

Annual report of the Supervising Surgeon General of the Marine Hospital Service of the United States : 1882

Contributors

United States. Marine Hospital Service

Publication/Creation

Washington, D.C. : G.P.O., 1882

Persistent URL

<https://wellcomecollection.org/works/rdj7yqbz>

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



ROYAL SANITARY INSTITUTE

LIBRARY REGULATIONS

1. Books may be borrowed by Fellows, Members and Associates personally or by a messenger producing a written order. The person to whom books are delivered shall sign a receipt for them in a book provided for that purpose.

2. Books may be sent through the post, or by some equivalent means of carriage, upon a written order. All charges of carriage to the Institute shall be defrayed by the borrower.

3. A borrower may not have more than three volumes in his possession at one time.

4. A borrower will be considered liable for the value of any book lost or damaged while on loan to him, and if it be a separate volume, for the value of the whole work rendered imperfect.

Marking or writing in the volumes is not permitted, and borrowers are requested to call attention to damage of this character.

5. Books may be retained for 28 days. Periodicals may be retained for 14 days. Applications for extension of the loan period must be made in writing before its expiry. No book may be kept longer than 3 months.

New books will not be lent until after the expiration of one month from the date of their having been received by the Institute. The current number of a periodical may not be borrowed.

6. Borrowers retaining books longer than the time specified, and neglecting to return them when demanded, forfeit the right to borrow books until the volume or volumes be returned, and for such further time as may be ordered.

Any borrower failing to comply with a request for the return of a book shall be considered liable for the cost of replacing the book, and the Council may, after giving due notice to him, order the book to be replaced at his expense.

No volume may be reissued to the same borrower until at least seven days have elapsed after its return, neither may it be transferred by one borrower to another.

7. Books may not be taken or sent out of the United Kingdom.

8. Volumes returned through the post must be securely packed in a box, or otherwise protected.

Parcels should be addressed :

THE ROYAL SANITARY INSTITUTE,
90, BUCKINGHAM PALACE ROAD,
LONDON, S.W.1.



22502961346

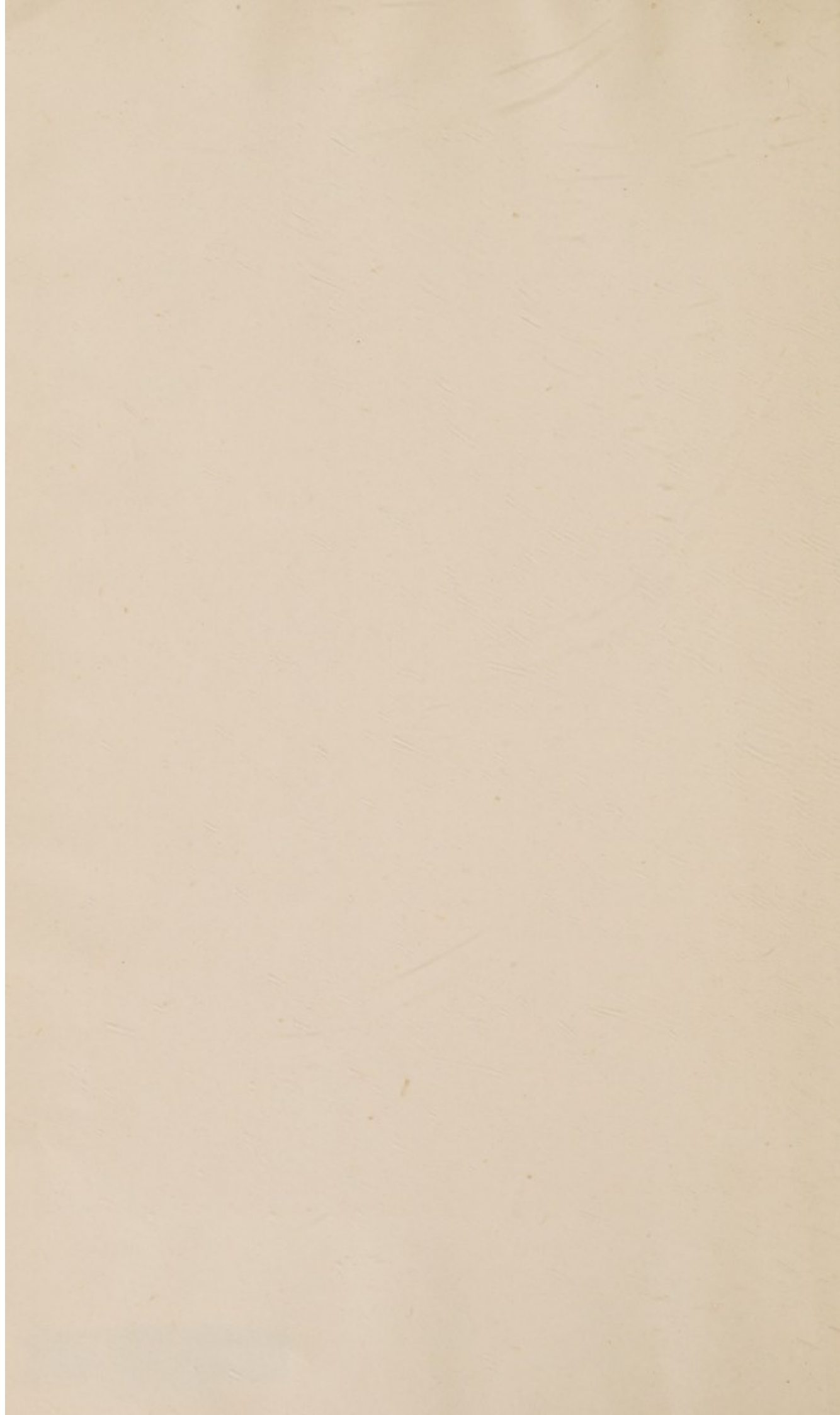
THE ROYAL SANITARY INSTITUTE LIBRARY
90, Buckingham Palace Road, London, S.W.1.

Class No. *Rac/4e*

Acc. No.

This book is returnable ~~on or~~ before the last date Marked below.

--	--



ANNUAL REPORT

OF THE

SUPERVISING SURGEON-GENERAL

OF THE

MARINE-HOSPITAL SERVICE OF THE UNITED STATES

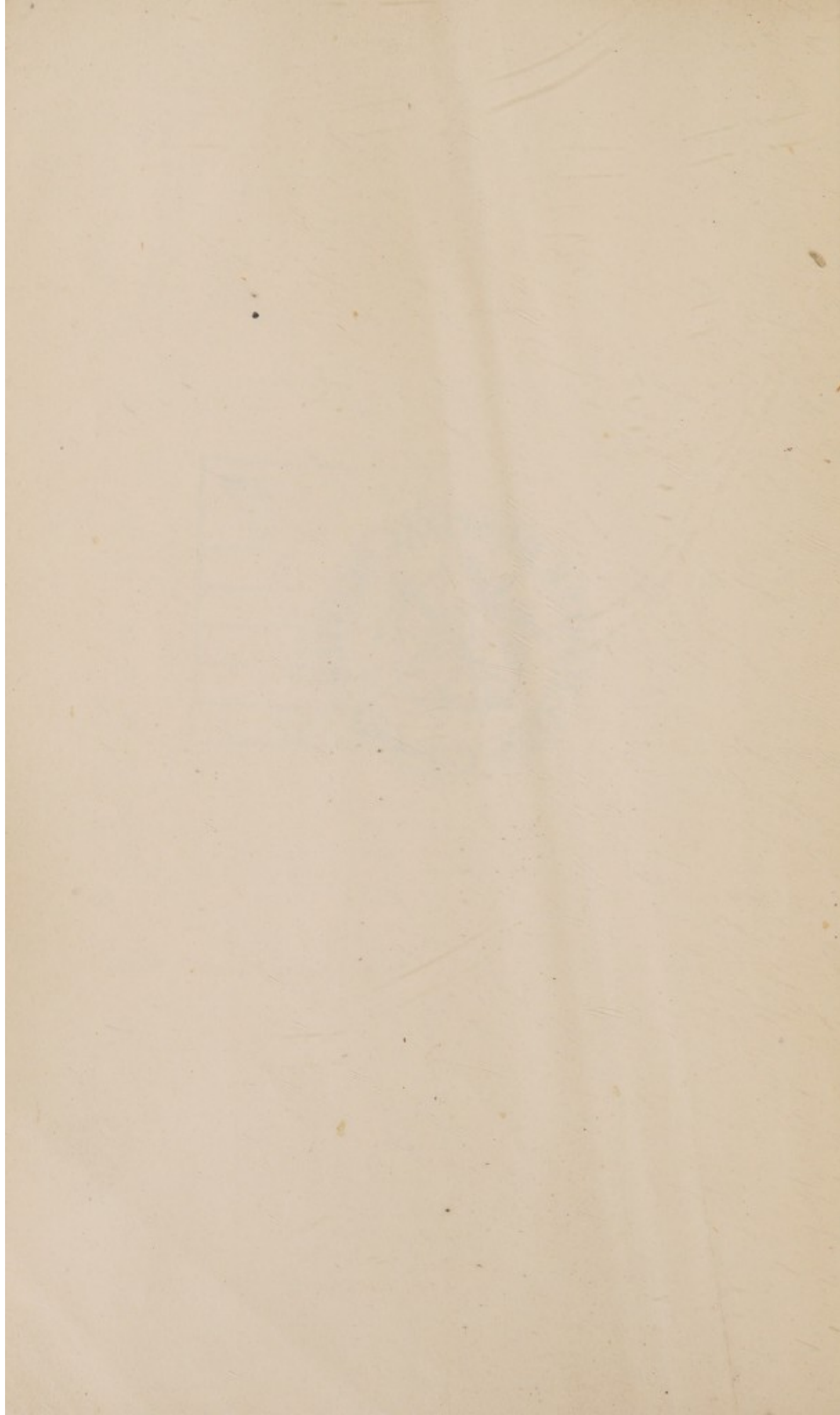
FOR THE

FISCAL YEAR 1882.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1882.

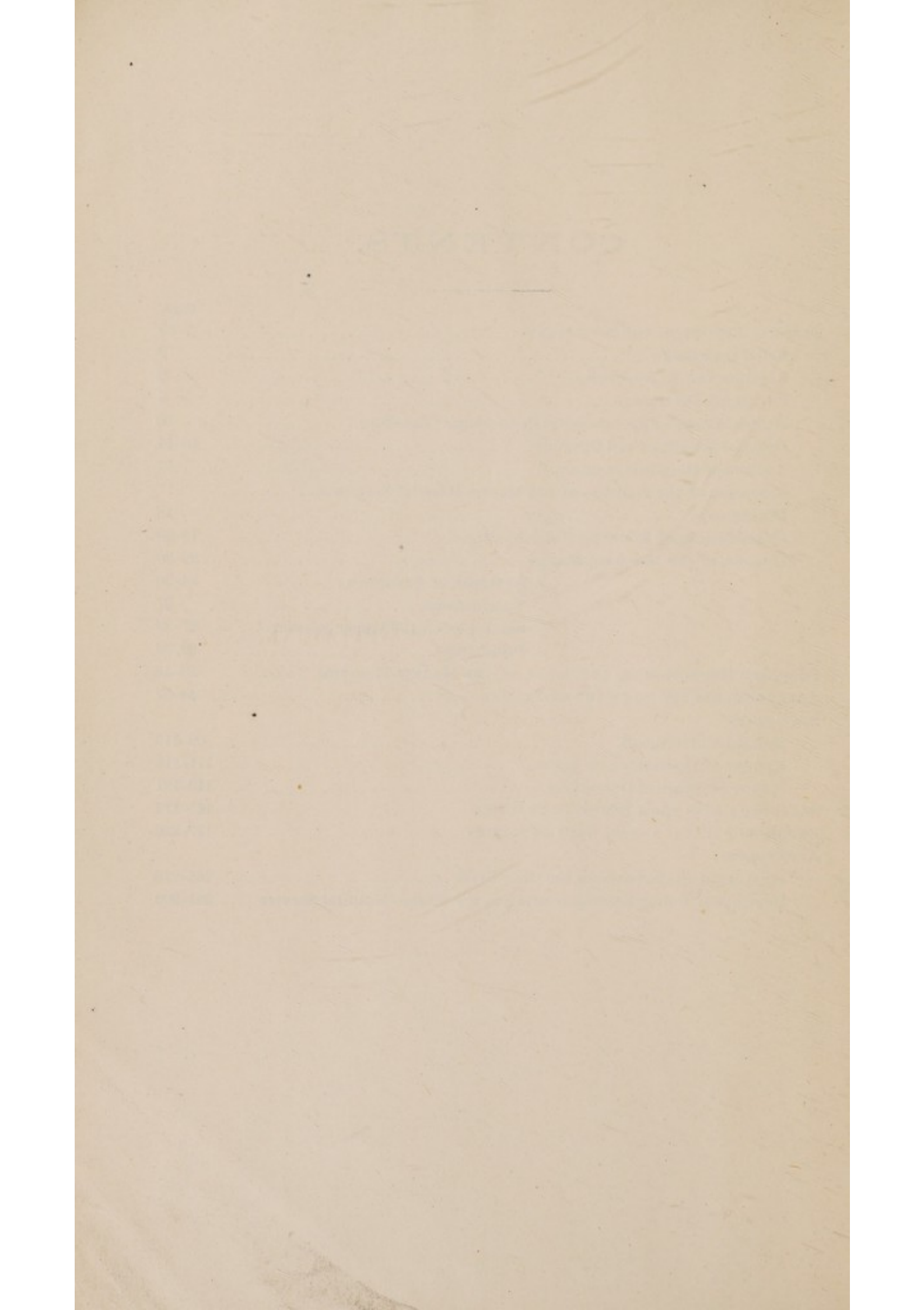
WELCOM
LIBRARY
Ann Rep
WX28
FA1
M33
1882



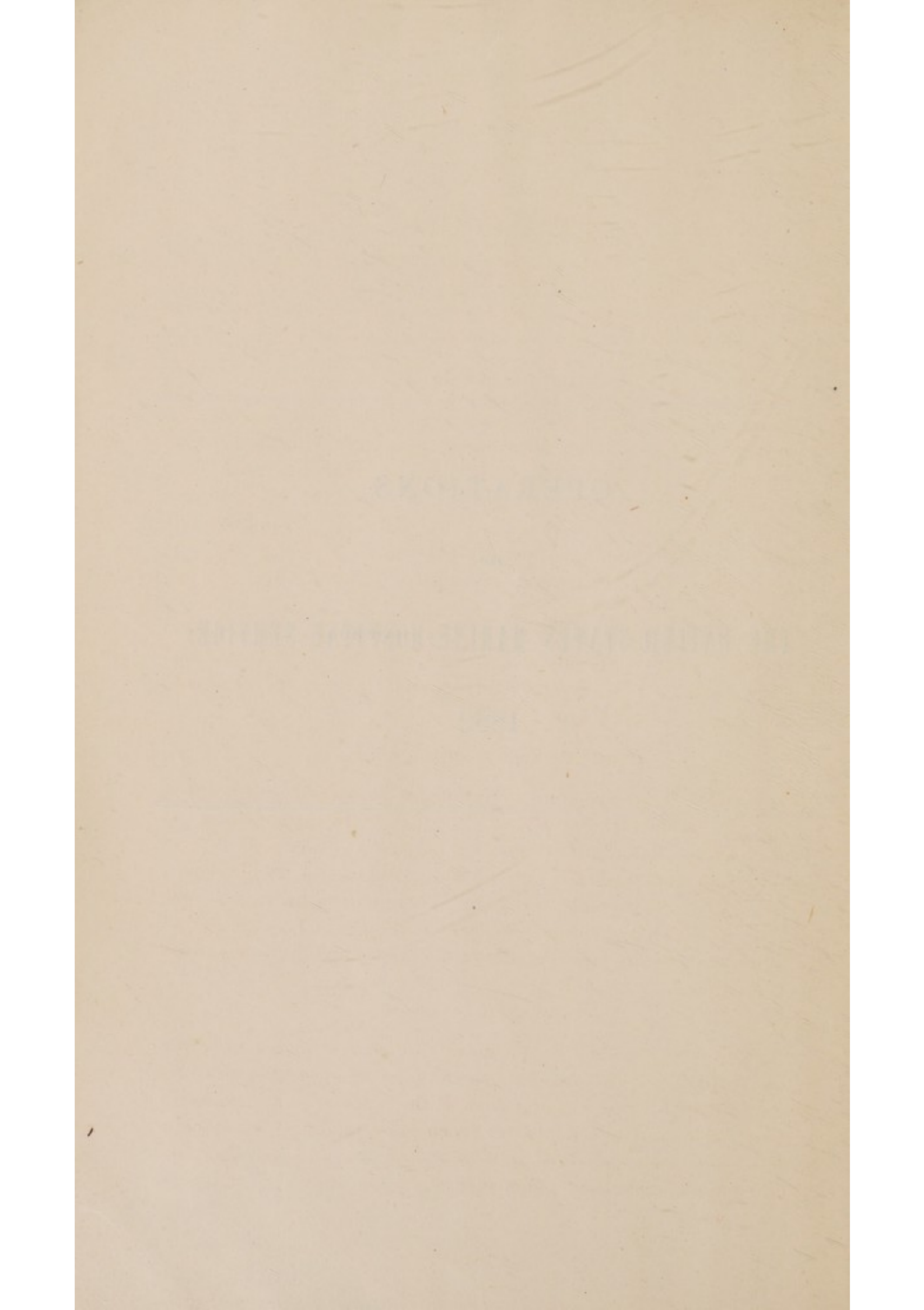


CONTENTS.

	Page.
OFFICIAL REPORT TO THE SECRETARY.....	9-57
Relief furnished	9
Receipts and Expenditures	9
Purveying Division	9
Medical Corps—Appointments, Promotions, Casualties	10
Hospital Buildings and Grounds	10-16
Additional Hospitals required	17
Extension of the facilities of the Marine-Hospital Service	17
Donations	18
Examinations of Pilots for Color-blindness.....	18-20
Hygiene of the Merchant Marine	20-30
Outbreak of Small-pox.....	24-26
Vaccinations.....	27
Small-pox on the Upper Missouri	27-29
Pest-houses	29, 30
PROPOSED REDUCTION OR ABOLITION OF THE MARINE-HOSPITAL TAX	30-48
ARRANGEMENTS FOR THE CARE OF SEAMEN	48-57
STATISTICS :	
Medical and Surgical.....	62-110
Exhibit of Operations, by ports.....	111-115
Report of Surgical Operations.....	119-121
SELECTED CASES FROM HOSPITAL PRACTICE	125-174
REPORTS OF FATAL CASES, WITH AUTOPSIES.....	177-260
APPENDIXES :	
Hygiene of Steamboats on the Ohio River	265-278
Reprints of Public Reports relating to the Marine-Hospital Service	281-293



OPERATIONS
OF
THE UNITED STATES MARINE-HOSPITAL SERVICE:
1882.



REPORT.

SIR: I have the honor to submit the following report of the operations of this Service for the fiscal year ended June 30, 1882:

RELIEF FURNISHED.

During the year, 36,184 patients received relief from this Service, of whom 13,048 were treated in the hospitals and 23,136 at the different dispensaries; 333,475 days' relief in hospital were furnished; 312 trusses, 23 elastic stockings, 8 knee-caps, 7 pairs crutches, and other appliances, have been issued to outgoing patients. Transportation to their homes has been furnished to 7 incurable patients.

The number of seamen treated shows an increase of 3,571 over last year.

In addition to the relief furnished, as shown above, 273 seamen in the Revenue-Marine Service and 33 seamen of the Light-House and Merchant Service have been examined, and 2,090 pilots have been examined for color-blindness.

RECEIPTS AND EXPENDITURES.

The receipts from all sources were \$408,215.69, and the expenditures \$468,120.16. This includes \$54,192.02 which were expended on account of extraordinary alterations and repairs to hospital buildings. Deducting this amount, there are left \$413,928.14 as the net expense of the Service for the current fiscal year. There is still an unexpended balance of \$177,869.85, about \$50,000 of which will be required for the additional repairs now under contract, and \$15,000 more for work in contemplation.

PURVEYING DIVISION.

Of late years there has been a great change in the manner of furnishing supplies to the various hospitals and relief-stations of this Service. Instead of purchasing them at the ports in limited quantity, and of such quality as might be procurable, the supplies are now bought by contract, delivered at Washington, and are inspected and repacked for distribution. This insures uniformity in the character

of supplies, and, as far as medicines are concerned, their chemical purity.

It should be remembered that all classes of non-perishable hospital supplies are now purchased in this manner. It will then be apparent that, with the great increase in the number of patients treated, there has been more than the proportional increase in the business of this division of this office. Requisitions to the number of 329, making 705 packages, weighing 86,000 pounds, were filled and shipped from this office during the year. The property accounts of the various ports were also examined and recorded in this division.

The total cost of articles purchased amounted to \$20,796.90.

MEDICAL CORPS.

Appointments.

One examining-board was convened during the year for the examination of applicants for admission into the Service, and special boards have been convened from time to time for the examination of medical officers eligible for promotion.

There were thirty-six applications for appointment, and fifteen candidates appeared for examination, eight of whom passed, and seven were appointed into the Service, taking rank in order of merit.

Promotions.

One passed assistant surgeon was promoted to be a surgeon, and five assistant surgeons to passed assistant surgeons.

Casualties.

Since the last report, one surgeon has resigned.

HOSPITAL BUILDINGS AND GROUNDS.

Hospital at Cincinnati.

Recommendation has heretofore been made for the establishment of a marine hospital at Cincinnati, and by a recent appropriation that recommendation has been concurred in by Congress.^a The following statement from the records of this office shows the amount of business performed by this Service at Cincinnati:

"During the fiscal year just ended, three thousand two hundred and ninety-nine persons applied for medical relief at this office, of whom three thousand and sixty-six were granted it, either in the hospital or at the office. The twenty-two hundred

^a The following marine hospitals are to be erected in accordance with the act: One each at Baltimore, Cairo, Cincinnati, and New Orleans.

and three out-patients were relieved at the office three thousand six hundred and thirty-two times. Two hundred and thirty-three applicants were rejected, not being entitled to relief.

"One hundred and twenty-nine patients were furnished transportation to the United States Marine Hospital at Louisville, Ky., and one hundred and thirteen were sent to the Cincinnati hospital.

"Fifty-two pilots were examined for color-blindness, and given a certificate of their ability to distinguish colors. Five hundred and sixty-nine boatmen were vaccinated."

Hospital at Chelsea.

The following changes and improvements were made in the sewerage of the hospital, as reported by Surgeon Vansant:

"All the old sewers and drains (main stem and branches) were dug up and removed from under the basement of the hospital, and the same was done with the cesspools. These old brick-and-cement sewers and drains were then replaced by new ones of glazed stoneware pipe, with accurately-fitting joints. The old cesspools were discarded as useless, and all pipes from water-closets and sinks were led directly into the sewers. This change made it necessary to have each pipe fitted with an independent trap near its origin above. The main sewer was made to open into a large trap or cesspool, built of brick and cement, and located under the front portico, (east,) deep in the ground and entirely outside of the building. This trap communicates with the system of sewers in the hospital grounds and the city. The top of the trap is open to the air, covered only by an iron plate perforated with small holes, and the open end of the main-sewer pipe from the hospital opens above the surface of the water in the trap. There is also another opening in a similar situation in the trap, this being the outer end of a drain-pipe leading from under the floor of the laundry, and having no connection with the sewers under the basement. This drain-pipe conveys only clear water—surface-water, that sometimes flows into the laundry. The main sewer is also open to the air under gratings, to the north, south, and west, beneath the different porticos. Under the centre of the building, the main sewer is tapped by a large (8-inch) iron pipe, which leads thence over the steam-boilers into the large chimney connected with the boiler-fires, which are kept constantly burning summer and winter. This iron pipe causes such a current of air to flow into the chimney through the sewers and drains, passing in from the outer atmosphere, as to prevent effectually all bad odors from the sewer-pipes, or from the fluid in the trap under the east portico. The conductors of rain-water from the roofs open into the branch drains under the porticos. There was much other work done at the hospital—plumbing and carpentering—but the above statement gives the essential features of the improvements made in 'the hospital sewerage,' as requested in your letter. I should mention that the iron blow-off pipe from the boiler and also the exhaust-pipe from the steam-pumps both open into the great sewer under the pathway in front of the hospital, some twenty feet beyond the trap before mentioned. This saves the drain-pipes under the basement from deteriorating effects of hot water and steam."

The necessity for outside and inside painting of this building is greater than heretofore, on account of the lapse of time since it was

painted. The hall floors are badly worn, and difficult to keep clean. Proposals for doing the painting have been received, and it will be commenced under direction of the Supervising Architect at an early date. When all the work now in contemplation shall have been completed, this will be one of the very best hospitals in the Service.

Hospital at St. Louis.

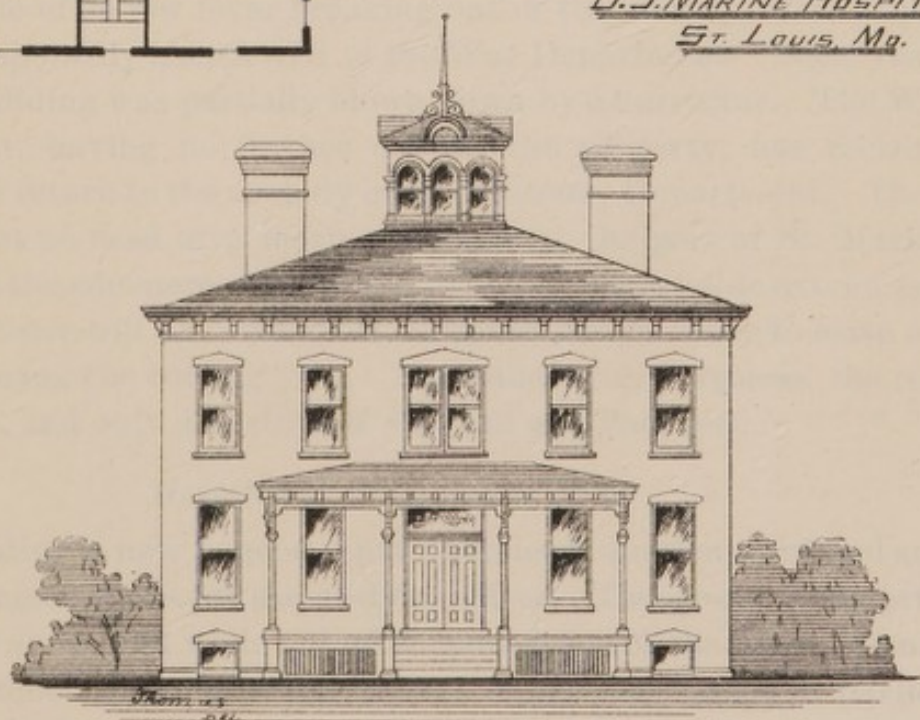
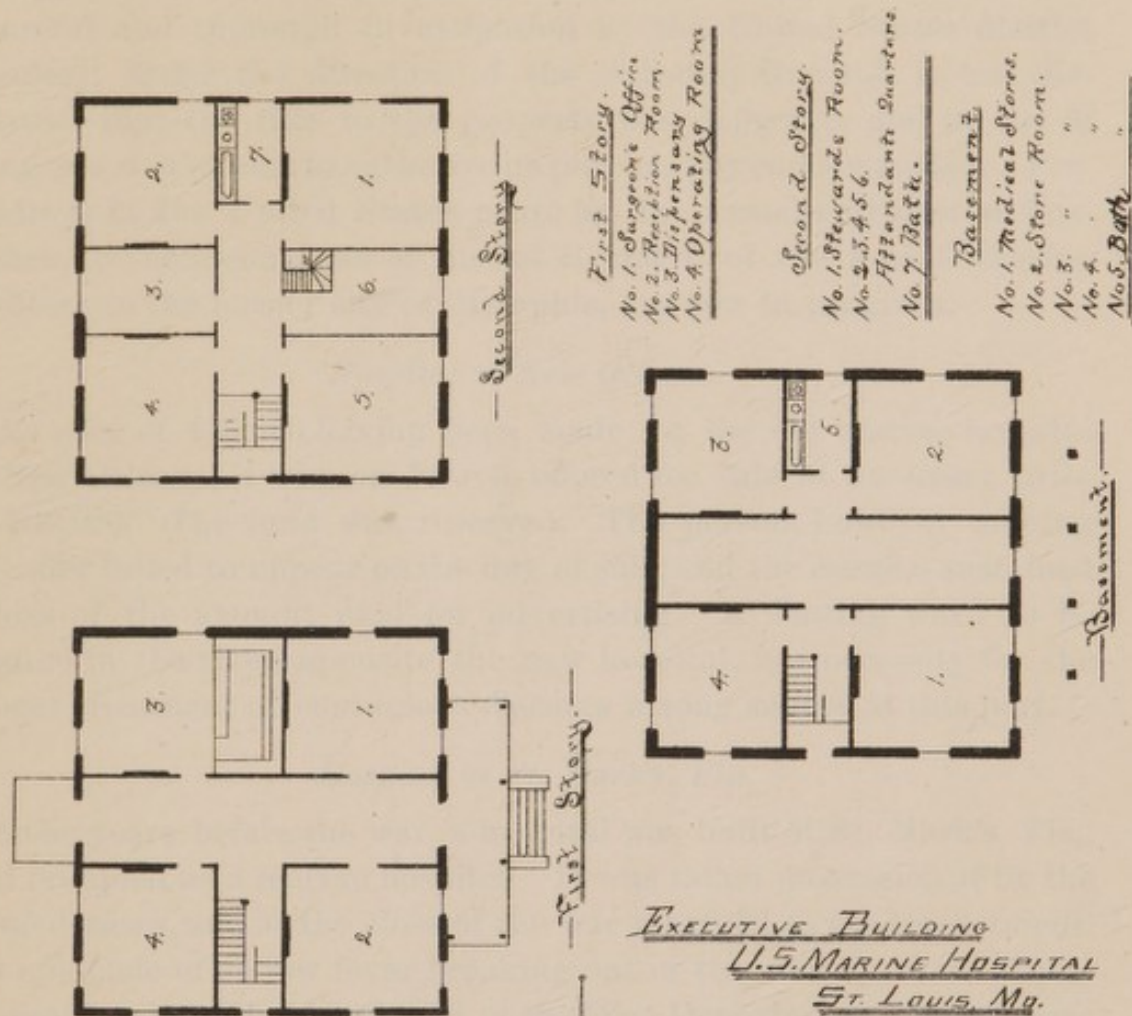
The repairs and improvements referred to in the last annual report as being necessary at St. Louis, Mo., have been finished, and the executive building completed. A description has been furnished by the surgeon in charge, H. W. Sawtelle, as follows:

"Ground was broken for the new executive building of the United States Marine Hospital, St. Louis, Mo., September 15, 1881, and the building was completed ready for occupation February 15, 1882. The plans were prepared under the direction of the Surgeon-General. The building stands on the northwest portion of the reservation, commanding a fine view of the river and surrounding country. It is a brick structure, 44 feet front by 42, with limestone caps for the windows and doors, a veranda in front, and it connects with the pavilion wards by a covered way. The terrace and veranda steps are limestone; the former are provided with a wrought-iron railing. It has two floors, a basement, an attic, and an observatory. The roof is pyramidal. The basement floor is built of five inches of macadam, grouted with cement, and finished with Portland cement one inch thick. The basement rooms are used principally for store-rooms. The surgeon's office, reception-room, dispensary, and operation-room are on the first floor, and the second floor is occupied as quarters for the steward and attendants. The main hall is 10 feet wide, with a marble-tiled floor. The interior trimmings are pine, Eastlake design, with a pellucida finish. All the doors have transoms which operate by patent fastenings. There are two bath-rooms—one on the second floor for the attendants, and one in the basement for medical officers. Each bath-room is provided with a Demorest water-closet and a marble-top wash-bowl. The waste-pipes, which are of cast-iron, run directly down to the basement, where they are trapped, and enter the sewer just outside of the building. The sewer then runs in a southerly direction 130 feet, and connects with the hospital sewer. It is ventilated by a yard trap situated about 15 feet from the building. The soil-pipes of the water-closets are ventilated by an iron pipe which extends through the roof. The rooms are provided with ventilating-registers, which open into flues and terminate in the attic, from which point tin tubes are connected and carried immediately under the slate roof to the ventilating-louvers in the roof lunettes of the observatory. The first floor is heated by a furnace and open grates for anthracite coal. The second floor is heated by means of small stoves.

