours, each new case should average one-half hour's time of the physician and each old case a little less than ten minutes. Assuming that each new case should have thirty minutes of time, and these figures have been quite carefully worked out at the Massachusetts General Hospital on the basis of a long experience, during the month of September we should have taken care of 400 new cases instead of the actual number, 509. On the same basis, if old patients should have ten minutes

per patient, we should have taken care of 1200 old patients instead of 1396, the actual number that were cared for.

It would seem reasonably clear from the above statements that in our Out-Door Department medical cases are no longer receiving as good attention as they did in the early days of the Institution, by reason of the large number coming for treatment. We are actually caring for more patients per doctor than the Massachusetts General Hospital declares to be satisfactory and doing it with the help of no paid technicians. In one respect the service which we are rendering to our out-patients is better than it was in the earlier days of the hospital. With the larger Staff it has been possible for some member of the Visiting staff to be in the Out-Door Department each day in the week from 10 o'clock to 12 o'clock to see in consultation the more difficult cases and to help in the general running of the clinic by taking and disposing of new cases who have been first seen by student assistants, instead of requiring all of those to be seen by the regular physicians in charge of the Out-Door Department.

As stated in the Annual Report as quoted above, we may do nothing in regard to the Out-Door Department and trust to its size being limited automatically by reason of the poor work done in the short time available for each patient, and so cause a limitation of the number coming by establishing the reputation of doing poor work. This, I take it, all will agree is an undesirable policy. Two other possibilities remain: one is to increase the number of physicians working in the Out-Door Department. This may be done by the appointment of Assistant Visiting Physicians on salary. This plan involves the expenditure of money, and whether or not we are able to do this depends upon the financial condition of the hospital. If the hospital can afford it, I would recom-

mend that such provision be made. In this connection I think it is fair to state that judging by the experience in other hospitals it is becoming very difficult to get adequately trained men of a high standard to do outpatient work consecutively on an unpaid basis, because the return from such work in the way of increased medical knowledge and power is not proportionate to the time spent.

Another method to meet the need of additional men in the Out-Door Department would be to invite graduate house officers to stay on in residence beyond their present period of sixteen months' service for additional Out-Door Department service. Two medical house officers finish each quarter, and one of these might be asked to remain for four more months of Out-Door Department work. In this connection it is to be realized that our house officers may not care to do more Out-Door Department work. As conditions are at present, our graduates have numerous offers of attractive posts. To offset this we would have to make our additional service attractive. Unless we do so I do not think our men would care to remain four months longer. In my judgment the best way to accomplish this would be to appoint two men instead of one as Assistant Resident Physicians, give them good quarters, board and laundry, and require of them three days' work per week in the Out-Door Department for eight months and leave them three days free for special studies in connection with the ward service. Men of the stamp that we have as house officers are attracted more by the opportunity for study and investigation if living is provided than by salary alone. This is constantly brought to my notice when I talk with my house officers as to their future. They always ask, "How will such work as is offered advance my knowledge of medicine?" As an example for a year I have tried in vain to supply a large New York Insurance Company

with a recent Brigham medical graduate on a salary of \$5000 per annum because the work seemed largely routine, though interesting. To carry out this plan I would select one man each quarter from the two graduates and allow their period of service to lap over. This I believe to be the best plan to put into effect now, but it requires living quarters beyond the present capacity of the staff building.

The second possibility is to limit the size of the Out-Door Department clinic. At first glance this seems a radical step. On consideration, however, it is evident that sooner or later such a step is inevitable. To employ one or two additional physicians on duty at a time as outlined above will bring a better service to our Out-Door Department as far as present numbers are concerned, and will enable us to take care of a somewhat larger number than we are at present handling. To increase our working staff in the Out-Door Department much, if any, beyond the two additional physicians, even if the money is available, will not be very feasible because with a larger number of physicians working and a larger number of patients handled the physical plant which we have will be inadequate for the service and the next step necessarily will be either enlarging the building or limiting the clinic. In my judgment to limit the clinic at the present time to such numbers as we can adequately handle will not be a bad policy. In fact, it will be a forward step in the administration of out-patient departments inasmuch as it will be placing a standard on Out-Door Department work which says that so many patients can be handled with the physical equipment of the Institution and the available number of physicians of high quality, and rather than to have more patients than we can take care of satisfactorily, we will limit the number, and in their care maintain a certain standard of work rather than increase the number and lower the standard of work.

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I have already referred to the fact that many patients during the month of September (these same conditions prevail now during each month) had to wait a long time to be seen by the physician, necessitating their staying in the Out-Door Department sometimes for four or five hours before they were attended to. A glance at Dr. Stone's report shows that this was due in large part to the fact that on some days nearly all of the new patients arrived at the same time, while on other days the same number of new patients were cared for speedily and satisfactorily because they came, not in large groups, but singly or in pairs scattered throughout the day. Now, if an even distribution of patients through the day can be brought about, each patient would have to wait a shorter time to see the doctor than is the case at present, and this would improve much the efficiency of the clinic.

It seems to me that such an even distribution of patients could be maintained easily in our clinic if someone were on duty in the Admitting Office of the Out-Door Department who could make appointments with new cases, so that after three or four cases had been admitted the next new patient would be told that perhaps if they came now they would have to wait a considerable time to see the doctor, but that if they would return at, let us say, 2 P.M. on today or on the following day, as the case might be, they could be seen quite promptly by the physician. In this way time could be scheduled for the patient, allowing each new patient thirty minutes of time. If the patient paid his admission fee when the appointment was made, the chances are that most of them would come back for the appointed time.

Obviously in such a plan discretion has got to be used for several reasons: some patients have left their work and so lose pay by not being seen on that day; other patients have traveled a long distance, and it is incon-

venient to repeat the journey. Such patients should be admitted at once and handled as quickly as possible. Finally, some cases are obviously acutely ill and need immediate attention. Those should be treated as emergencies and short-circuited ahead of cases already admitted. For a proper understanding of the patients in this plan of admission one who has medical knowledge will be required to do the work.

If this plan is adopted for new patients, a much better service I am sure would be rendered to each new case. In regard to old patients the difficulties are slighter, and a considerable regulation as to their time of return can be made by the physician when he sees the patients by asking them to return on a given day at a given hour, selecting days when it is not likely that the clinic will be overcrowded, since experience has shown that certain days bring the largest number of patients; or if it seems necessary, a book of appointments can be kept for old patients. By such an appointment scheme a certain number of patients would be unable to keep their appointments and such vacancies would serve to take care of emergency patients, patients from a distance and patients who for reason of occupation would find it very difficult to come a second time. Many of our patients live near by, and I feel sure that most of them would rather go home and come back in three or four hours, or on another day, in preference to remaining three or four hours in the clinic waiting to see the doctor. I would strongly advise the adoption of some such plan as this to provide better service for the clinic as it now stands, even if additions can be made to the staff working in the Medical Out-Door Department.

The number of new cases admitted can be very easily regulated to the number of physicians available for their care if the plan just referred to of making appointments with new patients is carried out, because it is evident

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that as soon as more patients than can be seen by our doctors at the rate of one new patient every thirty minutes apply for treatment, the length of time before they can receive an appointment will increase with the increase in the number of patients, and to those patients advice can be given that instead of waiting until we are able to see them, they had better apply elsewhere for medical attention, and it is probable that many patients rather than wait two or three weeks for an appointment would seek advice elsewhere. In this way the size of our clinic can be practically limited without necessitating our making an avowal that we will take only so many patients per day. At least it seems to me very well worth while trying to see how such a scheme would work.

DIABETIC CLASS

During 1916 the Diabetic Class has been managed efficiently by Mrs. Mark and Dr. Haller. A report of that work written by Mrs. Mark follows.

During the year 1916 the Diabetic Class has been conducted essentially in the same manner as in the previous year. The class meets once a week, on Thursday from two to four-thirty P.M., in a room which has been furnished especially for the use of the Diabetic and the Cardiac classes, on the Medical floor of the Out-Door Department. In this room the class has been conducted much more satisfactorily than could be done in the amphitheater, where formerly it had been held, the new quarters being much more convenient and comfortable both for the patients and for the physician and his assistant.

No general lecture is given. The patients are considered individually in the order of their arrival. The usual procedure is to teach each new patient how to test his urine for glucose, to require him to make that test

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every day at home, to give him a detailed explanation of the diet he is to follow, and to ask him to report in one week. If the conditions of the case seem to indicate the necessity, the assistant visits the patient at his home, soon after his first attendance at the class. The patients report once a week until they maintain a steady sugar-free record, and after that point is reached they are required to adhere to their diet, and to report only once a fortnight or once a month. Severe cases are referred at once to the hospital, as are also those patients having lighter cases who seem to need the discipline and the education which a term in the hospital always effects.

Total Number of Patients during 1916	109
Number of Previous Members of Class	51
Number of New Members	58

Of the new patients:—

Referred from Hospital	12
Seen First in the Out-Door Department	29
Sent in from Outside Physician	17
Total Visits of Patients	501
Average Number of Visits per Patient	4.57
Patients Visiting the Class less than 5 Times.	57

Of whom:—

Prevented by Work.	6
Prevented by Illness	4
Living at a Distance	4
Very Light Cases	10
Indifferent (for various reasons)	33
New Patients Coming only Once	12
Patients in Regular Attendance	52
Deaths	3

The fifty-two patients in regular attendance are at present all doing well. There have been during the year six cases known to have had acute illness, with a re-appearance of sugar and symptoms of acidosis. Three

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of these cases came into the hospital and were subsequently discharged improved. The other three died.

A comparison of the statistics of 1916 with those of 1915 shows:—

Increase of Total Number of Patients	40 or 57%
Increase of Number of New Patients	19 or 50%
Increase of Number in Casual Attendance	20 or 54%
Increase of Number in Regular Attendance	22 or 73%

The increased numbers, particularly of those in regular attendance at the class, is most encouraging, and there is every reason to hope for its continuance. It is, however, desirable that the numbers do not increase so rapidly that the informal methods of conducting the class has to give way to a strict routine, for such a change would involve the loss of knowledge of the personality of the patients.

CARDIAC CLASS

The Cardiac Class has been continued along the same lines as last year under the direction of Miss Homans and Dr. Denny, and its growth has been steady and satisfactory. During 1916-17, 80 individuals have been cared for, the frequency of the visits being dependent upon the severity of the case. About one-third have been regular attendants, another third came only occasionally, and the other third came only once or twice either from lack of interest or because of the extreme severity of their cardiac condition. A few cases are supervised entirely at home by Miss Homans, their lack of compensation making a visit to the hospital of much more harm than good.

Of the 80 cases 8 were referred to the wards on account of cardiac decompensation and there have been three deaths. Among the 24 children there are some who come to the class because of a recent history of rheumatic fever or chorea and who show no evidence of valvular disease at present. It is most important to follow and supervise

these cases. Most of the children are at school under restrictions as to exercise, stair climbing, play, etc. We have found they are happier and do better there than at home.

The general plan in all cases is a careful inquiry into home conditions with house visits by Miss Homans and thorough analysis of the exertion involved in the patient's occupation. The frequency of visits to the clinic depends upon the patient's condition. Changes of residence and occupation coupled with drug treatment and periods of rest are the principal means employed in enabling a crippled heart to do its work.

The question of obtaining suitable work for chronic cardiacs is a very difficult one, and until all hospitals and schools cooperate along the same lines it will continue to be so. The training of children to suitable trades is still more important, and during the coming year we hope to make some headway in this field.

With the means employed we feel sure we can anticipate and prevent breaks in compensation in a large number of cases, increase the earning capacity of some, and decrease the re-entries into the hospital wards. With a better organization and more funds much more could be done.

Some sort of workshop is needed. Here patients could be taught forms of light work such as basket weaving, work which they could do without undue strain on their damaged heart. For work of this type there is a fair market, and from it patients can earn a fair handicapped wage, as has been demonstrated in New York. To such a shop cardiac cases could come to work such hours as they are physically capable of and be paid a piece work wage. It is better to work thus under supervision rather than at home. Such a shop should be near the clinic, so that the patients can receive adequate medical supervision. The cost of such a shop would not be great. A teacher would

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have to be employed who could serve in the beginning as manager. Patients could pay at least in part for the cost of material. A fund of \$3000 to \$5000 a year guaranteed for three years or more would make possible a beginning in this important development.

SOCIAL SERVICE WORK

In another place (see p. 34) will be found a report of the Social Service work conducted under the direction of Miss Cheney. This department is of much help to the Medical Service, and its work is well coördinated with ours. Further enlargement, if made possible by the needed funds, would increase much our efficiency in managing the patients entrusted to our care.

SPECIAL STUDIES

A number of problems were being studied by members of the staff during the period covered by this report. Some of these investigations have been completed and published; others have been continued and will be mentioned in subsequent annual reports after the papers describing them have been published.