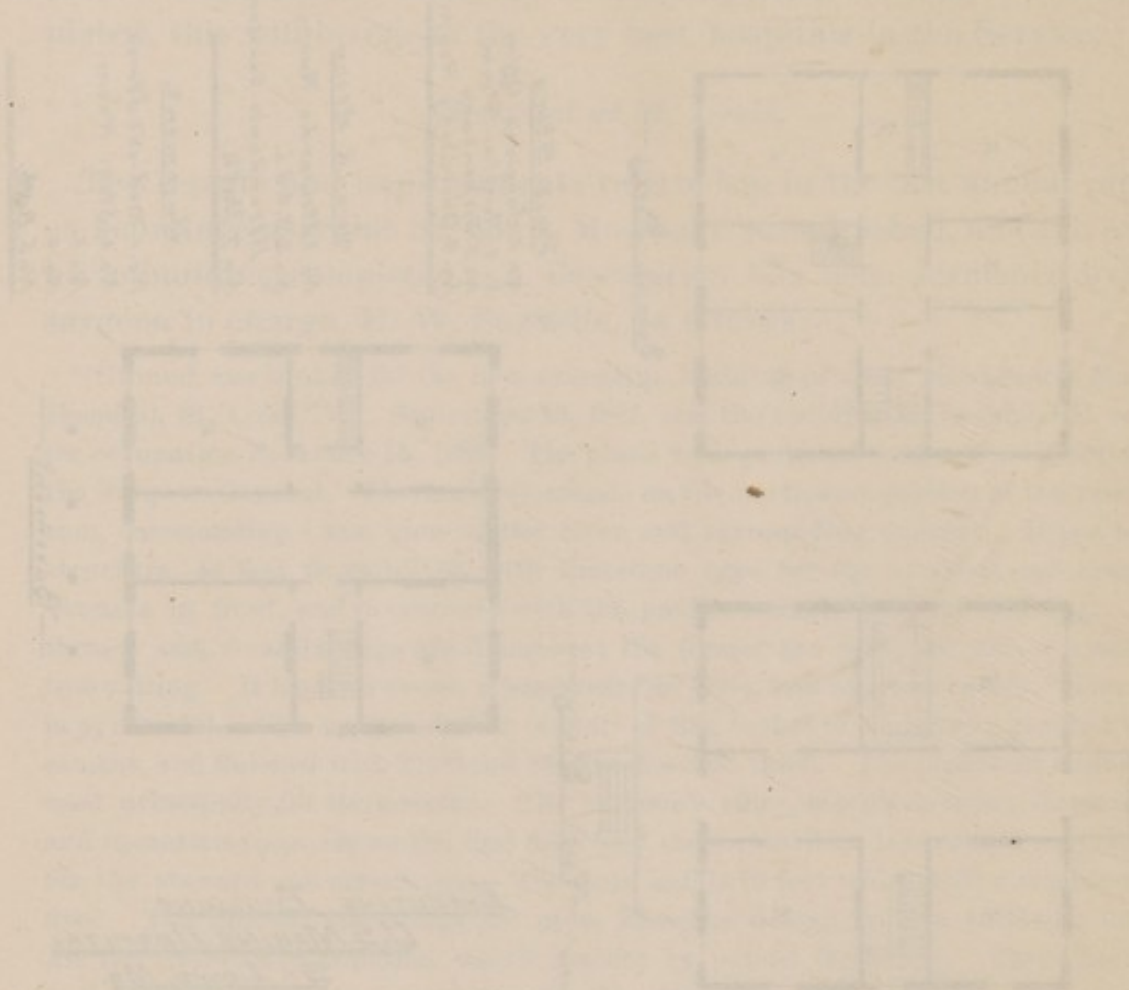
"The dispensary, operation-room, and officers' bath-room are provided with hot water from a cylinder-boiler with proper attachments to a small base-heater."

The first floor is on a level with that of the wards, with which it is connected by a covered corridor.

A cut, showing the building and its arrangement, is subjoined. Great credit is due to the superintendent of repairs at St. Louis, Mr. Cameron, for his careful superintendence of the work.



—Front Elevation.—



Original credit to the St. Louis, Mo. University, for the credit of the work.

Marine Hospital at Memphis.

The construction of this building has not yet been commenced, owing to the difficulty in procuring the title to the site selected. After a careful and thorough investigation by the United States district attorney, under the direction of the Attorney-General, it was discovered that the title to the property was defective, and an act of Congress was passed to authorize its purchase by condemnation. Proceedings in the United States court for the western district of Tennessee, for condemnation of blocks B and C of the Fort Pickering addition to the former city of Memphis, are now in progress.

Hospital at New Orleans.

An offer of \$30,000 having been made for the old marine hospital at New Orleans, it was, on June 5, offered for sale at an upset price of \$30,000. The land was reserved. The person, however, making the offer failed to appear on the day of sale, and the Service sustained a loss of the amount paid for advertising. A floating ward to be moored in the river, opposite the new hospital, is a necessity for the proper treatment of contagious diseases among sailors at this port.

Hospital at St. Mark's, Fla.

Some years before the war, a hospital was built at St. Mark's, Fla., and occupied as a marine hospital. It was taken possession of by the Confederates, and at the close of the war returned to the Department. An epidemic of yellow fever breaking out in the vicinity, it was upon request temporarily transferred to the War Department. Some years later the building was partially blown down by a hurricane. The War Department, having no further use for the property, has recently directed its return to the custody of the Treasury Department. There is at present no need of a marine hospital at the port of St. Mark's, nor, unless the commerce should increase to a remarkable extent, is it likely that there will be. An effort, however, will be made to lease the grounds during the coming year. The building is worthless, the roof being gone, and only a portion of the wall and floor left.

Hospital at Wilmington, N. C.

This building is now in good repair, but needs another ward and separate accommodations for the medical officer. The grounds comprise about forty acres, and while out of the possession of the Government a number of tenement-houses were erected on the reservation by parties, purchasers of the property which had been subdivided by the original purchaser, Doctor King. Suits have been ordered to dispossess these

tenants, and they have been granted the privilege of removing their buildings from the reservation if they so desire. None of the buildings are valuable, and they simply disfigure the premises.

General Statement.

The following are the itemized expenses on account of the necessary alterations and extraordinary repairs heretofore reported as being required at the several hospitals. As stated in the last annual report, the Appropriations Committee of the Forty-sixth Congress were asked to make a special appropriation for these repairs, but the sub-committee by whom it was considered took into account the surplus fund on hand derived from the sale of old hospitals, and recommended the application of so much of the fund as might be necessary for that purpose. Owing to the great advance in the prices of building-material, the cost of the work was very much greater than the estimates which were made two years before, and at the Chicago hospital the work was much more than had been reported as necessary, on account of the lapse of time. The boilers were reported by the United States local inspectors as dangerous, and new ones were required, which still further swelled the expense. The work is still in progress, and a full report will be made on its completion. No contract has been made for the grading and turfing of the grounds, nor for the bulkhead to prevent the annual eneroachments of the lakes. The honorable the Secretary of War has been requested to direct an officer of the Corps of Engineers to make plans and submit an estimate of its cost. It is believed that this expense should be met by an appropriation from Congress.

Statement of Expenditures for Alterations and Extraordinary Repairs of Marine-Hospital Buildings for Fiscal Year ended June 30, 1882.

BOSTON, (CHELSEA, MASS.)

Repairs of steam-heaters	\$277 00
Mason-work, sewers.....	1,773 00
Plumbing-work.....	818 00
Carpenter-work.....	575 00
Lumber.....	38 00
Repair of water-pipes.....	6 32
Total.....	3,487 32

Painting and floors to be finished.

CHICAGO.

Repair of hospital roof, <i>a</i>	\$4,500 00
Iron girder.....	112 00
Boilers, engine, radiators, &c., <i>a</i>	9,750 00
Repair of heaters	41 37
Plumbing.....	842 00
Grates, fenders, ash-pans, &c.....	57 30

a Not included in original estimate.

Mantles.....	\$180 50
Repairs of range.....	150 75
Smoke and vent-pipes.....	150 00
Hardware.....	320 69
Lumber.....	2,808 45
Lime, &c.....	259 50
Plans.....	25 00
Stone.....	109 36
Plastering.....	2,122 50
Mill-work.....	1,003 17
Painting.....	600 00
Gas-machine.....	950 00
Washing-machine.....	472 00
Cinders.....	31 50
Mechanics' wages.....	5,385 25
Total.....	<u>29,871 34</u>

Contracts still unexecuted will be completed by September 1, 1882.

DETROIT.

Painting.....	\$949 63
Repair of furnaces.....	365 23
Plumbing.....	162 30
Tiling.....	413 40
Relaying floors.....	426 53
Sundry repairs.....	128 00
Total.....	<u>2,445 09</u>

Completed.

KEY WEST.

Lumber and labor.....	\$26 25
Nails.....	3 00
Total.....	<u>29 25</u>

LOUISVILLE.

Plumbing.....	\$481 00
---------------	----------

MOBILE.

Repair of pumps.....	\$5 00
Repair of building.....	1,490 00
Total.....	<u>1,495 00</u>

Alterations yet incomplete.

NEW YORK.

Lumber.....	\$260 69
Paints.....	130 45
Repair of heaters, ranges, and pumps.....	482 65
Repair of boilers and pipes.....	369 06
Repair of plumbing.....	224 72
Repair of water-closets and urinals.....	116 84
Repair of chimneys.....	33 75
Water-pipe and rubber hose, (fire-extinguishing apparatus).....	601 20
Repairs of steamer "J. M. Woodworth".....	105 00
Paints and painting.....	72 40
Charter of steam-yacht "Josie B" during repairs of "Woodworth".....	380 00
Total.....	<u>2,776 76</u>

No repairs except those unavoidable.

SAINT LOUIS.

Survey, map, plans, &c	\$231 10
Ambulance-house	295 00
Executive building	7,992 00
Tiling and stone caps	539 08
Carpenter-work	379 50
Furnace, &c	475 75
Iron railing	87 00
Wash-stands	148 00
Gas-pipes and fixtures	407 25
Shelving, &c., for dispensary and store-room	300 00
Stoves for wards and attendants' quarters	446 16
Furniture, carpets, and clock for new building	355 60
Foreman's wages during repairs	512 00
Total	<u>12,168 44</u>

Completed.

SAN FRANCISCO.

Repair of windmill and pumps	\$82 21
Repair of gas-machine	61 65
Connecting pump and lake	81 65
Paints, varnish, &c	31 00
Range	105 00
Surveys, plans, &c	310 00
Total	<u>671 51</u>

VINEYARD HAVEN.

Lumber	\$15 79
Paints	10 34
Signal-staff, cordage, &c	2 10
Total	<u>28 23</u>

WILMINGTON, N. C.

Gas-pipes and fixtures	\$109 45
Repair of water-pipes	3 00
Repair of range, &c	27 93
Plumbing	2 70
Fencing	595 00
Total	<u>738 08</u>

Completed.

SUMMARY.

Boston	\$3,487 32
Chicago	29,871 34
Detroit	2,445 09
Vineyard Haven	28 23
Key West	29 25
Louisville	481 00
Mobile	1,495 00
New York	2,776 76
Saint Louis	12,168 44
San Francisco	671 51
Wilmington, N. C.	738 08
Total	<u>54,192 02</u>

ADDITIONAL HOSPITALS.

The recommendation heretofore made for the establishment of a permanent hospital at New York adequate to the needs of the Service; for the erection of hospitals at Norfolk and Savannah, and the establishment of a national snug harbor, is respectfully renewed. Every succeeding year demonstrates the necessity for a National charity which shall provide, under suitable restrictions, a home for those weather-beaten hulks that, after a life-long struggle with the elements, in the service of American commerce, are stranded homeless and shelterless, without hope, and, as they are non-residents, they are in most instances denied the poor privilege of admission to the almshouses. Aged and decrepit, they are no longer able to go to sea, therefore no longer pay "hospital-money," and, after a few months, cannot enter hospital. In fact, it is not a hospital they stand in need of—it is a home, where their declining days may not be embittered by the reflection that all the hardships they have endured in enhancing the commercial greatness of the Republic were as nothing compared with those resulting from the nation's neglect.

The United States of America stands pre-eminent among nations in its public measures for the relief of the shipwrecked and those overcome by sudden calamity. It ought not, therefore, to be behind any other in adequate provision for those who "are always with us" indeed, but are even more deserving than any other class of the nation's beneficiaries.^a

EXTENSION OF THE FACILITIES OF THE MARINE-HOSPITAL SERVICE.

During the year it has been found necessary to provide a regular medical attendant at several relief-stations where they have not heretofore been provided. It has been found not only more economical to the Government to employ a physician at a regular annual compensation, held under an appointment, and under which he would be responsible to the Government for the efficient administration of the service, but that it really afforded much surer and more prompt relief to patients. With this view, acting assistant surgeons have been appointed at the following ports during the fiscal year:

Pascagoula, Miss.; Shreveport, La.; Port Huron, Mich.; Grand Haven, Mich.; Sault Ste. Marie, Mich.; Corpus Christi, Tex.; Plymouth,

^a A bill for this purpose, introduced by the Hon. Thomas L. Young, of Ohio, is now pending before the Commerce Committee of the House of Representatives.

Mass.; Newport, R. I.; Escanaba, Mich.; East Saginaw, Mich.; Fredericksburg, Va.; Bismarck, Dak.; Indianola, Tex.

The increasing commerce of the Pacific coast renders it necessary to provide additional facilities there. A medical officer has been stationed at Portland, Oregon, and another is under orders for Sitka, Alaska. It is not probable that this will meet the requirements of the Service for any considerable time.

DONATIONS.

Mr. Thomas White, a deceased sailor, bequeathed \$34.25 to the marine hospital at Chelsea, which was expended for an aquarium, which has been placed in the main hall. The proprietors of the Detroit "Marine News" and the "American Ship" have furnished their publications to this office free of expense. The proprietor of the "Nautical Gazette" has furnished a copy of the "Nautical Gazette" and various publications, from time to time, to the hospital on Bedloe's Island, and the Woman's National Relief Association has donated several boxes of clothing, to be issued to destitute convalescents leaving hospital, at four of the principal stations.

EXAMINATION OF PILOTS FOR COLOR-BLINDNESS.

The examination of pilots for color-blindness has been continued during the past year. The following case is given as illustrating in a marked degree the efficacy of the Holmgren worsteds as a test for color-blindness:

A pilot on one of the revenue steamers was examined by a medical officer of this Service and pronounced color-blind. He appealed from this decision, and requested that a board be appointed to examine him. The board reported, as the result of the examination, that with the green skein he matched brown and orange; with the purple he put blue; and he repeatedly matched the colors as stated. The board was "of the opinion that Mr. ——— is color-blind. He is otherwise physically qualified to perform the duties of a pilot." This report was forwarded to the Secretary with the following indorsement: "* * * From the report of the board it will be seen that Mr. ——— is green-blind and red-blind."

The friends of the party being still dissatisfied with the report, and claiming that in the Merchant Service he would be entitled to a re-examination by signal-lights, the Secretary ordered the examination to be so made. The following is the report of the board:

OFFICE OF U. S. LOCAL INSPECTORS OF STEAM-VESSELS,

Boston, Mass., May 15, 1882.

SIR: In pursuance of and by authority of a letter of the Hon. Secretary of the Treasury, dated May 1, 1882, presented to us by the applicant, we this day carefully examined W. C. with the colored lights in use on steam-vessels, and, as required by circular letter No. 46, we submit the following report in detail:

Mr. C. was first shown into a dark room, where two green lights were burning—one, the standard; the other, green, but not up to the standard. After some hesitation both were pronounced red. Then the change was made to both red, which he, after the same hesitation, pronounced both green. Then red and green were shown. These he got correct, but immediately changed the red to green; and then, when asked to state definitely, changed back. On the fourth trial the red and green were shown, and the answer was correct. On the fifth trial a red was shown alone, and the answer was correct. Then this was removed and another red was put in its place—the change being made in full view of the applicant; this he pronounced green.

In view of the above facts, as developed by these tests, we are satisfied that the applicant is unable to “sufficiently distinguish the colored lights on steam-vessels.” We therefore refused to grant the license asked for. We enclose herewith a copy of the letter above referred to; also copy of surgeon’s report.

Very respectfully,

ANDREW BURNHAM,

ANDREW J. SAVAGE,

Local Inspectors.

Gen. JAS. A. DUMONT,

Supervising Inspector-General, Washington, D. C.

From this report the diagnosis made by means of Holmgren’s test was conclusively affirmed.

It is proper to state, however, that it is somewhat rare that the signal-lights are used with such intelligence and care as was done in this instance, and that they will frequently fail to detect single-color blindness.

It is gratifying to be able to announce that the above and one other are the only cases in which the verdict of the skeins has been called in question during the past year. The pilots are now satisfied of the perfect fairness and efficiency of the test. In the other case the applicant came all the way from the Pacific coast to lay his case before the Department, and he was re-examined in this office. The skein test showed green-blindness. An unanswerable proof of the infirmity of the applicant was given when a scarlet book was held against a white wall until the complementary color appeared. The spectators were requested to write on a slip of paper the name of the complementary color as it appeared to them; which they did. The applicant was then asked to name the color, which he was entirely unable to do, saying it all looked “the color of the wall.” The others had, however, written on their respective slips “pale” green and “light” green. This experi-

ment is strongly corroborative of the scientific propriety of the term *color-blindness* as applied to absence of color-sense.

HYGIENE OF THE MERCHANT MARINE.

Attempts have been made during the past year, in the special inspections which have been made by inspectors of customs, to carry out the enforcement of section 4569 of the Revised Statutes relating to ships' medicine-chests, and, at the same time, to aid in securing better hygienic conditions on board vessels. Six cases of scurvy having been reported as admitted to the contract-hospital at Astoria, Oregon, the collector of customs was instructed to ascertain whether lime-juice had been administered as required by law, and, if not, to report the dereliction of the captain to the United States district attorney. He reported to this office as follows:

CUSTOM-HOUSE, ASTORIA, OREGON,
Collector's Office, December 29, 1881.

SIR: Referring to your letter of the 9th instant, in regard to the admission of six cases of scurvy to hospital from the bark "C. Southard Hulbert," and requesting that I make inquiry as to whether section 4569, Revised Statutes, has been observed on board said vessel, and make report to your office, I have the honor to state that upon the receipt of your letter I visited the hospital and examined separately the four remaining patients, to wit, August Bedoin, Henry Woods, Charles Brown, and Victor Waklos, and find that they all agree that no lime-juice was issued until after the scurvy broke out, which was from 100 to 103 days after the vessel left the port of New York, and that no fresh meats were issued after the first day out. Andrew Olsen, seaman, who was discharged and yesterday made application for readmission to hospital, corroborates the statements of the other men. Victor Waklos states that fresh potatoes were served for at least ninety days after the vessel left port, while the other four men state that potatoes were issued for eighteen or nineteen days only. It further appears that one of the above seamen was only on shore about five and the others fourteen days from a long voyage before shipping in the "Hulbert." I have also seen Dr. Aug. C. Kinney, surgeon in charge of the hospital, and he is of the opinion that the men had not sufficient vegetable diet. The vessel is now in Portland, Oregon, discharging, and hence I have been unable to obtain the statements of the other members of the crew. Dr. Kinney is of the opinion that the five seamen remaining in the hospital will not be well enough to discharge for at least fourteen days.

I will visit Portland next week and lay the matter before the United States district attorney for his action.

I am, very respectfully, your obedient servant,

J. O. MERRYMAN,
Collector.

To the SURGEON-GENERAL MARINE-HOSPITAL SERVICE.

CUSTOM-HOUSE, ASTORIA, OREGON,

Collector's Office, July 6, 1882.

SIR: In reply to your letter of the 16th ultimo, inquiring what action, if any, the court had taken in the case of the vessel reported under section 4569, Revised Statutes, I have the honor to state that after hearing the master's, mate's, steward's, and cook's statements in regard to the matter, I reported the same to the district attorney, who notified me that he thought it not advisable to move in the matter.

I am, very respectfully, your obedient servant,

J. O. MERRYMAN,

Collector.

The SURGEON-GENERAL U. S. MARINE-HOSPITAL SERVICE,

Washington, D. C.

Captain Tracey, of New York, of the American Seamen's Friend Society, has called attention to the necessity that exists for the bedding and mess-kit of the sailors being furnished by the vessel, instead of, as now, by the sailor himself, as conducive to greater cleanliness on the one hand, and considerable saving on the other. Many of the sailors, when admitted to hospital, insist on bringing with them old mattresses in all stages of filth, and, in many instances, loaded with vermin. Medical officers have usually, with great propriety, declined to receive these into the hospitals, but storage is usually allowed in one of the outbuildings on the hospital grounds. If suitable mattresses were required by law to be furnished by the vessel, this nuisance would be obviated.

Surgeon Wyman, of this Service, has invited attention to the insufficient accommodations furnished deck-hands on board river-steamers. It appears that on a majority of the steamboats there is no provision whatever for sleeping accommodations for the men, they being compelled to sleep on the lee side of the deck freight when the weather is not too cold, and during the severe weather they manage to crawl in the space between the boiler and the deck. This renders diseases of the lungs and digestive organs of great frequency in the districts of the Ohio and Mississippi, as shown by the returns. Surgeon Wyman's paper accompanies this report, and is supplemental to a previous report by that officer in the annual report for 1876-'77.^a

It was deemed a matter of some importance to ascertain the actual number of deaths reported as occurring on voyages from foreign ports to this country, and to that end the records of the office of the Commissioner of Customs of the Treasury Department have been examined, with the following result. It is proper to remark that the blanks in use failed to give the cause of death, a defect, however, which has recently been remedied, and these returns can hereafter be furnished with greater accuracy.

^a See also a report by Surgeon Bailhache, Annual Report M. H. S., 1874, p. 160.

Deaths on Voyages from Foreign Ports to this Country.

Date.	Vessel.	Where from.	Sex.	Age.	Cause of death.
1881.					
Apr. 21	Abyssinia	Liverpool	Male	44	Not reported.
Apr. 21	do	do	Female	50	Do.
May 27	do	do	do	8	Do.
Oct. 14	do	do	do	48	Diarrhoea.
1882.					
May 11	do	do	Male	66	Consumption.
May 13	America	Bremen	do	9	Bronchitis.
1881.					
July 2	Amsterdam	Rotterdam	Female	37	Not reported.
Oct. 11	do	do	Male	29	Apoplexy.
1882.					
Mar. 21	do	do	Female	50	Marasmus.
May 14	do	Amsterdam	Male	60	Gangrene.
Apr. 24	Anchoria	Glasgow	do	23	Gangrene of lungs.
1881.					
Oct. 25	Arizona	Liverpool	Female	30	Heart disease.
Dec. 2	do	do	Male	74	Senility.
1882.					
Jan. 28	Aufeo	Palermo	do	51	Not stated.
May 2	Baltic	Liverpool	do	50	Delirium tremens.
1881.					
Nov. 4	Belgenland	Antwerp	do	33	Do.
Aug. 13	Belgis	Hong-Kong	do	35	Not reported.
Nov. 15	Bohemia	Hamburg	Female	74	Inanition.
1882.					
Jan. 4	do	do	Male	25	Pneumonia.
Mar. 21	do	do	do	48	Delirium tremens.
Mar. 30	do	Liverpool	do	39	Heart disease.
May 8	do	Hamburg	Female	8	Bronchitis.
May 8	do	do	do	8	Croup.
May 8	do	do	do	51	Endocarditis.
Mar. 6	Bothwell Castle	Hong-Kong	Male	40	Not stated.
Mar. 6	do	do	do	19	Do.
Mar. 6	do	do	do	35	Do.
Mar. 6	do	do	do	36	Do.
1881.					
Nov. 29	Braunschweig	Bremen	do	8	Do.
1882.					
Apr. 22	do	do	do	64	Apoplexy.
Apr. 22	do	do	do	31	Heart disease.
May 14	Bothwell Castle	Hong-Kong	do		Not reported.
May 14	do	do	do		Do.
May 14	do	do	do		Do.
May 14	do	do	do		Do.
Apr. 14	British Prince	Liverpool	do	60	Do.
June 3	Caledonia	Mediterranean	do	34	Pneumonia.
1881.					
Aug. 31	Canada	Havre	do	9	Atrophia.
1882.					
June 20	Canopus	Hong-Kong	do	32	Not reported.
1881.					
Aug. 8	Castor	Amsterdam	Female	8	Do.
June 12	Celtic	Liverpool	do	55	Do.
Dec. 6	do	do	Male	43	Delirium tremens.
1882.					
Apr. 12	Cimbria	Hamburg	do	63	Inanition.
1881.					
Sept. 7	Circassia	Glasgow	do	26	Inflammation of the bowels.
Oct. 12	do	do	do	19	Bright's disease.
Oct. 2	City of Montreal	Liverpool	Female	45	Delirium tremens.
Dec. 27	City of Paris	do	Male	32	Apoplexy.
1882.					
Mar. 27	City of Tokio	Hong-Kong	do	27	Not stated.
Mar. 27	do	do	do	41	Do.
Mar. 21	Devonshire	do	do	38	Do.
Feb. 23	Dom Pedro	Rio	do	45	Do.
Apr. 15	Donau	Bremen	do	23	Apoplexy.
June 9	Dudley	Hong-Kong	do	28	Not stated.
June 18	Ebbe	Bremen	Female	9	Bronchitis.
June 17	Edam	Amsterdam	Male	9	Meningitis.
1881.					
Sept. 15	Egyptian Monarch	London	Female	36	Not reported.
Oct. 4	Ethiopia	Glasgow	Male	22	Heart disease.
Nov. 22	Ferdinand d'Lesseps	Marseilles	do	17	Pneumonia.
Nov. 3	Frachat	do	do	16	Not stated.
Oct. 29	Frisia	Hamburg	do	34	Delirium tremens.
1882.					
May 17	Furnessia	Glasgow	do	55	Heart disease.

Deaths on Voyages from Foreign Ports to this Country.

Date.	Vessel.	Where from.	Sex.	Age.	Cause of death.
1881. Sept. 12	Gallie.....	Yokahama.....	Male....	36	Not reported.
1882. Feb. 9	do.....	Hong-Kong.....	do.....	42	Do.
Feb. 9	do.....	do.....	do.....	26	Do.
Mar. 8	Gellert.....	Hamburg.....	do.....	68	Apoplexy.
1881. Sept. 28	General Werder.....	Bremen.....	do.....	51	Not reported.
Sept. 19	Habsburg.....	do.....	Female..	29	Do.
1882. May 11	Helvetia.....	Liverpool.....	Male....	21	Pneumonia.
1881. July 27	Henry Edye.....	Antwerp.....	do.....	37	Not reported.
Aug. 31	Herder.....	Hamburg.....	do.....	13	Do.
Sept. 21	Herman.....	Bremen.....	Female..	79	Do.
1882. Apr. 6	Hohenstaufen.....	do.....	Male....	19	Erysipelas.
May 2	Italia.....	Mediterranean ports.	do.....	38	Pneumonia.
May 2	do.....	do.....	do.....	52	Consumption.
1881. Dec. 5	Italy.....	Liverpool.....	do.....	60	Heart disease.
July 2	Kolon.....	Bremen.....	Female..	46	Not reported.
Nov. 14	do.....	do.....	Male....	32	Do.
1882. Apr. 6	do.....	do.....	do.....	9	Consumption.
Apr. 6	do.....	do.....	do.....	46	Cancer.
Apr. 6	do.....	do.....	do.....	25	Pneumonia.
1881. Dec. 7	Labrador.....	Havre.....	Female..	71	Senility.
1882. Feb. 23	do.....	do.....	Male....	50	Pneumonia.
Apr. 27	Lake Champlain.....	Liverpool.....	Female..	44	Childbirth.
Mar. 31	Lake Huron.....	do.....	Male....	28	Consumption.
Feb. 3	Lake Manitoba.....	do.....	do.....	50	Delirium tremens.
May 10	Lampoon.....	Honolulu.....	do.....	38	Unknown.
June 23	Leipzig.....	Bremen.....	do.....	50	Not reported.
Apr. 20	Lydian Monarch.....	London.....	do.....	9	Consumption.
Apr. 20	do.....	do.....	Female..	29	Childbirth.
Apr. 20	do.....	do.....	Male....	24	Consumption.
1881. Oct. 18	Maas.....	Rotterdam.....	Female..	51	Pneumonia.
1882. Apr. 8	Main.....	Bremen.....	Male....	51	Senility.
Apr. 18	Meuth.....	Hong-Kong.....	do.....	24	Not stated.
Apr. 18	do.....	do.....	do.....	42	Do.
Apr. 18	do.....	do.....	do.....	33	Do.
No date..	Montreal.....	Antwerp.....	do.....	32	Not reported.
No date..	do.....	do.....	Female..	64	Do.
Jan. 2	Mosel.....	Bremen.....	do.....	63	Old age.
June 3	do.....	do.....	do.....	23	Heart disease.
1881. Dec. 7	Neckar.....	do.....	do.....	42	Consumption.
1882. Apr. 2	do.....	do.....	do.....	37	Lung disease.
1881. July 30	Nederland.....	Antwerp.....	do.....	31	Not reported.
Oct. 23	do.....	do.....	Male....	61	Heart disease.
Dec. 12	do.....	do.....	do.....	10	Pneumonia.
1882. May 22	do.....	do.....	do.....	70	Old age.
1881. Aug. 31	Nevada.....	Liverpool.....	do.....	31	Not reported.
1882. Mar. 2	Oceanic.....	Hong-Kong.....	do.....	31	Do.
Mar. 2	do.....	do.....	do.....	28	Do.
Mar. 12	Oder.....	Bremen.....	do.....	38	Diarrhœa.
Apr. 10	Ohio.....	do.....	Female..	24	Not stated.
No date..	do.....	Liverpool.....	Male....	40	Do.
Apr. 17	Pennsylvania.....	do.....	do.....	69	Do.
1881. Oct. 15	Persian Monarch.....	London.....	do.....	70	Apoplexy.
Dec. 19	Pollux.....	Amsterdam.....	Female..	31	Heart disease.
Dec. 6	Prussian.....	Glasgow.....	Male....	56	Not reported.
1882. June 15	Rafitte.....	Bordeaux.....	do.....	41	Heart disease.
1881. July 8	Republic.....	Liverpool.....	do.....	48	Not reported.
Aug 12	do.....	do.....	Female..	44	Consumption.
Dec. 2	Rhein.....	Bremen.....	do.....	35	Do.

Deaths on Voyages from Foreign Ports to this Country.

Date.	Vessel.	Where from.	Sex.	Age.	Cause of death.
1882. Apr. 12	Rhein.....	Bremen.....	Male....	38	Consumption.
1881. Dec. 25	Rhenania.....	Hamburg.....	do.....	16	Epilepsy.
1882. Apr. 26	do.....	do.....	Female..	28	Diphtheria.
June 24	Rotterdam.....	Rotterdam.....	do.....	9	Dysentery.
May 3	do.....	do.....	Male....	30	Hernia, strangulated.
Mar. 1	St. Germania.....	Havre.....	do.....	60	Apoplexy.
Apr. 10	Samaria.....	Liverpool.....	do.....	22	Not stated.
1881. June 7	Salier.....	Bremen.....	do.....	50	Do.
1882. May 16	do.....	do.....	do.....	63	Old age.
1881. June 4	Scholten, W. A.....	Rotterdam.....	do.....	40	Not reported.
1882. Apr. 6	do.....	do.....	do.....	78	Marasmus.
June 3	Scholten.....	do.....	Female..	55	Apoplexy.
Feb. 21	Servia.....	Liverpool.....	Male....	28	Delirium tremens.
Mar. 1	Silesia.....	Hamburg.....	do.....	21	Pneumonia.
Jan. 31	Somerset.....	Bristol.....	do.....	28	Delirium tremens.
1881. July 24	Stella.....	Amsterdam.....	do.....	47	Diarrhoea.
July 11	Strasburg.....	Bremen.....	Female..	19	Not reported.
1882. Apr. 17	Surrey.....	Amsterdam.....	Male....	39	Apoplexy.
Apr. 17	do.....	do.....	do.....	60	Pneumonia.
Apr. 17	do.....	do.....	Female..	8	Do.
May 31	do.....	do.....	do.....	59	Old age and debility.
Apr. 18	The Queen.....	Liverpool.....	Male....	28	Pneumonia.
1881. Aug. 1	Vandalia.....	Hamburg.....	Female..	8	Not reported.
Aug. 1	do.....	do.....	do.....	17	Do.
Sept. 19	do.....	do.....	do.....	38	Do.
1882. May 15	do.....	do.....	Male....	37	Bronchitis.
May 15	do.....	do.....	Female..	41	Congestion of brain.
Apr. 21	Victoria.....	Mediterranean ports.	Male....	37	Pericarditis.
1881. Aug. 9	Weser.....	Bremen.....	Female..	80	Not reported.
Oct. 27	do.....	do.....	Male....	39	Do.
Aug. 16	Westphalia.....	Hamburg.....	Female..	60	Do.
Oct. 13	Wilhelre, K. P. F.....	Bremen.....	do.....	50	Do.
1882. Feb. 5	Wieland.....	Hamburg.....	Male....	29	Inflammation of brain.
1881. Apr. 21	Wyoming.....	Liverpool.....	do.....	20	Not reported.
June 1	do.....	do.....	do.....	56	Do.

Outbreak of Small-pox.

The recent outbreak of small-pox during the past year has increased the expense of the Service, and caused considerable annoyance to this office on account of complicated sanitary regulations at certain ports. The following is a statement of the ports and places where the disease appeared among the sailors, together with the date of such appearance. It should be remembered that none of the cases reported in this table were immigrants; all were sailors and boatmen, who could have little if any contact with immigrants, and the infection was presumably acquired on shore in all the primary cases.

Outbreak of Small-pox—Ports and Places where the Disease appeared, &c.

Vessel on which the patient last sailed.	Date of admission to hospital.	Number of cases.	Port of admission.	Result of treatment.
A. W. Smith	Sept. 30, 1881	1	Portsmouth, N. H.	Recovered.
Steamer Hudson	Nov. 24, 1881	1	Cincinnati, Ohio	Died.
Steamer W. P. Thompson	Dec. 8, 1881	1	New Orleans, La.	Do.
Do	Mar. 29, 1882	1	Cincinnati	Recovered.
Steamer C. Morgan	Dec. 8, 1881	1	New Orleans, La.	Died.
Steamer Guiding Star	Dec. 11, 1881	1	Cairo, Ill.	Do.
Do	Mar. 18, 1882	1	New Orleans	Recovered.
Do	Apr. 1, 1882	1	Cincinnati	Do.
Do	May 31, 1882	1	New Orleans	Remaining.
Steamer Telegraph	Dec. 11, 1881	1	Cincinnati	Recovered.
Steamer Coal Valley	Dec. 20, 1881	1	do	Do.
Steamer Cambridge	Dec. 21, 1881	1	Bangor, Maine	Do.
Steamer Bright Light	Dec. 21, 1881	1	Cairo, Ill.	Do.
Steamer Samson, No. 2	Dec. 27, 1881	1	Cincinnati	Died.
Schooner Jacob Keinzle	Dec. 27, 1881	1	Norfolk, Va.	Recovered.
Steamer Pittsburgh	Jan. 3, 1882	1	Cincinnati	Died.
Brig Osseo	Jan. 3, 1882	1	New York, N. Y.	(a)
Ship Dashing Wave	Jan. 4, 1882	1	San Francisco	(a)
Steamer Silverthorn	Jan. 11, 1882	1	Cairo, Ill.	Recovered.
Do	Jan. 27, 1882	1	do	Died.
Do	Apr. 15, 1882	1	do	Do.
Steamer Fleetwood	Jan. 11, 1882	1	Cincinnati	Recovered.
Steamer Henry Frank	Jan. 12, 1882	1	New Orleans	Died.
Schooner Scotia	Jan. 13, 1882	1	Chicago	Recovered.
Sloop Catherine Francis	Jan. 13, 1882	1	Norfolk	Do.
Steamer City of Baton Rouge	Jan. 16, 1882	1	Cairo, Ill.	Do.
Do	Jan. 17, 1882	1	do	Do.
Steamer Florence N. Tower	Jan. 20, 1882	1	Vineyard Haven	Died.
Do	Jan. 21, 1882	1	do	Recovered.
J. H. Farwell	Jan. 22, 1882	1	Chicago	Died.
Steamer City of Helena	Jan. 23, 1882	1	Cairo, Ill.	Do.
Steamer Yazoo Valley	Jan. 29, 1882	1	New Orleans	Recovered.
Steamer Chas. Reitz	Jan. 31, 1882	1	Chicago	Died.
Steamer Jas. W. Gaff	Feb. 2, 1882	1	Cincinnati	Recovered.
Do	Feb. 25, 1882	1	Louisville	Do.
Do	Feb. 28, 1882	1	Evansville	Do.
Schooner Mary G. Farr	Feb. 6, 1882	1	Vineyard Haven	Do.
Steamer R. E. Lee	Feb. 7, 1882	1	Vicksburg	Do.
Steamer Paris C. Brown	Feb. 8, 1882	1	New Orleans	Died.
Do	Feb. 20, 1882	1	Cincinnati	Do.
Do	Apr. 27, 1882	1	Memphis	Do.
Do	June 7, 1882	1	Cincinnati	Recovered.
Steamer Bonanza	Feb. 9, 1882	1	do	Died.
Steamer Emma Graham	Feb. 10, 1882	1	do	Recovered.
Do	Feb. 25, 1882	1	do	Died.
Do	Mar. 25, 1882	1	do	Do.
Do	Mar. 27, 1882	1	do	Recovered.
Steamer Wyoming	Feb. 15, 1882	2	do	Died.
Do	Feb. 16, 1882	1	do	Do.
Do	Feb. 27, 1882	1	St. Louis	Do.
Do	Mar. 2, 1882	2	Cairo, Ill.	Recovered.
Do	Mar. 10, 1882	1	Evansville, Ind.	Do.
Do	Apr. 7, 1882	1	do	Do.
J. M. White	Feb. 16, 1882	1	New Orleans	Died.
Steamer Sam Miller	Feb. 17, 1882	1	Cincinnati	Recovered.
Steamer Cons. Miller	Feb. 18, 1882	1	Louisville	Died.
C. J. Willard	Feb. 18, 1882	1	Portland, Maine	Do.
Steamer Golden Rule	Feb. 18, 1882	1	Vicksburg	Do.
Do	Mar. 6, 1882	1	Cairo, Ill.	Do.
Do	Mar. 22, 1882	1	Cincinnati	Do.
Do	Mar. 28, 1882	1	Evansville	Recovered.
Steamer Dean Adams	Feb. 20, 1882	1	Memphis	Died.
Steamer City of Portsmouth	Feb. 22, 1882	1	Cincinnati	Do.
Schooner Lida Babcock	Feb. 24, 1882	1	Norfolk	Do.
Steamer City of Greenville	Feb. 25, 1882	1	Cairo	Recovered.
Steamer Golden Crown	Feb. 28, 1882	1	Memphis	Do.
Do	Mar. 8, 1882	1	Cincinnati	Died.
Do	Mar. 10, 1882	1	do	Do.
Do	Mar. 12, 1882	1	do	Recovered.
Do	Mar. 13, 1882	1	do	Do.
Do	Mar. 18, 1882	1	do	Do.
Do	May 10, 1882	1	Vicksburg	Died.
Do	May 17, 1882	1	Memphis	Recovered.

a Transferred to city health authorities, and the result not reported.

Outbreak of Small-pox—Ports and Places where the Disease appeared, &c.—Continued.

Vessel on which the patient last sailed.	Date of admission to hospital.	Number of cases.	Port of admission.	Result of treatment.
Steamer Sidney.....	Mar. 2, 1882	1	Cincinnati.....	Recovered.
Do.....	Mar. 14, 1882	1	do.....	Do.
Susan H. Ritchie.....	Mar. 3, 1882	1	Portland.....	Do.
Do.....	Mar. 4, 1882	1	do.....	Do.
Whisper.....	Mar. 9, 1882	1	New Orleans.....	Do.
Do.....	Mar. 23, 1882	1	do.....	Died.
Mercedita.....	Mar. 9, 1882	1	Portland.....	Recovered.
Steamer Jno. D. Scully.....	Mar. 10, 1882	1	Shreveport.....	Do.
Steamer Jno. W. Cannon.....	Mar. 10, 1882	1	Vicksburg.....	Do.
Do.....	Mar. 24, 1882	1	New Orleans.....	Died.
J. H. Hanna.....	Mar. 11, 1882	1	do.....	Recovered.
Do.....	Mar. 31, 1882	1	do.....	Do.
Steamer Jno. B. Maude.....	Mar. 11, 1882	1	St. Louis.....	Do.
Do.....	Apr. 1, 1882	1	Memphis.....	Died.
Steamer General Lytle.....	Mar. 13, 1882	1	Louisville.....	Do.
Steamer Era, No. 10.....	Mar. 13, 1882	1	New Orleans.....	Recovered.
Steamer Libbie Conger.....	Mar. 14, 1882	1	St. Louis.....	Do.
St. John.....	Mar. 15, 1882	1	New Orleans.....	Died.
Steamer Buckeye State.....	Mar. 16, 1882	1	Cairo.....	Recovered.
Jno. Howard.....	Mar. 16, 1882	1	New Orleans.....	Died.
Steamer E. C. Elliott.....	Mar. 16, 1882	1	St. Louis.....	(a)
Alex. Chambers.....	Mar. 17, 1882	1	New Orleans.....	Recovered.
Steamer Little Sampson.....	Mar. 18, 1882	1	Cincinnati.....	Died.
Steamer Dora Cabler.....	Mar. 21, 1882	1	Evansville.....	Recovered.
Do.....	Apr. 5, 1882	1	do.....	Do.
Steamer Thos. Means.....	Mar. 25, 1882	1	Louisville.....	Died.
Steamer Bostona.....	Mar. 25, 1882	1	Cincinnati.....	Recovered.
Steamer Robt. Peebles.....	Mar. 27, 1882	1	do.....	Do.
Steamer Natchez.....	Mar. 27, 1882	1	New Orleans.....	Do.
Corona.....	Mar. 28, 1882	1	do.....	Do.
Belle.....	Mar. 28, 1882	1	do.....	Do.
Granite State.....	Mar. 26, 1882	1	Memphis.....	Recovered.
Do.....	Apr. 3, 1882	1	Cincinnati.....	Died.
Steamer Alice Brown.....	Mar. 31, 1882	2	St. Louis.....	(a)
Steamer New Mary Hueston.....	Apr. 3, 1882	1	Cincinnati.....	Died.
Do.....	Apr. 26, 1882	1	Louisville.....	Recovered.
Steamer Virgie Lee.....	Apr. 6, 1882	1	Cincinnati.....	Do.
Do.....	June 25, 1882	1	do.....	Do.
Vint Shinkle.....	Apr. 7, 1882	1	Cairo.....	Do.
Do.....	May 23, 1882	1	do.....	Do.
Steamer Hickory.....	Apr. 11, 1882	1	do.....	Died.
Steamer Thos. Sherlock.....	Apr. 13, 1882	1	do.....	Do.
Steamer Guthrie.....	Apr. 13, 1882	1	Evansville.....	Do.
Steamer City of Cairo.....	Apr. 15, 1882	1	St. Louis.....	(a)
Do.....	June 12, 1882	1	Memphis.....	Died.
Schooner Juvenile.....	Apr. 17, 1882	1	Baltimore.....	Recovered.
Schooner Wye.....	Apr. 19, 1882	1	do.....	Do.
Steamer Jim Wood.....	Apr. 19, 1882	1	Louisville.....	Died.
Steamer Gem City.....	Apr. 20, 1882	1	St. Louis.....	(a)
Steamer Spread Eagle.....	Apr. 21, 1882	1	do.....	(a)
Steamer Dexter.....	Apr. 25, 1882	1	Evansville.....	Died.
Steamer Fannie Tatum.....	Apr. 25, 1882	1	St. Louis.....	(a)
Steamer Belle Memphis.....	Apr. 28, 1882	2	Cairo.....	Recovered.
Steamer Annie P. Silver.....	May 1, 1882	1	Memphis.....	Died.
Steamer E. M. Norton.....	May 1, 1882	1	St. Louis.....	(a)
Steamer City of Alton.....	May 2, 1882	1	Cairo.....	Died.
Steamer Roanoke.....	May 11, 1882	1	Detroit.....	Remaining.
Steamer Danube.....	May 11, 1882	1	New Orleans.....	Recovered.
Steamer City of Nashville.....	May 16, 1882	1	Nashville.....	Died.
Steamer Andes.....	Apr. 23, 1882	1	Wheeling, W. Va.....	Recovered.
Schooner Wave.....	Apr. 25, 1882	1	New London, Conn.....	Died.
Schooner Ida Keith.....	June 2, 1882	1	Cleveland.....	(a)
Steamer Jno. A. Scudder.....	June 7, 1882	1	Cairo.....	Recovered.
Belle Hopkins.....	June 12, 1882	1	Portland, Maine.....	Died.
Revenue-Steamer Dallas.....	June 26, 1882	1	do.....	Remaining.

a Transferred to city health authorities, and the result not reported.

Total number of small-pox cases during the year, 155, of whom 62 are reported as having died, but the deaths were probably in excess of this number, full reports not having been received from city health authorities.

Vaccinations.

Prompt measures were taken to prevent the spread of the disease, and, as far as this Service had control over the merchant marine, the crews were carefully vaccinated at the several ports. The disinfection and fumigation of the vessels not being under control of the Marine-Hospital Service, I am not able to report whether the vessels were disinfected or not. It is presumed that the masters performed or neglected that service, each according to his own judgment. The following table shows the vaccinations made, by ports. As in only a few instances the patients reappeared at the surgeon's office, it is not practicable to include in the table a statement of the results. It is, however, a fact that there were, proportionally, fewer cases of small-pox subsequently developed among the boatmen than among the inhabitants of several cities where the disease prevailed.

Port.	No. of cases.	Port.	No. of cases.
Baltimore, Md.....	174	New Berne, N. C.....	31
Bismarck, Dak.....	121	New Orleans, La.....	212
Buffalo, N. Y.....	2	Norfolk, Va.....	145
Cairo, Ill.....	28	New York, N. Y.....	99
Chattanooga, Tenn.....	10	Philadelphia, Pa.....	14
Chicago, Ill.....	50	Pittsburgh, Pa.....	32
Cincinnati, Ohio.....	569	Portland, Maine.....	117
Evansville, Ind.....	223	Plymouth, Mass.....	2
Galveston, Tex.....	1	Savannah, Ga.....	39
Georgetown, D. C.....	13	St. Louis, Mo.....	975
Louisville, Ky.....	186	Tappahannock, Va.....	25
Memphis, Tenn.....	82	Tuckerton, N. J.....	31
Milwaukee, Wis.....	6		
Mobile, Ala.....	56	Total.....	3, 278
New Bedford, Mass.....	35		

The following correspondence between this office and the respective ports shows the difficulties attending the management of the Service during the prevalence of small-pox:

Small-pox on the Upper Missouri.

[COPY OF A SPECIAL REPORT TO THE ASSISTANT SECRETARY OF THE TREASURY.]

TREASURY DEPARTMENT,

Office Supervising Surgeon-General, U. S. Marine-Hospital Service,

Washington, July 4, 1882.

SIR: I have the honor to acknowledge the receipt of your communication of this date, directing a report of the facts connected with the recent outbreak of small-pox in Montana, and, in answer, to respectfully report that on May 13, 1882, the following telegram was received by the Secretary of the Treasury and referred to this office, marked "Special:"

FORT BENTON, MONT., May 12, (via Bismarck.)

SECRETARY OF TREASURY,

Washington, D. C.:

Steamer "General Meade," in Missouri river, *en route* to this fort, has small-pox on board. At request of local authorities, I shall order her to be quarantined below Coal

Banks station, forty miles below here. There are no Territorial sanitary laws. More boats coming with disease reported on board. I ask instructions by telegraph.

W. H. HUNT, JR.,
Collector of Customs.

The following telegraphic reply was sent:

TREASURY DEPARTMENT,
Washington, D. C., May 13, 1882.

Collector W. H. HUNT,

Benton, Montana, (via Bismarck:)

If you can get quarters on shore for small-pox sailors on board steamboats, do so. Employ physician, not exceeding \$10 per day, and remove patients from vessel. Municipal authorities must provide for persons not sailors. Vessels liable for expenses of fumigation.

HAMILTON,
Surgeon-General.

The following letter was written on the same date:

COLLECTOR OF CUSTOMS,

Fort Benton, Montana Territory:

SIR: Referring to your telegram of May 12, addressed to the Secretary of the Treasury, I enclose a copy of the reply sent you this day. In this connection it is proper to state that the general expenses of a quarantine station are held to be a proper charge upon the authorities of a town, who, of course, can enact their own ordinances relative to the charges to be assessed upon vessels. The sections of the Revised Statutes forbidding United States officers from interfering with local sanitary laws not being applicable in a Territory, there need be no friction between you and the local authorities, and the vessel can properly be held subject to your order. It seems to me a suitable pest-house might be leased, or even erected, with the permission of the owner of the land, in the suburbs, or near Benton, if many cases of the disease are likely to occur; or upon some tract of land owned by the Government, if there be no objection on the part of its immediate custodian. If a suitable building is not procurable, it is suggested that a tent should be erected on the bank, as patients with contagious diseases ought not to be left on board the vessel to still further infect it.

I will thank you to inform me fully by mail upon all these particulars, and in the meantime you will forward bills for such expenses as have been incurred under authority of the telegram, for examination and settlement.

Very respectfully,

JOHN B. HAMILTON,
Surgeon-General, M. H. S.

On May 17 the following telegram was received by the Secretary and referred to this office:

BENTON, MONT., *May 16, 1882.*

SECRETARY OF TREASURY, *Washington, D. C.:*

Steamer "Nellie Peck" here with small-pox. There are no municipal authorities and no sanitary law. A self-organized committee of citizens have appealed to me. What authority shall I exercise, in the absence of all local law, in the premises? People and boats stopped forty miles down at Coal Banks station, where steamer "Meade" is with small-pox. There is an Army surgeon at Coal Banks. Can I order examination of all boats *en route*, and stop other importations of disease, by forbidding boats coming? People rely upon my aid. I ask immediate instructions. Surgeon-General's instructions will be followed as best I can.

WM. H. HUNT, JR.,
Collector.

Upon receipt of this telegram I called in person on the secretary of the National Board of Health and informed him of its contents, and inquired whether they could take immediate action. He said he would lay the telegram before the board when a meeting was called, and would call a meeting of the executive committee. He further informed me that, by summoning Dr. Smith from New York and Dr. Cabell from Virginia, a meeting might be had perhaps the next day, and at furthest the day following; that there would be no delay in considering the telegram; but the rules must be changed and approved by the President to enable them to act in the Territories. Feeling impressed with the necessity for immediate action, I took the telegram to the Secretary of the Treasury, who sent the following telegram:

TREASURY DEPARTMENT, *May 17, 1882.*

COLLECTOR OF CUSTOMS, *Benton, Montana*, (via Bismarck:)

Recognize the committee of citizens as local health board, and act as executive officer under their authority. Persons able to pay should pay you for committee; sailors' bills you will forward here. Vessel must pay necessary lighterage. Forward estimate for additional necessary expenses, certified by president of the committee, to include sick emigrants unable to pay.

CHAS. J. FOLGER,
Secretary.

The only expense incurred under these orders is a bill of the physician, amounting to thirty dollars, for inspecting six vessels, at five dollars each.

The Marine-Hospital Service has, in addition, paid several bills for the vaccination of steamboat crews at Bismarck, and claims will be submitted for the treatment of three seamen from the "General Meade."

The final report of the collector is herewith transmitted, from which it will be seen that the service was satisfactorily performed, and that the exigency was fully met.

The bill for thirty dollars above mentioned was referred to the National Board of Health for payment out of the fund to be used in aid of local boards of health, and I have been informed that the board ordered its payment.

I am, sir, very respectfully, your obedient servant,

JOHN B. HAMILTON,
Surgeon-General, M. H. S.

Hon. H. F. FRENCH,
Assistant Secretary of the Treasury.

Pest-Houses.

The prevalence of the disease has shown the importance of having at each hospital station a suitable pest-house in which patients afflicted with contagious diseases can be provided for. A small pest-house was built on the hospital grounds at Chicago, at a cost of \$75. A pest-house is soon to be constructed at Portland, Maine. In view of the severity of the winter climate, the pest-house at that port requires to be built with greater solidity than at other places. At Vineyard Haven, Mass., during the epidemic, the surgeon was telegraphed to provide a hospital-tent. (The report of the case treated therein is elsewhere printed.) This tent was constructed by making a tight

wooden floor about fifteen by eighteen feet, supported on posts two feet above ground, and boarding the sides with weather-boarding to a height of about six feet. The ridge-pole was placed in position, and a canvas tent, with fly, thrown over it, constituting the roof and upper portion of the side. A stove was placed in the tent, and fire kept night and day during its occupancy. The patient treated therein recovered. Other patients treated in the hospital building, although apparently no worse at the outset, died. Without drawing a particular conclusion from this case, it stands to reason that a disease so infectious as small-pox may be managed much better in such a structure than in a hospital building with tight walls.

PROPOSED REDUCTION OR ABOLITION OF THE MARINE-HOSPITAL TAX.

A bill having been introduced into the Senate for the relief of shipping, &c., containing a provision for the abolition of the hospital tax, it was referred to this office, when the following report was made, under date of March 24, 1882:

SIR: I have the honor to acknowledge the receipt, by reference, of Senate bill No. 1402, for the relief of shipping, together with Senate Miscellaneous Document No. 69, the latter being the memorial of Mr. F. A. Pike, concerning the reduction of taxes on coasting-vessels, and in relation to section 3 of the said bill and certain statements of the memorial, to be hereafter adverted to, to report:

Said section reads as follows:

"SEC. 3. That the assessment of forty cents per month, authorized by section forty-five hundred and eighty-five of the Revised Statutes of the United States, shall not hereafter be collected from the master or owners of vessels engaged exclusively in the coasting trade or in fishing."

The section of the statutes referred to is the section under which the hospital tax has been collected, and, if the bill be adopted as it stands, would seriously cripple the Marine-Hospital Service, unless Congress made regular appropriations for its support. Moreover, it would not accomplish the purpose of the bill, namely, the relief of shipping, as will be shown.

So far as fishing-vessels are concerned, I have to report that the hospital tax has never been collected from vessels engaged in the fisheries, as appears from the following letter of Secretary Gallatin, under date of August 30, 1805:

TREASURY DEPARTMENT, *August 30, 1805.*

SIR: Your letter of the 17th instant was duly received. Seamen employed in fisheries are not expressly excepted from the payment of hospital-money; but that payment is confined to vessels licensed for the coasting trade, and to vessels arriving from foreign ports. It results that a vessel exclusively employed in the fisheries, and which has not been during her voyage in a foreign port, is exempted, but she is not so exempted as a fishing-vessel, but merely as being neither a coasting-vessel nor arrived from a foreign port.

It follows that every vessel arriving from a foreign port is equally liable to pay the hospital-money, and must pay it on the principle fixed by the words of the law,

viz., for the time which has expired since the vessel was last entered at any port in the United States. No exemption is made in favor of vessels which may have been during a part of that period employed in fisheries, nor can any deduction be made on that account by the collector.

I have the honor to be, respectfully, sir, your obedient servant,

ALBERT GALLATIN.

DANIEL COFFIN, Esq.,

Collector, Nantucket.

It is, however, proper to state, in this connection, that vessels engaged in fishing during a portion of the year sometimes surrender their fishing license, and then take out coasters' license for the remainder of the time, which, of course, renders them liable to the payment of the hospital-tax, under the law.

In the argument on this bill which is contained in the memorial of Mr. Pike it is stated that this tax "obliges the crew managing the vessel to pay a monthly tax to hospitals they seldom or never use, and this tax has been doubled in the last ten years. * * * The hospital tax, which is \$4.80 annually to the sailor, should be removed altogether. The sailor in one of our coasting vessels pays taxes at home like other citizens, and when sick he gets well when and as he can."

In the same document is attached a letter from Mr. Nutt, formerly collector of customs at Eastport, Maine, who states:

"Hospital-money was formerly 20 cents per month; now it is 40 cents.

"It is too much to try for, but there is no sense in the hospital-tax. The true way is to treat seamen as men, collect nothing from them, and make no hospital provision for them. The great portion of the fund is used up in maintaining costly buildings and large salaries, and, like everything else, the Marine-Hospital Department is steadily laboring to enlarge its powers and the influence of its head. That and the Revenue-Marine Service should be abolished. They are of no earthly use to the people."

Statements follow concerning the fees collected in the Canadian port of St. Andrew's for similar classes of vessels.

As this matter seems to take the broader ground of involving the expediency of maintaining the Hospital Service, and in the speech of the Senator presenting the same, unfavorable comparisons were made between the American service and the Canadian hospital service, I addressed a letter to the Deputy Minister of Marine and Fisheries, Ottawa, Canada, as follows:

[Unofficial.]

"MARCH 10, 1882.

"HON. WM. SMITH,

Deputy Minister of Marine and Fisheries, Ottawa, Canada.

"MY DEAR SIR: If perfectly proper to do so, will you kindly furnish me information on the following points:

- "1. How is your hospital fund created?
- "2. Have you special hospitals for seamen?
- "3. Is the tax sufficient to meet the expenses?
- "4. How many seamen are annually treated?

"You will place me under many obligations if you can furnish me as soon as practicable with the above information."

I received an answer, hereto attached, marked "A," which shows that in Canada a duty is collected from vessels arriving at port in all provinces except Ontario

and Manitoba, and that vessels of greater burden than 100 tons pay 2 cents per ton three times in each calendar year, and vessels of 100 tons and under pay 2 cents per ton once in each year. The letter also shows that there are special hospitals for seamen in thirteen Canadian ports, and that the amount collected from vessels is not equal to the expenditure on account of seamen, appropriations being made by Parliament for the service. It will be noticed that the number of seamen treated amounted to 1556 only, making an average treated at each hospital during the year of 119 patients, less than one man per day, and it is obvious that as there is little comparison between the Canadian carrying trade in general and that of the United States, so there is also little correspondence in the number of sailors treated. Not a single one of these hospitals would be maintained in the United States were there no more seamen to be cared for than appear in the annual Canadian reports. The receipts and disbursements in connection with the marine-hospital service of Canada for the last thirteen fiscal years show that the expenses have been \$37,659.66 in excess of the income.

It is proper to invite your attention to the fact that under the Canadian law this tax is a direct tax upon the vessel-owner; the American hospital-tax is paid by the beneficiaries. On this point I refer to the proceedings of the tenth annual meeting of the National Board of Steam Navigation, held in Washington, D. C., October 5 and 6, 1881, and particularly to the statement of Mr. Nickerson, of the firm of F. Nickerson & Co., one of the largest shipping-firms of Boston, Mass., as follows, when the question of change to an assessment by tonnage was under discussion by that body:

"I question the policy of a change of the law as proposed in this matter of hospital-dues in a particular locality, because as it stands the law applies to an ocean-steamer as it does to a tug or ferry-boat, whereas, if the change is made, we cannot make the sailor pay for what he is going to receive in future. At present he has the guarantee of receiving the benefit of what might be called "a life insurance" when he gets sick, inasmuch as he is assured that there will be a means of taking care of him, but when you have made the tax a tonnage-due, the boat-owners cannot properly charge it to the sailor, and he is deprived of the guarantee which he previously had. At present we are virtually the agents of the Government for the collection of the tax, as we simply hold it for the Government, and, when occupying this relation, we must expect the Government to take up and examine our books occasionally. While the abolition of the hospital-tax might save us trouble and annoyance, we cannot ignore the right of the Government to overlook our books nor the duty devolving upon us to keep our accounts correctly."

Mr. Munger, who was the agent of the Tug-Boat Association of New York, stated that he was in favor of an amendment by which ferry and certain other boats would be required to pay the hospital-tax at a certain rate per ton, and he ventured the assertion "that at present the tax was paid by the owners." His remarks, however, had application exclusively to tugs and ferry-boats, and, after some discussion of the subject, he withdrew his recommendation mentioned above.

Captain Gould, the president of the association, said:

"I am also of the opinion that there would be no remonstrance against an increase of the hospital-tax. The men, as a rule, need this relief, and they can hardly be made comfortable without it.

"It is also a fact that, as to perhaps nine-tenths of them, an increase of the tax, when they have the money to pay it, would save to them just so much money, which would otherwise be spent in dissipation."

Concerning the method of taxation, it is to be observed that the law of 1875 directed the Secretary of the Treasury to cause to be prepared a schedule giving the proportion of the crew to tonnage, and, after its preparation, hospital-dues should be collected in accordance with the schedule, provided that nothing in the act should prevent masters of vessels from retaining the amount from the wages of the men. This, then, is the present law. It has, however, been inoperative from the fact that it has been found impracticable to prepare a schedule. Shortly after assuming charge of this office, in 1879, an attempt was made to prepare such a schedule. Boarding officers of the Customs-Revenue Service were directed to board all the vessels in their respective ports at the several customs districts for a period of two months, and report the same to the special agent of the district, who was directed to tabulate such reports, and make a general report to the Secretary of the Treasury. From these reports a general schedule was prepared, which, on my suggestion, was submitted to the several collectors of customs throughout the United States for their opinions. On the receipt of the opinions, it was concluded to be impracticable to promulgate the schedule on account of the hardship it would work in certain cases, and the evident failure to meet the intention of the law. The details of this action were published in the annual report of this Service for the fiscal year ended June 30, 1880, pages 27-38 and 187-210. It will be seen from this report that there is no relation of the crew to the tonnage of the vessel; that the increase in the number of the crew on the one hand or its decrease on the other usually depends on the amount of the business and the character of its trade. But latterly, with the labor-saving appliances in use and the improved machinery, schooners with three or four masts are operated with a much smaller crew than formerly.

A change in the method of taxation from the crew to tonnage having been found impracticable, the question then reverts as to whether the Service should be abolished, for the bill under consideration appears to be a *duplicate of a bill introduced in the House of Representatives* and referred to the Ways and Means Committee, with the exception that the latter abolishes the marine-hospital tax from vessels engaged in the *foreign* trade, which, between the two, would have the effect of the entire abolition of the Marine-Hospital Service.

There has, during the last decade, been no complaint that the Marine-Hospital Service failed to meet the intention of its founders. Prior to that time it was, indeed, objectionable in many particulars, and many movements for its abolition and for changes in the system were proposed from time to time, as the various Congressional reports will show, and the invariable result of an investigation of this matter has been that the Service has been improved and sustained.

In regard to the statement of Mr. Pike, that "the crew pay a tax to hospitals they seldom or never use," &c., it will be observed by the last annual report of this Service that relief was furnished 32,613 patients, a number more than twenty times greater than those treated by the Canadian service, to which reference is made in the memorial. Moreover, the hospitals of this Service are at a much greater distance apart than those on the Canadian border. Thus, there is one hospital in Maine, one at Boston, and an abandoned light-house fitted up as a refuge hospital in the harbor of Vineyard Haven, to which vessels repair in distress or during storms; a temporary hospital at Fort Wood, on Bedloe's Island; and no other hospital on the entire Atlantic seaboard belonging to the Government until the port of Key West is reached, except a small one at Wilmington, N. C., recently occupied. There is but one on the

Gulf, that at Mobile; but a single one on the Pacific coast, two on the Great Lakes, one on the Ohio river, and one on the Mississippi, to which it may be added that one will soon be erected, in accordance with an act of Congress, at Memphis, Tenn. At all the other ports the sailors are treated under contract with municipal hospitals or private boarding-houses, the detailed arrangements for which are given in the last annual report of this Service, pages 20-23.

It will also be observed that no appropriation has been made by Congress for the support of this Service since the year 1875.

In reference to the relief received by coasters, the statistics of this office show that the proportion is much larger than is commonly supposed; for, in fact, the majority of sailors treated on the seaboard are from coasting-vessels, vessels in the foreign trade only sailing from the larger ports.

The statement of Mr. Pike, that "the sailor in one of our coasting-vessels pays tax at home like other citizens, and when he gets sick he gets well when and as he can," is scarcely a fair statement, although it may not have been the original intention of the law that many of these sailors should receive treatment at their own homes, yet such is the case; but the majority of them are treated away from home. Thus, taking cases at random, as reported from the smaller ports, we find that at Brunswick, Ga., for instance, from July 1, 1881, to December 31, 1881, thirty-five seamen were treated, seventeen of whom were from vessels belonging in Maine. November 23, 1881, two seamen were admitted to hospital treatment, both from a vessel hailing from Maine; one remained until January 31, 1882, at a cost to the Service of \$175, when he was then furnished transportation to the Savannah Hospital, that at Brunswick being simply a boarding-house. The other seaman is still under treatment, at a cost thus far to the Service of \$285.

At Savannah, 212 seamen were admitted to hospital during the period named, of which number forty hailed from Maine.

At the refuge hospital at Vineyard Haven seamen were admitted to hospital from forty vessels, eighteen of which hailed from Maine. During the same time thirty-seven were treated at the dispensary, fifteen of whom were from Maine.

At Eastport, Maine, of twenty sailors furnished office-relief, fifteen were from vessels hailing from Maine; and of four treated in hospital, all were from Maine.

Of sixty-six furnished hospital-relief at Providence, R. I., seven men were from Maine; and of thirty-one furnished dispensary-relief, three were from Maine.

At the port of Philadelphia the total number of seamen treated from July 1 to December 31, 1881, was as follows: Hospital cases, 300; dispensary cases, 458. Of these, there were from coasting-vessels as follows: Hospital, 272; dispensary, 427.

The other ports furnish equally conclusive statistics as to the extent to which coasters avail themselves of the hospital accommodations. And in this connection it is to be remembered that under the general principle of maritime law laid down by Mr. Justice Story, in the case of *Harden vs. Gorden et al.*, 2 Mass., C. C. Reports, p. 541, the charge for the care of a seaman during the course of a voyage is a lien upon the vessel, and in each of the cases above enumerated the owner of the vessel would have been obliged to give security for the board, nursing, and medical attendance of the sailors who were left under treatment in the ports named.^a

I have purposely omitted the larger ports from the above enumeration to avoid the possible imputation of unfairness in the statistics, for it is plain that the New

^a This principle has recently been affirmed in the Court of Common Pleas of Philadelphia, by Judge Yerkes, (April, 1882.)

England sailors visit New York and Boston much oftener than the smaller ports along the coast. If the principle be conceded as to the liability of the vessel for the care of seamen as above stated, it is self-evident that the bill will fail of its purpose, for every case treated in the course of a voyage would be a burden instead of a relief. The question then reverts to the proposition, shall the hospital-tax be reduced? In this connection the history of the Service affords ample and conclusive evidence that it ought not to be reduced, unless Congress shall conclude to make annual appropriations to cover deficiencies. I refer particularly to the statements from the various Secretaries of the Treasury in relation to this matter. In a letter dated April 25, 1821, Secretary of the Treasury William H. Crawford said:

"For three years past I have urged the propriety of doubling the fund. My importunity has been without effect. The state of the Treasury forbids the expectation that inattention to the excessive expenditure of money for the relief of sick and disabled seamen will be considered as excusable by those who hold the purse-strings of the nation."

The following circular was issued about the same period to collectors of customs:

"1. That no seaman afflicted with mania or any other kind of incurable disorder be allowed the benefit of the hospital for any period, however short, and that if any such have been admitted they be immediately discharged.

"2. That no seaman laboring under complaints not deemed to be incurable be permitted to receive relief for a longer time than four months.

"3. That all disabled seamen who may be discharged from the hospital in pursuance of this instruction, and who do not belong to your port, district, or State, be conveyed, by water, at the public expense, to the place of their nativity or domiciles, observing to notify the collector of the port that they are not to be received into the hospital.

"4. That you do not permit the expenditures in your port for the relief and support of sick and disabled seamen, during any one year, to exceed the amount of the tax collected for the same period, unless you shall be authorized so to do by this Department."

Collector of Customs John Steele, of Philadelphia, under date of the 8th of February, 1821, wrote to the Secretary in relation to this matter as follows:

"Permit me, lastly, (with a view of providing a fund more adequate than at present for the relief of sick and disabled seamen,) to recommend increasing the monthly deduction from their wages to fifty cents instead of twenty. Though this measure might be somewhat grievous to men of temperate and economical habits, it would to those of opposite characters not only furnish a better fund for relief, but diminish the means of dissipation, which too often lays the foundation for rendering such relief necessary."

Collector of Customs Jonathan Thompson wrote the Secretary, under date of October —, 1821, transmitting a statement of "the receipts and expenditures of hospital-money for the three-quarters of the year, by which it will appear we have expended more than received, notwithstanding we have been compelled to turn away upwards of thirty in one week the last month. The applications in future will probably increase rather than diminish."

The enclosure to which he refers, among other interesting matter, states as follows:

"There are many more reasons I could mention why the receipts of hospital-money are so inadequate now to what they were twenty years past. If I had received every

one who applied for medical and surgical aid, and who had paid hospital-money, I should not, for several years, have had less than ninety patients on my books.

"But, in compliance with my instructions, I am under the necessity of rejecting many who have been exposed and actually have become the victims of an untimely death, and I am sure, from what I have obtained from that class of men, there is not one who would have any objections to paying fifty cents per month if they could be admitted into the hospital when they are sick and disabled from foreign and interior navigation. There is no port in the United States that needs so much money to support the marine hospital as the one in New York.