During 1916 the following scientific papers were published from the Medical Service:

- CHRISTIAN. Some Phases of the Nephritis Problem. *Am. Jour. of the Med. Sciences*, 1916, cli, p. 625.
- The Medical Profession's Obligation to the Patient. *The Modern Hospital*, 1916, vii, p. 9.
- Renal Function in Pernicious Anemia as Determined by Dietary Renal Tests. *The Arch. of Int. Med.*, 1916, xviii, p. 429.
- The Contribution of Animal Experimentation to Internal Medicine. *Jour. of the Indiana State Medical Assoc.*, 1916, ix, p. 407.
- Some Studies of a Diuretic (Theocin). *Arch. of Int. Med.*, 1916, xviii, p. 606.

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- FROTHINGHAM. The Relation between Functional Tests and the Pathological Anatomy of the Kidney in Chronic Nephritis. *Am. Jour. of the Med. Sciences*, 1916, cli, p. 72.
- Acidosis in Acute and Chronic Disease. *Arch. of Int. Med.*, 1916, xviii, p. 717.
- FROTHINGHAM and WALKER. A Comparison in Various Diseases of the Carbon Dioxid Tension in the Alveolar Air (Plesch Method) with the Amount of Carbon Dioxid in the Venous Blood (Van Slyke's Method). *Arch. of Int. Med.*, 1916, xviii, p. 304.
- PEABODY. Some Aspects of the Clinical Study of the Respiration: The Significance of Alveolar Air Analyses. *Am. Jour. of the Med. Sciences*, 1916, cli, p. 184.
- Tests of Renal Function from the Standpoint of the General Practitioner. *Boston Med. and Surg. Jour.*, 1916, clxxv, p. 158.
- Observations on Cardiac Dyspnea. *Transactions of the Assoc. of Am. Phys.*, 1916.
- PEABODY, MEYER, DU BOIS and SODERSTROM. Clinical Calorimetry. The Basal Metabolism of Patients with Cardiac and Renal Disease. *Arch. of Int. Med.*, 1916, xvii, p. 980.
- PEABODY, HIGGINS and FITZ. A Study of Acidosis in Three Normal Subjects, with Incidental Observations on the Action of Alcohol as an Antiketogenic Agent. *Jour. of Med. Research*, 1916, xxxiv, p. 263.
- PEABODY and WENTWORTH. The Vital Capacity of the Lungs and its Relation to Dyspnoea in Heart Disease. *Transactions of the Assoc. of Am. Phys.*, 1916.
- BLAKE. The Etiology of Rat-Bite Fever. *Jour. of Exp. Med.*, 1916, xxiii, p. 39.
- The Formation of Methemoglobin by *Streptococcus Viridans*. *Jour. of Exp. Med.*, 1916, xxiv, p. 315.
- CADBURY. Studies in Blood Pressure with Especial Reference to Diastolic and Pulse Pressure Readings. *Arch. of Int. Med.*, 1916, xviii, p. 317.
- CARTER. Hematochyluria. Observations on the Fat Content of the Urine and the Pathology of the Condition. *Arch. of Int. Med.*, 1916, xviii, p. 541.

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- HALLER. Variations in the Strength of Positive Wassermann Reactions in Cases of Untreated Syphilis with Remarks on the Variations which Follow the Use of Mercury. *Jour. of the Am. Med. Assoc.*, 1916, lxvi, p. 882.
- HALLER and WALKER. Syphilis with Neurologic Symptoms Simulating Other Conditions. Some Cases and their Treatment. *Jour. of the Am. Med. Assoc.*, 1916, lxvii, p. 1497.
- LEVINE. Observations on Sino-Auricular Heart Block. *Arch. of Int. Med.*, 1916, xvii, p. 153.
- O'HARE. A Study of Salt, Nitrogen and Water Excretion in Nephritis. *Arch. of Int. Med.*, 1916, xvii, p. 711.
- STEVENS. Some Electrocardiographic Studies of Patients under Digitalis Treatment. *Boston Med. and Surg. Jour.*, 1916, clxxiv, p. 345.
- WALKER and HALLER. Routine Wassermann Examination of Four Thousand Hospital Patients. *Jour. of the Am. Med. Assoc.*, 1916, lxvi, p. 488.
- The Treatment of Syphilis of the Central Nervous System. *Arch. of Int. Med.*, 1916, xviii, p. 376.
- STODDARD and WOODS. A Note on Experimental Nephropathy from some Bacterial Poisons. *Jour. of Med. Research*, 1916, xxxiv, p. 343.

As in preceding years, the largest number of our published studies have concerned themselves with different phases of renal and cardiac disease. One of these papers was read in New York as a Harvey lecture, and in it are reviewed all of our studies of nephritis carried out in recent years. Of the less general papers one deals with renal function in patients with severe anemia, and it is shown in this paper that severe anemia causes certain changes in renal function very similar to those in chronic nephritis, although there is no evidence that in such an anemia there are any anatomical changes in the kidney analogous to those found in nephritis. The disturbance is purely a functional one affecting the excretory concentration power of the kidney, and with decrease in the

anemia renal function approaches again to normal conditions. In another study the therapeutic effect of theocin was investigated and the following conclusions were drawn: A fairly complete study of a small group of patients with acute nephritis or chronic nephritis or cardiorenal disease indicates that theocin in patients with slight or no edema has little or no therapeutic value, inasmuch as diuresis is not constantly produced, elimination of nitrogenous substances quite often is slightly if at all increased, and renal function is frequently decreased after giving theocin. In cardiorenal cases with marked edema theocin is of therapeutic value, because it produces, especially in conjunction with digitalis, an active diuresis with increased sodium chloride elimination, which decreases edema, a troublesome feature in these cases. Inasmuch as there is evidence that following an active diuresis renal function is depressed, an intermittent usage of theocin seems preferable to a continuous usage in cardiorenal cases with edema.

In patients with nephritis an extensive investigation has been made of the excretion of salt, nitrogen and water. This study may be summarized as follows: Several methods have been proposed for the study of salt and nitrogen excretion in chronic nephritis. In one method, with the patient on a standard diet, the elimination of an added amount of salt and nitrogen is followed for several days: in another, the salt and nitrogen excretion is quantitated for one day in two-hour urine specimens with the patient on several standard meals of varying composition. A third way is to quantitate salt and nitrogen in the blood and urine and express their relations by a formula giving an index of excretion. In thirty cases the first two tests have been carried out along with other tests of renal function. The second, or two-hour renal test as we have called it, requires a shorter observation in the hospital, and the main part of the test occupies only twenty-four hours of

the patient's time, while the first, or added urea and salt test, requires ten or twelve days of hospital observation on a standard diet. The shorter test appears to yield almost the same facts as the longer. In general, salt excretion is impaired before there is much disturbance of water and nitrogen excretion; in most patients salt and water excretion behave very similarly; the nitrogen excretion is greatly impaired usually only in the severe cases. Salt, water and nitrogen excretion show some disturbance in even the very mild cases in which phenolsulphonaphthalein excretion is normal, and there is no increased blood nitrogen. These dietary tests cannot be used in all cases of chronic nephritis. They cannot be carried out in those that are very sick. The methods involving the determinations of the indices of excretion of urea and salt do not have a number of the difficulties met with in carrying out the dietary tests. These indices were determined in fifteen cases in which both dietary tests were carried out, and the indices seemed to give as much information as the other tests and to possess distinct advantages, inasmuch as they can be determined for practically every patient and require considerably less time and less labor in their execution. The great advantage of all three of these tests is that they give information as to disturbed renal function in those mild cases in which phenolsulphonaphthalein excretion is normal and the blood urea-nitrogen is not increased.

Among the studies of heart conditions there is one on an unusual type of irregularity in which the disturbance arises from a blocking of conduction of impulses to contraction just as they leave the pacemaker node in the sino-auricular region of the heart.

Another group are studies of respiratory disturbances in cardiac patients, chiefly investigated by measuring the CO₂ content of expired air and determining the vital capacity of the lungs. The latter has proved of much practical

help in estimating the functional capacity of the heart in individual patients. It is evident that in most patients with heart disease there is a very intimate relation between the vital capacity and the limitation of functional efficiency. Decrease in the vital capacity is an important factor in explaining the production of dyspnea in cardiac patients. The determination of the vital capacity has a practical value in that it gives a quantitative index which is a fairly good guide as to the amount of exertion which a patient can undertake without becoming short of breath. Often it is much more significant than is the history obtained from the patient. The variations in an individual case correspond to changes in the clinical condition, and are of interest in prognosis and treatment. While the vital capacity does not, of course, serve as a complete index of the functional capacity of the heart, since there are many features of cardiac pathology to which it bears no relation, it nevertheless gives important information as to certain aspects of the circulation. The cause of the variations in the vital capacity is not, at present, wholly clear, but they probably relate to conditions in the pulmonary circulation.

In the records of our patients have been accumulated numerous observations on systolic and diastolic blood pressure. These have been reviewed in conjunction with other data obtained in a study of our patients, and numerous interesting facts came out of this analysis, as is shown by the paper on this subject.

Through the courtesy of the Sage Institute and Bellevue Hospital in New York one of our staff, Dr. Peabody, was enabled to carry on metabolic studies of cardiac and renal disease with their very complete apparatus for calorimetric investigation. This study was made on sixteen patients with cardiac and cardiorenal disease, and it showed a close agreement between the methods of direct and indirect calorimetry, thereby checking up our

studies made here with the simpler apparatus used in indirect calorimetry. In this particular group it was shown that the respiratory quotient in all cases was within normal limits (0.73 or above). This is opposed to the findings of Kraus and Grafe. The normal quotients and the very close agreement of the direct and indirect calorimetry prove that there is no profound change in the intermediary metabolism. Patients with compensated cardiac lesions or with mild nephritis showed no increase in the metabolism. Of twelve patients with dyspnea, nine showed a distinct rise in metabolism, and in five of these the increase was from 25 to 50 per cent above the average normal. Two out of the five gave evidence of marked acidosis in the low content of carbon dioxide in the alveolar air. In two others, whose metabolism was just as high, there was no significant depression of the alveolar carbon dioxide.

In connection with the treatment of diabetes much interest has been aroused in the question of acidosis and various methods for its determination. A comparison of various methods of its determination has been made, and its occurrence in a variety of non-diabetic conditions has been studied. Acidosis from starvation and the effect of alcohol on it has been investigated, and it was found that in three healthy subjects (members of the staff) a carbohydrate-free diet caused the development of varying degrees of acidosis. The acidosis was shown by a lowered CO_2 tension of the alveolar air, by an increased urinary excretion of ammonia nitrogen and of acetone bodies and by the increased titratable acidity of the urine. The acidosis was accompanied by subjective sensations of malaise, an increased oxygen consumption, a negative nitrogen balance, increased pulse rate and increased ventilation. Alcohol given to the subjects on this diet in dosage comparable to that used for clinical purposes did not stop the progress of the acidosis or show any

antiketogenic action. Coincidental with its administration there was further increase in the oxygen consumption and in the disagreeable subjective symptoms.

To our service are admitted many patients with the later manifestations of syphilis, and this has given us a good opportunity to investigate this disease in relation to its diagnosis and treatment. Particularly have we been interested in patients with cerebrospinal syphilis. Here we have found that patients with recent syphilitic meningitis and cerebrospinal syphilis may be relieved symptomatically by intravenous salvarsan; the spinal fluid Wassermann reaction may become negative with 1 c. c., and the cell count may become normal. Patients with long-standing cerebrospinal syphilis and tabes may be benefited symptomatically following salvarsan, but little or no change occurs in the spinal fluid findings. Patients with recent and those with late syphilitic meningitis, cerebrospinal syphilis, tabes and general paresis of the insane are markedly improved following the combination of intravenous salvarsan and intraspinal salvarsanized serum (Swift-Ellis method), and those who fail to improve under salvarsan alone do improve, both in symptoms and in spinal fluid findings, following this double treatment. That intraspinal salvarsanized serum greatly benefits patients with central nervous system syphilis is shown by the fact that those with negative blood reactions and with positive spinal fluid findings are symptomatically relieved by this treatment. In many patients the spinal fluid Wassermann reaction becomes negative with 1 c. c., the cell count becomes normal, and a negative (Noguchi) globulin test is obtained following sufficient treatment with salvarsanized serum intraspinally without other medication.

In the three and one-half years of operation of the Medical Service the machine has acquired smoothness of running and increased efficiency. This was noted first

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perhaps within the service itself; later in the relations of the service to other parts of the hospital machinery. So much of what we try to do depends both on how well we do our part and how well the other man does his, that effective coöperation is necessary if good results are to be obtained. The willing service that has come from all sides to the end of coöperative efficiency is a source of gratification to the Medical Service, and we cheerfully acknowledge our indebtedness to many members of the hospital team for the way in which they have helped us in our medical work. It would be pleasing to enumerate these by name were the list not such a long one. The hospital roster may be taken as such a list, but it fails because it does not include many names whose work is none the less helpful and important. To all who have coöperated in the year's medical work the Medical Service extends its thanks.

HENRY A. CHRISTIAN,

Physician-in-Chief.

Register of Present Members of the Staff

ABBREVIATIONS

P.B.B.H. — Peter Bent Brigham Hospital	Harv. — Harvard University
B.C.H. — Boston City Hospital	H.M.S. — Harvard Medical School
J.H.H. — Johns Hopkins Hospital	J.H.M.S. — Johns Hopkins Medical School
M.G.H. — Massachusetts General Hospital	H.O. — House Officer

ALEXANDER, HARRY LOUIS.