"I am, &c.,

"CHRISTOPHER PRINCE."

Captain Prince was the person designated by the collector of customs as the hospital inspector of New York.

The collector at Baltimore, under date of August 18, 1821, stated:

"Though upwards of one hundred patients have been discharged and many refused admittance, yet indulgence to some that prayed for time has been allowed, in expectation that their friends, or, where there were none, that the municipal power would be able to provide for them. There are but fourteen at present of that description whom I shall now cast upon the physician.

"Yet more. The several vessels of the United States that have lately arrived at Norfolk and Washington—the "Congress," "Peacock," &c.—have poured out a host of claimants upon us, who, rejecting the provisions made in those places, or being refused, or for unknown causes have hastened here and thrown themselves upon us. Can we, when the law expressly prescribes their right, refuse it?

"But if there is no 'general fund constituted, to be employed as circumstances shall require, for the benefit of sick and disabled seamen,' if the relief here given is to be limited to the amount of tax here collected, then no more can be provided for here but those belonging to the port. The doors of the hospital must, then, be closed upon that great number who issue from the public ships, as well as all those who come from other districts; otherwise they will inevitably overgo the collections of the port. In compliance with your directions, however, it shall be rigorously performed.

"The contract with the physician is made at Washington, and, by your leave, it may be suggested that a certain sum—the amount of collection here—shall be paid to him, and then he shall receive at his own risk those seamen who are sent by the collector. I have frequently groaned in perplexity upon this subject—between the injunctions of law, the obligations of duty, and the excessive demand upon our funds, which could hardly be reconciled—while I was still exposed to the disagreeable contentions on behalf of many refused the desired relief; nor have I been satisfied that I have done right in rejecting some applications to this miserable agency.

"JAMES H. McCULLOCH."

Secretary Levi Woodbury recommended the revision of the law and favored the increase of the tax and its extension to all classes of vessels, and, under date of December 19, 1839, he reported to Congress that a change in the system of marine hospitals was expedient, and that the fund was not adequate to meet the ordinary demands upon it by those who had contributed to it; and, besides this, a large class of seamen not being obliged to contribute to it, were consequently debarred from its benefits and subjected to privations and sufferings.

He then recommended that—

“The change most useful and appropriate would seem to be the extension of the hospital contribution or deduction to all seafaring people, and hence an enlargement of the relief afforded, so as to include all of that description and to extend assistance in many cases of sickness of a chronic character, which, though appealing strongly to public sympathy, are now obliged to be entirely excluded.

“Such a change would not be felt oppressively as a tax, and would enable the authorities of the General Government to save from distress and the ignominy of being treated as paupers a gallant and meritorious class of men whose great exposures and whose character, often so inconsiderate in moneyed affairs, call loudly for public protection.”

He believed that the fund should be increased in amount 20 to 50 or 100 per cent., provided the necessities and comforts of the seamen appeared on trial to require it.

It is apparent from the foregoing letters that when the hospital-tax was fixed at twenty cents per month hospital-relief was denied a very large portion of the sailors, while such is now not the case with those paying hospital-dues. Still, a considerable number of seamen apply for hospital relief and are rejected, the most of whom are from whaling and fishing vessels. The number of persons rejected, as being neither entitled to relief nor sick enough to require it, during the six months from July 1 to December 31, 1881, is shown by the records of this office to be 979—more than half as many as the entire number treated in Canada, where all vessels without exception paid the tonnage hospital-money, a direct tax upon the vessel, from one to three times per year.

Coincident with the increase of the hospital-tax in 1871, from twenty cents to forty cents per month, the regulations began to grow more liberal, and, from a regulation which admitted to the benefits of the Service only persons from vessels then in port, the benefits of the Service have been extended to all *bona-fide* seamen, without much regard to the time of employment, taking care, however, to exclude persons who were simply “loafers” or “vagrants.” But as marine hospitals are hospitals, and not almshouses, there is still a lack of permanent provision for those who become incurably sick or permanently disabled in the line of duty. Many of these persons are not subject to the local poor-laws, and have, in fact, no home.

One class of cases that come under the provisions relating to this Service, and for whom, if the tax were abolished, there could be no relief, except from local charity, are seamen taken from wrecked vessels. I transmit copies of three letters from collectors of customs in relation to cases of this kind, marked respectively “C,” “D,” and “E,” which are fair types of this class. It is self-apparent that even the decision of Justice Story could not provide for this class, for in these cases there was no vessel to tax. This Service, however, authorized the relief necessary, which included medicine, medical attendance, food, lodging, and clothing.

In this connection it is proper to say that no seaman in any port of the United States need fail of obtaining relief, if he apply for it; and if he does not need it, he is not only so much better off, being in the possession of sound health, but he may be sure that his contribution is applied to the relief of some worthy but disabled comrade.

It is to be remembered, also, that the movement for the abolition of this tax does not come from the sailor, but from a person claiming to be a vessel-owner, although his name does not appear as such on the published list of merchant-vessels of the United States.

There is still another point to be taken into consideration in this matter, and that is the fact that the hospital-tax of forty cents per month is paid only while the vessel is employed. The average period of employment of coasting vessels has been estimated by those competent to make the estimate, at seven months.

The following statement from hospital-tax paid at Eastport, Waldoboro', and Machias, Maine, in the month of February, 1882, shows the period of employment therein named, and the actual payments made, which may be taken as a fair representative of the United States coast, especially as Maine has been taken by Mr. Pike, in his memorial, as the standard:

Eastport, Maine, (February, 1882.)

Name.	No. of men employed.	Reported time on the vessel.	Actual payment of hospital-tax.
Schooner A. G. Brooks.....	4	1 year.....	\$12 52
Schooner Hunter.....	4	3 months.....	2 67
Schooner Ada Allan.....	6	2½ months.....	1 76
Schooner Chas. Sears.....	6	2½ months.....	1 44
Schooner S. Augusta.....	4	3 months.....	4 16
Schooner F. Flint.....	6	3 months.....	2 02
Schooner S. Ford.....	5	1½ months.....	1 88
Schooner L. B. McNichol.....	6	6 months.....	6 72
Schooner Clara Jane.....	5	4½ months.....	4 87
Schooner Live Yankee.....	4	½ month.....	75
Schooner New Brunswick.....	48	28 days.....	16 45

Waldoboro', Maine, (February.)

Schooner Judith Anne.....	3	½ month.....	\$0 43
Schooner Maggie Belle.....	5	1 year.....	17 10
Schooner May Day.....	5	1½ years.....	21 50
Schooner Lizzie Guptell.....	3	14 months.....	10 63
Schooner Herald.....	4	11½ months.....	12 00
Schooner Billow.....	5	11½ months.....	18 82
Schooner Brilliant.....	3	12¼ months.....	9 40
Schooner S. A. Osier.....	3	3 months.....	1 00
Schooner Young Chief.....	2	1 year.....	5 85
Schooner Joy Bell.....	5	1 year.....	15 84
Schooner Harry Day.....	5	11 months.....	14 50
Schooner Victory.....	2	12¾ months.....	3 51
Schooner Cinderella.....	2	13 months.....	4 71

Machias, Maine, (February.)

Schooner Annie Lee.....	5	4½ months.....	\$5 97
Schooner Ella Brown.....	6	11 months.....	14 03
Schooner Maud.....	7	7 months.....	16 49
Schooner Nicola.....	9	5½ months.....	17 59
Schooner Nettie Walker.....	6	4 months.....	8 56
Schooner Kinker.....	3	11 months.....	8 32
Schooner Clara E. Rogers.....	5	4 months.....	4 29
Schooner J. B. Knowles.....	6	4 months.....	1 55
Schooner Keno.....	5	4 months.....	6 13
Schooner Peiro.....	5	3 months.....	60
Schooner T. A. Stuart.....	6	2 months.....	3 68

It thus appears that, in point of fact, none of the sailors pay \$4.80 per annum, but, on the contrary, they pay about seven-twelfths of that amount, for which they receive an ample equivalent.

It is not true that the fund is wasted on the salaries of medical officers and the erection of hospitals. The salaries paid the medical officers proper are not in excess of those paid similar grades in the Army and Navy, and the officers named number

thirty-six. The acting assistant surgeons receive salaries from \$100 to \$1,000 per annum, according to the nature and extent of the service required. Reference to the official register of the United States, vol. 1, (1831,) pp. 237 to 239, shows the salaries paid to be much less than would be expected to be paid for professional services in general, and it is found in practice that physicians' bills when not contracted for by the year largely exceed the rate fixed by the Department, and for which they are willing to serve at a regular annual compensation.

In this statement I have not thought proper to go into an extended and detailed report of the other duties performed by the officers of this Service outside of the legitimate work of attending sick and disabled seamen. This will appear, however, upon a statement which is herewith transmitted, marked "B," and from which it will be seen that the Marine-Hospital Service is the medical service of the Treasury Department, including Revenue-Marine, Life-Saving, and Light-House Services, and has latterly been charged with the examination of pilots for color-blindness. Of these, persons in the Revenue-Marine Service and pilots on steam-vessels pay hospital-dues.

Very respectfully, your obedient servant,

JOHN B. HAMILTON,

Surgeon-General, M. H. S.

To the Hon. CHAS. J. FOLGER,

Secretary of the Treasury.

A.

OTTAWA, March 15, 1882.

MY DEAR SIR: I have the honor to acknowledge receipt of your letter of the 10th instant, requesting certain information in regard to sick and distressed seamen, and, in reply to your question as to the manner in which our hospital fund was created, I beg to enclose for your information copy of the acts of the Dominion Parliament on the subject.

You will see from these that a duty is collected from vessels arriving at ports in all the provinces, except Ontario and Manitoba, vessels of greater burden than 100 tons paying two cents per ton three times in each calendar year, and vessels of 100 tons and under paying the duty once in each year.

In reply to your question as to whether there are special hospitals for seamen, I beg to inform you that there are special hospitals at the ports of Quebec, St. John, N. B.; Miramichi, N. B.; Richibucto, N. B.; St. Andrew's, N. B.; Bathurst, N. B.; Sydney, N. S.; Lunenburg, N. S.; Yarmouth, N. S.; Port Medway, N. S.; Charlottetown, P. E. I.; Souris, P. E. I.; and at Victoria, British Columbia. At Montreal seamen are cared for at the expense of the Dominion Government by a *per-diem* payment in the general hospital, and also at Halifax, N. S., and at other ports seamen are cared for by the collectors of customs.

With reference to your third question, as to whether the tax has proved sufficient to meet the expenses, I beg to refer you to pages 37 to 40 of the last annual report of this department, a copy of which and of the preceding report is sent herewith. You will see from this that an annual appropriation is made by Parliament for this service, and that the amount collected from vessels has not as yet proved equal to the entire expenditure.

With reference to the number of seamen annually treated, I beg to inform you that the number treated at the marine hospitals and at the general hospitals at Montreal

and Halifax during the past fiscal year amounted to 1,556, the number cared for by collectors of customs at ports where there are no hospitals would probably amount to 300.

I may also mention that the hospital at Quebec is for the accommodation of emigrants and residents of Quebec, as well as seamen, and the government of the Province of Quebec contributes towards the expenses of the hospital the sum of \$2,666, annually on account of the relief afforded the residents of that province.

I have only to add that it will afford me great pleasure to provide you with any further information you may require.

I am, my dear sir, your most obedient servant,

WM. SMITH,

Deputy Minister of Marine, &c.

JOHN B. HAMILTON, Esq., M. D.,

Supervising Surgeon-General, Marine-Hospital Service,

Treasury Department, Washington, D. C., U. S. A.

B.

EXHIBIT 1.—(DECEMBER 31, 1881.)

MARINE-HOSPITAL SERVICE.

CONDITION OF HOSPITALS PRIOR TO 1871.

Regulations not uniform. "Hospital at Mobile as distinct and different from that at Norfolk or New Orleans as if one were a hotel and the other a hospital." "In one the surgeon resides in the hospital grounds, and in other he pursues his private business in the circuit of his city, and an assistant represents him for months in the wards of his hospital." "Here the surgeon selects his own steward, there the collector of his district makes the appointment himself." (Edwards-Loring report to Congress, 1849-'50.)

"Regulation of the Treasury Department a dead letter, each port being more or less a law unto itself. * * *

"System of inspections rarely carried out. The two hospitals where the 'board of visitors' made their visits were in worse condition than the average; far better results would be obtained by appointing the *unsuccessful* candidates for surgeon and collector as inspectors." (Report of Dr. J. S. Billings, U. S. Army, to the Secretary of the Treasury, October 18, 1869.)

"The majority of the patients at Cleveland Hospital dissatisfied with their medical treatment, and complained with regard to the quality and quantity of the food given them. Mattresses filthy, no bed-spreads, no surgical instruments." (Report of Drs. Stewart and Billings, October 14, 1869.) Medical officers subsisted by the Service.

No seamen treated at dispensaries; out-patients admitted to hospital, and one day accounted for, even for the most trivial complaints.

MEDICINES—CHARACTER.

Prior to 1871.

"At one time there was a class of medicines purchased here by a clerk, when he had charge of it, that was so absurd and ridiculous that the Secretary of the Treasury himself, when his attention was called to it, was ashamed of it." (Speech of Senator John A. Logan, March 13, 1872.)

The present list (of medicines) as given in the regulations of the Department, is not well adapted to the wants of the Service; many of these articles are seldom or never used, and many not named in the list are frequently required. (Report of Dr. Stewart, June 10, 1869.)

In 1881.

All medicines purchased under contract, after a comparative test, in the office of the Supervising Surgeon-General, of their quality, and no medicines or liquors are now purchased or supplied to hospitals except such as are of known purity. The prices, however, on account of the large quantity purchased, are usually below the current market rates.

HOSPITALS NOW—HOW MANAGED.

Governed by regulations prepared by Supervising Surgeon-General and approved by Secretary of the Treasury.

Officer in charge resides at hospital. Gives bond, in amount of \$5,000, for proper care of property in his charge.

Surgeons required to make monthly reports of all subsistence ^{*}supplies purchased and used, and semi-annual reports of all property on hand, received, broken, destroyed, or worn-out. Cannot absent themselves from hospital without permission from the Secretary of the Treasury. Surgeon required to inspect hospital at least once a week; and to visit the patients once each day, at the hour prescribed by regulation, and oftener if necessary.

Stewards and attendants appointed by the Secretary of the Treasury, on recommendation of surgeon, approved by Surgeon-General. They give bonds in the amount of \$1,000. Hospital supplies purchased by contract. Daily diet-list prescribed by regulations.

A dispensary for treatment of seamen whose disease or injury is such that hospital-relief is not necessary is located at or near the custom-house at each port. A medical officer is on duty at the dispensary during the hours when the custom-house is open for the transaction of business. Twenty thousand one hundred and sixty-four seamen treated at dispensaries (out-door relief) during year ended June 30, 1881.

MEDICAL OFFICERS—HOW APPOINTED PRIOR TO 1873.

At first, the President reserved to himself the appointment of surgeons to the hospitals, (letter of Secretary Gallatin, April 19, 1809,) but their appointment afterward became a perquisite of the collector of customs, and was viewed as such. No abuses or incompetence were likely to be exposed unless the collector were willing.

Transfers of station were not customary, medical officers being appointed to a particular port, and not to the general service; hence, after appointment, they became engaged in private practice, not infrequently to the extent of neglect of the hospital patients intrusted to their care by the Government.

PRESENT METHOD OF APPOINTMENT.

All appointments made to the lowest grade—that of assistant surgeon—after a rigid examination by a medical board. The examinations are free to all medical graduates from regularly chartered medical colleges, subject to the age-qualification of between 21 and 30 years, inclusive. Those passing the highest grade are first appointed, and the remaining successful candidates in the order of merit; after

three years' service, and another successful examination, appointed passed assistant surgeons; then appointed surgeons, as vacancies occur, by seniority, after examination.

Medical officers are now appointed to the general service, and are transferred from one station to another as the good of the Service may require, from time to time.

NUMBER OF PATIENTS, BY YEARS, AND COST.

Year.	Number.	Cost.	Year.	Number.	Cost.
1868	11,535	\$446,846 53	1875	15,009	\$410,400 61
1869	11,356	406,089 23	1876	16,808	446,340 38
1870	10,560	367,796 84	1877	15,175	375,817 86
1871	14,256	483,758 73	1878	18,223	367,950 32
1872	13,156	439,072 14	1879	20,922	375,164 01
1873	13,529	399,218 69	1880	24,860	402,185 49
1874	14,364	411,103 35	1881	32,613	400,404 46

It will be seen, from the foregoing table, that the expenditures for 1881, when the number of patients was nearly treble that for 1868, were \$46,442 07 less.

No appropriation for the current expenses of this Service has been made since 1875, and none is now asked.

The appropriations that have been made for the purchase of hospital grounds, if viewed as investments, have been remunerative, as, almost without exception, the property is more valuable than when originally purchased.

EXHIBIT 2.

MARINE-HOSPITAL SERVICE.

PROPERTY RECORDS.

Prior to 1871 no returns were made of public property in the custody of surgeons of hospitals or of subsistence supplies; nor were the latter purchased under contract.

By the present regulations, surgeons and hospital stewards give bonds for the faithful performance of the duties required of them, make monthly reports of subsistence issued, according to a standard diet-table, and purchase subsistence supplies under a contract, approved by the Department. Semi-annual returns of all public property are made to the Surgeon-General.

MEDICAL STATISTICS.

No medical statistics were preserved or published prior to 1872. Since which time, by reason of the greater efficiency of the medical corps, the reports are yearly growing more valuable, and are much sought after by the medical profession. The medical journals of the United States, without known exception, have, in their reviews, added their testimony to the valuable character of this portion of the work of the Service.

BENEFITS TO SEAMEN.

Since 1868, 232,366 seamen have received relief in the hospitals and dispensaries. No American sailor, if he apply, in any port of the United States, need fail of obtaining medical attention, and, in nearly every instance, at the small ports, where "contract" surgeons are appointed, the attendance is the best attainable at the port.

Surgical appliances, such as artificial eyes and limbs, elastic stockings, trusses, and the like, are furnished patients needing them, and are issued under the immediate supervision of the medical officer at each port.

Thirty-two thousand six hundred and thirteen sailors were treated during the year ended June 30, 1881.

RELIEF TO MUNICIPALITIES AND VESSEL-OWNERS.

Cities or towns are reimbursed for the treatment in quarantine of sailors or boatmen taken from American vessels sick with contagious diseases. Moreover, the great majority of the sailors are without money or means of support, and if some provision were not made, as at present, it would add greatly to the municipal expenses, whereas their medical attendance is now paid by themselves. Furthermore, if the Government made no provision for sick sailors, it has been held that the charge for their care and maintenance would, by mercantile law, be a direct charge upon the vessel so long as they were borne upon the ship's articles. (Justice Story, *Harden vs. Gordon et al.*, 2 Mass., C. C. Rep., 541.)

ADVANTAGE TO SCIENCE.

The publication of the records of the diseases and injuries of the large number of seamen falling under the observation of so trustworthy and competent a class of medical men as is now in the Marine-Hospital Service, cannot fail to be of great advantage to the progress of medical science and the promotion of the healing art.

The pioneer work of the preparation and publication of the Bulletins of the Public Health of the United States was done by this Service.

ADVANTAGE TO CARRYING TRADE AND THE GOVERNMENT.

Sound seamen, if ship-owners and masters avail themselves of the facilities offered by this Service for the *physical examination of their crews as preliminary to shipment*. (Circular June 11, 1879.)

Better hygiene of the vessels, if the special reports, published from time to time, are heeded, as to construction of the vessel, diet of the men, and the specific instructions in the hand-book for ship's medicine-chests are carried out.

Seven thousand two hundred and fifty-four pilots were examined for color-blindness in 1880 and 1881, of whom 180 were color-blind. These examinations were without cost to the vessels or pilots.

All the medical examinations for the Revenue-Marine, Life-Saving, and Light-House Services are made by officers of the Marine-Hospital Service.

PROPOSED LEGISLATION.

The tentative reorganization of the Service having proved a wise measure, it is now asked, on behalf of the medical corps, that greater stability be given it, by embodying, in statutory form, the existing regulations; and, on behalf of the sailors, it is asked that permanent provision be made for their support when entirely worn-out, especially for such as have entered the Service physically sound and have spent their lives in enhancing the maritime greatness of the nation.

C.

CUSTOM-HOUSE, WILMINGTON, DEL.,
Collector's Office, February 11, 1882.

SIR: I transmit herewith copy of letter received from Deputy Collector H. R. Burton, at Lewes, Del., reporting his action in the case of the master and three seamen of the schooner "Mary C. Arnold," which sunk at the Delaware breakwater, during the storm, on Saturday night, the 4th instant, who were frosted by exposure in the rigging, and applied to him for relief from the marine-hospital fund.

I also transmit relief certificates, together with the following bills for relief furnished these men, for approval and authority to pay, viz:

Dr. David Hall, professional services, &c	\$16 50
Do .....do,	6 00
Total	<u>\$22 50</u>

I am, very respectfully,

J. B. CLARKSON,
Special Deputy Collector.

Hon. J. B. HAMILTON,
Surgeon-General, M. H. S., Washington, D. C.

CUSTOM-HOUSE, LEWES, DEL., *February 7, 1882.*

SIR: I beg leave to report that during the storm of Saturday night last the schooner "Mary C. Arnold" sunk at the breakwater, and the crew were compelled to spend most of the night in the rigging. On Sunday they were taken off and landed here. The captain and three of the seamen, being frosted, made application for relief from the Marine-Hospital Service, and I requested Dr. David Hall to furnish the necessary treatment, medicines, surgical appliances, dressings, &c., as provided for in paragraph 236, Marine-Hospital Regulations, 1879, which service he rendered.

Very respectfully,

H. R. BURTON,
Deputy Collector.

LEWIS THOMPSON, Esq.,
Collector of Customs, Wilmington, Del.

D.

CUSTOM-HOUSE, EMPIRE CITY, OREG.,
Collector's Office, March 1, 1882.

SIR: I have the honor to transmit herewith bill for relief furnished to James Cad-dell, Barnard Thorsen, Frank Nystrom, Geo. Olsen, J. H. Pruter, Paul Jackson, and William Ward, seamen from the bark "Raimer," wrecked at sea January 5, 1882, and rescued January 24 by the brig "Orient," and landed at the Umpqua river January 25. On January 26 the first five and on the 30th the last two named came to this port for hospital-relief. There was no physician at this place, so I sent them to Marsh-field, furnished them with board, and placed them in charge of Dr. C. W. Toner for medical and surgical treatment, where they remained till February 6 before any vessel was ready by which they could be transported to San Francisco, when they came here, and remained till the 10th, the steamer being detained by stormy weather.

Dr. Toner visited them *together* each day, and prescribed such relief as he deemed necessary, and as prescriptions show, except that James Caddell had two fingers fractured, which were dressed once—January 26—and George Olsen had an arm bruised, which the doctor dressed or examined each day.

Dr. Toner's bill amounts to.....	\$57 00
Henry Sengstacken's, for medicines.....	26 70
John Kronholm's, for board.....	50 00
Mrs. E. M. Lockhart's, for board.....	22 80
Steamboat "Myrtle," for fares.....	6 50
Nasburg & Hirst, for clothing.....	40 75

The clothing was purchased by me and distributed to the seamen, and the articles were all necessary for their health and comfort.

William Ward sufficiently recovered not to need relief after February 6.

The relief certificates were forwarded to the surgeon of marine hospital, San Francisco.

I think the bills for medical attendance and medicines are about the same as are charged in private practice here.

Very respectfully,

ISAIAH HACKER,

Collector.

Hon. J. B. HAMILTON,

Surgeon-General Marine-Hospital Service, Washington, D. C.

E.

CUSTOM-HOUSE, GLOUCESTER, MASS.,

Collector's Office, January 9, 1882.

SIR: I have to report that on the 5th instant there were brought into Rockport, in this district, five men, together with three dead bodies, being the shipwrecked crew of the schooner "Almon Bird," of Rockland, Maine, said shipwrecked crew having been picked up at sea in an open boat. They were all more or less frozen, three having frozen to death. These men are entitled to hospital-relief, and Dr. Sanborn reports that they cannot be removed to the hospital without danger. I have directed him to furnish proper medical attendance, nursing, &c. I herewith enclose the doctor's statement of the probable cost, and would respectfully ask authority to incur this expense.

I am, respectfully, your obedient servant,

F. T. BABSON,

Collector.

SUPERVISING SURGEON-GENERAL, U. S. M. H. S.,

Washington, D. C.

JANUARY 6, 1882.

Regarding the shipwrecked men reported to-day, Allen Small, A. B. Henderson, and William H. Harriman are convalescent. Their probable expense for shelter, food, care, and attendance may be about \$2 per day for five days. Of the others, Captain Packard's feet were badly frozen. He must probably suffer loss of part of each foot, and must, even under the most favorable circumstances, be disabled for months, at

a probable expense of \$3 per day. The other man, Ferdinand Hamilton, suffered most. Both hands were frozen so that he must lose most or all of his fingers. His feet were frozen *solid* above his ankles, and had been so probably three days. He must suffer amputation of both legs, even if he lives to endure it. Is in private quarters, at expense of probably about \$3, exclusive of medical attendance.

J. E. SANBORN, M. D.

PARTICULARS OF THE LOSS OF SCHOONER "ALMON BIRD," AND THE SUFFERINGS OF HER CREW.

[From a Gloucester Newspaper.]

The "Almon Bird" was a three-masted schooner, of 397 tons, six or seven years old, thoroughly repaired two years and a half ago, and staunch and sound in every respect. Late in December she cleared from Rockland, and, going to Windsor, N. S., took in a cargo of plaster for Alexandria, Va. On the return voyage she put into Rockland, where a new foremast was rigged, and a few minor repairs made, and on Sunday, January 1, she set sail again, officered and manned as follows:

C. A. Packard, master, of Rockland, Maine; William H. Harriman, first mate, of Prospect, Maine; Charles Chaples, second mate, of Rockland; A. B. Henderson, Steward, of Friendsip, Maine. Seamen: Allen Small and Horace Small, brothers, of Deer Isle, Maine.; Fred. Hamilton and Patrick Hogan, of Rockland. All were strong, able-bodied seamen, except Horace Small, who was a frail lad of sixteen years, who had never been to sea in winter-time before, and who ran away from home to join his brother on this voyage.

The schooner had good weather on the day she left Rockland, and made fair progress, being off Monhegan at about eight o'clock in the evening. When about half-way between Monhegan and Seguin, she encountered a heavy northeast snow-storm, and finding it imprudent to try to run into Portland, hauled off with a view of making Cape Cod. At two o'clock Monday morning, the vessel being under light sail, the flying-jib was washed from the jib-boom, and the sea made a clean break over the vessel, staving bulwarks and sweeping the deck. Shortly afterwards the smaller of her two boats was washed from the stern, containing the only set of oars on board, the mate being severely injured in the groin by being jammed against the stern, while endeavoring to save the oars. Young Small was also struck by a heavy sea, and knocked against a cask, about this time, breaking his wrist, and had to be carried below. At six o'clock, A. M., the jib-boom and foretop-mast went by the board, and in attempting to cut away the jib-boom the hatchet was lost overboard. The schooner continued to ship heavy seas, all doing more or less damage. At 7 A. M., when about half-way between Boon and Thacher's Islands, and some thirty miles off shore, the after hatch was stove in by the sea and the vessel commenced to fill. There was nothing left to do but to take to the remaining boat, and trust to the chances of being picked up. The axe was lost overboard in cutting away the main rail, in order to launch the boat, but she was finally got afloat and hastily manned. The injured lad was taken from the forecastle and put into the boat, but he had no oil clothing, and there was no time to get him properly dressed. A few bed-clothes and an old coat was thrown into the boat, about a peck of hard-bread in a small barrel was put on board, with about a quart of rum and three or four quarts of oatmeal. Water they had none, and they were without oars or tools except a handsaw. The boat was a staunch, new centre-board yawl-boat, about twenty feet long, with

mast and jib on board, but the mainsail had been lost in an unsuccessful attempt to batten the hatches. In about ten minutes after taking to the boat the schooner went to the bottom.

Before leaving the sinking craft, the mate constructed a drogue from a windlass brake and a couple of planks, and after taking to the boat, the barrel containing the shipbread was stove up, and with the staves and a new thwart which happened to be in the boat, some rude paddles were improvised. The boat lay to the drogue Monday and Monday night. Tuesday morning a fishing-schooner was descried in the distance, and a desperate effort was made to reach her or attract her attention, but a breeze sprung up and she passed out of sight. Tuesday afternoon a blanket was fastened to the jib and the boat was under sail for a time, but at night it breezed up, and fearing in their benumbed and exhausted state to attempt to unship the mast and take in sail, the mast was sawed through just above the thwarts. The icy spray dashed constantly over the boat, freezing as it fell, and everything was covered with a coat of icy mail. The drogue kept the boat's head to the sea, but the waves constantly deluged her, and the exhausted men were employed all night in bailing. The uncooked oatmeal was uneatable, the hard-bread was at first so dry as to be swallowed with difficulty without water, and afterwards so wet with the spray as to be unfit to eat, and the sufferings of the men from cold, hunger, and thirst were excruciating. Two of the number, Chaples and Hogan, though warned of the consequences, endeavored to slake their thirst by eating salt-water ice, and the presence of two maniacs was soon added to the other horrors of the situation. The quart of rum was carefully husbanded, by administering a teaspoonful at a time, and was made to last until the early part of Wednesday evening.

On Wednesday morning a new step was made to the mast, and the boat sailed westward all day and all night. On Wednesday afternoon another schooner was sighted, but she did not see the boat. Wednesday night a hermaphrodite brig passed close by and was hailed with weakened voices. The cries were doubtless heard, as the brig showed a flash light two or three times in the darkness, but kept on her course and was soon out of sight. About ten o'clock on Wednesday evening the sixteen-year-old boy, who had suffered greatly from his broken wrist and insufficient clothing, died in his brother's arms. He was conscious within an hour of his death, when he said he was not afraid to die, and left a loving message for his mother. He had left home unbeknown to his parents, who did not know his whereabouts until they received the telegraphic despatch announcing his death.

The young Irishman, Patrick Hogan, died about an hour after the boy. He had been delirious about six hours, talking constantly about something to eat. The second mate, Chaples, was delirious about twelve hours, babbling incoherently all the time. In this delirium he seized the saw, and before he could be prevented, sawed his hands terribly with it, the blood spurting over the boat. He died about three o'clock Thursday morning, and his body was committed to the deep.

At daylight on Thursday morning, three fishing-vessels were descried at no great distance away. One of these proved to be the schooner "Cora Lee," Captain George A. Saunders, of Pigeon Cove. She went out of Boston at six o'clock on Wednesday evening, and her crew were engaged in setting their trawls when they discovered the unfortunate mariners and immediately went to their rescue, and towed the boat to the vessel. The sight was one never to be forgotten. The mate, who alone was able to do anything, was steering. In the bow lay two dead bodies, frozen stiff and covered with ice, so that when the shore was reached they had to be cut out of the boat

with a hatchet. The captain was lying in the forward part of the boat, with both feet frozen above the ankles, (he had been thoroughly drenched before abandoning the vessel and had no oil clothing excepting an oil-skin coat,) and the other survivors were half sitting, half reclining about the stern. Hamilton's legs were frozen half-way to his knees; the steward and Allen Small suffered less from the frost, and the mate had the tips of his fingers only frozen. The boat was half full of ice and covered with blood, and presented a ghastly spectacle.

The sufferers were speedily taken on board the "Cora Lee," put in berths, their clothing changed, and their frozen limbs wrapped in salt. The friendly fishermen stripped off their own clothing to cover the frozen sailors, and some of them came on shore with nothing on but a suit of oil clothes. Tea, water, and rice broth were administered to the rescued men in small quantities, and the vessel abandoned her trawls and started for home. The wind was light, and she was nearly all day coming in. When about eight miles off, Captain Saunders and two of his crew rowed ashore and made preparations for the comfort of the shipwrecked men. Several dories went out to meet the "Cora Lee" and tow her in, taking on board Drs. Sanborn and Tupper, who ministered to the wants of the sufferers in the cabin, and when the vessel arrived at 7.30 P. M., a team was waiting to take the men to Mrs. Pierce's house. Here they have received the kindest of attention, Mrs. Pierce, Mr. Joseph M. Reid, the Masonic fraternity, Mr. George Cross, Mrs. Bishop, Mrs. Robinson, and many others have generously administered to their comfort.

ROCKPORT, MASS., *January 14, 1882.*

SIR: I write to report to you that Ferdinand Hamilton, whom I had reported to you as wrecked and terribly frozen, both hands and feet, died last evening.

Captain Packard, whom I had also reported, was removed last Monday to his home, in Rockland, Maine.

I have the honor to be, very truly, yours,

J. E. SANBORN.

Mr. Collector BABSON.

On receiving notice of the disaster, Surgeon Purviance, then on duty at Boston, was immediately detailed to proceed to Gloucester for the purpose of superintending the transportation of the seamen to the Chelsea Hospital, and such other assistance as he might be able to render.

The bills incurred at the port of Gloucester were paid by this office.

The records of this Service contain almost daily accounts of such hardship and suffering, and this report might be swelled to a great size in mentioning them; but it was not until recently supposed that any well-informed person in the United States had a doubt of the necessity for marine hospitals.

ARRANGEMENTS FOR THE CARE OF SEAMEN.

The following arrangements were made for the care of seamen entitled to relief from this Service, for the fiscal year ending June 30, 1883, and approved by the Secretary. The right is reserved by the Secretary of the Treasury to terminate any arrangement whenever

the interests of the Service require it. All relief must be furnished in accordance with the regulations approved 1879. It will be observed that the cost is considerably advanced over the contracts of last year, owing to the rise in prices of provisions.

Albany, N. Y.—The medical attendance to be furnished by an acting assistant surgeon; the Albany Hospital to furnish board, nursing, and medicines, at \$1 per day.

Apalachicola, Fla.—Dr. B. F. Leonard to furnish medical attendance and medicines to hospital patients, and medicines to out-patients, at \$35 per month, and to receive \$1 for the examination of each out-patient. Martha Campbell to furnish board and nursing, at \$1 per day, and to provide for the burial of deceased patients, at \$12.50 each.