A.B., Williams, 1910; M.D., Columbia Univ., Col. of Phys. & Surg., 1914; H.O., Presbyterian Hosp., N.Y.C., 1914-16; *Asst. Res. Phys., P.B.B.H.*

BARROW, WILLIAM HULBERT.

A.B., Harv., 1908; M.D., H.M.S., 1916; *Med. H.O., P.B.B.H.*

BRYANT, JOHN.

A.B., Harv., 1903; *Asst. Res. Surg., Free Hosp. for Women, Brookline, Nov. 1905-June 1906; M.D., H.M.S., 1907; Instr. in Pathol. & Neuropathol., H.M.S., Sept. 1907-June 1908; Surg. House Pupil, M.G.H., Dec. 1908-Apr. 1910; Research, in Europe, June 1912-Sept. 1913 & June 1914-Sept. 1914; Asst. in Anatomy, H.M.S., since Sept. 1913; Grad. Asst. M.G.H., Children O.P.D., Jan. 1915, Neurol. O.P.D., Feb. 1915-June 1916; Asst. to Phys.-in-Chief, Robert B. Brigham Hosp., Jan. 1915-June 1916; Vol. Asst., P.B.B.H., July 1916-Jan. 1917; Assoc. in Med., P.B.B.H.*

BURLINGHAM, LOUIS HERBERT.

A.B., Yale, 1902; M.D., J.H.M.S., 1906; House Pupil, M.G.H., 1906-07; *Asst. Res. Phys., M.G.H., 1907-12; Asst. Adm., M.G.H., 1912; 1st Asst. Supt., P.B.B.H.; Curator, P.B.B.H.*

CANNON, WALTER BRADFORD.

A.B., Harv. 1896; A.M., *ibid.*, 1897; M.D., H.M.S., 1900; Instr. in Zoölogy, Harv., 1899-1900; Instr. in Physiol., H.M.S., 1900-02; *Asst. Prof. Physiol. H.M.S., 1902-06; Geo. Higginson Prof. Physiol., H.M.S.; Consulting Physiol., P.B.B.H.; Fellow Am. Acad. 1906; Mem., Am. Philos. Soc., 1908; Mem., Nat. Acad. of Sciences, 1914.*

CARR, GLADYS LYDIA.

M.D., Tufts, 1906; H.O., N.E. Hosp. for Women & Children, 1906-07; *Asst. on Maternity Staff, ibid., 1907-08; General Practice, Boston, 1907-08; Private Practice, Lynn, 1908-14; Head of Roentgen & Electrotherapeutic Depts., N.E. Hosp. for Women & Children; Roentgenologist, pro tempore, P.B.B.H., July 1, 1914-Feb. 1, 1916; Roentgenologist, P.B.B.H.*

CHASE, HENRY MELVILLE.

S.B., Dartmouth, 1897; M.D., H.M.S., 1901; House Pupil, M.G.H., 1901-02; *Asst. Surg., Boston Dispensary, 1906-14; Fellow, Am. Col. of*

REGISTER OF PRESENT MEMBERS OF THE STAFF

Surg., 1912; Surg., Boston Dispensary; Surg., Berkeley Infirmary; *Assoc. in Surg., P.B.B.H.*

CHEEVER, DAVID.

A.B., Harv., 1897; M.D., H.M.S., 1901; Surg. H.O., B.C.H., 1901-03; Asst. in Anatomy, H.M.S., 1903-08; Asst. Visit. Surg., B.C.H., 1905-12; Demonstr. in Anatomy, H.M.S., 1908-13; *Surg., P.B.B.H.*; Asst. Prof. of Surg. Anatomy, H.M.S.; *Assoc. in Surg. H.M.S.*; Chief Surg., 2d Harv. Unit, British Expeditionary Force, France, Dec. 1915-Mar. 1916.

CHRISTIAN, HENRY ASBURY.

A.B. & A.M. Randolph-Macon, 1895; Grad. Stud., Randolph-Macon, 1895-96; M.D., J.H.M.S., 1900; A.M., Harv., 1903; Asst. Pathol., B.C.H., 1900-02; Asst. Visit. Pathol., B.C.H., 1902-05; Asst. Visit. Pathol., Children's Hosp., Boston, 1902-05; Instr. in Pathol., H.M.S., 1902-05; Asst. Visit. Phys., Long Island Hosp., Boston, 1905; In charge of Medical Students, M.G.H., 1905-07; Instr. in Theory & Practice of Physic, H.M.S., 1905-07; Asst. Prof. in Theory & Practice of Physic, H.M.S., 1907-08; Phys.-in-Chief, Carney Hosp., Boston, 1907-12; Dean, Faculty of Med. & of Med. School. Harv., 1908-12; Fellow of Am. Acad.; Hersey Prof., Theory & Practice of Physic, H.M.S.; *Phys.-in-Chief, P.B.B.H.*

CUSHING, HARVEY.

A.B., Yale, 1891; A.M., Harv., 1895; M.D., H.M.S., 1895; Hon. F.R.C.S., Lond., 1913; Hon. A.M., Yale, 1913; D. Sc., Washington Univ., 1915; House Pupil, M.G.H., 1895-96; Res. Surg., J.H.H., 1896-1900; Asst. Instr. & Assoc. Prof. in Surg., J.H.M.S., 1898-1912; *Surg.-in-Chief, P.B.B.H.*; Moseley Prof. of Surg., H.M.S.; Surg., Harv. Unit, Am. Ambulance Hosp., Paris, France, Apr.-June 1915.

DAY, HILBERT FRANCIS.

Ph.B., Yale, 1901; M.D., H.M.S., 1905; Surg. H.O., B.C.H., Oct. 1905-Nov. 1907; House Phys., Boston Lying-in Hosp., Nov. 1907-July 1908; 3d Asst. Visit. Surg., B.C.H. (Gynecol. Dept.), 1908-09; 4th Asst. Visit. Surg., B.C.H., 1909; District Phys., Boston Dispensary, Oct. 1909-Oct. 1912; Asst. to Surgeons, Boston Dispensary, Nov. 1911-Nov. 1912; Surg., Maverick Dispensary, E. Boston, 1913-14; Asst. Surg., Boston Dispensary, Nov. 1912-Aug. 1914; Surg. Boston Dispensary; 1st Asst. Surg., Beth Israel Hosp.; *Assoc. in Surg., P.B.B.H.*

DENNY, GEORGE PARKMAN.

A.B., Harv., 1909; M.D., H.M.S., 1913; *Med. H.O., P.B.B.H., June 1, 1913-July 1, 1914*; Vol., Lab. of Physiol. Research, J.H.M.S., 1914-15; Alumni Asst. in Med. H.M.S., 1915-16; Asst. in Clin. Pathol., H.M.S.; *Assoc. in Med., P.B.B.H.*; Attending Phys., St. Luke's Home, Boston; Phys. to Med. Students, H.M.S.

DEVAN, THOMAS ALAN.

B.S., Rutgers, 1906; M.D., J.H.M.S., 1910; H.O., Presbyterian Hosp., N.Y.C., Jan. 1, 1911-Jan. 1, 1913; *2d Asst. Supt., P.B.B.H.*

EOLIN, OTTO.

S.B., Univ. of Minn., 1892; Ph.D., Univ. of Chicago, 1898; Sc.D., Washington Univ., 1915; Sc. D., Univ. of Chicago, 1916; Member, Nat. Acad., 1916; Student, Univs. of Sweden & Germany, 1897 & 1898; Asst. Prof. of

PETER BENT BRIGHAM HOSPITAL

Physiol. Chem., Univ. of W. Va., 1899-1900; Research Chem., McLean Hosp., Waverley, 1900-08; Assoc. Prof. of Biol. Chem., H.M.S., 1907-09; Hamilton Kuhn Prof. of Biol. Chem., H.M.S.; *Consulting Chem., P.B.B.H.*; Chem., M.G.H.

FROTHINGHAM, CHANNING.

A.B., Harv., 1902; M.D., H.M.S., 1906; Med. H.O., B.C.H., 1906-07; Asst. Visit. Phys., Carney Hosp., O.P.D., Boston, 1908-12; Sec'y, Faculty of Med., Harv., 1908-13; Asst. in Theory & Practice of Physic, H.M.S., 1908-13; *Phys., P.B.B.H.*; Instr. in Med., H.M.S.

GOLDEN, ROSS.

A.B., Cornell, (Mt. Vernon, Iowa), 1912; M.D., H.M.S., 1916; *Med. H.O., P.B.B.H.*

GOODALL, HARRY WINFRED.

A.B., Dartmouth, 1898; M.D., H.M.S., 1902; House Pupil, M.G.H., 1902-03; House Pupil, Boston Lying-In Hosp., 1903; Phys., Boston Dispensary, Asst. Visit. Phys., N. E. Baptist Hosp.; *Assoc. in Med., P.B.B.H.*; Instr. in Med., Harv. Grad. School of Med.

GOODPASTURE, ERNEST WILLIAM.

A.B., Vanderbilt, 1907; M.D., J.H.M.S., 1912; Rockefeller Fellow in Pathol., J.H.U., 1912-14; Pathol., Union Protestant Infirmary, Baltimore, 1913-14; Asst. Res. Pathol., J.H.H., 1913-14; Act. Res. Pathol., J.H.H., 1914-15; Instr. in Pathol., J.H.M.S., 1914-15; *Res. Pathol., P.B.B.H.*; Instr. in Pathol., H.M.S.

GRABFIELD, GUSTAVE PHILIP.

A.B., Williams, 1912; M.D., H.M.S., 1915; Teaching Fellow, Dept. of Pharmacology, H.M.S., 1915-16; *Med. H.O., P.B.B.H.*

HALLER, DAVID ALEXANDER.

A.B., Hampden-Sidney, 1908; M.D., Columbia Univ. Col. of Phys. & Surg., 1913; *Med. H.O., P.B.B.H., Nov. 1, 1913-Mar. 1, 1915; Asst. Res. Phys., P.B.B.H., Mar. 1, 1915-Oct. 1, 1916; Res. Phys., P.B.B.H.*

HARVEY, SAMUEL CLARK.

Ph.B., Yale, 1907; M.D., Yale Med. School, 1911; Alonzo Clark Fellow, Columbia Univ., 1911-12; Instr. in Pathol., *ibid.*, 1912-13; Asst. Res. Phys., Loomis Sanatorium, Loomis, N. Y., 1913-14; *Surg. H.O., P.B.B.H., Nov. 1, 1914-Nov. 1, 1915 (resigned)*; Arthur Tracy Cabot Fellow in Charge of Lab. of Surg. Research. H.M.S., Nov. 1, 1915-Nov. 1, 1916; *Asst. Res. Surg., P.B.B.H.*

H'DOUBLER, FRANCIS TODD.

B.A., Univ. of Wis., 1907; M.A., *ibid.*, 1908; Ph.D., *ibid.*, 1910; Stud., Univ. of Wis. Med. School, 1 yr.; Stud., Rush Med. School & Univ. of Philippines, 1 yr.; M.D., H.M.S., 1915; H.O., Augustana Hosp., Chicago, June 1915-Jan. 1916; *Med. H.O., P.B.B.H.*

HODGSON, JOHN SPRAGUE.

Ph.B., Brown, 1911; M.D., H.M.S., 1917; Surg. House Pupil, M.G.H., Feb. 1, 1915-Aug. 1, 1916; Res. Surg., M.G.H., Sept. 15, 1916-Nov. 15, 1916; *Surg. H.O., P.B.B.H.*

REGISTER OF PRESENT MEMBERS OF THE STAFF

HOMANS, JOHN.

A.B., Harv., 1899; M.D., H.M.S., 1903; House Pupil, M.G.H., 1903-04; Asst. in Hunterian Lab., J.H.M.S., 1908-09; Vol. Asst. Surg., Children's Hosp., Boston, 1909-10; Surg., M.G.H., O.P.D., 1910-12; Asst. in Surg., H.M.S., 1910-13; Surg., Boston Dispensary, 1913-14; Assoc. in Surg., H.M.S., 1914-15; *Surg., P.B.B.H.*; Instr. in Surg., H.M.S.

HOUSTON, JR., DAVID WALKER.

A.B., Princeton, 1912; M.D., H.M.S., 1916; *Surg. H.O., P.B.B.H.*

HOWARD, HERBERT BURR.

A.B., Harv., 1881; M.D., H.M.S., 1884; Asst. Phys., State Infirmary, Tewksbury, Mass., 1884-85; In practice at Idaho Springs, Colo., 1885-87; Asst. Phys., State Infirmary, Tewksbury, Mass., 1887-91; Supt., *ibid.*, 1891-97; Res. Phys., M.G.H., 1897-1908; *Supt., P.B.B.H.*; Mem., Mass. State Bd. of Insanity, 1898-1913 (Chairman, 1908-13); Pres., Am. Hosp. Ass'n, 1909-10; Trustee, Gardner State Colony.

JACOBSON, CONRAD.