Astoria, Oreg.—St. Mary's Hospital to furnish medical attendance, medicines, board, and nursing, at \$1 per day.

Baltimore, Md.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; St. Joseph's Hospital to furnish board, nursing, and medicines, at 70 cents per day, and to furnish transportation for patients from any part of the city to the hospital, when required, at \$1 for each seaman so transported. Michael Coleman to provide for the burial of deceased patients, at \$7 each.

Bangor, Maine.—The medical attendance to be furnished by an acting assistant surgeon; John E. Varney to furnish board and nursing, at 75 cents per day.

Barnstable, Mass., and Sub-ports.—Medical attendance and medicines to be furnished at South Dennis, by Dr. G. N. Munsell, at \$84 per month; at Hyannis, by Dr. Geo. W. Doane, at \$67 per month; at Provincetown, by Dr. J. M. Crocker, at \$12.50 per month; at Barnstable, by Dr. J. M. Smith, at \$12.50 per month. Seamen applying for relief at Wood's Holl will be sent to the marine hospital at Vineyard Haven. Relief at Chatham to be furnished on the recommendation of the collector of customs.

Bath, Maine.—The medical attendance to be furnished by an acting assistant surgeon; Joseph Soiett to furnish board and nursing, at 85 cents per day. John M. Clarke to provide for the burial of deceased patients, at \$14 each. Cases requiring long-continued treatment will be furnished transportation to the United States Marine Hospital at Portland, Maine.

Belfast, Maine.—The medical attendance to be furnished by an acting assistant surgeon; board and nursing to be furnished on the recommendation of the collector of customs.

Bismarck, Dak.—The medical attendance to be furnished by an acting assistant surgeon; J. G. Mallory to furnish quarters, subsistence, and nursing, at 84 cents per day. Owen Farley to provide for the burial of deceased patients, at \$14 each.

Boston, Mass.—Patients cared for in the United States Marine Hospital at Chelsea, Mass.; burial of deceased patients at the hospital cemetery; burial of foreign patients at \$6 each.

Buffalo, N. Y.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; out-patients to be treated at the Marine-Hospital Office, No. 53 East Seneca street; the Buffalo Hospital to furnish board, nursing, and medicines, at 42 cents per day, and to provide for the burial of deceased patients, at \$6 each.

Burlington, Iowa.—The Sisters of St. Francis Hospital to furnish medical attendance, medicines, board, and nursing, at 90 cents per day.

Burlington, Vt.—The Mary Fletcher Hospital to furnish medical attendance, medicines, board, and nursing, at \$1 per day.

Cairo, Ill.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; St. Mary's Infirmary to furnish board, nursing, and medicines, at 83 cents per day, and to provide for the burial of deceased patients, at \$9 each. For contagious cases, \$2 per day will be allowed.

Cedar Keys, Fla.—Dr. A. J. Woodward to furnish medical attendance and medicines, at \$25 per month; J. A. Erickson to furnish board and nursing, at \$1 per day.

Charleston, S. C.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; the City Hospital to furnish board, nursing, and medicines, at 75 cents per day. Cases requiring long-continued treatment will be furnished transportation to the United States Marine Hospital at Wilmington, N. C.

Chattanooga, Tenn.—The medical attendance to be furnished by an acting assistant surgeon; Morgan Fryer to furnish board and nursing, at 75 cents per day.

Crisfield, Md.—Drs. Atkinson and Bowen to furnish medical attendance and medicines for patients unable to bear transportation to Baltimore, at \$1 per visit.

Chicago, Ill.—Patients cared for in the United States Marine Hospital; William Niemeyer to provide for the burial of deceased patients, at \$18 each.

Cincinnati, Ohio.—Out-patients to be treated at the Marine-Hospital Office, corner Third and Broadway, by a medical officer of the Marine-

Hospital Service; the Good Samaritan Hospital to furnish board, nursing, and medicines, at 95 cents per day. Patients requiring hospital treatment and able to bear transportation, will be sent to the United States Marine Hospital at Louisville, Ky.

Cleveland, Ohio.—The medical attendance to be furnished by an acting assistant surgeon; the Cleveland City Hospital to furnish board, nursing, and medicines, in the United States Marine Hospital, under lease of September 21, 1875, at 64 cents per day.

Corpus Christi, Tex.—The medical attendance to be furnished by an acting assistant surgeon; James E. Ellis to furnish board and nursing, at \$1.40 per day.

Detroit, Mich.—Patients cared for in the United States Marine Hospital; out-patients to be treated at the Marine-Hospital Office, Kanter Block; Latimer and Patterson to provide for the burial of deceased patients, at \$11 each. The City Board of Health to provide for contagious cases, at \$2 per day.

Dubuque, Iowa.—The medical attendance to be furnished by an acting assistant surgeon; Mercy Hospital to furnish board, nursing, and medicines, at \$1 per day.

Duluth, Minn.—Dr. S. C. McCormick to furnish medical attendance, board, nursing, and medicines, at \$1.50 per day.

Eastport, Maine.—Hospital-relief to be furnished on the recommendation of the collector of customs.

East Saginaw, Mich.—The medical attendance to be furnished by an acting assistant surgeon; St. Mary's Hospital to furnish board, nursing, and medicines, at \$1 per day.

Edenton, N. C.—Cases requiring long-continued treatment will be furnished transportation to the United States Marine Hospital at Wilmington, N. C. Dr. R. Dillard to furnish medical attendance and medicines, at \$1 per visit; D. M. Lee to furnish board and nursing, at \$1 per day.

Edgartown, Mass.—Patients cared for in the United States Marine Hospital at Vineyard Haven. Patients from vessels bound west or south touching at Hyannis will be sent to this hospital, and patients at New Bedford requiring long-continued treatment will also be furnished transportation to this point.

Elizabeth City, N. C.—The medical attendance to be furnished by an acting assistant surgeon; Parmelia Johnson to furnish board and nursing, at 65 cents per day.

Ellsworth, Maine.—The medical attendance to be furnished by an acting assistant surgeon. Emergency cases only will be furnished

continuous hospital treatment; all other cases requiring hospital treatment will be furnished transportation to the United States Marine Hospital at Portland, Maine.

Erie, Pa.—The medical attendance to be furnished by an acting assistant surgeon; Hamot Hospital to furnish board and nursing, at 71 cents per day; the Erie Undertaking Company to provide for the burial of deceased patients, at \$12 each. Cases requiring long-continued treatment to be sent to Detroit, Mich.

Escanaba, Mich.—The medical attendance to be furnished by an acting assistant surgeon; C. T. Haskell to furnish board and nursing, at \$1 per day.

Evansville, Ind.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; the Evansville City Hospital Association to furnish board, nursing, and medicines, at 75 cents per day; Robert Smith to provide for the burial of deceased patients, at \$12 each.

Fernandina, Fla.—The medical attendance to be furnished by an acting assistant surgeon; Sarah T. Skinner to furnish board and nursing, at \$1 per day.

Fredericksburg, Va.—The medical attendance to be furnished by an acting assistant surgeon.

Galveston, Tex.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; St. Mary's Infirmary to furnish board, nursing, and medicines, at 80 cents per day, and to provide for the burial of deceased patients, at \$10 each. Cases requiring long-continued treatment will be furnished transportation to the United States Marine Hospital at Mobile, at the discretion of the medical officer.

Georgetown, D. C.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; out-patients to be treated at 1421 G street, Washington; the Providence Hospital, Washington, to furnish board, nursing, and medicines, at 71 cents per day, and to provide for the burial of deceased patients, at \$6 each.

Grand Haven, Mich.—The medical attendance to be furnished by an acting assistant surgeon; Nancy Palmer to furnish board and nursing, at \$1 per day.

Indianola, Tex.—The medical attendance to be furnished by an acting assistant surgeon; John McDonald to furnish board and nursing, at \$1.25 per day.

Jacksonville, Fla.—The medical attendance to be furnished by an acting assistant surgeon.

Key West, Fla.—Patients cared for in the United States Marine Hospital; Williams & Warren to provide for the burial of deceased patients, at \$15 each.

La Crosse, Wis.—The medical attendance to be furnished by an acting assistant surgeon; Louis Renner to furnish board and nursing, at 75 cents per day.

Louisville, Ky.—Patients cared for in the United States Marine Hospital; out-patients treated at No. 365 West Jefferson street; W. Wyatt to provide for the burial of deceased patients, at \$8 each. For contagious cases, \$2 per day will be allowed.

Machias, Maine.—The medical attendance to be furnished by an acting assistant surgeon; Amos Boynton to furnish board and nursing, at 71½ cents per day.

Marquette, Mich.—The medical attendance to be furnished by an acting assistant surgeon; Henry Tapken to furnish board and nursing, at \$1 per day.

Memphis, Tenn.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; the Memphis City Hospital to furnish board, nursing, and medicines, at \$1 per day, and to provide for the burial of deceased patients, at \$7.50 each, until arrangements are provided, in accordance with an act of Congress establishing a marine hospital, approved May 3, 1880. Out-patients to be treated at No. 314 Front street, corner of Monroe.

Middletown, Conn.—The Hartford Hospital to furnish medical attendance, medicines, board, and nursing, at \$1 per day, and to provide for the burial of deceased patients, at \$10 each.

Milwaukee, Wis.—The medical attendance to be furnished by an acting assistant surgeon; out-patients to be treated at No. 437 Milwaukee street; St. Mary's Hospital to furnish board, nursing, and medicines, at 70 cents per day; Fred. Zander to provide for the burial of deceased patients, at \$14 each. Chronic hospital cases to be furnished transportation to the United States Marine Hospital at Chicago, Ill.

Mobile, Ala.—Patients cared for in the United States Marine Hospital; Peter F. Alba to provide for the burial of deceased patients, at \$10 each.

Nashville, Tenn.—The medical attendance to be furnished by an acting assistant surgeon; the City Hospital to furnish board, nursing, and medicines, at 90 cents per day, and to provide for the burial of deceased patients, at \$6 each.

New Bedford, Mass.—The medical attendance to be furnished by an acting assistant surgeon; St. Joseph's Hospital to furnish board,

nursing, and medicines, at \$1 per day, and to provide for the burial of deceased patients at \$10 each. Cases requiring long-continued treatment will be sent to the United States Marine Hospital at Vineyard Haven.

New Berne, N. C.—The medical attendance to be furnished by an acting assistant surgeon. Cases requiring long-continued treatment will be furnished transportation to the United States Marine Hospital at Wilmington, N. C. Mrs. Sarah A. Wambold to furnish board and nursing, at \$1 per day.

New Haven, Conn.—The medical attendance to be furnished by an acting assistant surgeon; the New Haven General Hospital to furnish board, nursing, and medicines, at \$1 per day, and to provide for the burial of deceased patients, at \$15 each.

New London, Conn.—The medical attendance to be furnished by an acting assistant surgeon; board and nursing to be furnished on the recommendation of the collector of customs. Cases requiring long-continued treatment will be furnished transportation to the United States Marine Hospital, Bedloe's Island, New York Harbor.

New Orleans, La.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; the Touro Hospital to furnish board, nursing, and medicines, at 85 cents per day, (except for contagious cases, for which \$2.50 per day will be allowed,) and to provide for the burial of deceased patients, at \$10 each. Cases requiring long-continued treatment will be furnished transportation to the United States Marine Hospital at Mobile, at the discretion of the medical officer.

Newport, R. I.—The Newport Hospital to furnish medical attendance, medicines, board, and nursing, at 95 cents per day; Michael Cottrell to provide for the burial of deceased patients, at \$11 each. Cases requiring long-continued treatment will be furnished transportation to the United States Marine Hospital, New York Harbor.

New York, N. Y.—Patients cared for in the United States Marine Hospital on Bedloe's Island, New York Harbor; George F. Schaefer of Staten Island, to provide for the burial of deceased patients, at \$12 each. For contagious cases \$2 per day will be allowed.

Norfolk, Va.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; St. Vincent's Hospital to furnish board, nursing, and medicines, at \$1 per day; L. C. Salusbury to provide for the burial of deceased patients, at \$8.50 each.

Oswego, N. Y.—The medical attendance to be furnished by an acting assistant surgeon; the Oswego Hospital to furnish board, nursing, and medicines, at \$1 per day.

Pascagoula, Miss.—The medical attendance to be furnished by an acting assistant surgeon; James Smith to furnish board and nursing, at \$1 per day.

Pensacola, Fla.—The medical attendance to be furnished by an acting assistant surgeon; the Pensacola Infirmary to furnish board, nursing, and medicines, at 95 cents per day. Cases requiring long-continued treatment will be furnished transportation to Mobile.

Philadelphia, Pa.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; the Jefferson Medical College Hospital to furnish board, nursing, and medicines at 90 cents per day, and to provide for the burial of deceased patients, at \$10 each. Transportation from the Marine-Hospital Office to the hospital to be furnished by the hospital authorities when required.

Pittsburgh, Pa.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; out-patients to be treated at corner Sixth and Smithfield streets; the Pittsburgh Infirmary to furnish board, nursing, and medicines, at 94 cents per day, until such time as the United States Marine Hospital is ready for occupancy, and to provide for the burial of deceased patients, at \$12 each. For contagious cases \$1.40 per day will be allowed.

Portland, Maine.—Patients cared for in the United States Marine Hospital; Ilsley Brothers to provide for the burial of deceased patients, at \$8 each.

Portland, Oreg.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; St. Vincent's Hospital to furnish board, nursing, and medicines, at 73 cents per day.

Port Townsend, Wash. T.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service; Dr. Thomas T. Minor to furnish board, nursing, and medicines, at 90 cents per day, and to provide for the burial of deceased patients, at \$12 each.

Providence, R. I.—The Rhode Island Hospital to furnish medical attendance, medicines, board, and nursing, at \$1 per day, and to provide for the burial of deceased patients, at \$12 each. Patients requiring long-continued treatment will be furnished transportation to the United States Marine Hospital at Chelsea, (Port of Boston.)

Richmond, Va.—The medical attendance to be furnished by an acting assistant surgeon; out-patients to be treated at the Marine-Hospital Office, No. 20 North Ninth street; "Retreat for the Sick" Hospital to furnish board, nursing, and medicines, at 90 cents per day.

Sag Harbor, N. Y.—Dr. George A. Sterling to furnish medical attendance, medicines, board, and nursing, at \$1 per day. Patients will

be furnished hospital treatment at Sag Harbor only in emergency cases unable to bear transportation to the United States Marine Hospital at Bedloe's Island, New York Harbor.

Sitka, Alaska.—The medical attendance to be furnished by a medical officer of the Marine-Hospital Service.

St. Paul, Minn.—The medical attendance to be furnished by an acting assistant surgeon; St. Joseph's Hospital to furnish board, nursing, and medicines, at 70 cents per day, and to provide for the burial of deceased patients, at \$9 each.

Salem, Mass.—Patients will be furnished hospital treatment at Salem only in emergency cases unable to bear transportation to the United States Marine Hospital at Chelsea, (Port of Boston.)

San Francisco, Cal.—Patients cared for in the United States Marine Hospital. Burial of deceased patients at the hospital cemetery; burial of foreign seamen, \$6 each.

Sault Ste. Marie, Mich.—The medical attendance to be furnished by an acting assistant surgeon; W. H. Smith to furnish board and nursing, at \$1 per day.

Savannah, Ga.—The medical attendance to be furnished by an acting assistant surgeon; the St. Joseph's Infirmary to furnish board, nursing, and medicines, at \$1 per day; Joseph Goette to provide for the burial of deceased patients, at \$10 each. Cases requiring long-continued treatment will be furnished transportation to the United States Marine Hospital at Wilmington, N. C.

Shreveport, La.—Out-patients to be treated at the Marine-Hospital Office by an acting assistant surgeon; the Market Street Infirmary to furnish medicines, board, and nursing, at \$1.50 per day; J. S. Randall to provide for the burial of deceased patients, at \$9 each.

San Diego, Cal.—The City Hospital to furnish medical attendance, medicines, board, and nursing, at \$1.75 per day.

St. Louis, Mo.—Patients cared for in the United States Marine Hospital; the city of St. Louis to provide for the burial of deceased patients, at \$9 each.

Tappahannock, Va.—Dr. Wm. Fisher to furnish medical attendance, medicines, board, and nursing, at \$1.50 per day. Dr. Wm. S. Christian to furnish medical attendance, medicines, board, and nursing, at Urbana, Va., at \$1.50 per day.

Toledo, Ohio.—The medical attendance to be furnished by an acting assistant surgeon; the St. Vincent's Hospital to furnish board, nursing, and medicines, at 80 cents per day.

Tuckerton, N. J.—The medical attendance to be furnished by an acting assistant surgeon; Elizabeth Jones to furnish board and nursing, at \$1 per day; allowance for the burial of deceased patients, \$6 each.

Vicksburg, Miss.—The medical attendance to be furnished by an acting assistant surgeon; the City Hospital to furnish board, nursing, and medicines, at 75 cents per day. For contagious cases \$2 per day will be allowed.

Waldoboro', Maine.—The medical attendance to be furnished by an acting assistant surgeon at Rockland; cases requiring long-continued treatment to be furnished transportation to the United States Marine Hospital at Portland, Maine.

Wheeling, W. Va.—Dr. John Frissel to furnish medical attendance, medicines, board, and nursing, at \$1 per day, (except contagious cases, for which \$2 per day will be allowed.)

Wilmington, N. C.—Patients cared for in the United States Marine Hospital; J. W. Woolvin to provide for the burial of deceased patients, at \$13 each.

Wiscasset, Maine, and Sub-ports.—Emergency cases only will be furnished continuous hospital treatment; all other cases requiring hospital treatment will be furnished transportation to the United States Marine Hospital at Portland, Maine.

NOTE.—At all ports not otherwise specified, the dispensary is located at the custom-house. The rate at ports not specifically provided for will in each special case be fixed by the Department, upon the recommendation of the proper officer, in accordance with the Regulations of 1879.

The rate of charge for seamen from vessels of the Navy, Light-House Service, and Coast Survey, admitted to hospital under the provisions of paragraph 269, Regulations, and for foreign seamen admitted under the act of March 3, 1875, is hereby fixed at the uniform rate of \$1 per diem at ports where there are marine hospitals, and at contract rates at other ports.

I am, sir, very respectfully, your obedient servant,

JOHN B. HAMILTON,

Supervising Surgeon-General, U. S. Marine-Hospital Service.

To the Hon. CHAS. J. FOLGER,

Secretary of the Treasury.

STATISTICS

UNITED STATES MARINE-HOSPITAL SERVICE.

STATISTICS

UNITED STATES MARINE HOSPITAL SERVICE

STATISTICS

UNITED STATES MARINE-HOSPITAL SERVICE,

FISCAL YEAR 1882.

MEDICAL AND SURGICAL.

Table I.—*Table of Relief-Districts.*

1.—NORTH ATLANTIC DISTRICT.

Bangor, Maine; Barnstable, Mass.; Bath, Maine; Belfast, Maine; Boston, Mass.; Bristol, R. I.; Burlington, Vt.; Castine, Maine; Eastport, Maine; Edgartown, Mass.; Ellsworth, Maine; Fall River, Mass.; Gloucester, Mass.; Hyannis, Mass.; Kennebunk, Maine; Machias, Maine; Marblehead, Mass.; Nantucket, Mass.; New Bedford, Mass.; Newburyport, Mass.; Newport, R. I.; Plattsburgh, N. Y.; Plymouth, Mass.; Portland, Maine; Portsmouth, N. H.; Providence, R. I.; Rockland, Maine; Saco, Maine; Salem, Mass.; Vineyard Haven, Mass.; Waldoborough, Maine; Wiscasset, Maine; and York, Maine; together with all subordinate ports.

2.—MIDDLE ATLANTIC DISTRICT.

Albany, N. Y.; Bridgeport, Conn.; Bridgeton, N. J.; Greenport, N. Y.; Lambertton, N. J.; Middletown, Conn.; Newark, N. J.; New Haven, Conn.; New London, Conn.; New York, N. Y.; Patchogue, N. Y.; Perth Amboy, N. J.; Philadelphia, Pa.; Sag Harbor, N. Y.; Somers Point, N. J.; Stonington, Conn.; Troy, N. Y.; Tuckerton, N. J.; and Wilmington, Del.; together with all subordinate ports.

3.—SOUTH ATLANTIC DISTRICT.

Alexandria, Va.; Annapolis, Md.; Baltimore, Md.; Beaufort, N. C.; Beaufort, S. C.; Brunswick, Ga.; Charleston, S. C.; Crisfield, Md.; Eastville, Va.; Edenton, N. C.; Fernandina, Fla.; Georgetown, D. C.; Georgetown, S. C.; Jacksonville, Fla.; New Berne, N. C.; Norfolk, Va.; Petersburg, Va.; Richmond, Va.; Saint Augustine, Fla.; Savannah, Ga.; Tappahannock, Va.; Wilmington, N. C.; and Yorktown, Va.; together with all subordinate ports.

4.—DISTRICT OF THE GULF.

Apalachicola, Fla.; Brashear, La.; Brownsville, Texas; Cedar Keys, Fla.; Corpus Christi, Texas; El Paso, Texas; Galveston, Texas; Key West, Fla.; Mobile, Ala.; New Orleans, La.; Pensacola, Fla.; Shiloh, Miss.; and Shreveport, La.; together with all subordinate ports.

5.—DISTRICT OF THE OHIO.

Chattanooga, Tenn.; Cincinnati, Ohio; Evansville, Ind.; Louisville, Ky.; Nashville, Tenn.; Paducah, Ky.; Parkersburg, W. Va.; Pittsburgh, Pa.; and Wheeling, W. Va.; together with all subordinate ports.

6.—DISTRICT OF THE MISSISSIPPI.

Bismarck, D. Ter.; Burlington, Iowa; Cairo, Ill.; Dubuque, Iowa; Galena, Ill.; La Crosse, Wis.; Memphis, Tenn.; Natchez, Miss.; Omaha, Neb.; Pembina, D. Ter.; Port Benton, Mont.; Saint Louis, Mo.; Saint Paul, Minn.; and Vicksburg, Miss.; together with all subordinate ports.

7.—DISTRICT OF THE GREAT LAKES.

Buffalo, N. Y.; Cape Vincent, N. Y.; Chicago, Ill.; Cleveland, Ohio; Detroit, Mich.; Duluth, Minn.; Dunkirk, N. Y.; Erie, Pa.; Escanaba, Mich.; Grand Haven, Mich.; Green Bay, Wis.; Kenosha, Wis.; L'Anse, Mich.; Manitowoc, Wis.; Marquette, Mich.; Milwaukee, Wis.; Muskegon, Mich.; Ogdensburg, N. Y.; Oswego, N. Y.; Racine, Wis.; Rochester, N. Y.; Saint Joseph, Mich.; Sandusky, Ohio; Sault Ste. Marie, Mich.; Sheboygan, Wis.; and Toledo, Ohio; together with all subordinate ports.

8.—DISTRICT OF THE PACIFIC.

Astoria, Oregon; Empire City, Oregon; Eureka, Cal.; Portland, Oregon; Port Townsend, W. Ter.; San Diego, Cal.; San Francisco, Cal.; Sitka, Alaska; Wilmington, Cal.; and Yaquina, Oregon; together with all subordinate ports.

All relief-stations where the Service is under the charge of a medical officer of the Marine-Hospital Service are known as relief-stations of Class 1. Relief-stations where specific arrangements have been made for the care and treatment of sick or disabled seamen at rates fixed by the Treasury Department, but where collectors of customs, on account of the absence of a medical officer of the Service, are authorized and required to issue permits, and to supervise the relief furnished, are known as relief-stations of Class 2. All other ports where there are officers of the customs revenue, but where, on account of the infrequency of applications for relief, the absence of any hospital, or from other causes, sick or disabled seamen are cared for only in cases of emergency, are known as relief-stations of Class 3.

Table II.—*Summary of Physical Examinations of Seamen made by Medical Officers of the United States Marine-Hospital Service, Year ended June 30, 1882.*

	SUMMARY OF EXAMINATIONS.			CAUSE OF REJECTION.									
	Total number examined.	Number passed.	Number rejected.	Color-blind.	Defective vision.	Syphilis.	Sciatica.	Paralysis.	Heart disease.	Aneurism.	Bronchitis.	Hernia.	Stricture urethra.
Pilots.....	2,090	2,027	63	63	1	6	1	1	1	1	1	1	1
Revenue-Marine.....	273	254	19	4	1	6	1	1	1	1	1	1	1
Merchant-Marine.....	33	28	5	5	1	1	1	1	1	1	1	1	1
Life-Saving Service ^b													
Light-House Service.....													
Total.....	2,396	2,309	87	67	1	6	1	1	2	1	1	1	1

^a Pilots examined for color-blindness only.

^b This includes only those examined at Marine-Hospital offices. The keepers and surfmen of the first, second, third, fourth, fifth, and sixth districts were examined at their respective stations by officers of the Service.

Table III.—*Statement, by Districts, of the Number of Patients Treated during the Year ended June 30, 1882.*

Districts.	Total cases.	Patients in hospital July 1, 1881.	Admitted during the year.	Total number treated in hospital.	Number discharged from hospital.	Number of deaths.	Number in hospital June 30, 1882.	Number of days' hospital-relief furnished.	Number of seamen furnished office-relief.
North Atlantic.....	3,275	53	1,022	1,075	964	44	67	26,723	2,200
Middle Atlantic....	3,990	105	1,732	1,837	1,652	73	112	48,094	2,153
South Atlantic.....	6,333	82	2,146	2,228	2,057	68	103	51,686	4,105
The Gulf.....	4,099	95	1,533	1,628	1,462	81	85	57,392	2,471
The Ohio.....	4,860	61	950	1,011	901	57	53	29,538	3,849
The Mississippi....	5,059	111	2,078	2,189	2,029	77	83	38,414	2,870
The Great Lakes....	6,746	110	2,015	2,125	1,938	53	134	55,316	4,621
The Pacific.....	1,822	40	915	955	875	32	48	26,312	867
Total.....	36,184	657	12,391	13,048	11,878	485	685	333,475	23,136

Table IV.—*Ratio of Patients Treated in Hospital in each District.*

Districts.	Per cent. of total patients.	Districts.	Per cent. of total patients.
North Atlantic.....	8.24 +	The Ohio.....	7.74 +
Middle Atlantic.....	14.41 +	The Mississippi.....	16.77 +
South Atlantic.....	17.07 +	The Great Lakes.....	16.20 +
The Gulf.....	12.48 +	The Pacific.....	7.31 +

Table V.—*Average Duration of Treatment in Hospital in each District.*

Districts.	Average duration.	Districts.	Average duration.
	<i>Days.</i>		<i>Days.</i>
North Atlantic.....	24.86	The Ohio.....	29.22
Middle Atlantic.....	26.18	The Mississippi.....	17.55
South Atlantic.....	23.20	The Great Lakes.....	26.03
The Gulf.....	35.25	The Pacific.....	27.55

Table VI.—*Tabular Statement, by Districts, of Diseases and Injuries Treated during the Year ended June 30, 1882.*

DISEASES.	Total treated in hospital and dispensary.	NUMBER OF CASES.								
		Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief. <i>a</i>
					Recovered.	Improved.	Not improved.			
Grand Total of all Cases	36184	13048	657	12391	8762	2888	228	485	685	23136
GENERAL DISEASES.....	16451	6781	323	6458	4583	1559	84	250	305	9670
LOCAL DISEASES	15914	4393	239	4154	2783	1022	118	204	266	11521
DEBILITY, POISONS, &C.....	651	196	7	189	125	48	12	5	6	455
INJURIES	3168	1678	88	1590	1271	259	14	26	108	1490

NORTH ATLANTIC DISTRICT.

TOTAL CASES	1075	53	1022	749	198	17	44	67	2200
General Diseases	511	23	488	381	78	4	21	27	859
Small-pox.....	11		11	6	1		3	1	1
Cow-pox.....									5
Measles.....	1		1	1					1
Scarlet fever.....	1		1				1		1
Typhus fever.....	1		1	1					
Cerebro-spinal fever.....	1		1					1	
Enteric fever.....	28		28	18	2		5	3	42
Simple continued fever.....	5		5	4				1	7
Febricula.....	4		4	4					7
Ague—Quotidian.....	102	1	101	95	2			5	102
Tertian.....	68	1	67	61	5	1	b 1		97
Irregular.....	18	1	17	14	3			1	67
Remittent fever.....	37	2	35	30	5		1	1	58
Simple cholera.....	1		1	1					2
Diphtheria.....	1		1	1					2
Mumps.....	1		1	1					1
Influenza.....	1		1		1				
Erysipelas—Simple.....	2		2	1				1	7
Phlegmonous.....	3		3	1			1	1	5
Diphtheritic paralysis.....	1		1		1				2
Acute rheumatism.....	23	1	22	19	4				43
Sub-acute rheumatism.....	13	1	12	10	3				25
Gonorrhoeal rheumatism.....	4		4	4					7
Synovial rheumatism.....	1		1	1					4
Muscular rheumatism.....	23	1	22	18	4			1	75
Chronic rheumatism.....	10	1	9	4	5			1	48
Chronic osteo-arthritis.....	2		2		1			1	4
Primary syphilis—Hard chancre.....	11	3	8	9	2				23
Indurated bubo.....	4		4	3	1				3
Soft chancre.....	49	1	48	44	3	1		1	69
Suppurating bubo.....	15		15	12	2			1	3
Phagedenic sore.....	1		1					1	
Secondary syphilis.....	29	3	26	14	13			2	105
Syphilitic inflammation of the brain.....	1	1			1				
Syphilitic iritis.....	3		3	2	1				
Cancer.....	1		1					1	
Scirrhus.....	1		1					1	
Epithelial.....									1
Scrofula.....									1
Scrofulous disease of glands.....									3
Phthisis pulmonalis.....	26	6	20		16	2	6	2	31
Diabetes.....	1		1		1				4
Scurvy.....	4		4	2			1	1	
Anemia.....	1		1		1				4
General dropsy.....	1		1				1		
Local Diseases.....	424	22	402	275	96	13	18	22	1134
DISEASES OF THE NERVOUS SYSTEM.....	32		32	14	8	2	4	4	103
Encephalitis.....	1		1				1		
Meningitis.....	1		1				1		5

^a Includes cases treated at home of patient.^b Pernicious ague.

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

NORTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Local Diseases.										
DISEASES OF THE NERVOUS SYSTEM—Cont'd.										
Inflammation of the brain.....										3
Apoplexy.....	1		1				1			
Sunstroke.....										2
White softening of the brain.....	1		1		1					1
Embolism of the cerebral arteries.....	1		1		1					
Spinal meningitis.....										1
Paraplegia.....	1		1					1		2
Locomotor ataxy.....	1		1		1					
Local paralysis.....	2		2		2					2
Epilepsy.....	1		1				1			1
Epileptic vertigo.....	2		2	1	1					3
Neuralgia.....	1		1	1						19
Facial.....	6		6	5				1		13
Brow-ague.....	1		1	1						6
Sciatica.....	5		5	4				1		12
Pleurodynia.....	1		1	1						20
Irritable stump.....	1		1	1						1
Hyperæsthesia.....										1
Hypochondriasis.....										11
Mania—Acute.....	2		2			a 1		1		
Melancholia.....	1		1			1				
Dementia—Acute.....	1		1		1					
Chronic.....	1		1		1					
DISEASES OF THE EYE.....										
Conjunctivitis.....	10	2	8	4	5	1				23
Catarrhal ophthalmia.....	1		1	1						11
Gonorrhœal ophthalmia.....	1		1	1						
Ulcer of the cornea.....	1	1			1					1
Iritis.....	3	1	2	2	1					4
Rheumatic iritis.....										2
Amaurosis.....	1		1		1					
Impaired vision.....										2
Cataract, hard.....	1		1		1					
Cataract, soft.....	1		1			1				
Short sight.....										
Long sight.....										1
Hemeralopia.....										1
DISEASES OF THE EAR.....										
Inflammation of external meatus—Acute.....	2		2	2						9
Abscess of the external meatus.....	1		1	1						3
Accumulation of wax.....										1
Polypus of the external meatus.....										2
Inflammation of the membrana tympani.....	1		1	1						2
DISEASES OF THE NOSE.....										
Ulceration of the pituitary membrane.....	1		1					1		4
Epistaxis.....	1		1					1		1
Polypus nasi.....										2
DISEASES OF THE CIRCULATORY SYSTEM.....										
Valve-disease.....	10	4	6	3	1	3	3			8
Angina pectoris.....	3	1	2				3			1
Palpitation and irregular action of heart.....	3	1	2	1	1	1				1
Aneurism of the arteries.....	2	1	1			2				2
Varicose veins.....	2	1	1	2						2
DISEASES OF THE ABSORBENT SYSTEM.....										
Inflammation of glands.....	8		8	6	2					10
Suppuration of glands.....	6		6	4	2					7
Hypertrophy of glands.....	2		2	2						1
Glandular tumor.....										1

a Sent to Government Hospital for the Insane.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

NORTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF THE RESPIRATORY SYSTEM. . . .	50	3	47	16	23	1	6	4	216
Coryza.									4
Laryngitis—Acute.									6
Chronic.									3
Bronchial catarrh.									7
Bronchitis—Acute.	18	2	16	11	5	1		1	81
Chronic.	4		4	1	1		1	1	60
Asthma.	7		7	1	6				7
Pneumonia.	10	1	9	2	4		2	2	22
Abscess of the lung.									2
Passive congestion of the lung.	1		1				1		
Hæmoptysis.	1		1		1				3
Pulmonary extravasation.	1		1		1				
Emphysema.	1		1		1				
Acute pneumonic phthisis.	1		1		1				
Pleurisy.	5		5	1	2		2		4
Empyema.	1		1		1				
DISEASES OF THE DIGESTIVE SYSTEM.	109	4	105	82	18	2	2	5	362
Stomatitis.									2
Abscess of the cheek.	7		7	6				1	3
Abscess of the antrum.	1	1		1					
Ulcerative stomatitis.									1
Caries of the dental tissue.									2
Ulceration of the gums.									1
Glossitis.	1		1	1					
Ulcer of the tongue.									1
Sore-throat.									3
Ulcerated throat.	1		1	1					
Quinsy.									1
Tonsillitis.	8		8	8					18
Sloughing sore throat.									1
Enlarged tonsils.	2		2	1	1				3
Elongated uvula.									1
Pharyngitis.	4		4	3				1	25
Inflammation of the salivary glands.									1
Stricture of the œsophagus.	1		1					1	
Gastritis.	5	1	4	3	2				15
Hæmatemesis.									1
Dyspepsia.	4		4	2	2				59
Gastrodynia.	4		4	3	1				7
Pyrosis.									1
Enteritis.	2		2	1	1				4
Dysentery.	12	2	10	11			1		15
Obstruction of the intestines.	3		3	2				1	
Hernia.	4		4	2	1	1			20
Diarrhœa.	27		27	21	4	1		1	63
Colic.	1		1	1					14
Constipation.	2		2	1	1				47
Abscess of the anus.	1		1	1					
Fistula in ano.	6		6	5	1				1
Hæmorrhoids.	3		3	3					12
Fissure of the anus.									1
Prolapsus of the rectum.	2		2	2					
Hepatitis.	2		2	1	1				8
Simple enlargement of the liver.									14
Cirrhosis of the liver.									1
Jaundice.	1		1		1				4
Obstruction of the vena portæ.	1		1		1				
Gallstones.									6
Splenitis.	1		1	1					
Hypertrophy of the spleen.									4
Peritonitis.	2		2	1			1		1
Ascites.	1		1		1				1

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

NORTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF THE URINARY SYSTEM.....	59	2	57	42	13	1	1	2	225
Acute Bright's disease.....	1		1		1				5
Chronic Bright's disease.....	1	1			1				8
Pyelitis.....									1
Cystitis—Acute.....									4
Chronic.....	1		1	1					7
Calculus.....									1
Calculus in the ureter.....									1
Hæmaturia, vesical.....									1
Irritability of the bladder.....									6
Incontinence of urine.....									2
Abscess of the prostate gland.....	1		1		1				
Chronic enlargement of prostate gland.....	1		1				a 1		
Gonorrhœa.....	17		17	13	3			1	134
Balanitis.....									4
Phimosis.....	1		1		1				
Paraphimosis.....	3		3	2	1				1
Bubo, gonorrhœal.....	2		2	1				1	2
Epididymitis.....	12	1	11	12					8
Gleet.....	3		3	1	1	1			25
Urethritis.....	1		1	1					4
Organic stricture of the urethra.....	14		14	10	4				1
Urinary fistula.....	1		1	1					
DISEASES OF THE GENERATIVE SYSTEM.....	28		28	21	6			1	26
Inflammation of the penis.....									1
Abscess of the penis.....	1		1					1	
Varicocele.....	2		2	2					3
Hydrocele of the tunica vaginalis.....	5		5	3	2				4
Orchitis—Acute.....	16		16	14	2				3
Chronic.....	1		1	1					3
Cystic disease of the testicle.....	1		1		1				
Spermatorrhœa.....	1		1		1				11
Neuralgia of the testicle.....	1		1	1					1
DISEASES OF THE ORGANS OF LOCOMOTION.....	18	3	15	9	7	1	1		17
Ostitis.....	1	1			1				
Periostitis.....	1		1		1				5
Nodes.....									1
Caries.....	1		1		1				
Necrosis.....	5		5	2	2		1		3
Acute synovitis.....	4		4	3	1				
Chronic synovitis.....									2
Ankylosis.....	1		1		1				
Dropsy of joint.....									1
Abscess of pectoral muscle.....	1	1		1					
Adhesion of tendons.....	1		1	1					
Contracted palmar fascia.....	1		1			1			
Enlarged bursa patellæ.....	2	1	1	2					2
Enlarged bursa of elbow.....									2
Bursal abscess.....									1
DISEASES OF THE CELLULAR TISSUE.....	15		15	10	1			4	17
Inflammation.....	1		1	1					2
Abscess.....	14		14	9	1			4	15
DISEASES OF THE CUTANEOUS SYSTEM.....	82	4	78	66	12	2	1	1	114
Erythema.....									1
Urticaria.....									1
Prurigo.....	1		1	1					
Psoriasis.....	1		1			1			2
Herpes.....									1
Pemphigus.....	1		1	1					

a Fatty degeneration of the arteries.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

NORTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF CUTANEOUS SYSTEM—Cont'd.									
Eczema.....	5	1	4	4	1				20
Impetigo.....									1
Acne.....									3
Sycosis.....	1		1	1					1
Frostbite.....	27	1	26	23	3		1		6
Ulcer.....	21	2	19	15	4	1		1	32
Boil.....	4		4	3	1				12
Carbuncle.....	2		2	2					3
Onychia.....									2
Whitlow.....	12		12	12					13
Glandular tumor.....	1		1		1				
Fatty tumor.....	1		1	1					2
Nævus pilaris.....									1
Nævus.....									1
Sebaceous tumor.....									2
Cutaneous cyst.....									1
Gangrene.....	1		1	1					
Molluscum.....	1		1		1				
Cheloid.....	1		1	1					
Ingrown nail.....									3
Pruritus.....	1		1	1					
Tinea tonsurans.....	1		1		1				2
Scabies.....									3
Irritation caused by phthirius inguinalis.....									1
Conditions not Necessarily Associated with General or Local Diseases.									
DEBILITY.....	4		4	2	2				22
SEA-SICKNESS.....								1	12
Poisons.....	2		2	2					2
Oxalic acid.....	1		1	1					1
Alcohol.....	1		1	1					
Delirium tremens.....									1
Injuries.....	134	8	126	89	22		5	18	171
GENERAL INJURIES.....									
Burns and scalds.....	4		4	4	2		1		4
Multiple injury.....	2		2	1			1		2
Exposure to cold.....	2		2		2				1
LOCAL INJURIES.....									
Contusion of head.....	4		4	4					1
Scalp-wound, bone not exposed.....	3		3	3					6
Scalp-wound, bone exposed.....									3
Concussion of brain.....	4		4	1			2	1	2
Fracture of the vault of the skull.....	1		1				1		
Fracture of the base of the skull.....									1
Contusion of the face.....									4
Wound of the face.....	2		2	1	1				2
Foreign bodies in the ear.....									1
Fracture of the facial bones.....	1		1	1					
Contusion of the eye.....	1		1	1					2
Contusion, with rupture of the sclerotic.....	1		1	1					
Wound of the eyelid.....	1		1	1					2
Wound of the neck.....									2
Contusion of the chest.....	6		6	4			1	1	5
Fracture of the ribs.....	10		10	7	2			1	6

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

NORTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Injuries.										
LOCAL INJURIES—Continued.										
Contusion of the back	3		3	3						5
Sprain of the back	2		2	2						6
Wound of the back										4
Fracture of the spine	1	1			1					
Wound of the parietes, abdomen	3		3	1	1			1		1
Contusion of the testicle	1		1	1						
Wound of the male perineum	1	1		1						
Contusion of the upper extremities	5	1	4	5						10
Sprain of shoulder	1		1	1						4
Sprain of elbow	3		3	1				2		2
Sprain of wrist	1		1	1						7
Wound of the upper extremities	11		11	8	3					22
Wound of the radial artery										1
Fracture of the clavicle	2		2	1	1					
Fracture of the scapula	1		1					1		
Fracture of the forearm	3		3	1				2		
Ununited fracture of the radius	1		1		1					
Fracture of phalanges										1
Dislocation of the shoulder	2		2	1	1					3
Dislocation of the elbow	2		2		2					2
Dislocation of the thumb	2		2	1	1					1
Dislocation of the phalangeal joints										2
Contusion of the lower extremities	10		10	10						20
Sprain of the hip										2
Sprain of the knee	4		4	3	1					7
Sprain of the ankle	3		3	3						7
Wound of the lower extremities	10		10	7	1			2		7
Foreign body embedded in foot										2
Fracture of the femur										1
Fracture of the patella										1
Fracture of the leg, both bones	10	4	6	5	3			2		8
Fracture of the tibia alone	6	1	5	3				3		2
Fracture of the fibula alone	3		3	1	1			1		
Ununited fracture of the leg, both bones										1
Amputated finger <i>a</i>										1
Rupture of muscle	1		1					1		

MIDDLE ATLANTIC DISTRICT.

TOTAL CASES	1837	105	1732	1274	337	41	73	112	2153
General Diseases	970	53	917	687	177	15	45	46	881
Small-pox	5	2	3	1		2	2		3
Chicken-pox	1	1		1					
Measles	7		7	6				1	5
Scarlet fever	1		1	1					
Dengue	5		5	5					2
Enteric fever	56	3	53	45	2		6	3	3
Simple continued fever	1		1	1					
Febricula	1		1	1					1
Ague—Quotidian	163	4	159	151	7	2		3	67
Tertian	78	1	77	72	3			3	64
Quartan									1
Irregular	61	2	59	58	2			1	134
Remittent fever	71	4	67	61	7		3		19
Mumps	2		2	1	1				
Erysipelas—Simple	9		9	8				1	1
Acute rheumatism	27	1	26	21	5			1	8
Sub-acute rheumatism	47		47	38	7			2	36

a Operation performed prior to treatment as an out-patient.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
General Diseases.									
Gonorrhoeal rheumatism	10	2	8	4	6				4
Synovial rheumatism	1		1	1					
Muscular rheumatism	36	1	35	29	7				47
Chronic rheumatism	44	6	38	8	31	1		4	97
Primary syphilis—Hard chancre	19		19	15	2	1		1	6
Indurated bubo	16		16	14	1	1			4
Soft chancre	113	13	100	87	22	1		3	93
Suppurating bubo	47	3	44	35	5			7	21
Secondary syphilis	52	1	51	12	32	1	1	6	114
Cancer—Scirrhus	2		2			1	1		1
Medullary	1		1	1					
Epithelial	3	1	2		2		1		2
Scrofulous disease of glands	2		2		2				
Phthisis pulmonalis	74	8	66		29	5	30	10	26
Diabetes	2		2		2				4
Scurvy	4		4	4					
Anemia	7		7	6	1				100
General dropsy	2		2		1		1		
Local Diseases	641	41	600	411	132	23	28	47	1133
DISEASES OF THE NERVOUS SYSTEM.									
Meningitis	1		1		1				
Apoplexy	2		2		1		1		
Sunstroke	3	1	2	2	1				4
Myelitis	1		1				1		
Hemiplegia	4	2	2		2		1	1	5
Local paralysis	1	1			1				
Epilepsy									2
Spasm of muscles	1		1	1					
Shaking palsy	1		1		1				
Chorea—Acute	1		1		1				2
Chronic	1		1				1		
Neuralgia	12	1	11	10	1			1	7
Facial	1		1	1					3
Brow ague	1		1		1				8
Sciatica	6		6	3	2			1	7
Pleurodynia	7		7	2	1	2		2	20
Hypochondriasis									5
Mania—Acute	2	1	1		1			1	
Chronic	1		1			1			
Melancholia									5
DISEASES OF THE EYE.									
Conjunctivitis	27	3	24	14	7	3		3	35
Chronic ophthalmia	7		7	3	4				17
Pterygium	3	1	2		1	1		1	
Keratitis	1		1	1					1
Ulcer of the cornea									1
Iritis	2		2	1	1				
Retinitis	11	1	10	7	1	1		2	1
Amaurosis									5
Cataract—Soft	1		1	1					1
Short sight	1		1			1			
Nyctalopia									1
Astigmatism									4
Lachrymal obstruction									1
Abscess and fistula of lachrymal duct.	1	1		1					
Hordeolum									2
DISEASES OF THE EAR.									
Inflammation of external meatus—Acute	4		4	2		2			11
Accumulation of wax									2

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

MIDDLE ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Local Diseases.										
DISEASES OF THE EAR—Continued.										
Inflammation of the membrana tympani.										1
Ulceration of the membrana tympani.	1		1	1						
Perforation of the membrana tympani.	1		1			1				1
Disease of mucous membrane of the } tympanum.	1		1	1						1
Organic disease of the internal ear.	1		1			1				
Deafness.										2
DISEASES OF THE NOSE.										
Ozena.	1		1			1				1
Epistaxis.	1		1			1				
										1
DISEASES OF THE CIRCULATORY SYSTEM.										
Pericarditis.	26	2	24	3	18	3		2		36
Valve-disease.	1	1		1						
Hypertrophy of heart.	22	1	21		18	2		2		16
Dilatation of heart.										6
Syncope.										1
Palpitation and irregular action of heart.										1
Aneurism of the arteries.										4
Varicose veins.	3		3	2		1				
										4
DISEASES OF THE ABSORBENT SYSTEM.										
Inflammation of glands.	9		9	8	1					4
Suppuration of glands.	4		4	4						1
	5		5	4	1					3
DISEASES OF THE RESPIRATORY SYSTEM.										
Coryza.	95	5	90	57	21	6	7	4		150
Laryngeal catarrh.										4
Laryngitis—Acute.										1
Chronic.	3		3	2	1					1
Bronchial catarrh.	1		1		1					2
Bronchitis—Acute.	14		14	1						14
Chronic.	34	1	33	25	2	2	2	3		52
Asthma.	26	2	24	10	10	3	2	1		48
Pneumonia.	2		2		2					5
Passive congestion of the lung.	9		9	6			3			2
Hæmoptysis.										2
Emphysema.	1		1		1					
Pleurisy.	17	1	16	13	3	1				13
Chronic pleurisy.	1	1			1					5
DISEASES OF THE DIGESTIVE SYSTEM.										
Stomatitis.	167	8	159	121	18	3	13	12		325
Abscess of the cheek.	1		1	1						3
Caries of the dental tissue.										2
Gum-boil.										10
Caries of the alveoli.	1		1	1						
Epulis.						1				1
Necrosis of the alveoli.	1		1							1
Ulcer of the tongue.										1
Sore throat.	5		5	5						21
Ulcerated throat.	2		2	2						
Quinsy.										1
Tonsillitis.	6		6	5				1		6
Enlarged tonsils.										1
Elongated uvula.										1
Pharyngitis.	9		9	7	1	1				18
Salivation.										1
Gastritis.	11	1	10	4	2		1	4		5
Chronic ulcer of the stomach.	2	1	1	1	1					
Hæmatemesis.										

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

MIDDLE ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Local Diseases.										
DISEASES OF DIGESTIVE SYSTEM—Cont'd.										
Dyspepsia	13		13	11	2				54	
Gastrodynia	1		1	1						
Enteritis	1		1				1		2	
Dysentery	24	1	23	15	1		5	3	18	
Ulceration of the intestines	1		1	1						
Perforation of the intestines	1		1				1			
Hernia	2		2		2				55	
Tænia solium	1		1	1						
Diarrhœa	43	3	40	37	3		1	2	39	
Colic	5		5	4	1				2	
Constipation	11		11	10		1			18	
Ulceration of the rectum									3	
Ulceration of the anus									1	
Fistula in ano	3	1	2	2			1		1	
Hæmorrhoids	5		5	4	1				18	
Hepatitis	2		2	2					16	
Abscess of the liver	1		1				1		2	
Simple enlargement of the liver	1	1			1				12	
Cirrhosis of the liver	1		1					1		
Jaundice	7		7	4	1		1	1	5	
Inflammation of the hepatic ducts	2		2		1	1				
Gallstones	1		1	1					3	
Congestion of the spleen	2		2	2					3	
Peritonitis	1		1				1			
DISEASES OF THE URINARY SYSTEM.										
Acute Bright's disease	85	7	78	54	21	1	4	5	334	
Chronic Bright's disease	6	1	5	1	4			1	2	
Hypertrophy of the kidney	5	1	4		3		1	1	7	
Diuresis	1		1		1					
Cystitis—Acute	3		3	3					2	
Chronic	3	1	2	2	1				5	
Irritability of the bladder									7	
Incontinence of urine	3		3	1	2				9	
Retention of urine	2		2	2					2	
Gonorrhœa	14	3	11	9	4			1	1	
Balanitis									226	
Phimosis	1		1	1					1	
Paraphimosis	2		2	2					1	
Bubo, gonorrhœal	3		3	3						
Epididymitis	12		12	9	3				1	
Condyloma	3		3	3					14	
Gleet	1		1	1					6	
Urethritis									32	
Organic stricture of the urethra	26	1	25	17	3	1	a 3	2	11	
Urinary fistula									6	
DISEASES OF THE GENERATIVE SYSTEM.										
Inflammation of the penis	31	1	30	23	6			2	1	
Malformation of the penis—prepuce } abbreviated	2	1	1	1	1				37	
Hydrocele of the cord	1		1		1				1	
Varicocele									2	
Hydrocele of the tunica vaginalis	10		10	7	2			1	3	
Orchitis—Acute	16		16	13	2			1	6	
Chronic	1		1	1					5	
Spermatorrhœa									4	
Impotence									11	
Neuralgia of the testicle	1		1	1					5	
DISEASES OF THE MALE MAMMILLA.										
Inflammation									1	

a One case abscess of the kidney and heart-clot and one case internal urethrotomy.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

MIDDLE ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF THE ORGANS OF LOCOMOTION.	24	3	21	13	7	.....	.....	4	5
Ostitis	4	.....	4	.....	3	.....	.....	1	.....
Diffuse periostitis.....	1	.....	1	1	.....	.....	.....	.....	.....
Caries	1	.....	1	1	.....	.....	.....	.....	.....
Necrosis	1	.....	1	.....	1	.....	.....	.....	1
Acute synovitis.....	5	.....	5	5	.....	.....	.....	.....	.....
Chronic synovitis.....	3	2	1	.....	2	.....	.....	1	.....
Ankylosis	2	.....	2	2	.....	.....	.....	.....	3
Dropsy of knee-joint.....	1	.....	1	1	.....	.....	.....	.....	1
Neuralgia of hip-joint.....	1	.....	1	.....	.....	.....	.....	1	.....
Abscess of the muscles.....	2	.....	2	2	.....	.....	.....	.....	.....
Gangrene of the muscles.....	2	1	1	1	.....	.....	.....	1	.....
Degeneration of cartilage.....	1	.....	1	.....	1	.....	.....	.....	.....
DISEASES OF THE CELLULAR TISSUE.....	35	2	33	30	2	.....	.....	3	30
Inflammation	6	.....	6	6	.....	.....	.....	.....	5
Abscess	29	2	27	24	2	.....	.....	3	25
DISEASES OF THE CUTANEOUS SYSTEM.....	91	4	87	67	17	1	.....	6	96
Erythema.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Urticaria .....	.....	.....	.....	.....	.....	.....	.....	.....	3
Lichen .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Psoriasis .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Herpes .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Eczema	5	.....	5	1	3	.....	.....	1	23
Ecthyma	1	.....	1	.....	1	.....	.....	.....	.....
Sycosis .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Frostbite	15	2	13	14	1	.....	.....	.....	4
Ulcer	41	2	39	25	10	1	.....	5	28
Fissures .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Boil.....	9	.....	9	8	1	.....	.....	.....	19
Whitlow	14	.....	14	13	1	.....	.....	.....	8
Fibro-cellular tumor.....	2	.....	2	2	.....	.....	.....	.....	.....
Vascular tumor.....	1	.....	1	1	.....	.....	.....	.....	.....
Cutaneous cyst.....	2	.....	2	2	.....	.....	.....	.....	.....
Warts .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Pruritus .....	.....	.....	.....	.....	1	.....	.....	.....	1
Scabies	1	.....	1	1	.....	.....	.....	.....	.....
Conditions not Necessarily Associated with General or Local Diseases.									
DEBILITY	7	.....	7	5	1	.....	.....	1	16
UNDETERMINED	1	.....	1	.....	.....	1	.....	.....	.....
Poisons	14	1	13	11	2	.....	.....	1	13
Mercury	1	.....	1	.....	1	.....	.....	.....	1
Lead palsy.....	1	1	.....	1	.....	.....	.....	.....	.....
Alcohol	8	.....	8	6	1	.....	.....	1	3
Tobacco .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Morbid exhalations	3	.....	3	3	.....	.....	.....	.....	7
Rhus toxicodendron.....	1	.....	1	1	.....	.....	.....	.....	.....
Injuries	204	10	194	160	25	2	.....	17	110
GENERAL INJURIES	9	.....	9	7	2	.....	.....	.....	3
Burns and scalds	9	.....	9	7	2	.....	.....	.....	3
LOCAL INJURIES	195	10	185	153	23	2	.....	17	107
Contusion of head.....	1	.....	1	1	.....	.....	.....	.....	2
Scalp-wound, bone not exposed.....	7	.....	7	5	1	.....	.....	1	.....

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

MIDDLE ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Injuries.									
LOCAL INJURIES—Continued.									
Scalp-wound, bone exposed									1
Concussion of brain	2		2	1	1				1
Fracture of the vault of the skull	1		1	1					
Contusion of the face									6
Wound of the face	15	1	14	13	1			1	3
Fracture of the facial bones	1		1					1	
Fracture of the lower jaw	1		1	1					
Contusion, with rupture of the sclerotic	1		1	1					
Foreign bodies in the cornea									1
Foreign bodies in the conjunctiva									1
Contusion of the soft parts of the neck	2		2	2					
Contusion of the chest	6		6	6					10
Fracture of the ribs	8	2	6	4	4				2
Penetrating wound of lung	1		1	1					
Contusion of the back	6		6	4		1		1	1
Sprain of the back	5		5	5					4
Wound of the back	1		1		1				
Contusion of the abdomen	4		4	3		1			
Contusion of the testicle									1
Contusion of the male perineum	1		1	1					2
Contusion of the upper extremities	9	2	7	8	1				21
Sprain of shoulder	6		6	5	1				5
Sprain of wrist	1		1	1					1
Wound of the upper extremities	26	3	23	23	3				13
Fracture of the clavicle	1		1	1					2
Fracture of the humerus	4	1	3	4					1
Fracture of the forearm	3		3	1	1			1	1
Fracture of phalanges	1		1	1					2
Dislocation of sterno-clavicular joint	1		1	1					
Dislocation of the shoulder	2		2	1	1				
Dislocation of the elbow	1		1		1				1
Contusion of the lower extremities	21		21	19	1			1	7
Sprain of the hip									2
Sprain of the knee	3		3	3					4
Sprain of the ankle	11		11	10	1				7
Wound of the lower extremities	11	1	10	9	1			1	3
Fracture of the femur	11		11	3	2			6	
Fracture of the cervix femoris, intra- capsular	1		1	1					
Fracture of the leg, both bones	9		9	6	1			2	
Fracture of the tibia alone	5		5	3				2	1
Fracture of the fibula alone	3		3	2	1				
Fracture of the bones of the foot	1		1	1					
Dislocation of the foot at the ankle	1		1	1					
Rupture of muscle									1

SOUTH ATLANTIC DISTRICT.

TOTAL CASES	2228	82	2146	1515	510	32	68	103	4105
General Diseases	1276	40	1236	903	292	11	28	42	1962
Small-pox	5		5	3			2		
Cow-pox									5
Chicken-pox	1		1	1					
Measles	5		5	5					1
Scarlet fever	1		1	1					
Dengue									1
Typhus fever	2		2	2					
Cerebro-spinal fever	1		1				1		

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

SOUTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
General Diseases.									
Enteric fever	41	2	39	27	4	.....	8	2	1
Relapsing fever	3	.....	3	3	.....	.....	.....	.....	.....
Simple continued fever	6	1	5	6	.....	.....	.....	.....	8
Febricula	2	1	1	2	.....	.....	.....	.....	3
Ague—Quotidian	110	.....	110	94	13	1	a 1	1	206
Tertian	129	1	128	119	8	1	.....	1	238
Quartan	1	.....	1	1	.....	.....	.....	.....	3
Irregular	109	4	105	102	7	.....	.....	.....	205
Remittent fever	331	9	322	284	26	3	10	8	328
Simple cholera	1	.....	1	1	.....	.....	.....	.....	3
Choleraic diarrhœa .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Diphtheria	1	.....	1	1	.....	.....	.....	.....	1
Mumps	1	.....	1	1	.....	.....	.....	.....	2
Influenza .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Erysipelas—Simple	9	.....	9	6	3	.....	.....	.....	17
Phlegmonous	10	1	9	7	2	1	.....	.....	1
Pyæmia .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Acute rheumatism	47	2	45	32	12	.....	.....	3	35
Sub-acute rheumatism	15	.....	15	12	3	.....	.....	.....	16
Gonorrhœal rheumatism	7	2	5	2	5	.....	.....	.....	3
Synovial rheumatism .....	.....	.....	.....	.....	.....	.....	.....	.....	3
Muscular rheumatism	33	.....	33	23	9	1	.....	.....	111
Chronic rheumatism	35	1	34	11	22	1	b 1	.....	87
Chronic gout .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Primary syphilis—Hard chancre	29	.....	29	10	15	.....	.....	4	42
Indurated bubo	9	.....	9	3	6	.....	.....	.....	5
Soft chancre	152	7	145	112	30	.....	.....	10	204
Suppurating bubo	13	.....	13	10	2	.....	.....	1	24
Phagedænic sore	5	.....	5	4	1	.....	.....	.....	8
Sloughing sore .....	.....	.....	.....	.....	.....	.....	.....	.....	10
Secondary syphilis	125	7	118	15	100	1	.....	9	273
Syphilitic iritis	2	.....	2	.....	1	.....	.....	1	1
Cancer—Epithelial .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Scrofula .....	.....	.....	.....	.....	.....	.....	.....	.....	4
Scrofulous disease of glands	1	.....	1	.....	1	.....	.....	.....	1
Phthisis pulmonalis	23	2	21	.....	15	2	4	2	52
Acute miliary tuberculosis .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Scurvy	1	.....	1	1	.....	.....	.....	.....	1
Anæmia	5	.....	5	.....	5	.....	.....	.....	48
General dropsy	5	.....	5	2	2	.....	1	.....	3
Local Diseases	704	34	670	439	167	17	30	51	1861
DISEASES OF THE NERVOUS SYSTEM.									
Encephalitis	68	12	56	25	21	3	2	17	107
Meningitis	1	.....	1	1	.....	.....	.....	.....	.....
Sunstroke	1	.....	1	1	.....	.....	.....	.....	.....
Sunstroke	4	.....	4	4	.....	.....	.....	.....	1
Atrophy, (spinal)	1	.....	1	.....	.....	1	.....	.....	2
Paralysis .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Hemiplegia	4	1	3	.....	3	.....	1	.....	1
Paraplegia	1	1	.....	.....	1	.....	.....	.....	.....
Locomotor ataxy	2	.....	2	.....	1	1	.....	.....	4
Local paralysis .....	.....	.....	.....	.....	.....	.....	.....	.....	4
Tetanus	1	.....	1	1	.....	.....	.....	.....	.....
Epilepsy	9	.....	9	.....	8	.....	.....	1	8
Epileptic vertigo .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Spasm of muscle .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Neuralgia	3	.....	3	3	.....	.....	.....	.....	9
Facial	5	.....	5	1	4	.....	.....	.....	19
Brow ache	7	.....	7	6	.....	1	.....	.....	27
Sciatica	2	.....	2	.....	2	.....	.....	.....	3
Pleurodynia	7	.....	7	7	.....	.....	.....	.....	23
Irritable stump .....	.....	.....	.....	.....	.....	.....	.....	.....	.....

a Congestive chill.

b Inanition.

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

SOUTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Local Diseases.										
DISEASES OF NERVOUS SYSTEM—Cont'd.										
Hyperæsthesia										1
Mania—Acute	9	4	5	1	1		1	6		
Chronic	3	3						3		
Melancholia	5	3	2		1			4		
Dementia—Chronic	2		2					2		
Paralysis of the insane	1		1					1		
DISEASES OF THE EYE										
Conjunctivitis	17		17	10	5			2		36
Catarrhal ophthalmia	3		3	1	1			1		23
Purulent ophthalmia	1		1		1					2
Gonorrhœal ophthalmia	1		1	1						
Pterygium										2
Keratitis	1		1					1		
Ulcer of the cornea	2		2	1	1					2
Iritis	4		4	3	1					3
Choroiditis	1		1	1						
Impaired vision										2
Total disorganization of eye	1		1	1						
Inflammation of the eyelid	1		1	1						1
Abscess in the Meibomian glands										1
Ectropium	1		1		1					
DISEASES OF THE EAR										
Inflammation of external meatus—Acute	2		2	2						19
Abscess of the external meatus										8
Accumulation of wax										2
Inflammation of the membrana tympani										5
Ulceration of the membrana tympani	1		1	1						1
Obstructing the Eustachian tube										1
Disease of mucous membrane of the } tympanum	1		1	1						1
Deafness										1
DISEASES OF THE NOSE										
Ozena										3
Ulceration of the pituitary membrane										1
Epistaxis										1
DISEASES OF THE CIRCULATORY SYSTEM										
Endocarditis	21		21		15	2	4			37
Valve-disease	1		1		1					1
Hypertrophy of heart	10		10		8	1	1			14
Angina pectoris	2		2		1		1			
Syncope	1		1			1				1
Palpitation and irregular action of heart										1
Aneurism of the arteries	3		3		3					5
Rupture of artery	3		3		1		2			7
Varicose veins	1		1		1					1
DISEASES OF THE ABSORBENT SYSTEM										
Inflammation of lymphatics	15		15	9	6					27
Inflammation of glands	5		5	5						5
Suppuration of glands	7		7	2	5					16
Hypertrophy of glands	3		3	2	1					2
DISEASES OF THE RESPIRATORY SYSTEM										
Coryza	108	7	101	60	28	4	12	4		291
Laryngeal catarrh										19
Laryngitis—Acute										2
Ulcer of the larynx	2		2				1	1		7
Aphonia	1	1		1						

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

SOUTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF RESPIRATORY SYSTEM—Cont'd.									
Bronchial catarrh.....	2		2	2					56
Bronchitis—Acute.....	28	1	27	18	10				148
Chronic.....	14	1	13	4	6	3	1		23
Asthma.....									4
Pneumonia.....	40	2	38	24	4		9	3	7
Hæmoptysis.....									2
Acute pneumonic phthisis.....	2		2			1	1		
Chronic pneumonic phthisis.....	3		3		3				1
Pleurisy.....	16	2	14	11	5				17
Chronic pleurisy.....									3
Empyema.....									1
DISEASES OF THE DIGESTIVE SYSTEM.....									
Stomatitis.....	186	4	182	134	36	3	6	7	634
Thrush.....									2
Abscess of the cheek.....									3
Caries of the dental tissue.....									1
Inflammation of the dental pulp.....									22
Gum-boil.....									1
Dilaceration of the teeth.....									1
Ulcer of the tongue.....									1
Sore throat.....	1		1	1					11
Ulcerated throat.....	1		1	1	1				3
Quinsy.....	3		3	3					1
Tonsillitis.....	5		5	5					20
Enlarged tonsils.....	1		1	1					
Pharyngitis.....	1		1	1					21
Stricture of the œsophagus.....	1		1		1				1
Gastritis.....	4		4	2	1		1		2
Dilatation of the stomach.....	1		1	1					
Dyspepsia.....	3		3	1	2				114
Gastrodynia.....	2		2		2				1
Enteritis.....	10		10	8	1		1		
Typhlitis.....									1
Dysentery.....	41	1	40	26	8		2	5	39
Hernia.....	2		2		2				27
Tænia solium.....	1		1	1					1
Diarrhœa.....	51	1	50	41	9	1			134
Colic.....	3		3	3					19
Constipation.....	11		11	7	3			1	134
Ulceration of the rectum.....	1		1		1				1
Fistula in ano.....	10	1	9	7	1	1	1		1
Hæmorrhoids.....	7		7	4	2	1			27
Fissure of the anus.....									2
Stricture of the rectum.....									2
Pruritus ani.....									1
Hepatitis.....	5	1	4	5					5
Simple enlargement of the liver.....	6		6	6					5
Cirrhosis of the liver.....									2
Jaundice.....	10		10	9	1				18
Obstruction of the vena portæ.....									1
Gallstones.....	1		1	1					
Splenitis.....									3
Congestion of the spleen.....									4
Peritonitis.....									1
Ascites.....	4		4		2		1	1	
DISEASES OF THE URINARY SYSTEM.....									
Acute Bright's disease.....	109	4	105	58	32	4	6	9	396
Chronic Bright's disease.....	5		5		2		2	1	1
Calculus of the kidney.....	9	3	6		5	1	1	2	4
Hæmaturia renalis.....	1		1		1				
	1		1	1					

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

SOUTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Local Diseases.										
DISEASES OF URINARY SYSTEM—Cont'd.										
Diuresis.....	1		1	1						
Cystitis—Acute.....	5		5	2	2		1		10	
Chronic.....									6	
Distension of the bladder.....	1		1	1					1	
Hæmaturia, vesical.....	1		1					1	1	
Paralysis of the bladder.....									1	
Irritability of the bladder.....									1	
Incontinence of urine.....									8	
Retention of urine.....	2		2			1	1			
Chronic enlargement of prostate gland.....									1	
Gonorrhœa.....	19		19	14	4		1		243	
Balanitis.....									3	
Phimosis.....	7		7	4	1		2		2	
Paraphimosis.....	3		3	2	1					
Bubo, gonorrhœal.....	4		4	2	1			1	8	
Epididymitis.....	21		21	16	4		1		18	
Condyloma.....									1	
Gleet.....	3	1	2	1	2				63	
Urethritis.....	2		2	1	1				6	
Organic stricture of the urethra.....	20		20	13	5	2			17	
Urinary fistula.....	3		3		3				1	
Extravasation of urine.....	1		1				1			
DISEASES OF THE GENERATIVE SYSTEM.....	27	1	26	25	1		1		59	
Inflammation of the penis.....									1	
Sloughing of the scrotum.....	1		1	1						
Hydrocele of the cord.....									1	
Varicocele.....									2	
Hydrocele of the tunica vaginalis.....	4		4	3	1				4	
Orchitis—Acute.....	20	1	19	20					29	
Chronic.....	1		1					1		
Spermatorrhœa.....									16	
Impotence.....									1	
Neuralgia of the testicle.....	1		1	1					2	
Catarrh of the vagina.....									1	
Dysmenorrhœa.....									2	
DISEASES OF THE ORGANS OF LOCOMOTION.....	23		23	12	8		3		15	
Periostitis.....	2		2	1	1				4	
Caries.....	1		1	1						
Necrosis.....	5		5	3	2					
Osseous tumor.....	1		1	1					1	
Acute synovitis.....	6		6	4	1		1			
Chronic synovitis.....	5		5	1	3		1		5	
Hypertrophy of masseter muscle.....									1	
Atrophy of the muscles.....	1		1		1				2	
Fistula of muscles of thigh.....	1		1				1			
Contraction of tendons.....	1		1	1						
Enlarged bursa patellæ.....									1	
Bunion.....									1	
DISEASES OF THE CELLULAR TISSUE.....	43	1	42	33	6	1	3		36	
Inflammation.....	2		2	2					2	
Abscess.....	41	1	40	31	6	1	3		34	
DISEASES OF THE CUTANEOUS SYSTEM.....	85	5	80	71	9		5		201	
Erythema.....									2	
Urticaria.....									4	
Lichen.....									1	
Psoriasis.....	1		1	1						
Herpes.....	6		6	6					24	
Pemphigus.....	1		1	1						