B.S., Beloit, 1900; Grad. Stud. 3 summer qrs., Univ. of Chicago; Asst. Prof. of Chemistry & Bacteriology, Armour Inst. of Technology, 1903-05; Research Asst. in Pathol., Univ. of Chicago, 1907-08; M.D., J.H.M.S., 1911; Asst. in Surg., Hunterian Lab., J.H.M.S., 1911-12; *Asst. Res. Surg., P.B.B.H., Sept. 1, 1912-Sept. 1, 1915; Res. Surg., P.B.B.H.*; Asst. in Surg., H.M.S.

JONES, MERRITT LA COUNT.

S.B., Univ. of Wis., 1912; M.D., H.M.S., 1915; *Surg. H.O., P.B.B.H., July 1, 1915-Nov. 1, 1916; Asst. Res. Surg., P.B.B.H.*

KOEFOD, HILMAR.

B.S., Beloit, 1911; M.D., H.M.S., 1916; Moseley Traveling Fellowship, Harv., in Europe, summer of 1916; *Med. H.O., P.B.B.H.*

LADD, WILLIAM SARGENT.

B.S., Amherst, 1910; M.D., Columbia Univ., Col. of Phys. & Surg., 1915; *Med. H.O., P.B.B.H.*

MACPHERSON, DONALD JOHN.

B.S., Univ. of Rochester, 1911; M.D., H.M.S., 1915; *Med. H.O., P.B.B.H., July 1, 1915-Nov. 1, 1916; Asst. Res. Phys., P.B.B.H.*

MARLOW, SEARLE BISSET.

A.B., Harv., 1912; Stud., H.M.S., 1 yr.; M.D., Syracuse Univ. Med. School, 1916; *Pathol. H.O., P.B.B.H.*

MCQUESTEN, PHILIP.

A.B., Dartmouth, 1911; M.D., H.M.S., 1915; Stud., B.C.H. (Pathol. Lab.) 1915-17; *Surg. H.O., P.B.B.H.*

MONTGOMERY, JAMES BLAINE.

A.B., Dartmouth, 1911; M.D., H.M.S., 1915; *Surg. H.O., P.B.B.H.*

MORRIS, JR., SAMUEL LESLIE.

B.S., Davidson (N.C.) 1911; M.D., H.M.S., 1916; *Surg. H.O., P.B.B.H.*

O'CONNOR, VINCENT JOHN.

B.S., Univ. of Mich., 1915; M.D., Rush Med. Col., 1917; *Surg. H.O., P.B.B.H.*

PETER BENT BRIGHAM HOSPITAL

O'HARE, JAMES PATRICK.

A.B., Harv., 1908; M.D., H.M.S., 1911; Med. H.O., B.C.H., So. Dept., July 1, 1911–Oct. 1, 1911; Med. H.O., Carney Hosp., Boston, 1912–13; Fellow in Med., H.M.S., 1913–15; Asst. Visit. Phys., Carney Hosp., 1913–15; Asst. Visit. Phys., B.C.H.; *Assoc. in Med., P.B.B.H.*; Asst. in Med., H.M.S.

PEABODY, FRANCIS WELD.

A.B., Harv., 1903; M.D., H.M.S., 1907; House Pupil, M.G.H., 1907–08; Asst. Res. Phys., J.H.H., 1908–09; Fellow in Pathol., J.H.U., 1909–10; Stud. of Chemistry, Univ. of Berlin, Germany, 1910; Asst. Res. Phys., Hosp. of Rockefeller Inst., 1911–12; Asst., Rockefeller Inst., 1911–12; *Res. Phys., P.B.B.H., Nov. 1, 1912–Sept. 1, 1915* (granted leave of absence from Mar. 1, 1914 to Jan. 1, 1915, to serve as a member of the China Medical Commission of the Rockefeller Foundation); *Asst. Visit. Phys., P.B.B.H., Sept. 1, 1915–Dec. 9, 1915*; *Phys., P.B.B.H.*; Alumni Asst. in Med., H.M.S., 1913–15; Asst. Prof. in Med., H.M.S.; Consulting Phys., Collis P. Huntington Memorial Hosp., Boston.

POTTER, WILLIAM HENRY.

A.B., Harv., 1878; D.M.D., Harv. Dental School, 1885; Mem., Am. Acad. of Dental Science; Demonstr. in Operative Dentistry, Harv. Dental School, 1887–88; Clin. Lecturer, *ibid.*, 1890–96; Lecturer, *ibid.*, 1896–1900; Asst. Prof., *ibid.*, 1900–04; Prof. of Operative Dentistry, Harv. Dental School; In practice, Boston; *Consulting Dental Surg., P.B.B.H.*

QUINBY, WILLIAM CARTER.

A.B., Harv., 1899; M.D., H.M.S., 1902; House Pupil, M.G.H., 1902–03; Asst. G.U. Surg., Boston Dispensary, 1907–09; Asst. Surg., N. E. Baptist Hosp., Boston, 1908–14; In charge of Experimental Surg., Brady Clinic, J.H.H., Sept. 1914–June 1916; Assoc. in Urology, J.H.M.S., 1915–16; Asst. in Surg., H.M.S.; *Assoc. in Urology, P.B.B.H.*

STONE, GEORGE HENRY.

A.B., Bowdoin, 1905; M.D., Bowdoin Med. School, 1908; H.O., Maine General Hosp., 1908–09; In practice, Clinton, Mass., 1909–11; H.O., B.C.H., Jan. 1912–Jan. 1913; Executive Asst., B.C.H., Jan. 1913–Feb. 1915; *3d Asst. Supt., P.B.B.H.*

TAFT, ROGER BROWNE.

D.M.D., Harv. Dental School, 1908; Asst. in Oral Surg., Harv. Dental School, 1910; Instr. in Oral Surg., Harv. Dental School; In practice, Boston; *Dental Surg., P.B.B.H.*

THAXTER, LANGDON THOM.

A.B., Williams, 1911; M.D., H.M.S., 1915; Med. House Pupil, M.G.H., July 1, 1915–Sept. 1, 1916; *Surg. H.O., P.B.B.H.*

TOWNE, EDWARD BANCROFT.

A.B., Harv., 1906 (1907); M.D., H.M.S., 1913; *Surg. H.O., P.B.B.H., July 1, 1913–Nov. 1, 1914*; *Asst. Res. Surg., P.B.B.H., Nov. 1, 1914–Nov. 1, 1915*; Lieut. Col. & Surg. 2d Harv. Unit. British Expeditionary Force, France, Dec. 1915–April 1916; Vol. Asst., Dr. Rosenow's Lab., Rochester, Minn., June–Sept., 1916; Fellow, pro tempore, Mayo Foundation, Rochester, Minn., Sept. 1916–Jan. 1917; *Asst. Res. Surg., P.B.B.H.*

REGISTER OF PRESENT MEMBERS OF THE STAFF

VAIL, HARRIS HOLMES.

A.B., Yale, 1912; M.D., H.M.S., 1916; *Surg. H.O., P.B.B.H.*

VAUGHAN, WARREN TAYLOR.

A.B., Univ. of Mich., 1913; M.D., Univ. of Mich. Med. School, 1916; *Med. H.O., P.B.B.H.*

WALKER, CLIFFORD BLACK.

S.B., Univ. of Calif., 1906; Stud., Univ. of Calif. Med. School, 1907-10; M.D., J.H.M.S., 1911; M.A., J.H.U., 1912; Asst. to Dr. Cushing, 1911-12; Sr. Ophthal. House Surg., Mass. Char. Eye & Ear Infirmary, Boston, 1913; Sr. Aural House Surg., *ibid.*, 1914; *Assoc. in Surg., P.B.B.H.*; Asst. in Ophthal., H.M.S.

WALKER, ISAAC CHANDLER.

A.B., J.H.U., 1905; M.D., J.H.M.S., 1909; Grad. Stud., Lab. of Theory & Practice of Physic, H.M.S., 1910-11; Med. H.O., Carney Hosp., Boston, 1910-11; Lect. on Clin. Microscopy & Physical Diagnosis, Univ. of Iowa, 1911-12; Stud. of Prof. Morawitz, Freiburg, Germany, 1912; Research, Rockefeller Hosp., N.Y.C., 1912; *Sr. Med. H.O., P.B.B.H., Nov. 1, 1912-Mar. 1, 1913; Asst. Res. Phys., P.B.B.H., Mar. 1, 1913-Mar. 1, 1914; Act. Res. Phys., P.B.B.H., Mar. 1, 1914-Jan. 1, 1915; Asst. Res. Phys., P.B.B.H., Jan. 1, 1915-Mar. 1, 1915* (granted leave of absence from Mar. 1, 1915-Sept. 1, 1915); Med. Chief, Hospital A^b 32^{bis} Passy Yonne, France, Mar. 1, 1915-July 1, 1915; *Assoc. in Med., P.B.B.H.*; Asst. in Pharmacol., H.M.S.; Alumni Asst. in Med., H.M.S.

WELBOURN, MARSHALL AGNEW.

B.S., Univ. of Mich., 1913; M.D., Univ. of Mich. Med. School, 1915; *Assoc. in Med., P.B.B.H., July 1, 1915-Mar. 1, 1916; Med. H.O., P.B.B.H.*

WELLS, WARD STANLEY.

S.B., Grinnell, 1909; M.D., H.M.S. 1916; *Assoc. in Med., P.B.B.H.*

WENTWORTH, JOHN ALEXANDER.

A.B., Bowdoin, 1909; M.D., H.M.S., 1913; H.O., Hartford Hosp., Hartford, Conn., Sept. 1, 1913-May 15, 1915; *Sr. Med. H.O., P.B.B.H., July 1, 1915-Nov. 1, 1915; Asst. Res. Phys., P.B.B.H.*; Alumni Asst., Clin. Pathol., H.M.S.; Asst. Harv. Infantile Paralysis Commission, Fall 1916.

WOLBACH, SIMEON BURT.

Stud., Harv., 2 yrs.; M.D., H.M.S., 1903; 2d Asst. in Pathol., B.C.H., 1903-04; 1st Asst. in Pathol., *ibid.*, 1904-05; 2d Asst. Visit. Pathol., *ibid.*, 1905-08; Pathol., Long Island Hosp., Boston, 1905-08; Pathol., Boston Floating Hosp., 1905-08; Pathol., Mass. Infants' Asylum, 1905-08; Asst. in Pathol., H.M.S., 1905-06; Instr. in Pathol., H.M.S., 1906-08; Adjunct. Prof. of Pathol. & Bacteriol., Albany Med. Col., 1908-09; Director, Bender Hygienic Lab., Albany, N. Y., 1908-09; Pathol., Albany City Hosp., 1908-09; Pathol., St. Peter's Hosp., Albany, 1908-09; Pathol., St. Margaret's House, Albany, 1908-09; Lecturer in Pathol., McGill Univ., 1909-11; Director, Histol. Lab., McGill Univ., 1909-11; Director, Montreal Gen. Hosp. Lab., 1909-11; Asst. Prof. of Bacteriol., H.M.S., 1910-14; Assoc. Prof. of Bacteriol., H.M.S., 1914-16; Pathol., Children's Hosp., Boston; Assoc. Prof. of Pathol. & Bacteriol., H.M.S.; *Pathol., P.B.B.H.*

PETER BENT BRIGHAM HOSPITAL

WOOD, NATHANIEL KNIGHT.

A.B., Harv., 1897; M.D., H.M.S., 1901; H.O., B.C.H., Jan. 1902-Mar. 1904; H.O., Boston Lying-In Hosp., June 1904-Dec. 1904; Visit. Phys., Carney Hosp., O.P.D., Oct. 1907-Oct. 1912; Visit. Phys., Boston Consumptives' Hosp., O.P.D., Jan. 1909-Jan. 1917; Phys., Boston Dispensary; *Assoc. in Med., P.B.B.H.*

Register of Former Members of the Staff

BAGLEY, JR., CHARLES.

M.D., Univ. of Md., 1904; B.A., Loyola, 1911; Asst. Res. Phys., Univ. Hosp., Baltimore, 1904-05; Asst. Res. Surg., *ibid.*, 1905-06; Med. Supt., Hebrew Hosp., Baltimore, 1906-10; *Asst. Res. Surg., P.B.B.H., Jan. 1, 1913-Jan. 1, 1914*; Visit. Surg., Hebrew Hosp., Church Home & Infirmary, & Hosp. for the Women of Md., Baltimore; Consulting Surg., Baltimore Eye, Ear & Throat Charity Hosp., Emergency Hosp., Annapolis, Md., & Presbyterian Eye, Ear & Throat Charity Hosp., Baltimore; Assoc. in Experimental Neurology, J.H.M.S.

BENET, GEORGE.

Student for 3 yrs., Univ. of S.C., & Univ. of Va.; M.D., H.M.S., 1913; *Med. H.O., P.B.B.H., June 1, 1913-July 1, 1914*; Sr. Surg. H.O., St. Luke's Hosp., Chicago, July 1, 1914-Jan. 1, 1915; Lab. Asst., Harv. Unit, Am. Ambulance Hosp., Paris, France, April-July 1915; Capt. & Asst. Surg., 2d Harv. Unit, British Expeditionary Force, France, 1916; Res. Phys., Collis P. Huntington Mem. Hosp.