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

SOUTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF CUTANEOUS SYSTEM—Cont'd.									
Eczema.....	3		3	1	1			1	19
Impetigo.....									2
Rupia.....									1
Acne.....									5
Sycosis.....									3
Chilblain.....									4
Frostbite.....	15		15	14	1				7
Ulcer.....	28	3	25	18	6			4	53
Boil.....	2		2	2					31
Carbuncle.....	6		6	6					6
Whitlow.....	21	2	19	20	1				22
Fibro-cellular tumor.....									2
Fatty tumor.....	1		1	1					2
Sebaceous tumor.....									1
Warts.....									4
Ingrown nail.....	1		1	1					1
Pruritus.....									2
Tinea tonsurans.....									5
Conditions not Necessarily Associated with General or Local Diseases.									
DEBILITY.....	18		18	11	6	1			65
UNDETERMINED.....	1		1		1				
MALINGERY.....	2		2			2			1
Poisons.....	19	2	17	13	4		1	1	12
Mercury.....	1		1	1					1
Alcohol.....	12	2	10	8	3			1	9
Delirium tremens.....	6		6	4	1		1		1
Rhus toxicodendron.....									1
Injuries.....	208	6	202	149	40	1	9	9	204
GENERAL INJURIES.....									
Burns and scalds.....	29	1	28	23	3		2	1	28
Lightning-stroke.....	16	1	15	11	3		1	1	9
Multiple injury.....	2		2	1			1		1
Exposure to cold.....	11		11	11					18
LOCAL INJURIES.....									
Contusion of head.....	2		2	2					2
Scalp-wound, bone not exposed.....	3		3	1	2				9
Scalp-wound, bone exposed.....	5		5	5					2
Concussion of brain.....	2		2	1			1		
Fracture of the vault of the skull.....	1		1	1					
Fracture of the base of the skull.....	2		2				2		
Wound of the skull.....	1	1			1				
Contusion of the face.....	2		2	2					5
Wound of the face.....	7		7	7					4
Fracture of the facial bones.....	2		2	2					1
Fracture of the lower jaw.....	1		1	1					1
Contusion of the eye.....									1
Foreign bodies in the cornea.....	1	1		1					2
Chemical injury of eye, concentrated lye.....	1		1	1					
Contusion of the chest.....	9		9	8	1				9
Fracture of the ribs.....	3		3	3					1
Wound of the parietes.....	1		1	1					
Penetrating wound of the pleura.....	1		1	1					

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

SOUTH ATLANTIC DISTRICT.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Injuries.									
LOCAL INJURIES—Continued.									
Contusion of the back	10		10	10					6
Sprain of the back	7		7	3	3			1	15
Wound of the back					1				1
Contusion of the abdomen	1		1		1				1
Wound of the parietes, gunshot	1		1				1		1
Contusion of the pelvis	1		1		1				3
Wound of the male perineum	2		2		1	1			
Wound of the scrotum	2		2	2					1
Contusion of the upper extremities	13	1	12	11	2				12
Sprain of shoulder	2		2	2					3
Sprain of wrist	3		3	2	1				5
Wound of the upper extremities	19		19	10	7			2	35
Fracture of the clavicle	1		1	1					1
Fracture of the humerus	3		3		1			2	
Fracture of the forearm	5		5	2	3				6
Ununited fracture of the ulna	1		1					1	
Dislocation of the shoulder	2		2	2					2
Dislocation of the wrist	3		3	2	1				
Dislocation of the phalangeal joints									1
Contusion of the lower extremities	11		11	9	2				16
Sprain of the hip	1		1	1					1
Sprain of the knee	1		1	1					
Sprain of the ankle	6		6	5	1				8
Sprain of foot									1
Wound of the lower extremities	16		16	14	2				14
Foreign body embedded in foot	1		1	1					
Fracture of the femur	5		5	2	2		1		2
Fracture of the patella	1		1					1	
Fracture of the leg, both bones	7	2	5	3	3		a 1		1
Fracture of the tibia alone	5		5	2	2			1	1
Fracture of the fibula alone	2		2	2					
Dislocation of the hip	1		1	1					
Dislocation of the foot at the ankle	1		1				b 1		
Amputated finger c	1		1	1					2

DISTRICT OF THE GULF.

TOTAL CASES.....	1628	95	1533	1052	385	24	81	86	2471
General Diseases.....	900	50	850	629	183	8	37	43	942
Small-pox.....	21		21	10	2		8	1	
Cow-pox.....	1		1	1					
Measles.....									1
Dengue.....	12		12	10	2				10
Enteric fever.....	7	1	6	5	1		1		
Relapsing fever.....	1		1	1					2
Simple continued fever.....	11		11	11					18
Febricula.....	1		1	1					4
Ague—Quotidian.....	124	5	119	110	10			4	94
Tertian.....	106	3	103	94	4	1		7	96
Quartan.....	8		8	8					7
Irregular.....	30	1	29	28	2				69
Remittent fever.....	208	10	198	181	8	4	7	8	60
Simple cholera.....	1	1		1					6
Choleraic diarrhoea.....									1
Mumps.....	1		1	1					3
Erysipelas—Simple.....	4		4	4					2
Phlegmonous.....	1		1			1			1
Diffuse inflammation.....	1		1		1				

a Tetanus.

b Gastritis.

c Operation performed prior to admission.

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

DISTRICT OF THE GULF.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
General Diseases.									
Acute rheumatism	44	2	42	31	12			1	31
Sub-acute rheumatism	4		4	3	1				12
Gonorrhœal rheumatism	4		4	3	1				1
Synovial rheumatism	1		1		1				1
Muscular rheumatism	21		21	13	6	1		1	121
Chronic rheumatism	19		19	3	14			2	18
Chronic osteo-arthritis	1		1		1				
Acute gout	2		2	2					
Primary syphilis—Hard chancre	14	2	12	7	6			1	14
Indurated bubo	12	1	11	6	6				13
Soft chancre	65	5	60	43	20			2	117
Suppurating bubo	41	2	39	26	12			3	19
Phagedænic sore	1		1		1				
Sloughing sore	1		1		1				
Secondary syphilis	62	6	56	17	40			5	179
Syphilitic iritis	5	1	4	3	2				3
Syphilitic inflammation of knee-joint	1		1	1					2
Cancer—Scirrhus	4	1	3				3	1	
Medullary	1		1	1					
Epithelial	2	1	1				2		1
Scrofula with tubercle									1
Scrofula without tubercle									
Tubercular meningitis	1		1				1		
Phthisis pulmonalis	46	8	38		28	1	13	4	28
Acute miliary tuberculosis	1		1				1		
Scrofulous disease of hip-joint	2		2					2	
Diabetes	1		1		1				
Purpura, hæmorrhagic									1
Scurvy									1
Anæmia	2		2	2					3
General dropsy	4		4	2			1	1	1
Local Diseases	513	32	481	268	156	14	40	35	1313
DISEASES OF THE NERVOUS SYSTEM									
Apoplexy	1		1		1				
Sunstroke	2		2		1		1		
Myelitis									9
Hemiplegia	5	1	4	1	2		1	1	
Paraplegia	1		1					1	
Locomotor ataxy	2		2		1			1	
Local paralysis	2		2		2				2
Facial paralysis									1
Epilepsy	4		4	1	2	1			1
Epileptic vertigo									4
Spasm of muscle									1
Neuralgia									5
Facial	1		1	1					6
Brow ague	4		4	4					25
Sciatica	6		6	3	2			1	8
Pleurodynia	6	1	5	6					22
Hypochondriasis	1		1		1				3
Mania—Chronic	1	1				1			
Dementia—Acute	2	1	1				1	1	
Paralysis of the insane	1		1				1		
DISEASES OF THE EYE									
Conjunctivitis	11	1	10	3	5	2		1	30
Catarrhal ophthalmia	4		4	2	2				11
Gonorrhœal ophthalmia	2	1	1		1	1			1
Pterygium									1
Keratitis	1		1	1					
Ulcer of the cornea									

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

DISTRICT OF THE GULF.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Local Diseases.										
DISEASES OF THE EYE—Continued.										
Opacity of the cornea.....	1		1		1					
Iritis.....	1		1					1		1
Amaurosis.....										3
Impaired vision.....	1		1		1					2
Cataract—Hard.....										2
Soft.....	1		1			1				
Tarsal ophthalmia.....										1
Inflammation of the eyelid.....										4
Hordeolum.....										2
Cyst of the lids.....										1
DISEASES OF THE EAR.....	1		1		1					10
Inflammation of the external meatus—										
Acute.....										4
Chronic.....										1
Abscess of the external meatus.....										1
Accumulation of wax.....										1
Inflammation of the membrana tympani.....										2
Ulceration of the membrana tympani.....	1		1		1					
Perforation of the membrana tympani.....										1
DISEASES OF THE NOSE.....										3
Ozena.....										1
Ulceration of the pituitary membrane.....										1
Epistaxis.....										1
DISEASES OF THE CIRCULATORY SYSTEM.....	24	2	22	2	19		1	2		29
Valve-disease.....	15	1	14		12		1	2		9
Hypertrophy of heart.....	1		1		1					1
Dilatation of the heart.....										1
Fatty degeneration of heart.....	1		1		1					
Angina pectoris.....	1		1		1					1
Palpitation and irregular action of heart.....	1		1		1					8
Aneurism of the arteries.....	3	1	2	1	2					2
Varicose veins.....	2		2	1	1					7
DISEASES OF THE ABSORBENT SYSTEM.....	8		8	2	3			3		26
Inflammation of lymphatics.....	2		2	1	1					9
Inflammation of glands.....	5		5	1	1			3		4
Suppuration of glands.....										6
Hypertrophy of glands.....	1		1		1					1
Chronic enlargement of glands.....										6
DISEASES OF DUCTLESS GLANDS.....										2
Goitre.....										1
Exophthalmic bronchocele.....										1
DISEASES OF THE RESPIRATORY SYSTEM.....	77	7	70	38	25	1	11	2		162
Coryza.....										10
Laryngeal catarrh.....										1
Laryngitis—Acute.....										3
Bronchial catarrh.....	1		1		1					40
Bronchitis—Acute.....	16		16	13	3					63
Chronic.....	11	2	9	1	7	1	1	1		24
Dilatation of the bronchi.....	1	1			1					
Asthma.....	9		9	3	5		1			13
Pneumonia.....	16	1	15	11			5			2
Hæmoptysis.....	1		1		1					2
Œdema of the lung.....	1		1				1			
Acute pneumonic phthisis.....	3		3		2		1			2
Chronic pneumonic phthisis.....	6	2	4		5		1			2
Pleurisy.....	11	1	10	10			1			2
Empyema.....	1		1					1		2

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

DISTRICT OF THE GULF.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF THE DIGESTIVE SYSTEM	172	7	165	100	42	5	19	6	432
Ulcerative stomatitis.....									2
Thrush.....									1
Cancrum oris.....									1
Caries of the dental tissue.....									22
Gum-boil.....									1
Inflammation of the gums.....									1
Necrosis of the alveoli.....	1		1					1	
Caries of the alveoli.....									1
Glossitis.....	1		1	1					
Sore throat.....	1		1	1					2
Ulcerated throat.....	1		1	1					1
Tonsillitis.....	2		2	2					5
Elongated uvula.....									2
Pharyngitis.....	1		1			1			11
Abscess of the pharynx.....	1		1				1		
Salivation.....									1
Gastritis.....	3		3	2	1				
Chronic ulcer of the stomach.....	1		1		1				
Dyspepsia.....	4		4	2	1	1			99
Gastrodynia.....	1		1	1					6
Vomiting.....									1
Enteritis.....	2		2				2		
Dysentery.....	32	3	29	22	3	2	3	2	25
Obstruction of the intestines.....	2		2	1			1		
Hernia.....	3		3		2		1		25
Tænia solium.....									2
Diarrhœa.....	62	1	61	44	9		8	1	89
Colic.....	2		2	2					2
Constipation.....									66
Abscess of the rectum.....	1	1			1				
Fistula in ano.....	3		3	1	1			1	1
Hæmorrhoids.....	7		7	2	5				15
Prolapsus of the anus.....	1		1	1					
Condyloma of the anus.....	2	1	1	1	1				1
Hepatitis.....	12		12	5	6		1		9
Abscess of the liver.....	2		2				2		
Simple enlargement of the liver.....	5		5	5					17
Cirrhosis of the liver.....	5		5	1	3			1	7
Jaundice.....	3	1	2	2	1				3
Inflammation of the hepatic ducts.....	1		1	1					
Obstruction of the hepatic ducts.....	1		1	1					8
Passage of gallstones through the duct.....									1
Congestion of the spleen.....	6		6		6				3
Peritonitis.....	1		1	1					
Ascites.....	2		2		1	1			
DISEASES OF THE URINARY SYSTEM.....	76	4	72	38	26		5	7	314
Acute Bright's disease.....	5	1	4	1			3	1	
Chronic Bright's disease.....	3		3		3				2
Calculus in the ureter.....									1
Hæmaturia renalis.....	1		1		1				2
Suppression of urine.....									1
Diuresis.....									2
Cystitis—Acute.....	4		4	3				1	6
Chronic.....									3
Hæmaturia, vesical.....	1		1		1				
Irritability of the bladder.....									1
Incontinence of urine.....	2		2		2				3
Retention of urine.....									1
Acute inflammation of prostate gland.....	1		1		1				4
Chronic enlargement of prostate gland.....									3
Abscess of the prostate gland.....	1	1					1		

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

DISTRICT OF THE GULF.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Local Diseases.										
DISEASES OF URINARY SYSTEM—Cont'd.										
Gonorrhœa.....	14		14	6	5			3	221	
Balanitis.....									5	
Phimosis.....	6		6	4	2				3	
Paraphimosis.....	6		6	4	2					
Bubo, gonorrhœal.....	3		3	3					4	
Epididymitis.....	9	1	8	8	1				5	
Condyloma.....									5	
Gleet.....									18	
Urethritis.....									3	
Organic stricture of the urethra.....	20	1	19	9	8		1	2	18	
Urinary fistula.....									3	
DISEASES OF THE GENERATIVE SYSTEM.....										
Hydrocele of the cord.....	11		11	10				1	37	
Varicocele.....									1	
Hydrocele of the tunica vaginalis.....	2		2	2					5	
Orchitis—Acute.....	9		9	8				1	9	
Chronic.....									7	
Abscess of the testicle.....									10	
Spermatorrhœa.....									2	
									3	
DISEASES OF THE ORGANS OF LOCOMOTION.....										
Periostitis.....	13	4	9	6	4			3	25	
Nodes.....	2	1	1		1			1	3	
Caries.....									1	
Necrosis.....	2		2		1			1		
Acute synovitis.....	1		1						1	
Chronic synovitis.....	4	2	2	4					4	
Ulceration of cartilage.....									1	
Dropsy of joints.....	1		1		1				8	
Neuralgia of joints.....									1	
Lateral curvature of the spine.....									2	
Progressive muscular atrophy.....									1	
Exhaustion of muscle.....	1	1			1					
Enlarged bursa patellæ.....									1	
Bursal abscess.....	1		1	1					1	
Ganglion.....	1		1	1						
DISEASES OF THE CELLULAR TISSUE.....										
Inflammation.....	23	1	22	14	6	2		1	32	
Abscess.....	2	1	1	2					5	
Obesity.....	20		20	12	6	1		1	25	
Hæmorrhage.....	1		1			1			1	
DISEASES OF THE CUTANEOUS SYSTEM.....										
Erythema.....	58	2	56	39	13	2		4	124	
Urticaria.....									1	
Lichen.....	1		1	1					3	
Pityriasis.....									1	
Psoriasis.....	1		1					1	1	
Herpes.....	1		1		1				4	
Eczema.....	1		1		2				14	
Impetigo.....	6		6	4					24	
Rupia.....	1		1	1						
Acne.....									1	
Sycosis.....									2	
Chilblain.....	1		1		1				2	
Ulcer.....									1	
Boil.....	26		26	18	6			2	23	
Carbuncle.....	7		7	4	2	1			16	
Whitlow.....	1		1	1					7	
Elephantiasis arabum.....	10	2	8	8		1		1	14	
	1		1		1					

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

DISTRICT OF THE GULF.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF CUTANEOUS SYSTEM—Cont'd.									
Gangrene	1		1	1					
Fatty tumor	1		1	1					4
Pruritus									1
Tinea tonsurans									2
Irritation caused by pediculis capitis									1
Irritation caused by sting of scorpion									1
Irritation caused by rhus radicans									1
Conditions not Necessarily Associated with General or Local Diseases.									
DEBILITY	10	1	9	5	3		1	1	10
UNDETERMINED									2
Poisons	10		10	9	1				4
Mercury	2		2	2					
Lead colic	1		1	1					
Alcohol	2		2	1	1				2
Delirium tremens	5		5	5					2
Injuries	195	12	183	142	42	2	3	6	200
GENERAL INJURIES	10		10	10					7
Burns and scalds	7		7	7					6
Multiple injury	3		3	3					1
LOCAL INJURIES	185	12	173	132	42	2	3	6	193
Contusion of head	2		2	1	1				2
Scalp-wound, bone not exposed	3		3	2	1				8
Scalp-wound, bone exposed	2		2	2					1
Concussion of brain	3		3	2	1				
Contusion of the face	2		2	2					5
Wound of the face	1	1		1					8
Foreign bodies in the ear									1
Fracture of the lower jaw	2		2	1	1				1
Contusion of the eye	2		2	1	1				4
Foreign bodies in the conjunctiva									1
Wound of the conjunctiva	2		2		2				
Wound of the neck	1		1	1					
Foreign body in the œsophagus	1		1					1	
Contusion of the chest	8		8	7	1				21
Fracture of the ribs	4		4	2	2				
Perforating wound of the chest	3	1	2	2	1				3
Contusion of the back	11	2	9	7	3	1			7
Sprain of the back	9	1	8	9					10
Wound of the back	4	1	3	3	1				
Fracture of the spine	1		1				1		
Injury to cord, without known fracture	1		1	1					
Contusion of the abdomen	1		1	1					4
Wound of the parietes									1
Contusion of the pelvis									3
Contusion of the male perineum, rupture of the urethra, and extravasation of urine	1		1				1		
Wound of the scrotum	1		1	1					
Wound of the penis									1
Contusion of the upper extremities	5		5	4	1				9
Sprain of shoulder									2
Sprain of wrist									7
Wound of the upper extremities	26		26	15	10			1	33

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

DISTRICT OF THE GULF.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Injuries.									
LOCAL INJURIES—Continued.									
Foreign body embedded in hand									1
Fracture of the clavicle	3		3	3					
Fracture of the forearm	5		5	5					3
Fracture of metacarpus and phalanges	3		3	2	1				
Dislocation of the shoulder	2		2	2					
Contusion of the lower extremities	23	2	21	19	3	1			24
Sprain of the knee	3		3	2	1				2
Sprain of the ankle	6		6	4	2				6
Sprain of tarsal-joint	3		3	1	1			1	
Wound of the lower extremities	24		24	16	5		a 1	2	20
Foreign body embedded in foot	1		1		1				
Fracture of the femur	1		1					1	
Fracture of the leg, both bones	8	3	5	7	1				1
Fracture of the tibia alone	4	1	3	4					1
Fracture of the fibula alone	1		1	1					
Dislocation of the hip	1		1	1					
Dislocation of the knee									1
Wound of the lymphatics	1		1		1				
Dislocation of the biceps									1
Amputated thumb <i>b</i>									1

DISTRICT OF THE OHIO.

TOTAL CASES.....	1011	61	950	663	226	12	57	53	3849
General Diseases	554	39	515	343	145	4	37	25	1539
Small-pox.....	54		54	27			27		
Cow-pox.....	1		1	1					5
Measles.....	2		2	1	1				2
Cerebro-spinal fever.....	1		1		1				
Enteric fever.....	28	1	27	22	3		2	1	2
Febricula.....	1		1	1					
Ague—Quotidian.....	43	3	40	40	2	1			177
Tertian.....	10		10	8	1	1			51
Irregular.....	7		7	6		1			136
Remittent fever.....	48	5	43	43	4			1	19
Simple cholera.....	1		1	1					5
Choleraic diarrhoea.....	1		1	1					
Erysipelas—Simple.....	4		4	4					6
Phlegmonous.....									1
Acute rheumatism.....	26	2	24	21	5			1	47
Sub-acute rheumatism.....	7		7	7					79
Gonorrhœal rheumatism.....									3
Synovial rheumatism.....									1
Muscular rheumatism.....	9	3	6	7	2				84
Chronic rheumatism.....	26	2	24	5	17		1	3	50
Acute gout.....									1
Chronic gout.....									1
Chronic osteo-arthritis.....									5
Primary syphilis—Hard chancre.....	19	3	16	5	12			2	46
Indurated bubo.....	2		2	2					20
Soft chancre.....	129	10	119	101	23			5	284
Suppurating bubo.....	7	1	6	6					22
Phagedænic sore.....	1		1	1					
Secondary syphilis.....	81	2	79	26	46		1	8	365
Syphilitic iritis.....	1		1		1				3
Syphilitic rheumatism.....	13	3	10	7	4	1		1	50
Cancer—Epithelial.....	1		1		1				1
Scrofulous disease of glands.....									1

a Tetanus.*b* Operation performed prior to treatment as an out-patient.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

DISTRICT OF THE OHIO.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
General Diseases.									
Phthisis pulmonalis	23	3	25	.....	20	.....	6	2	60
Scrofulous disease of joints .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Diabetes	2	1	1	.....	1	.....	.....	1	4
Purpura .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Anæmia .....	.....	.....	.....	.....	.....	.....	.....	.....	6
General dropsy	1	.....	1	.....	1	.....	.....	.....	.....
Local Diseases	299	12	287	194	59	7	18	21	1967
DISEASES OF THE NERVOUS SYSTEM									
Meningitis	23	2	21	11	6	1	2	3	104
Apoplexy*	3	.....	3	1	.....	.....	2	.....	.....
Sunstroke	1	.....	1	1	.....	.....	.....	.....	1
Inflammation of the spinal cord	1	.....	1	.....	1	.....	.....	.....	3
Spinal meningitis	1	.....	1	1	.....	.....	.....	.....	.....
Atrophy of the nerves	2	.....	2	.....	1	1	.....	.....	2
Hemiplegia	3	1	2	.....	1	.....	.....	2	7
Local paralysis .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Epilepsy	4	1	3	.....	3	.....	.....	1	10
Neuralgia .....	.....	.....	.....	.....	.....	.....	.....	.....	4
Facial	3	.....	3	3	.....	.....	.....	.....	32
Brow-ague .....	.....	.....	.....	.....	.....	.....	.....	.....	6
Sciatica .....	.....	.....	.....	.....	.....	.....	.....	.....	10
Pleurodynia	5	.....	5	5	.....	.....	.....	.....	24
Hypochondriasis .....	.....	.....	.....	.....	.....	.....	.....	.....	3
DISEASES OF THE EYE									
Conjunctivitis	10	.....	10	6	2	1	.....	1	36
Gonorrhœal ophthalmia	4	.....	4	4	.....	.....	.....	.....	23
Chronic ophthalmia	1	.....	1	.....	1	.....	.....	.....	1
Keratitis .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Ulcer of the cornea	3	.....	3	1	1	1	.....	.....	2
Opacity of the cornea .....	.....	.....	.....	.....	.....	.....	.....	.....	3
Iritis	1	.....	1	.....	.....	.....	.....	1	2
Impaired vision .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Traumatic cataract	1	.....	1	1	.....	.....	.....	.....	.....
Lachrymal obstruction .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hordeolum .....	.....	.....	.....	.....	.....	.....	.....	.....	2
DISEASES OF THE EAR									
Inflammation of the external meatus—	1	.....	1	.....	1	.....	.....	.....	7
Acute .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Chronic	1	.....	1	.....	1	.....	.....	.....	.....
Abscess of the external meatus .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Accumulation of wax .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Inflammation of the membrane tympani .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Disease of mucous membrane of the } tympanum .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Organic disease of the internal ear .....	.....	.....	.....	.....	.....	.....	.....	.....	1
DISEASES OF THE NOSE									
Ozena .....	.....	.....	.....	.....	.....	.....	.....	.....	19
Ulceration of the pituitary membrane .....	.....	.....	.....	.....	.....	.....	.....	.....	16
.....	.....	.....	.....	.....	.....	.....	.....	.....	3
DISEASES OF THE CIRCULATORY SYSTEM									
Endocarditis	10	1	9	2	5	.....	2	1	10
Valve-disease	1	.....	1	.....	1	.....	.....	.....	1
Palpitation and irregular action of heart	5	.....	5	.....	3	.....	2	.....	3
Neuralgia of the heart	1	.....	1	.....	.....	.....	.....	1	3
Aneurism of the arteries .....	.....	.....	.....	.....	1	.....	.....	.....	2
Varicose veins	1	.....	1	.....	.....	.....	.....	.....	.....
.....	2	1	1	2	.....	.....	.....	.....	1

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF THE ABSORBENT SYSTEM	1		1	1					8
Inflammation of lymphatics									1
Inflammation of glands	1		1	1					3
Suppuration of glands									3
Hypertrophy of glands									1
DISEASES OF THE RESPIRATORY SYSTEM	68	3	65	38	14	9	7	7	357
Coryza									4
Laryngitis—Acute	2		2	2					1
Bronchial catarrh	1		1	1					5
Bronchitis—Acute	16		16	14	1			1	281
Chronic	5		5		3			2	27
Asthma									5
Pneumonia	34	3	31	17	4	2	7	4	10
Hæmoptysis	1		1		1				2
Chronic pneumonic phthisis	1		1		1				
Pleurisy	8		8	4	4				17
Chronic pleurisy									5
DISEASES OF THE DIGESTIVE SYSTEM	98	3	95	76	10	2	4	6	629
Stomatitis									2
Thrush									
Caries of the dental tissue									36
Gum-boil									2
Inflammation of the gums									1
Inflammation of the alveoli									1
Glossitis									2
Sore throat	1		1			1			42
Ulcerated throat									2
Quinsy	1		1	1					5
Tonsillitis	1		1	1					6
Enlarged tonsils									1
Pharyngitis									10
Gastritis	1		1	1					5
Chronic ulcer of the stomach									1
Dyspepsia	3		3	3					59
Gastrodynia	1		1	1					4
Enteritis	2		2		1		1		
Dysentery	36	2	34	29	2	1	2	2	87
Tympanites									1
Hernia	2		2		2				17
Ascaris lumbricoides									1
Oxyuris vermicularis									1
Diarrhoea	37	1	36	33	1		1	2	207
Colic	1		1		1				12
Constipation									58
Abscess of the rectum									2
Fistula in ano	3		3	1				2	4
Hæmorrhoids	1		1		1				43
Fissure of the anus	1		1	1					2
Hepatitis	2		2	2					
Simple enlargement of the liver	3		3	1	2				1
Jaundice	2		2	2					10
Gallstones									1
Splenitis									2
DISEASES OF THE URINARY SYSTEM	34	1	33	21	7	1	2	3	507
Acute Bright's disease	5		5		2		2	1	4
Chronic Bright's disease	2		2		2				1
Hæmaturia renalis									4
Suppression of urine									1
Cystitis—Acute	2		2	2					30
Chronic									

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

DISTRICT OF THE OHIO.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Local Diseases.										
DISEASES OF URINARY SYSTEM—Cont'd.										
Calculus—Uric acid.....										6
Paralysis of the bladder.....										1
Incontinence of urine.....	1		1	1						1
Retention of urine.....										1
Chronic inflammation of prostate gland.....										2
Chronic enlargement of prostate gland.....										2
Gonorrhœa.....	5		5	4	1					369
Balanitis.....										8
Phimosis.....										3
Paraphimosis.....	1		1	1						
Bubo, gonorrhœal.....										4
Epididymitis.....	11	1	10	10				1		24
Condyloma.....	1		1		1					3
Gleet.....										15
Urethritis.....										5
Organic stricture of the urethra.....	6		6	3	1	1		1		18
Urinary fistula.....										1
DISEASES OF THE GENERATIVE SYSTEM.....	10	1	9	6	4					57
Varicocele.....										2
Hydrocele of the tunica vaginalis.....	1		1		1					3
Orchitis—Acute.....	7	1	6	6	1					23
Chronic.....										5
Abscess of the testicle.....										4
Spermatorrhœa.....	1		1		1					8
Impotence.....										7
Neuralgia of the testicle.....										1
Catarrh of the uterus.....										1
Catarrh of the vagina.....										1
Amenorrhœa.....										1
Dysmenorrhœa.....	1		1		1					
Menorrhagia.....										1
DISEASES OF THE ORGANS OF LOCOMOTION ..	7		7	4	2		1			19
Periostitis.....	1		1	1						2
Caries.....	2		2		1		a 1			1
Necrosis.....	1		1	1						2
Diffuse periostitis.....	1		1	1						
Acute synovitis.....										7
Chronic synovitis.....	1		1	1						3
Ankylosis.....	1		1		1					1
Displacement of articular cartilage.....										3
DISEASES OF THE CELLULAR TISSUE.....	17		17	16	1					46
Inflammation.....	5		5	4	1					13
Abscess.....	12		12	12						33
DISEASES OF THE CUTANEOUS SYSTEM.....	20	1	19	13	7					168
Erythema.....										3
Intertrigo.....										1
Roseola.....	1		1	1						
Urticaria.....										7
Prurigo.....										3
Psoriasis.....										1
Herpes.....										43
Eczema.....										11
Rupia.....										2
Ecthyma.....	1		1	1						
Acne.....										2
Frostbite.....										1
Ulcer.....	16	1	15	10	6					48
Fissures.....										2

a Secondary hæmorrhage.

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

DISTRICT OF THE OHIO.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF CUTANEOUS SYSTEM—Cont'd.									
Boil.....	1		1		1				14
Carbuncle.....									1
Whitlow.....									2
Gangrene.....	1		1	1					
Corn.....									1
Fibro-cellular tumor.....									1
Fatty tumor.....									3
Sebaceous tumor.....									1
Warts.....									1
Condyloma.....									3
Pruritus.....									4
Ephidrosis.....									1
Tinea tonsurans.....									2
Tinea decalvans.....									1
Scabies.....									8
Irritation caused by phthirius inguin- } alis..... }									1
Conditions not Necessarily Associated with General or Local Diseases.									
DEBILITY.....	2		2	1	1				63
UNDETERMINED.....									14
Poisons.....	20		20	14	3	1	1	1	17
Alcohol.....	15		15	9	3	1	1	1	16
Delirium tremens.....	5		5	5					
Tobacco.....									1
Injuries.....	136	10	126	111	18		1	6	249
GENERAL INJURIES.....	13	1	12	10	2			1	17
Burns and scalds.....	12	1	11	10	2				17
Multiple injury.....	1		1					1	
LOCAL INJURIES.....	123	9	114	101	16		1	5	232
Contusion of head.....	2		2	2					5
Scalp-wound, bone not exposed.....	1		1	1					1
Scalp-wound, bone exposed.....	1		1	1					4
Concussion of brain.....	1		1	1					
Fracture of the vault of the skull.....	1		1	1					
Contusion of the face.....	2		2	2					3
Wound of the face.....	5		5	5					6
Fracture of the lower jaw.....	1	1			1				2
Contusion of the eye.....	1		1	1					3
Contusion, with hæmorrhage into the } globe..... }									1
Foreign bodies in the cornea.....									5
Wound of the neck.....	1		1	1					4
Contusion of the chest.....									5
Fracture of the ribs.....	3		3	2	1				3
Perforating wound of the chest.....	1	1		1					1
Contusion of the back.....	4		4	4					1
Sprain of the back.....	6		6	6					14
Wound of the back.....	2	1	1	1			a 1		2
Contusion of the abdomen.....	1		1	1					1
Wound of the penis.....									1
Contusion of the upper extremities.....	14	2	12	12	1			1	34
Sprain of shoulder.....	2		2	2					4
Sprain of elbow.....									

a Paraplegia.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

DISTRICT OF THE OHIO.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Injuries.										
LOCAL INJURIES—Continued.										
Sprain of wrist	2		2	2						10
Sprain of thumb										1
Wound of the upper extremities.....	10		10	9	1					43
Fracture of the forearm.....	1	1			1					1
Fracture of phalanges.....	1		1	1						2
Dislocation of the shoulder.....	2		2	2						1
Dislocation of the elbow.....										1
Dislocation of the phalangeal joints.....										1
Contusion of the lower extremities.....	28	1	27	22	5			1		33
Sprain of the hip.....										1
Sprain of the knee.....	1		1	1						5
Sprain of the ankle.....	7		7	5	1			1		21
Wound of the lower extremities.....	13		13	10	3					8
Fracture of the femur.....	1	1		1						
Fracture of the leg, both bones.....	7	1	6	3	2			2		1
Fracture of the tibia alone.....	1		1	1						1
Amputated leg <i>a</i>										1

DISTRICT OF THE MISSISSIPPI.