BLAKE, FRANCIS GILMAN.

A.B., Dartmouth, 1908; M.D., H.M.S., 1913; *Med. H.O., P.B.B.H., July 1, 1913-Nov. 1, 1914*; *Asst. Res. Phys., P.B.B.H., Nov. 1, 1914-Sept. 1, 1915*; *Res. Phys., P.B.B.H., Sept. 1, 1915-Oct. 1, 1916*; Moseley Traveling Fellow (Harv.); Asst., Rockefeller Inst. Hosp.

BOEHM, JULIUS BENJAMIN.

B.S., St. Louis Univ., 1910; M.D., J.H.M.S., 1914; *Surg. H.O., P.B.B.H., Nov. 1, 1914-Nov. 1, 1915 (resigned)*; Res. Surg., Greenpoint Hosp., Brooklyn, N. Y.

BOOTHBY, WALTER MEREDITH.

A.B., Harv., 1902; M.D., H.M.S., 1906; A.M., Harv., 1907; European Clinics for 8 mos., 1907-08; Surg. H.O., B.C.H., 1908-09; Asst. in Anatomy, H.M.S., 1910-14; Asst. in Anesthesia, Harv. Grad. School of Med., 1912-13; Sheldon Traveling Fellow, Harv. (Oxford Univ. largely); Anesthetist, B.C.H., 1912; *Supervisor of Anesthesia, P.B.B.H., Dec. 11, 1913-Nov. 14, 1916*; Lect. on Anesthesia, & Instr. in Anatomy, H.M.S., 1914-16; Anesthetist, Harv. Unit, Am. Ambulance Hosp., Paris, France, April-July, 1915; Head of Section of Clin. Metabolism, Mayo Clinic, Rochester, Minn.

CADBURY, WILLIAM WARDER.

A.B., Haverford, 1898; A.M., *ibid.*, 1899; M.D., Univ. of Penn., 1902; Res. Phys., Penn. Hosp., 1903-05; Student, in Vienna, summer of 1905; Instr. in Pathol. & Pharmacodynamics, Univ. of Penn., 1906-07; Pathol., St. Mary's Hosp., Phila., Pa., 1906-07; Pathol., Henry Phipps Inst. for the Study, Treatment & Prevention of Tuberculosis, 1908-09; Visit. Phys., Free Hosp. for Poor Consumptives, White Haven, Pa., 1908-09;

PETER BENT BRIGHAM HOSPITAL

Internist, Canton Hospital, Canton, China (granted leave of absence);
Asst. Res. Phys., P.B.B.H., Nov. 1, 1915-Mar. 1, 1916; College Physician,
Canton Christian College, Canton, China.

CARTER, JR., DAVID WENDEL.

A.B., Southwestern Univ., 1909; A.M., *ibid.*, 1910; M.D., J.H.M.S., 1914;
H.O., Clifton Springs Sanitarium, summer 1914; *Med. H.O., P.B.B.H.,*
Jan. 4, 1915-July 1, 1916; Asst. Res. Phys., J.H.H.

COBB, STANLEY.

A.B., Harv., 1910; M.D., H.M.S., 1914; *Surg. H.O., P.B.B.H., July 1,*
1914-July 1, 1915; Vol., Lab. of Physiol. Research, J.H.M.S., Nov. 1915-
June 1916; Asst. in Physiol., J.H.M.S.; Asst. in Psychiatry, J.H.H.

COOK, WARD HANCE.

A.B., Univ. of Kan., 1909; A.M., *ibid.*, 1910; Fellow in Zoölogy, *ibid.*,
1909-10; Instr. in Embryology & Histology, *ibid.*, 1910; M.D., H.M.S.,
1914; *Med. H.O., P.B.B.H., July 1, 1914-July 10, 1915 (resigned)*; 2d
Asst. in Pathol., B.C.H., July 10, 1915-July 1, 1916; 1st Asst. in Pathol.,
B.C.H.

COUNCILMAN, WILLIAM THOMAS.

M.D., Univ. of Md., 1878; Stud., Univs. of Vienna & Leipzig; Hon. A.M.,
Harv., 1899; Hon. A.M., J.H.U., 1902; LL.D., Univ. of Md., 1907; LL.D.,
McGill Univ., 1911; Asst. Prof. in Anatomy, J.H.M.S., 1890-91; Shattuck
Prof. of Pathol. Anatomy, H.M.S.; *Consulting Pathol., P.B.B.H., Mar.*
25, 1912-Aug. 14, 1913; *Pathol., P.B.B.H., Aug. 14, 1913-Dec. 1, 1916*
(granted leave of absence from Nov. 9, 1916-Dec. 1, 1916). Mem., Dr.
Hamilton Rice's Expedition to South America; Fellow, Am. Acad. 1895;
Mem., Nat. Acad. of Sciences, 1904; Mem., Bd. of Trustees, Am. Med.
Ass'n, 1909 (Chairman, since 1912).

CUTLER, ELLIOTT CARR.

A.B., Harv., 1909; M.D., H.M.S., 1913; *Surg. H.O., P.B.B.H., Nov. 1,*
1913-Mar. 1, 1915; Res. Surg., Harv. Unit, Am. Ambulance Hosp., Paris,
France, April-June 1915; Res. Surg., M.G.H., Aug. 1915-Sept. 1916;
Alumni Asst. in Surg., H.M.S., 1915-16; Vol. Asst., Rockefeller Institute,
N.Y.C.

DAWSON, ROGER PAUL.

A.B., Holy Cross, 1907; M.D., H.M.S., 1911; Med. H.O., Carney Hosp.,
Boston, Apr. 1911-Aug. 1912; *Med. H.O., P.B.B.H., Nov. 1, 1912-Nov. 1,*
1913; Fellow in Med., H.M.S., 1914-15; Phys., Carney Hosp., O.P.D.,
Boston, 1914-15; Asst. Phys., Boston Dispensary, O.P.D.; Asst. Phys.,
M.G.H., O.P.D.; Asst. in Med., H.M.S.; *Assoc. in Med., P.B.B.H., July*
1, 1915-Dec. 31, 1916.

DRINKER, CECIL KENT.

B.S., Haverford, 1908; M.D., Univ. of Penn., 1913; *Med. H.O., P.B.B.H.,*
Mar. 1, 1914-July 1, 1915; Instr. in Physiol., J.H.M.S., 1915-16; Instr. in
Physiol., H.M.S.

EDWARDS, SUMNER.

A.B., Bowdoin, 1910; Stud., Hebron Acad., Me., 1910-11; M.D., H.M.S.,
1915; *Med. H.O., P.B.B.H., Nov. 1, 1915-Jan. 6, 1916 (died Jan. 6, 1916).*

REGISTER OF FORMER MEMBERS OF THE STAFF

FITZ, REGINALD.

A.B., Harv., 1906; M.D., H.M.S., 1909; Med. House Pupil, M.G.H., 1910-11; Vol. Asst. in Pharmacol. & in Med. Clinic, J.H.H., 1911-12; *Sr. Med. H.O., P.B.B.H., Nov. 1, 1912-July 1, 1913; Asst. Res. Phys., P.B.B.H., July 1, 1913-Sept. 1, 1915* (granted leave of absence to Dec. 31, 1916); Fellow in Physiol., H.M.S., 1914-15; Asst. Res. Phys., Rockefeller Inst. Hosp., N.Y.C.

FLEMING, LEROY NEWTON.

A.B., Miami, 1910; M.D., J.H.M.S., 1914; Asst. in Surg., J.H.U., 1915; *Surg. H.O., P.B.B.H., Nov. 1, 1915-Mar. 1, 1916*; Special Student, Univ. of Mich., Oct. 1, 1915-Dec. 1, 1916; Surg. Research, Detroit, Mich.

FORBES, HENRY STONE.

A.B., Harv., 1905; Philippine Islands, 1905-06; Harv. Grad. School, 1906-07; M.D., H.M.S., 1911; Med. H.O., B.C.H., 1911-13; *Sr. Med. H.O., P.B.B.H., June 1, 1913-Nov. 1, 1913*; Phys. for Men, Infirmary, Univ. of Calif., Berkeley, Calif., Mar. 1914-July 1915; American Red Cross, Serbia, July 1915-Feb. 1916; Asst. Phys., M.G.H., O.P.D.

GOETSCH, EMIL.

S.B., Univ. of Chicago, 1903; Ph.D., *ibid.*, 1906; Fellow, Asst. & Assoc. in Anatomy, *ibid.*, 1904-08; Research Asst., Dept. of Exp. Therapeutics, *ibid.*, 1908-09; Rush Med. Col., 1906-07; M.D., J.H.M.S., 1909; Asst. in Surg., J.H.M.S., 1909-10; Asst. Res. Surg., J.H.H., 1910-12; *Res. Surg., P.B.B.H., Sept. 1, 1912-Sept. 1, 1915*; Asst. in Surg., H.M.S., 1912-15; Assoc. Surg., J.H.H.

GRAY, HORACE.

A.B., Harv., 1909; M.D., H.M.S., 1914; *Med. H.O., P.B.B.H., Nov. 1, 1914-Mar. 1, 1916*; Physician, Boston, Mass.

GREY, ERNEST GEORGE.

A.B., Univ. of Wis., 1907; Asst. in Anatomy, *ibid.*, 1907-08; Stud. in Med., Univ. of Wis. Med. School, 1907-08; M.D., J.H.M.S., 1911; Res. H.O., J.H.H., 1911-12; *Surg. H.O., P.B.B.H., Nov. 1, 1912-Feb. 12, 1914; Asst. Res. Surg., P.B.B.H., Feb. 12, 1914-Sept. 1, 1916*; Asst. in Surg., H.M.S., 1915-16; Instr. in Surg., J.H.M.S.

HATCH, FLOYD FROST.

A.B., Univ. of Utah, 1912; M.D., H.M.S., 1914; *Med. H.O., P.B.B.H., Mar. 1, 1914-Jan. 4, 1915* (granted leave of absence from Jan. 4, 1915-Feb. 28, 1915); Surg. House Pupil, M.G.H., Jan. 4, 1915-Oct. 31, 1916; House Surg., M.G.H.

HORRAX, GILBERT.

A.B., Williams, 1909; M.D., J.H.M.S., 1913; *Surg. H.O., P.B.B.H., July 1, 1913-Nov. 1, 1914*; Arthur Tracy Cabot Fellow in Charge of Lab. of Surg. Research, H.M.S., 1914-15; *Asst. Res. Surg., P.B.B.H., Nov. 1, 1915-Nov. 1, 1916*; Alumni Asst. in Surg., H.M.S.; Res. Surg., M.G.H.

HURWITZ, SAMUEL HAYMANN.

A.B., Harv., 1907; A.M., *ibid.*, 1908; Special Student, Univ. of Strassburg, Germany, 1909-10; Special Student, Inst. of Infectious Diseases, Berlin, Germany, summer 1911; M.D., J.H.M.S., 1912; Res. H.O., J.H.H., 1912-13; *Surg. H.O., P.B.B.H., Nov. 1, 1913-Mar. 1, 1915*; Instr. in Re-

PETER BENT BRIGHAM HOSPITAL

search Med., Geo. Wms. Hooper Foundation for Med. Research, Univ. of Calif., San Francisco, Calif.

JACK, WILLIAM DAVID.

A.B., Creighton, 1908; Grad. Stud., Univ. of Chicago, 1909-10; M.D., J.H.M.S., 1914; *Surg. H.O., P.B.B.H., July 1, 1914-Nov. 1, 1915*; Capt. & Asst. Surg., 2d Harv. Unit, British Expeditionary Force, France, Dec. 1915-June 1916; Asst. Res., Brady Inst., J.H.H.; 1st Lieut., Med. Reserve Corps, U.S.A.

JANNEY, JAMES CRAIK.

A.B., Harv., 1911; M.D., H.M.S., 1915; *Surg. H.O., P.B.B.H., July 1, 1915-Nov. 1, 1916*; Asst. Surg., Free Hosp. for Women, O.P.D., Brookline.

LAMSON, PAUL DUDLEY.

A.B., Harv., 1905; M.D., H.M.S., 1911; Med. House Pupil, M.G.H., Mar. 1909-Aug. 1910; Lect. Asst. in Pharm., Univ. of Wurzburg, Germany, 1912-13; Sheldon Traveling Fellowship, 1911-13; *Asst. Res. Phys., P.B.B.H., Oct. 1, 1913-Oct. 15, 1914*; Asst. in Exp. Therapeutics, J.H.M.S., 1914-15; Assoc. in Exp. Therapeutics, J.H.M.S.

LEHMAN, EDWIN PARTRIDGE.

A.B., Williams, 1910; M.D., H.M.S., 1914; *Surg. H.O., P.B.B.H., July 1, 1914-July 1, 1915*; Asst. Res. Surg., Barnes Hosp., St. Louis, Mo., Sept. 1, 1915-Sept. 1, 1916; Asst. in Surg., Washington Univ. Med. School.

LEVINE, SAMUEL ALBERT.

A.B., Harv., 1911; M.D., H.M.S., 1914; *Assoc. in Med., P.B.B.H., July 1, 1914-July 1, 1915*; *Med. H.O., P.B.B.H., July 1, 1915-Nov. 1, 1916*; Moseley Traveling Fellow; Asst., Rockefeller Inst. Hosp., N.Y.C.

LIEB, CLARENCE WILLIAM.

A.B., Colorado, 1908; A.M., *ibid.*, 1909; M.D., H.M.S., 1914; *Pathol. H.O., P.B.B.H., Apr. 1, 1914-June 6, 1914 (resigned)*; Med. Director, "The Glen Springs," Watkins, N. Y.

LUGER, ALFRED.

M.D., Univ. of Vienna; Demonstr., Histological Inst., Univ. of Vienna, May 1909-May 1911; Klinik Neusser, Vienna, May 1911-Sept. 1911; Director, Roentgen Lab., Klinik Neusser, Vienna, Sept. 1911-Dec. 1912; *Roentgenologist, P.B.B.H., Jan. 1, 1913-June 1, 1914* (granted leave of absence from June 1, 1914-Dec. 14, 1915; Asst. in Roentgenology & Asst. in Med., H.M.S., 1914-15; Austrian Army.

MARVIN, FRANK WILLIAM.

A.B., Harv., 1910; M.D., H.M.S., 1914; House Pupil, M.G.H., 1914-15; *Surg. H.O., P.B.B.H., Nov. 1, 1915-Mar. 1, 1916*; Phys., Boston, Mass.

MCCANN, WILLIAM SHARP.

A.B., Ohio State Univ., 1911; M.D., Cornell Univ. Med. Col., 1915; Asst. Res. Phys., General Memorial Hosp., N.Y.C., June 1, 1915-Oct. 1, 1915; *Surg. H.O., P.B.B.H., Nov. 1, 1915-Nov. 1, 1916 (resigned)*; Arthur Tracy Cabot Fellow in Charge of Lab. of Surg. Research, H.M.S.

MCCLURE, CHARLES WALTER.

A.B., Ohio State Univ., 1906; M.D., Starling Med. Col., O., 1910; Med. H.O., St. Francis Hosp., Columbus, O., 1910-11; Asst. in Clin. Med.,

REGISTER OF FORMER MEMBERS OF THE STAFF

Starling Med. Col., O., 1911-12; Asst., Univ. of Iowa Med. School, 1912-15; Grad. Stud. in Med., H.M.S., 1915-16; *Asst. Res. Phys., P.B.B.H., July 1, 1916-Nov. 1, 1916*; Alumni Asst. in Med., H.M.S.

MILLET, JOHN ALFRED PARSONS.

A.B., Harv., 1910; M.D., H.M.S., 1914; *Med. H.O., P.B.B.H., Nov. 1, 1914-Mar. 1, 1916*; Internist, N.Y. State Inst. for the Study of Malignant Disease, Buffalo.

MORTON, JOHN JAMIESON.

A.B., Amherst, 1907; M.D., J.H.M.S., 1913; *Surg. H.O., P.B.B.H., Mar. 1, 1913-July 1, 1914*; Fellow in Pathol., Rockefeller Inst., N.Y.C., July 1, 1914-Sept. 1, 1915; House Surg., M.G.H., Nov. 1, 1915-Nov. 1, 1916; Asst. Res. Phys., Rockefeller Inst. Hosp., N.Y.C.

PETTIT, ROSWELL TALMADGE.

S.B., Univ. of Chicago, 1908; M.D., Rush, 1913; *Med. H.O., P.B.B.H., Mar. 1, 1914-July 1, 1915*; Phys., St. Margaret's Hosp., Spring Valley, Ill.; Asst. Med. Director, Ottawa Tuberculosis Colony, Ottawa, Ill.; 1st Lieut. Med. Reserve Corps, U. S. Army.

RAND, CARL WHEELER.

A.B., Williams, 1908; A.M., *ibid.*, 1909; M.D., J.H.M.S., 1912; Res. H.O., J.H.H., 1912-13; *Asst. Res. Surg., P.B.B.H., Oct. 1, 1913-Nov. 1, 1914*; House Surg., Mercy Hosp., Chicago, Dec. 1, 1914-Nov. 1, 1915; Surg., Los Angeles, Calif.

RHEA, LAWRENCE JOSEPH.

B.S., Univ. of Texas, 1901; M.D., J.H.M.S., 1905; H.O. in Pathol., B.C.H., 1906-07; 2d Asst. in Pathol., B.C.H., Jan. 1907-Aug. 1907; 1st Asst. in Pathol., B.C.H., Aug. 1907-Sept. 1908; Asst. Visit. Pathol., B.C.H., 1908-09; Asst. in Pathol., H.M.S., 1908-09; Instr. in Pathol., H.M.S., 1909-10; Asst. Pathol., B.C.H., 1909-10; Director of Pathol. Lab. & Pathol., Montreal Gen'l Hosp., 1910-12; Lect. in Pathol., McGill Univ., 1910-11; Asst. Prof. of Pathol., McGill Univ., 1911-12; *Res. Pathol., P.B.B.H., July 1, 1912-Oct. 1, 1913*; Director of Pathol. Lab., Montreal Gen'l Hosp.; McGill Gen'l Hosp. Overseas Contingent, France.

RICHARDSON, HENRY BARBER.

A.B., Harv., 1910; M.D., H.M.S., 1914; *Med. H.O., P.B.B.H., Mar. 1, 1915-July 1, 1916*; Asst. in Med., J.H.M.S.

SISSON, WARREN RICHARDS.

A.B., Colgate, 1906; Student of Med., Freiburg, Germany (summer semester), 1910; Student, Univ. of Munchen (winter semester), 1910-11; Student, Univ. of Heidelberg (summer semester), 1911; M.D., J.H.M.S., 1912; House pupil, M.G.H. (Children's Med. Ward), July 1912-Jan. 1913; *Med. H.O., P.B.B.H., Mar. 1, 1913-Mar. 1, 1914*; *Res. Pathol., P.B.B.H., Mar. 1, 1914-Apr. 1, 1915*; Instr. in Pathol., H.M.S., 1914-15; H.O., B.C.H. (So. Dept.), summer 1915; Sr. H.O., Boston Floating Hosp., July 1, 1915-Sept. 15, 1915; Instr. in Pediatrics, J.H.M.S.

SMILLIE, WILSON GEORGE.

A.B., Colorado, 1908; M.D., H.M.S., 1912; *Med. H.O., P.B.B.H., Nov. 1, 1912-Mar. 1, 1914*; *Asst. Res. Phys., P.B.B.H., Mar. 1, 1914-Sept. 1, 1914*; Asst. Instr., Dept. of Preventive Med., H.M.S., 1914-15; Instr., Dept.

PETER BENT BRIGHAM HOSPITAL

of Preventive Med., H.M.S., 1915-16; Research Fellow, Rockefeller Inst., N.Y.C.

SMITH-PETERSEN, MARIUS NYGAARD.

B.S., Univ. of Wis., 1910; Univ. of Wis. Med. School, 1910-12; M.D., H.M.S., 1914; *Surg. H.O., P.B.B.H., July 1, 1914-Nov. 1, 1915*; Res. Surg., Harv. Unit, Am. Ambulance Hosp., Paris, France, April-July, 1915; House Pupil, M.G.H. (Orthopedic Service).

STODDARD, JAMES LEAVITT.

A.B., Harv., 1910; M.D., H.M.S., 1914; *Pathol. H.O., P.B.B.H., July 1, 1914-July 1, 1915*; *Act. Res. Pathol., P.B.B.H., July 1, 1915-Sept. 1, 1915*; Research Fellow in Pathol., H.M.S.

THOMPSON, CHARLES BAKER.

A.B., Haverford, 1909; M.D., J.H.M.S., 1913; *Mea. H.O., P.B.B.H., Nov. 1, 1913-Nov. 1, 1914*; 2d Asst. Res., Phipps Psychiatric Clinic, J.H.H., 1914-15; 1st Asst. Res., Phipps Psychiatric Clinic, J.H.H.; Examining Psychiatrist & Executive Secy., Mental Hygiene Soc. of Md.

TRANTER, CHARLES LEE.

B.S., Univ. of Calif., 1911; M.D., Univ. of Calif. Med. School, 1913; Med. & Surg. H.O. Univ. of Calif. Hosp., 1913-14; Asst., Univ. of Calif. Hosp. (Nerve O.P.D.), 1914-15; Asst. in Neurol., Univ. of Calif. Med. School, 1915; *Asst. Res. Surg. P.B.B.H., Jan. 8, 1916-Jan. 1, 1917*.

VAN GORDER, GEORGE WILSON.

A.B., Williams, 1911; M.D., H.M.S., 1915; *Surg. H.O., P.B.B.H., Mar. 1, 1915-July 1, 1916*; House Surg., St. Anthony Hosp., Labrador, July 1, 1916-Oct. 1, 1916; Med. House Pupil, M.G.H., Oct. 1, 1916-Jan. 1, 1917; House Surg., Free Hosp. for Women, Brookline.

WATKINS, S. SHELTON.

A.B., Central Univ. of Ky., 1908; A.M., *ibid.*, 1909; M.D., J.H.M.S., 1914; Med. & Surg. H.O., Church Home & Infirmary, Baltimore, Jan. 1914-Apr. 1914; *3d Asst. Supt., P.B.B.H., May 1, 1914-Jan. 15, 1915*; Asst. in Clin. Laryngology, J.H.M.S.; Asst. Disp. Laryngologist, J.H.H.; Asst. Res. Surg., J.H.H.

WEGEFARTH, PAUL.

A.B., J.H.U., 1908; Student of Med., Strassburg & Berlin, Germany, 1909-11; M.D., J.H.M.S., 1912; *Surg. H.O., P.B.B.H., Nov. 1, 1912-Mar. 1, 1914*; Asst. Res. Phys., Church Home & Infirmary, Baltimore, 1914; Phys., San Diego, Calif.

WEISMAN, PAUL GERHARDT.

B.S., Univ. of Mich., 1911; M.D., Univ. of Mich. Med. School, 1913; H.O., Providence City Hosp. (Contagious Wards), Jan.-Apr. 1914; H.O., R. I. Hosp., Apr. 1914-Apr. 1916; *Asst. Res. Phys., P.B.B.H., Apr. 1, 1916-Aug. 1, 1916*; H.O. & 2d Asst. Res., Union Protestant Infirmary, Baltimore.

WOODS, ALAN CHURCHILL.

A.B., J.H.U., 1910; M.D., J.H.M.S., 1914; *Med. H.O., P.B.B.H., July 1, 1914-Nov. 1, 1915*; Fellow in Exp. Med., & Asst. in Ophthal., Univ. of Penn. Med. School, Philadelphia.

WOODWARD, HARRY WHITING.

A.B., Bowdoin, 1910; M.D., H.M.S., 1915; *Surg. H.O., P.B.B.H., Mar. 1, 1915-July 1, 1916*; H.O., Boston Lying-In Hosp.

Officers of the Institution

JANUARY 1, 1917

President

CHARLES P. CURTIS

Treasurer

EDMUND D. CODMAN

Secretary

LAURENCE H. H. JOHNSON

MEMBERS OF THE CORPORATION

May 8, 1902 . . .	ALEXANDER COCHRANE . . .	40 Central St.,	Boston
May 8, 1902 . . .	EDMUND D. CODMAN . . .	27 Kilby St.,	Boston
Apr. 15, 1915 . . .	CHARLES P. CURTIS . . .	Ames Building,	Boston
June 16, 1909 . . .	*Irvin McD. Garfield . . .	30 State St.,	Boston
Oct. 2, 1902 . . .	AUGUSTUS HEMENWAY . . .	53 State St.,	Boston
May 8, 1902 . . .	HENRY S. HOWE . . .	89 Franklin St.,	Boston
May 8, 1902 . . .	WALTER HUNNEWELL . . .	87 Milk St.,	Boston
May 8, 1902 . . .	LAURENCE H. H. JOHNSON . . .	27 Kilby St.,	Boston
June 16, 1909 . . .	*JOHN P. REYNOLDS . . .	30 State St.,	Boston
May 8, 1902 . . .	WILLIAM R. TRASK . . .	40 State St.,	Boston

STANDING COMMITTEES OF THE TRUSTEES

Building Committee

JOHN P. REYNOLDS, *Chairman.*

CHARLES P. CURTIS,

WALTER HUNNEWELL

LAURENCE H. H. JOHNSON

HERBERT B. HOWARD, M.D., *Secretary*

Auditing Committee

WILLIAM ROPES TRASK

AUGUSTUS HEMENWAY

* Appointed by the Governor of the Commonwealth under an Act approved May 8, 1909.

PETER BENT BRIGHAM HOSPITAL

Committee on Finance

EDMUND D. CODMAN
WALTER HUNNEWELL
HENRY S. HOWE
LAURENCE H. H. JOHNSON

Committee on Nominations

CHARLES P. CURTIS
EDMUND D. CODMAN

Committee on Rules

CHARLES P. CURTIS
Edmund D. CODMAN
IRVIN McD. GARFIELD

RECORD OF VISITING COMMITTEE FOR 1916

CHARLES P. CURTIS	January
ALEXANDER COCHRANE	February
JOHN P. REYNOLDS	March
Henry S. Howe	April
LAURENCE H. H. JOHNSON	May
WALTER HUNNEWELL	June
EDMUND D. CODMAN	July
WILLIAM R. TRASK	August
CHARLES P. CURTIS	September
CHARLES P. CURTIS	October
IRVIN McD. GARFIELD	November
AUGUSTUS HEMENWAY	December

VISITING COMMITTEE FOR 1917

CHARLES P. CURTIS	January
JOHN P. REYNOLDS	February
JOHN P. REYNOLDS	March
HENRY S. HOWE	April
LAURENCE H. H. JOHNSON	May
WALTER HUNNEWELL	June
EDMUND D. CODMAN	July
WILLIAM R. TRASK	August
IRVIN McD. GARFIELD	September
ALEXANDER COCHRANE	October
AUGUSTUS HEMENWAY	December

MEDICAL ADVISER TO CORPORATION

Appointed

July 9, 1914 FREDERICK C. SHATTUCK, M.D.

OFFICERS OF THE INSTITUTION

EXECUTIVE COMMITTEE OF THE STAFF

HENRY A. CHRISTIAN, M.D.
HARVEY CUSHING, M.D.
S. BURT WOLBACH, M.D.
HERBERT B. HOWARD, M.D., *Secretary*

ADMINISTRATIVE DEPARTMENT

Superintendent

Service began

May 1, 1908 HERBERT B. HOWARD, M.D.

Assistant Superintendents

Oct. 19, 1912 LOUIS H. BURLINGHAM, M.D., *Curator*
Aug. 1, 1913 THOMAS A. DEVAN, M.D.
Feb. 1, 1915 GEORGE H. STONE, M.D.

BOARD OF CONSULTATION

Appointed

Mar. 25, 1912 WALTER B. CANNON, M.D., *Consulting Physiologist*
Mar. 25, 1912 OTTO FOLIN, Ph.D., *Consulting Chemist*
Jan. 13, 1916 WILLIAM H. POTTER, D.M.D., *Consulting Dental Surgeon*

MEDICAL DEPARTMENT

Service began

May 1, 1912 HENRY A. CHRISTIAN, M.D., *Physician-in-Chief*
July 1, 1912 CHANNING FROTHINGHAM, M.D., *Physician*
*Dec. 9, 1915 FRANCIS W. PEABODY, M.D., *Physician*
Dec. 12, 1912 HARRY W. GOODALL, M.D., *Associate in Medicine*
(Boston Dispensary)
Dec. 12, 1912 NATHANIEL K. WOOD, M.D., *Associate in Medicine*
(Boston Dispensary)
*Sept. 1, 1915 I. CHANDLER WALKER, M.D., *Associate in Medicine*
*July 1, 1915 GEORGE P. DENNY, M.D., *Associate in Medicine*
July 1, 1915 JAMES P. O'HARE, M.D., *Associate in Medicine*
*Jan. 1, 1917 JOHN BRYANT, M.D., *Associate in Medicine*
*Oct. 1, 1916 DAVID A. HALLER, M.D., *Resident Physician*
*Nov. 1, 1915 JOHN A. WENTWORTH, M.D., *Assistant Resident Physician*
Sept. 15, 1916 HARRY L. ALEXANDER, M.D., *Assistant Resident Physician*
*Nov. 1, 1916 DONALD J. MACPHERSON, M.D., *Assistant Resident Physician*
Jan. 2, - } ALBION W. HEWLETT, M.D., *Visiting Physician pro tempore*
Jan. 8, 1916 }
May 15, - } FRANK BILLINGS, M.D., *Visiting Physician pro tempore*
May 20, 1916 }

* Served previously in another capacity. (See register of present members of the staff.)

PETER BENT BRIGHAM HOSPITAL

SURGICAL DEPARTMENT

Service began

- Sept. 1, 1912 HARVEY CUSHING, M.D., *Surgeon-in-Chief*
 Oct. 1, 1912 DAVID CHEEVER, M.D., *Surgeon*
 May 1, 1912 JOHN HOMANS, M.D., *Surgeon*
 Nov. 17, 1914 HENRY M. CHASE, M.D., *Associate in Surgery*
 (Boston Dispensary)
 Nov. 17, 1914 HILBERT F. DAY, M.D., *Associate in Surgery*
 (Boston Dispensary)
 Mar. 1, 1915 CLIFFORD B. WALKER, M.D., *Associate in Surgery*
 June 19, 1916 WILLIAM C. QUINBY, M.D., *Associate in Urology*
 *Sept. 1, 1915 CONRAD JACOBSON, M.D., *Resident Surgeon*
 *Jan. 1, 1917 EDWARD B. TOWNE, M.D., *Assistant Resident Surgeon*
 *Nov. 1, 1916 SAMUEL C. HARVEY, M.D., *Assistant Resident Surgeon*
 *Nov. 1, 1916 MERRITT L. JONES, M.D., *Assistant Resident Surgeon*

PATHOLOGICAL DEPARTMENT

Service began

- Dec. 1, 1916 S. BURT WOLBACH, M.D., *Pathologist*
 Sept. 1, 1915 ERNEST W. GOODPASTURE, M.D., *Resident Pathologist*

ROENTGENOLOGIST

- *Feb. 1, 1916 GLADYS L. CARR, M.D.

DENTAL SURGEON

- Jan. 13, 1916 ROGER B. TAFT, D.M.D.

MEDICAL HOUSE OFFICERS

Service began

Service completed

- | | | |
|-------------------------|-----------------------------------|--------------|
| Nov. 1, 1915 . . . | SUMNER EDWARDS, M.D. (died) . . . | Jan. 6, 1916 |
| Nov. 1, 1914 . . . | HORACE GRAY, M.D. | Mar. 1, 1916 |
| Nov. 1, 1914 . . . | JOHN A. P. MILLET, M.D. | Mar. 1, 1916 |
| Jan. 4, 1915 . . . | DAVID W. CARTER, M.D. | July 1, 1916 |
| Mar. 1, 1915 . . . | HENRY B. RICHARDSON, M.D. . . . | July 1, 1916 |
| *July 1, 1915 . . . | SAMUEL A. LEVINE, M.D. | Nov. 1, 1916 |
| July 1, 1915 . . . | DONALD J. MACPHERSON, M.D. . . . | Nov. 1, 1916 |
| <i>Service will end</i> | | |
| Nov. 1, 1915 . . . | WILLIAM S. LADD, M.D. | Mar. 1, 1917 |
| Jan. 11, 1916 . . . | FRANCIS T. H'DOUBLER, M.D. . . . | Mar. 1, 1917 |
| *Mar. 1, 1916 . . . | MARSHALL A. WELBOURN, M.D. . . . | July 1, 1917 |
| Mar. 1, 1916 . . . | GUSTAVE P. GRABFIELD, M.D. . . . | July 1, 1917 |
| July 1, 1916 . . . | WARREN T. VAUGHAN, M.D. | Nov. 1, 1917 |
| July 1, 1916 . . . | ROSS GOLDEN, M.D. | Nov. 1, 1917 |
| Nov. 1, 1916 . . . | HILMAR KOEFOD, M.D. | Mar. 1, 1918 |
| Nov. 1, 1916 . . . | WILLIAM H. BARROW, M.D. | Mar. 1, 1918 |

* Served previously in another capacity. (See register of present members of the staff.)

OFFICERS OF THE INSTITUTION

Associate in Medicine

July 1, 1916 WARD S. WELLS, M.D. July 1, 1917

SURGICAL HOUSE OFFICERS

<i>Service began</i>		<i>Service completed</i>
Nov. 1, 1915	FRANK W. MARVIN, M.D.	Mar. 1, 1916
Nov. 1, 1915	LEROY N. FLEMING, M.D.	Mar. 1, 1916
Mar. 1, 1915	GEORGE W. VAN GORDER, M.D.	July 1, 1916
Mar. 1, 1915	HARRY W. WOODWARD, M.D.	July 1, 1916
July 1, 1915	JAMES C. JANNEY, M.D.	Nov. 1, 1916
July 1, 1915	MERRITT L. JONES, M.D.	Nov. 1, 1916
Nov. 1, 1915	WILLIAM S. McCANN, M.D.	Nov. 1, 1916
	(Resigned)	
July 1, 1916	LOUIS F. FALLON, M.D. (Left)	Nov. 15, 1916
		<i>Service will end</i>
Nov. 1, 1915	JAMES B. MONTGOMERY, M.D.	Mar. 1, 1917
Nov. 1, 1916	JOHN S. HODGSON, M.D.	Mar. 1, 1917
Mar. 1, 1916	PHILIP McQUESTEN, M.D.	July 1, 1917
July 1, 1916	HARRIS H. VAIL, M.D.	July 1, 1917
July 1, 1916	DAVID W. HOUSTON, JR., M.D.	Nov. 1, 1917
Nov. 14, 1916	LANGDON T. THAXTER, M.D.	Nov. 1, 1917
Nov. 1, 1916	SAMUEL L. MORRIS, JR., M.D.	Mar. 1, 1918
Jan. 1, 1917	VINCENT J. O'CONNOR, M.D.	Mar. 1, 1918

PATHOLOGICAL HOUSE OFFICER

July 1, 1916 SEARLE B. MARLOW, M.D. July 1, 1917

SCHOOL OF NURSING

*Superintendent of Nurses and
Principal of the School of Nursing*

July 1, 1912 CARRIE M. HALL, R.N.

Assistant Superintendent of Nurses

*Dec. 21, 1916 LEONE N. IVERS, R.N.

Instructor in Theory

Oct. 1, 1912 SUSAN A. WATSON, R.N.

Instructor in Practice

*June 12, 1915 EMMELINE K. MILLS, R.N.

* Served previously in another capacity.

PETER BENT BRIGHAM HOSPITAL

Supervisor

*July 1, 1916 GRACE L. RANNEY, R.N.

Supervisor

*Oct. 1, 1916 GERTRUDE M. SMITH, R.N.

Night Supervisor

May 15, 1916 JULIA A. CLARK, R.N.

Social Service Worker

Aug. 17, 1914 ALICE M. CHENEY, R.N.

Dietitian

Dec. 10, 1912 E. GRACE McCULLOUGH

Apothecary

Dec. 2, 1912 HARRY H. COMAN

Clerk

April 29, 1912 LIDA E. CRAWFORD

Housekeeper

Nov. 1, 1912 ELIZABETH M. PACKARD

Chief Engineer

Oct. 21, 1911 JOHN A. AITKEN

* Served previously in another capacity.

Charter

No. 9566

COMMONWEALTH OF MASSACHUSETTS

Be it Known That whereas Alexander Cochrane, Edmund D. Codman, Laurence H. H. Johnson, William Ropes Trask, Eben S. Draper, Henry S. Howe, and Walter Hunnewell have associated themselves with the intention of forming a corporation under the name of the Peter Bent Brigham Hospital for the purpose of establishing and maintaining a hospital for the care of sick persons in indigent circumstances residing in the County of Suffolk in pursuance of the will of Peter B. Brigham, late of Boston, deceased, and have complied with the provisions of the statutes of this Commonwealth in such case made and provided as appears from the certificate of the Proper Officers of said corporation duly approved by the Commissioner of Corporations, and recorded in this office.

Now, Therefore, I, William M. Olin, Secretary of the Commonwealth of Massachusetts, Do Hereby Certify that said Alexander Cochrane, Edmund D. Codman, Laurence H. H. Johnson, William Ropes Trask, Eben S. Draper, Henry S. Howe, and Walter Hunnewell, their associates and successors, are legally organized and established as and are hereby made an existing corporation under the name of the Peter Bent Brigham Hospital with the powers, rights, and privileges and subject to the limitations, duties and restrictions which by law appertain thereto.

Witness my official signature hereunto subscribed and the seal of the Commonwealth of Massachusetts hereunto affixed this eighth day of May in the year of our Lord one thousand nine hundred and two.

WM. M. OLIN,

Secretary of the Commonwealth.

C. OF M.
SEAL.

A true copy of the original, attest:

L. H. H. JOHNSON,

Secretary.

Acts of the Legislature

CHAPTER 370

COMMONWEALTH OF MASSACHUSETTS, 1909

SECTION 1. The Peter Bent Brigham Hospital is hereby authorized to hold, for the purpose for which it was incorporated, real and personal estate to an amount not exceeding seven million dollars in value, including the amount which it is already authorized by law to hold.

SECTION 2. Upon the acceptance of this section by said corporation and the filing with the secretary of the commonwealth of an attested copy of the vote of the corporation accepting this section, the governor, with the advice and consent of the council, shall appoint as members of the corporation two persons, residents of the county of Suffolk, one for a term ending on the first day of May, nineteen hundred and twelve, and the other for a term ending on the first day of May, nineteen hundred and fifteen, who shall have the same duties, powers and privileges as other members of the corporation. In the month of April, nineteen hundred and twelve, and in the month of April every three years thereafter the governor, with the advice and consent of the council, shall appoint a person who shall be a resident of the county of Suffolk, as a member of said corporation for a term of six years beginning with the first day of May in the year of his appointment, and the persons so appointed shall have the same duties, powers and privileges as other members of said corporation. In case of the resignation or death of a member of the corporation appointed by the governor, the governor shall have power, with the advice and consent of the council, to fill the vacancy for the remainder of the term.

SECTION 3. Section one of this act shall take effect upon its passage. Section two shall take effect upon the filing with the secretary of the commonwealth of a copy of the vote of said corporation accepting the provisions of section two, which copy shall be attested by the secretary or other recording officer of the corporation.

By-Laws

OFFICERS

1. The officers of the Corporation shall be a President, a Treasurer and a Secretary, all of whom shall be members of the Corporation, and such other officers as the members may from time to time appoint. The same person may be Treasurer and Secretary, but the President shall not hold either of the last mentioned offices. All the members shall constitute a Board of Officers with powers of Directors.

2. The officers shall be elected at a regular or special meeting, and shall continue in office until the time of the next annual meeting and until their places are filled.

3. Any officer may at any time give to any other officer being President, Treasurer or Secretary or to a meeting of the members a written notice of his desire to resign his office, and upon the acceptance of his resignation by a meeting his office shall be vacant.

4. The members may at any meeting remove any officer before the expiration of the period of office by a vote of a majority of all the members and without assigning any reason therefor, and may elect another person in his place.

5. If any officer required to be a member of the Corporation shall cease to be such member his office shall be vacant.

6. The duties of the different officers shall be from time to time prescribed by the members.

MEMBERS

7. Two members may at any meeting or a special meeting elect new members to fill any vacancies in the places of members.

8. Any member may at any time give to the President, Treasurer or Secretary not being himself or to a meeting of the members a written notice of his desire to resign his membership, and upon the acceptance of his resignation by a meeting his place shall be vacant.

9. The members may at any meeting by a vote of a majority of all the members increase or reduce the number of the members, but not to less than seven.

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MEETINGS

10. A regular annual meeting of the members shall be held on the second Thursday of May in every year, and other regular meetings of the members shall also be held on the second and fourth Thursdays of every month, that on the second Thursday in the Administration Building and that on the fourth Thursday at some convenient place in the business section of the city to be selected by the President.

11. A special meeting of the members may be convened at any time by the President or by two of the members, or in pursuance of a vote of the members at a regular meeting.

12. Any business may be transacted at a regular meeting, but at a special meeting only the subjects specified in the notice of the meeting shall be considered or acted upon.

13. All meetings shall be held in Boston or at such other place as may be directed by a vote of the members.

14. Notice of every meeting not being an adjourned meeting specifying the place, day and hour of meeting shall be sent to every member in a prepaid letter addressed to him at his last registered address or other address known to the Secretary and deposited in the post-office at Boston not less than four days (which may include Sunday and holidays) before the meeting, but the non-receipt of a notice so sent shall not invalidate the meeting. The notice of a special meeting shall specify the purposes of the meeting.

15. It shall be the duty of the Secretary to give such notices, or in the case of his absence or disability or any vacancy in his office the same may be given by the President or such person as he may appoint or by the members convening the meeting.

16. At all meetings five members shall constitute a quorum for the transaction of business, and if such quorum is not present within half an hour from the time appointed for the meeting then the meeting shall be dissolved.

17. Any regular or special meeting at which all the members for the time being shall be present shall be valid, and any business may be transacted at the same notwithstanding the notice of such meeting shall be defective or shall not specify the subject of such business as a purpose thereof or shall have been entirely omitted.

18. The President shall preside at all meetings at which he is present, and in his absence a temporary chairman shall be chosen for that purpose.

BY-LAWS

19. Questions arising at any meeting shall be decided by a majority of the votes except where the vote of a majority of all the members is required, and every member, including the presiding officer of the meeting, shall have one vote.

20. Minutes of all resolutions and proceedings and of the notice given of the meetings of the members and of every committee thereof shall be made in books provided for the purpose, and if signed by the presiding officer or Secretary or clerk of the meeting to which they relate, shall be evidence of the matters therein stated relative to such resolutions and proceedings.

CHANGE OF BY-LAWS

21. These by-laws may be altered, amended or added to by the members at a meeting.

A true copy attest:

L. H. H. JOHNSON,
Secretary.

Rules and Regulations

APPOINTMENTS

1. The Corporation will appoint annually the members of the staff, which shall consist of the superintendent, the physician-in-chief, the surgeon-in-chief, the pathologist, the consulting physiologist, the consulting chemist, the consulting dental surgeon, the roentgenologist and their respective assistants.

2. The superintendent, the physician-in-chief, the surgeon-in-chief and the pathologist shall be termed the executive committee of the staff.

3. The members of the executive committee of the staff may nominate to the Corporation their respective assistants and house-officers after submitting such nominations to the executive committee of the staff for approval. All other members of the staff except those provided for in the above or in Rule 1, may be nominated to the Corporation by the executive committee of the staff.

4. The superintendent of nurses, the apothecary, the dietitian and the head of the social service department shall be nominated to the Corporation by the superintendent, after submitting their names to the executive committee of the staff for approval.

AGE LIMIT

1. All staff appointments shall cease automatically when the incumbent reaches the age of sixty-three years.

SUPERINTENDENT

1. The superintendent, under the directions of the Corporation, shall be the administrative head of the Hospital. He shall visit every department regularly and consult with all officers respecting the conduct and management of the respective branches of the Hospital. In case any sudden emergency arises in the Hospital administration, the superintendent is authorized to act as its representative, but must report his actions to the Corporation for approval at the next regular

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meeting. He shall see that all regulations of the Corporation are carried into effect, and shall be responsible for good order throughout the institution.

2. He shall admit patients to the Hospital and assign them to the wards. He shall determine the rate to be charged to each patient for board.

3. It shall be the duty of the superintendent to require references, or payment of board in advance, from paying patients before they are admitted to the wards.

4. He shall admit no patients, to an open ward, living outside of Suffolk County and paying less than the regular price of board, without the consent of the President or the visiting committee of the Corporation. It is the intention of the Corporation that admission without charge may be granted to poor patients not residing in the County of Suffolk when poor persons residing in the County are not thereby excluded and when, in the opinion of the executive committee of the staff, the admission of such patients will operate to make the Hospital more efficient for and beneficial to the sick poor who reside in the County. It shall be the duty of the superintendent to report to the Corporation each month all cases so admitted.

5. He shall keep, or cause to be kept, for the inspection of the members of the Corporation, a record of the names of patients, with their age, residence, employment, nativity, date and terms of admission, date of discharge or death, result of treatment, and such other data as may from time to time seem necessary. He shall report to the Corporation each month such statistics as may from time to time be required on the subject of patients.

6. He shall report to the Corporation the name of each patient who has been in the Hospital for more than ninety days, and the reason therefor.

7. He shall notify at once the relatives and friends of a patient who becomes dangerously sick.

8. On the death of a patient, he shall cause the name and the time of the decease of such patient to be entered upon the register. He shall notify the friends if practicable, and shall cause the body of the deceased to be kept safely until they can be heard from. No post-mortem examination shall be performed without his written approval. It shall be his duty to see that the proper blank form of authority is filled out. He shall

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allow no autopsy to be made unless the consent of the family, or of some person with authority to give such consent, has been obtained. In cases where the deceased patient has no friends or relatives, the superintendent shall have the authority to permit an autopsy at his discretion.

9. He shall cause an inventory to be kept of all furniture and other property belonging to the Hospital, and report annually thereon.

10. He shall hire and dismiss or authorize the hiring and dismissal of all employees.

11. In the absence of the surgeon-in-chief and the physician-in-chief, the superintendent shall pass on all suspected contagious diseases and remove or discharge any of such patients as he may see fit.

12. It shall be his duty to discharge, as soon as practicable, all patients who are recommended for such action by the physician-in-chief and the surgeon-in-chief; also any patient who is guilty of misconduct.

13. He shall purchase all supplies and supervise all expenditures. He shall pay all bills and collect all dues. He shall report to the Corporation each month such financial statistics as may from time to time be required.

14. He shall assign rooms to members of the staff and others, and shall regulate the giving of invitations to meals.

15. In the absence of the superintendent, his duties and responsibilities shall be assumed by his assistant next in authority.

PHYSICIAN-IN-CHIEF

1. The physician-in-chief shall be responsible to the Corporation for the care and treatment of the patients in his department.

2. He shall direct the members of the medical staff and the house-officers and research workers in his department.

3. He shall direct the keeping of the records in his department.

4. In the absence of the physician-in-chief, his duties and responsibilities shall be assumed by his assistant next in authority.

SURGEON-IN-CHIEF

1. The surgeon-in-chief shall be responsible to the Corporation for the care and treatment of the patients in his department.

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2. He shall direct the members of the surgical staff and the house-officers and research workers in his department.

3. He shall direct the keeping of the records in his department.

4. In the absence of the surgeon-in-chief his duties and responsibilities shall be assumed by his assistant next in authority.

PATHOLOGIST

1. The pathologist shall be responsible to the Corporation for the pathological laboratory and the direction of the pathological assistants.

2. He shall direct the performing of such autopsies as are certified to him by the superintendent.

3. He shall direct the keeping of the records in his department.

4. No embalming shall be done except under the direction of the licensed embalmer.

5. In the absence of the pathologist, his duties and responsibilities shall be assumed by his assistant next in authority.

EXECUTIVE COMMITTEE

1. It shall be the duty of the executive committee to consider all matters relative to the welfare of the Hospital and advise the Corporation in relation thereto.

2. Any member of the executive committee may, on request, appear at a meeting of the Corporation to present matters relating to the Hospital; but it is expected that each matter will be considered by the executive committee of the staff before it is presented to the Corporation.

RESIDENTS

1. The resident physician and surgeon, or any member of the staff who may temporarily discharge their respective duties, shall report promptly to the superintendent anything in the nature of an accident occurring in the Hospital, the serious illness or death of any patient, and any other facts of importance.

ABSENCES

1. A member of the executive committee of the staff shall not be more than temporarily absent without notifying the superintendent's office.

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2. A member of the executive committee of the staff shall not be absent for more than a month without obtaining permission from the President of the Corporation.

3. Other members of the staff who intend to be temporarily absent during the day shall record their intended absences in the Administration Building, and make arrangements with their superior officer for the performance of their duties during their absences; and shall not be absent more than temporarily without notice to the superintendent and the permission of their respective chiefs.

4. Temporary substitutes for absent members of the staff may be appointed by the chief of the department with the approval of the superintendent.

5. The chief of a department and his first two assistants shall not, except temporarily, be absent at the same time, without the permission of the President of the Corporation.

SUPERINTENDENT OF NURSES

1. The duties of the superintendent of nurses shall be performed under the direction of the superintendent.

2. The superintendent of nurses shall have the direction of the nurses, the pupils, the probationers and the orderlies.

3. She shall be responsible for the discipline of the training school and management of the nurses' home, and for the instruction of the nurses in the training school.

4. She is empowered to make, with the approval of the superintendent of the Hospital, all necessary rules for the government of the nurses.

5. She shall supervise all nursing work

6. She shall approve of requisitions for ward supplies.

7. She shall see that proper economy is exercised in the distribution of food to the patients and in the use of all materials for surgical operations and dressings, of all ward supplies and of all furnishings.

8. She shall have charge of the surgical stores in the operating-building and shall give notice to the superintendent when more supplies are required.

APOTHECARY

1. The apothecary shall prepare all medicines prescribed by the physicians and surgeon. He shall deliver no medicines or

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articles that are not prescribed or requisitioned by the proper authorities. Under the direction of the superintendent he shall purchase such drugs and supplies as the department may need.

DIETITIAN

1. Under the direction of the superintendent, the dietitian shall have charge of the kitchen, the main serving-room and the dining-rooms of the Hospital, and of the preparation of all food and special diets for the patients; she shall hire and discharge the cooks, waitresses and other employees in her department.

HOUSEKEEPER

1. Under the direction of the superintendent, the house-keeper shall have general charge of the cleanliness throughout the Hospital and shall have special direction of the sewing-room, laundry, dormitories and main corridors; she shall hire and discharge the house-cleaners, seamstresses and employees in the laundry. All employees, when in the dormitories or in the main corridors of the Hospital, shall be considered under her direction.

CHIEF OF THE MECHANICAL DEPARTMENT

1. Under the direction of the superintendent, the chief of the mechanical department shall have charge of the shop and of the heating, lighting and plumbing of the Hospital; he shall hire and discharge such men as he needs in his department, viz., electrician, plumber, steamfitter, blacksmith, etc.

RECORD CLERK

1. The record clerk shall have charge of the medical and surgical records and shall direct the stenographers and typists engaged in the making of such records. She shall keep such records as the physician-in-chief and the surgeon-in-chief may direct. After the records are completed she may loan them to be used inside of the Hospital under such rules as the executive committee of the staff may make, but she shall not allow any record to be taken from the Hospital without the authority of the superintendent. Under the direction of the superintendent she shall have power to hire and discharge the stenographers and typists employed in her department.