TOTAL CASES	2189	111	2078	1591	406	32	77	83	2870
General Diseases	1092	50	1042	782	220	19	40	31	1314
Small-pox	44		44	16		b 11	17		
Chicken-pox									2
Measles									1
Dengue	1		1	1					
Enteric fever	20	1	19	12			5	3	
Simple continued fever	3		3	3					
Ague—Quotidian	132	3	129	120	6	2		4	354
Tertian	116	5	111	110	6				112
Quartan	1		1	1					7
Irregular	16		16	13	3				144
Remittent fever	201	14	187	190	5		3	3	20
Simple cholera									11
Diphtheria									1
Mumps									1
Influenza	1		1	1					
Erysipelas—Simple	12		12	12					3
Phlegmonous	2		2	2					
Diffuse inflammation	2		2	1				1	
Acute rheumatism	44	1	43	39	3			2	16
Sub-acute rheumatism	7		7	6		1			24
Gonorrhoeal rheumatism	7		7	5	2				1
Synovial rheumatism	12		12	12					4
Muscular rheumatism	40		40	36	2	1		1	132
Chronic rheumatism	41	1	40	30	9			2	17
Primary syphilis—Hard chancre	32	2	30	16	16				40
Indurated bubo	2		2	2					1
Soft chancre	172	13	159	111	53		c 1	7	151
Suppurating bubo	24	2	22	22	2				7
Phagedænic sore	3		3	1	2				
Sloughing sore	1		1		1				
Secondary syphilis	103	3	100	18	77	3		5	224
Syphilitic inflammation of the brain	1		1		1				
Cancer—Medullary	1		1	1					
Epithelial	1		1					1	
Lupus	1		1		1				6

a Operation performed prior to treatment as out-patient.*b* Transferred to St. Louis City authorities.*c* Pyæmia.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

DISTRICT OF THE MISSISSIPPI.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF DIGESTIVE SYSTEM—Cont'd.									
Abscess of the rectum.....	1		1	1					
Abscess of the anus.....	2		2	1	1				1
Fistula in ano.....	2		2	2					
Hæmorrhoids.....	5		5	4	1				18
Hæmorrhage from the rectum.....	2		2	2					
Fissure of the anus.....	1		1		1				
Prolapsus of the rectum.....	1		1		1				
Condyloma of the anus.....	1		1		1				
Pruritus ani.....									1
Hepatitis.....	9		9	9					
Abscess of the liver.....	4	1	3	3			1		
Simple enlargement of the liver.....	3		3	2				1	8
Cirrhosis of the liver.....	3	1	2		2		1		
Jaundice.....	8		8	5	1	1	1		7
Hypertrophy of the spleen.....	1		1	1					
Peritonitis.....	1		1				1		
Ascites.....									1
Non-malignant tumor of the abdomen.....	1		1	1					
DISEASES OF THE URINARY SYSTEM.....	92	7	85	59	18	3	5	7	329
Acute Bright's disease.....	3		3	1	1		1		
Chronic Bright's disease.....	7	1	6		2		4	1	1
Diuresis.....									2
Cystitis—Acute.....	12		12	11	1				3
Chronic.....	6	1	5		5			1	5
Hæmaturia, vesical.....	1		1	1					1
Irritability of the bladder.....									1
Incontinence of urine.....									1
Acute inflammation of prostate gland.....	1		1	1					
Chronic inflammation of prostate gland.....									9
Gonorrhœa.....	16	3	13	9	4	1		2	240
Bubo, gonorrhœal.....	1	1		1					
Epididymitis.....	31	1	30	28	1			2	10
Condyloma.....	3		3	1	1			1	15
Gleet.....	1		1		1				26
Urethritis.....									6
Organic stricture of the urethra.....	10		10	6	2	2			9
DISEASES OF THE GENERATIVE SYSTEM.....	32	1	31	24	6			2	49
Inflammation of the penis.....	1		1		1				9
Abscess of the penis.....	1		1	1					
Non-malignant tumor of the penis.....									1
Neuralgia of the cord.....	1		1	1					1
Varicocele.....	1		1		1				2
Hydrocele of the tunica vaginalis.....									8
Orchitis—Acute.....	21	1	20	19	1			1	10
Chronic.....	2		2	1	1				10
Abscess of the testicle.....	1		1	1					
Spermatorrhœa.....	1		1		1				1
Impotence.....									3
Neuralgia of the testicle.....	1		1	1					2
Ante-version of the uterus.....	1		1		1				
Procidentia uteri.....	1		1					1	
Catarrh of the vagina.....									2
DISEASES OF THE ORGANS OF LOCOMOTION.....	37	8	29	16	12	1	2	6	11
Ostitis.....	2		2	2					
Periostitis.....	2	2			2				2
Periostitis—Nodes.....									2
Diffuse periostitis.....	3	1	2	2	1				
Caries.....	5		5	1	3			1	
Necrosis.....	5	2	3		3		a 1	1	

a Gangrene and exhaustion.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

DISTRICT OF THE MISSISSIPPI.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF ORGANS OF LOCOMOTION—Cont'd.									
Acute synovitis.....	10		10	7	1			2	1
Chronic synovitis.....	3		3	3					1
Deformity from ankylosis.....	1		1					1	
Neuralgia of joints.....									1
Psoas abscess.....	1		1				1		
Lumbar abscess.....	1	1			1				
Caries and necrosis of the spine.....	2		2	1		1			
Anterior curvature of the spine.....	1	1			1				
Lateral curvature of the spine.....	1	1						1	
Inflammation of the muscles.....									1
Abscess of the muscles.....									1
Inflammation of the tendons.....									1
DISEASES OF THE CELLULAR TISSUE.....	23	1	22	18	2			3	15
Inflammation.....	3		3	1	1			1	3
Abscess.....	20	1	19	17	1			2	12
DISEASES OF THE CUTANEOUS SYSTEM.....	88	4	84	64	18			6	121
Erythema.....									1
Intertrigo.....									3
Urticaria.....									2
Lichen.....	1		1	1					3
Psoriasis.....									2
Herpes.....	1		1	1					3
Eczema.....	6		6	5	1				7
Ecthyma.....									3
Acne.....									2
Chilblain.....	1		1	1					1
Frostbite.....	3		3	3					
Ulcer.....	59	3	56	39	15			5	54
Fissures.....									1
Boil.....	8		8	8					9
Carbuncle.....	1		1	1					2
Whitlow.....	4		4	3				1	12
Corn.....									1
Fibro-cellular tumor.....	1		1		1				
Hæmorrhagic cyst.....	1		1		1				
Warts.....									1
Ingrown nail.....									1
Pruritus.....									1
Ephidrosis.....									1
Tinea tonsurans.....	1		1	1					7
Tinea favosa.....									1
Scabies.....	1	1		1					
Irritation caused by pediculis vestimenti.....									1
Conditions not Necessarily Associated with General or Local Diseases.									
OLD AGE.....	1		1				1		
DEBILITY.....	3		3	3					57
MALINGERY.....	1		1			1			
UNDETERMINED.....									2
Poisons.....	15		15	11	4				9
Lead colic.....	1		1		1				
Alcohol.....	7		7	6	1				6
Delirium tremens.....	7		7	5	2				2
Tobacco.....									1
Canned meat.....	2		2	2					

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

DISTRICT OF THE GREAT LAKES.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
TOTAL CASES.....	2125	110	2015	1298	589	51	53	134	4621
General Diseases.....	1069	52	1017	602	350	20	30	67	1872
Small-pox.....	7		7	2		1	3	1	3
Cow-pox.....									1
Measles.....	9		9	7	1			1	3
Enteric fever.....	100	1	99	87	3		7	3	6
Simple continued fever.....	3		3	3					3
Febricula.....	8		8	8					2
Ague—Quotidian.....	88	1	87	86	1	1			93
Tertian.....	52	1	51	46	3			3	122
Quartan.....	2		2	2					
Irregular.....	10	1	9	5	3	1		1	112
Remittent fever.....	128	6	122	111	6	2	3	6	87
Simple cholera.....	2		2	2					4
Choleraic diarrhoea.....	6		6	6					
Diphtheria.....	1		1	1					2
Mumps.....	4		4	4					1
Influenza.....	2		2	2					5
Erysipelas—Simple.....	12		12	11				1	15
Phlegmonous.....	3		3	2				1	
Acute rheumatism.....	46	3	43	34	8			4	43
Sub-acute rheumatism.....	17	1	16	10	2			5	16
Gonorrhœal rheumatism.....	6	1	5	4	2				3
Muscular rheumatism.....	56	2	54	36	16	1		3	196
Chronic rheumatism.....	49	2	47	4	41	3		1	85
Chronic osteo-arthritis.....	2		2		2				
Primary syphilis—Hard chancre.....	63	1	62	7	51	1		4	136
Indurated bubo.....	17	3	14	10	7				13
Soft chancre.....	122	7	115	84	30	3		5	290
Suppurating bubo.....	30	2	28	19	6	1		4	27
Phagedænic sore.....	1		1	1					
Secondary syphilis.....	140	6	134	4	124	2	1	9	513
Syphilitic iritis.....	4		4	1	2			1	
Cancer.....	2		2		1	1			
Scirrhus.....	3		3		1		2		1
Medullary.....	2	1	1		1		1		1
Epithelial.....	3		3	1			1	1	1
Rodent ulcer.....	1		1	1					
Scrofula.....									4
Scrofulous disease of glands.....									3
Phthisis pulmonalis.....	64	12	52		38	3	12	11	77
Acute miliary tuberculosis.....	1		1					1	
Morbus coxæ.....	1		1					1	
Purpura—Simple.....	1	1		1					3
Anæmia.....									1
General dropsy.....	1		1		1				
Local Diseases.....	643	38	605	382	178	25	20	38	2302
DISEASES OF THE NERVOUS SYSTEM.....	42	3	39	20	11	4	1	6	131
Encephalitis.....	1		1		1				
Meningitis.....	2		2	2					
Apoplexy.....	1	1			1				
Sunstroke.....	1		1	1					
Myelitis.....									1
Paralysis.....	1		1					1	4
Hemiplegia.....	2	1	1				1	1	
Locomotor ataxy.....	2		2			1		1	6
Local paralysis.....	3		3	1	1			1	5
Facial paralysis.....									1
Epilepsy.....	3	1	2		2	1			2
Epileptic vertigo.....	1		1		1				3
Neuralgia.....									12

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

DISTRICT OF THE GREAT LAKES.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Local Diseases.										
DISEASES OF NERVOUS SYSTEM—Cont'd.										
Neuralgia—Facial	7	.....	7	5	2	.....	.....	.....	9
Brow ague	4	.....	4	2	2	.....	.....	.....	31
Sciatica	6	.....	6	4	1	1	.....	.....	28
Pleurodynia	4	.....	4	4	.....	.....	.....	.....	27
Hypochondriasis .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Mania—Acute	1	.....	1	.....	.....	.....	.....	1	.....
Melancholia	1	.....	1	1	.....	.....	.....	.....	1
Dementia—Acute	2	.....	2	.....	.....	a 1	.....	1	.....
DISEASES OF THE EYE										
.....	25	1	24	14	6	3	.....	2	28
Conjunctivitis	11	.....	11	7	3	.....	.....	1	17
Purulent ophthalmia	2	.....	2	2	.....	.....	.....	.....	.....
Gonorrhœal ophthalmia	1	.....	1	1	.....	.....	.....	.....	.....
Chronic ophthalmia	1	.....	1	.....	1	.....	.....	.....	.....
Pterygium	1	.....	1	1	.....	.....	.....	.....	2
Keratitis	1	.....	1	1	.....	.....	.....	.....	.....
Keratitis, with suppuration	1	.....	1	.....	.....	1	.....	.....	.....
Ulcer of the cornea	1	.....	1	.....	.....	.....	.....	1	.....
Iritis	2	1	1	1	1	.....	.....	.....	4
Choroiditis	2	.....	2	1	1	.....	.....	.....	.....
Amaurosis .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Impaired vision	1	.....	1	.....	.....	1	.....	.....	.....
Cataract—Hard	1	.....	1	.....	.....	1	.....	.....	1
Muscæ volitantes .....	.....	.....	.....	.....	.....	.....	.....	.....	1
Inflammation of the eyelid .....	.....	.....	.....	.....	.....	.....	.....	.....	2
DISEASES OF THE EAR										
.....	6	1	5	5	1	.....	.....	.....	16
Inflammation of external meatus—Acute	2	.....	2	2	.....	.....	.....	.....	3
Abscess of the external meatus	1	.....	1	1	.....	.....	.....	.....	2
Accumulation of wax	1	.....	1	1	.....	.....	.....	.....	3
Inflammation of the membrana tympani	1	.....	1	.....	1	.....	.....	.....	6
Obstruction of the Eustachian tube .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Disease of the mastoid cells	1	1	.....	1	.....	.....	.....	.....	.....
DISEASES OF THE NOSE										
.....	1	.....	1	1	.....	.....	.....	.....	6
Ozena	1	.....	1	1	.....	.....	.....	.....	5
Epistaxis .....	.....	.....	.....	.....	.....	.....	.....	.....	1
DISEASES OF THE CIRCULATORY SYSTEM										
.....	26	.....	26	.....	18	2	3	3	54
Pericarditis	4	.....	4	.....	3	.....	.....	1	3
Valve-disease	8	.....	8	.....	5	.....	2	1	1
Hypertrophy of heart	3	.....	3	.....	2	1	.....	.....	2
Angina pectoris	1	.....	1	.....	1	.....	.....	.....	1
Palpitation and irregular action of heart	1	.....	1	.....	1	.....	.....	.....	24
Aneurism of the arteries	4	.....	4	.....	1	1	1	1	5
Phlegmasia dolens	1	.....	1	.....	1	.....	.....	.....	3
Obstruction of the veins	1	.....	1	.....	1	.....	.....	.....	.....
Varicose veins	3	.....	3	.....	3	.....	.....	.....	15
DISEASES OF THE ABSORBENT SYSTEM										
.....	11	2	9	5	6	.....	.....	.....	19
Inflammation of lymphatics	2	1	1	1	1	.....	.....	.....	2
Inflammation of glands	2	1	1	.....	2	.....	.....	.....	5
Suppuration of glands	3	.....	3	2	1	.....	.....	.....	1
Hypertrophy of glands .....	.....	.....	.....	.....	.....	.....	.....	.....	4
Chronic enlargement of glands	1	.....	1	.....	1	.....	.....	.....	5
Lymphatic fistula	1	.....	1	1	.....	.....	.....	.....	1
Glandular tumor	2	.....	2	1	1	.....	.....	.....	1
DISEASES OF THE DUCTLESS GLANDS										
.....	1	.....	1	.....	1	.....	.....	.....	2
Goitre .....	.....	.....	.....	.....	.....	.....	.....	.....	2
Exophthalmic bronchocele	1	.....	1	.....	1	.....	.....	.....	.....

a Transferred to Government Hospital for the Insane, Washington, D. C.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

DISTRICT OF THE GREAT LAKES.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF THE RESPIRATORY SYSTEM.....	129	5	124	76	33	5	9	6	420
Hay asthma.....									1
Coryza.....	1		1		1				26
Laryngeal catarrh.....									4
Laryngitis—Acute.....	3		3	2	1				4
Spasm of the glottis.....									1
Bronchial catarrh.....									17
Bronchitis—Acute.....	53	3	50	44	4	1	2	2	236
Chronic.....	23		23	2	17	2	1	1	91
Asthma.....	2		2	1	1				12
Pneumonia.....	24	2	22	12	3	1	5	3	8
Hæmoptysis.....	4		4	4					7
Emphysema.....	2		2		2				
Chronic pneumonic phthisis.....	2		2		2				1
Pleurisy.....	10		10	9			1		5
Chronic pleurisy.....	5		5	2	2	1			7
DISEASES OF THE DIGESTIVE SYSTEM.....	133	6	127	97	26	3	3	4	589
Stomatitis.....	1		1	1					8
Ulcerative stomatitis.....	1		1	1					
Teething.....									3
Caries of the dental tissue.....									10
Abscess of the cheek.....	1		1	1					
Gum-boil.....									1
Ulceration of the gums.....									1
Glossitis.....	1		1	1					
Ulcer of the tongue.....									1
Sore throat.....									10
Ulcerated throat.....	1		1	1					3
Quinsy.....	3		3	3					1
Tonsillitis.....	2		2	1	1				19
Elongated uvula.....									1
Perforation of the palate.....	1		1		1				
Pharyngitis.....	2		2	2					53
Stricture of the œsophagus.....	1		1		1				
Gastritis.....	3	1	2	3					3
Chronic ulcer of the stomach.....									1
Dyspepsia.....	9		9	5	4				123
Gastrodynia.....	1		1	1					9
Pyrosis.....									1
Vomiting.....	1		1	1					1
Enteritis.....	4	1	3	3	1				2
Typhlitis.....	2	1	1	2					
Dysentery.....	21	1	20	17	1			3	22
Ulceration of the intestines.....									1
Hæmorrhage of the intestines.....									1
Hernia.....	7		7	2	3	1		1	30
Tænia solium.....	5		5	4	1				6
Diarrhœa.....	35		35	33	1		1		114
Colic.....	1		1	1					5
Constipation.....	1		1		1				84
Fistula in ano.....	4		4	3	1				2
Hæmorrhoids.....	8		8	4	4				41
Prolapsus of the rectum.....	1		1		1				
Stricture of the rectum.....	1	1			1				
Hepatitis.....	3		3		2		1		8
Simple enlargement of the liver.....	2	1	1	1	1				5
Lardaceous liver.....	1		1			1			
Jaundice.....	6		6	6					12
Gall-stones.....									6
Hypertrophy of the spleen.....	2		2		1	1			
Peritonitis.....	1								1
Ascites.....	1		1				1		

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

DISTRICT OF THE GREAT LAKES.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF THE URINARY SYSTEM.....	117	11	106	71	36	3	3	4	680
Acute Bright's disease.....	1		1		1				4
Chronic Bright's disease.....	8		8		4	1	3		7
Abscess of the kidney.....									1
Pyelitis.....	1		1		1				
Hæmaturia renalis.....	4		4	3				1	
Cystitis—Acute.....	4	2	2	4					27
Chronic.....	4	1	3		4				27
Calculus.....									1
Irritability of the bladder.....	1		1	1					5
Incontinence of urine.....	2		2	1	1				4
Acute inflammation of prostate gland.....									1
Gonorrhœa.....	8	1	7	4	3	1			405
Balanitis.....	1		1	1					18
Phimosis.....	6		6	2	4				2
Paraphimosis.....	3		3	3					4
Bubo, gonorrhœal.....	2		2			1		1	
Epididymitis.....	46	6	40	38	7			1	23
Condyloma.....	4		4	3	1				2
Gleet.....									100
Urethritis.....									2
Organic stricture of the urethra.....	22	1	21	11	10			1	47
DISEASES OF THE GENERATIVE SYSTEM.....	22		22	14	5	1		2	72
Abscess of the penis.....	1		1	1					
Elongated prepuce.....	1		1	1					
Varicocele.....									12
Hydrocele of the tunica vaginalis.....	2		2	2					3
Orchitis—Acute.....	11		11	9	1			1	17
Chronic.....	1		1		1				15
Spermatorrhœa.....									14
Catarrh of the uterus.....									6
Inflammation of the uterus.....									1
Fibrous tumor of the uterus.....	2		2			1		1	
Catarrh of the vagina.....									2
Retro-version of the uterus.....	1		1	1					1
Amenorrhœa.....	3		3		3				1
DISEASES OF THE ORGANS OF LOCOMOTION.....	16	4	12	5	7	1	1	2	21
Periostitis.....									5
Diffuse periostitis.....	2		2	1	1				
Necrosis.....	3	2	1	2			1		3
Acute synovitis.....	5	1	4	1	3			1	5
Chronic synovitis.....	3	1	2		2	1			2
Ankylosis.....									1
Lateral curvature of the spine.....	1		1					1	
Atrophy of the muscles.....									1
Inflammation of tendons.....									1
Enlarged bursa patellæ.....	1		1	1					3
Bunion.....	1		1		1				
DISEASES OF THE CELLULAR TISSUE.....	30	1	29	19	9			2	30
Inflammation.....	6		6	3	3				13
Abscess.....	24	1	23	16	6			2	17
DISEASES OF THE CUTANEOUS SYSTEM.....	84	4	80	55	19	3		7	234
Erythema.....	1		1					1	2
Roseola.....	1		1	1					
Urticaria.....									7
Prurigo.....									5
Lichen.....	1		1		1				3
Psoriasis.....	2		2		2				12
Herpes.....	1		1	1					8

a Shock from amputation of thigh.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

DISTRICT OF THE GREAT LAKES.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF CUTANEOUS SYSTEM—Cont'd.									
Pemphigus									1
Eczema	3	1	2	3					47
Impetigo	1		1	1					2
Ecthyma									2
Acne									11
Sycosis									4
Frostbite	1		1		1				1
Ulcer	34		34	21	10	1		2	60
Boil	7		7	5	1			1	24
Carbuncle									3
Onychia	1		1		1				
Whitlow	28	3	25	22	3	1		2	25
Fibro-cellular tumor	1		1			1			
Fatty tumor									1
Sebaceous tumor									1
Serous cyst	1		1	1					
Cutaneous cyst	1		1					1	2
Pruritus									2
Tinea tonsurans									4
Tinea versicolor									2
Irritation caused by pediculis vesti- menti									1
Irritation caused by phthirius ingui- nalis									3
Irritation caused by sting of spider									1
Conditions not Necessarily Associated with General or Local Diseases.									
DEBILITY	10	1	9	4	6				94
MALINGERY	1		1			1			
UNDETERMINED									8
PARTURITION	1		1	1					1
Poisons	25		25	23	1		1		12
Lead colic	1		1	1					3
Opium	1		1		1				
Alcohol	18		18	18					9
Delirium tremens	3		3	2			1		
Rus toxicodendron	2		2	2					
Injuries	376	19	357	286	54	5	2	29	332
GENERAL INJURIES	21	3	18	14	5		1	1	11
Burns and scalds	16	2	14	10	5			1	11
Multiple injury	3	1	2	2			1		
Exposure to cold	2		2	2					
LOCAL INJURIES	355	16	339	272	49	5	1	28	321
Contusion of head	4		4	4					1
Scalp-wound, bone not exposed	7		7	4	2			1	9
Scalp-wound, bone exposed	2		2	1				1	2
Concussion of brain	4		4	2	2				2
Fracture of the base of the skull	1		1				1		
Rupture of vein, without external } wound	1		1	1					
Contusion of the face	7		7	7					3
Wound of the face	4		4	3				1	7

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

DISTRICT OF THE GREAT LAKES.

DISEASES.	NUMBER OF CASES.									
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.	
				Recovered.	Improved.	Not improved.				
Injuries.										
LOCAL INJURIES—Continued.										
Wound of the tongue										1
Foreign bodies in the ear										1
Fracture of the facial bones	2		2	2						
Fracture of the lower jaw	3		3	3						
Contusion of the eye	2		2	2						2
Foreign bodies in the cornea										2
Foreign bodies in the conjunctiva	1		1	1						1
Wound of the eyelid	2		2	1	1					2
Wound of the cornea										1
Wound of the neck	1		1		1					1
Contusion of the chest	18		18	14				4		15
Fracture of the ribs	14		14	8	4	1		1		4
Wound of the parietes	1		1	1						
Perforating wound of the chest	2		2	2						1
Contusion of the back	20	1	19	18	1			1		16
Sprain of the back	12		12	11	1					13
Injury to cord, without known fracture	1		1	1						
Contusion of the abdomen	2		2	1	1					5
Contusion of the pelvis	1		1	1						
Contusion of the penis	1		1	1						
Contusion of the testicle	1		1					1		
Wound of the scrotum	1		1	1						
Fracture of the pelvis	2	1	1	2						1
Contusion of the upper extremities	22	1	21	15	6			1		33
Sprain of shoulder	4		4	4						5
Sprain of elbow	1		1	1						1
Sprain of wrist	8	2	6	7		1				14
Sprain of thumb	1		1	1						2
Wound of the upper extremities	38		38	30	4	1		3		63
Fracture of the clavicle	9		9	5	2			2		4
Fracture of the humerus	4		4	3	1					3
Fracture of the forearm	9	2	7	7	2					4
Fracture of phalanges	2		2		1	1				8
Dislocation of the shoulder	3		3	2	1					2
Dislocation of the thumb	1		1	1						
Contusion of the lower extremities	55	4	51	44	5	1		5		31
Sprain of the knee	6	1	5	4	2					10
Sprain of the ankle	21	1	20	15	3			3		17
Wound of the lower extremities	25	1	24	18	5			2		22
Wound of the femoral artery	1		1	1						
Fracture of the femur	2	1	1	2						
Fracture of the patella	1		1	1						
Fracture of the leg, both bones	6		6	5	1					3
Fracture of the tibia alone	2		2	2						
Fracture of the fibula alone	6		6	5				1		2
Fracture of the bones of the foot	5		5	3	1			1		1
Dislocation of the hip	1	1			1					
Dislocation of the foot at the ankle	1		1	1						
Rupture of the muscles										1
Amputated finger <i>a</i>	2		2	1	1					2
Amputated thigh <i>a</i>										1
Amputated toes <i>a</i>	1		1	1						2
Circumcision <i>a</i>	1		1	1						

a Operations performed prior to admission to treatment.

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

DISTRICT OF THE PACIFIC.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
TOTAL CASES	955	40	915	619	237	19	32	48	867
General Diseases	409	16	393	256	114	3	12	24	301
Small-pox	1		1			a 1			
Measles	4		4	4					
Scarlet fever	1		1	1					
Enteric fever	5	1	4	4				1	
Simple continued fever	7	2	5	7					
Febricula	1		1	1					
Ague—Quotidian	34		34	29	3			2	16
Tertian	22		22	21				1	8
Irregular	17		17	16				1	42
Remittent fever	9		9	7	1		1		1
Diphtheria	1		1	1					
Mumps	1		1	1					
Erysipelas—Simple	6		6	5				1	1
Phlegmonous	2		2	1				1	
Acute rheumatism	34	2	32	29	2		1	2	27
Sub-acute rheumatism	9	1	8	8	1				1
Gonorrhœal rheumatism	6		6	4	2				2
Muscular rheumatism	14		14	9	4			1	31
Chronic rheumatism	33		33	10	20			3	12
Chronic osteo-arthritis	2		2		1		b 1		1
Primary syphilis—Hard chancre	5	1	4	3	2				4
Indurated bubo	3		3	1	2				4
Soft chancre	36		36	25	7	1		3	47
Suppurating bubo	25	1	24	17	7			1	3
Secondary syphilis	54	3	51	16	33		c 2	3	67
Syphilitic iritis									3
Cancer—Epithelial									1
Lupus exedens	1		1		1				
Scrofula without tubercle	1		1		1				
Scrofulous ophthalmia									1
Scrofulous disease of glands	2		2		2				2
Phthisis pulmonalis	27	1	26		16	1	6	4	17
Purpura									1
Scurvy	46	4	42	36	9		1		7
Anæmia									2
Local Diseases	363	13	350	241	87	9	17	9	461
DISEASES OF THE NERVOUS SYSTEM	39	3	36	23	10	1	5		17
Encephalitis	1		1	1					
Inflammation of the brain	2		2	1	1				
Inflammation of the spinal cord	1		1	1					
Spinal meningitis	1		1				1		
Paralysis	1		1				1		
Hemiplegia	10	3	7	2	5		3		
Local paralysis	4		4	3	1				1
Convulsions									1
Neuralgia	2		2	1	1				
Facial	5		5	4	1				5
Brow ague	2		2	2					3
Sciatica	5		5	4	1				1
Pleurodynia	4		4	4					3
Hypochondriasis									2
Mania—Acute									1
Dementia—Acute	1		1			d 1			
DISEASES OF THE EYE	10		10	6	1	3			5
Conjunctivitis									3
Gonorrhœal ophthalmia									1
Chronic ophthalmia	1		1	1					

a Transferred to San Francisco city authorities.

b Phthisis pulmonalis.

c Accidentally drowned.

d Deserted.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.*

DISTRICT OF THE PACIFIC.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF THE EYE—Continued.									
Keratitis.....	2		2	1	1				
Ulcer of the cornea.....									1
Iritis.....	1		1	1					2
Retinitis.....	1		1	1					
Cataract.....	1		1			1			
Glaucoma.....	1		1			1			
Total disorganization of eye.....	1		1			1			
Hemeralopia.....									3
Nyctalopia.....	1		1	1					
Lachrymal fistula.....	1		1	1					
Inflammation of the eyelid.....									2
DISEASES OF THE EAR.....									
Inflammation of external meatus—Acute.....	1		1		1				3
Accumulation of wax.....									2
Inflammation of the membrana tympani.....	1		1		1				1
DISEASES OF THE CIRCULATORY SYSTEM.....									
Pericarditis.....	18	1	17	1	7		8	2	12
Valve-disease.....	1		1		1				1
Hypertrophy of heart.....	7		7		3		4		6
Palpitation and irregular action of heart.....	3		3		3				
Aneurism of the arteries.....									1
Varicose veins.....	6	1	5	1			4	1	3
	1		1					1	
DISEASES OF THE ABSORBENT SYSTEM.....									
Inflammation of lymphatics.....	5		5	5					4
Inflammation of glands.....	1		1	1					
Suppuration of glands.....	2		2	2					2
Chronic enlargement of glands.....	1		1	1					2
	1		1	1					
DISEASES OF THE RESPIRATORY SYSTEM.....									
Coryza.....	59	2	57	42	13	1	2	1	93
Laryngitis—Acute.....	1		1	1					13
Chronic.....	4		4	4					5
Ulcer of the larynx.....	2	1	1	2					
Bronchial catarrh.....	1		1		1				
Bronchitis—Acute.....	1		1		1				2
Chronic.....	15		15	13	2				50
Asthma.....	4		4	1	2	1			19
Pneumonia.....	1		1	1					1
Hæmoptysis.....	17	1	16	11	4		2		1
Acute pneumonic phthisis.....	1		1		1				
Pleurisy.....	1		1		1				
Chronic pleurisy.....	7		7	6				1	1
	4		4	2	2				1
DISEASES OF THE DIGESTIVE SYSTEM.....									
Stomatitis.....	60	3	57	42	13		2	3	98
Cancrum oris.....									1
Caries of the dental tissue.....									2
Necrosis of the dental tissue.....									1
Inflammation of the dental periosteum.....									4
Inflammation of the gums.....	1		1	1					
Sore throat.....	1		1		1				
Ulcerated throat.....									1
Quinsy.....	3	1	2	2	1				
Tonsillitis.....	1		1	1					1
Enlarged tonsils.....	2		2	2					2
Pharyngitis.....									1
Inflammation of the salivary glands.....	1		1	1					9
Salivation.....									1
Salivary fistula.....	1		1	1					

VI.—Tabular Statement, by Districts, of Diseases and Injuries, &c.—Continued.

DISTRICT OF THE PACIFIC.

DISEASES.	NUMBER OF CASES.								
	Total treated in hospital.	Remaining under treatment from previous year.	Received during year.	Discharged—			Died.	Remaining under treatment at the close of year.	Furnished office-relief.
				Recovered.	Improved.	Not improved.			
Local Diseases.									
DISEASES OF THE CUTANEOUS SYSTEM	40		40	33	6			1	67
Urticaria									2
Prurigo									2
Pityriasis									1
Psoriasis									5
Eczema	5		5	3	2				13
Acne									4
Syphilis									3
Ulcer	14		14	12	2				17
Boil	8		8	8					8
Carbuncle	1		1	1					2
Whitlow	8		8	7				1	5
Sebaceous tumor	1		1	1					1
Serous cyst									1
Warts									1
Condyloma	1		1	1					
Ingrown nail	1		1		1				
Tinea decalvans									1
Tinea favosa	1		1		1				
Scabies									1
Conditions not Necessarily Associated with General or Local Diseases.									
DEBILITY	15	1	14	3	12				5
UNDETERMINED	5	1	4			5			7
Poisons	7		7	5	1			1	7
Alcohol	7		7	5	1			1	7
Injuries	156	9	147	114	23	2	3	14	86
GENERAL INJURIES	6		6	5	1				2
Burns and scalds	4		4	4					2
Multiple injury	1		1		1				
Privation	1		1	1					
LOCAL INJURIES	150	9	141	109	22	2	3	14	84
Contusion of head	1		1	1					
Scalp-wound, bone not exposed	3		3	2	1				3
Scalp-wound, bone exposed	3	1	2	3					1
Concussion of brain	3		3	2	1				
Wound of the skull	1		1	1					
Contusion of the face									2
Wound of the face	3		3	2				1	4
Fracture of the lower jaw	2		2	1	1				
Contusion of the eye	2		2	2					1
Wound of the eyelid									1
Wound of the parts within the orbit	1		1			1			
Contusion of the chest	6		6	5	1				5
Fracture of the ribs	7		7	5	1			1	5
Contusion of the back	4	1	3	3	1				4
Sprain of the back	3		3	1	2				3
Injury to cord, without known fracture	1		1					1	
Contusion of the pelvis	2		2	1		1			1
Contusion of the penis									1
Wound of the bladder	1		1				a1		
Contusion of the upper extremities	13		13	10	2			1	16
Sprain of shoulder									1
Sprain of wrist	3		3	2				1	5
Wound of the upper extremities	17	1	16	14	1			2	9

a Moribund when admitted.

VI.—*Tabular Statement, by Districts, of Diseases and Injuries, &c.*—Continued.

DISTRICT OF THE PACIFIC.

DISEASES.	NUMBER OF CASES.							
	Total treated in hospital.	Remaining under treatment from previous year.	Received during the year.	Discharged—			Died.	Remaining under treatment at the close of year.
				Recovered.	Improved.	Not improved.		
Injuries.								
LOCAL INJURIES—Continued.								
Foreign body embedded in hand								1
Fracture of the clavicle	1		1	1				
Fracture of the humerus	3		3	1	2			
Fracture of the forearm	3	1	2	3				
Fracture of phalanges								1
Dislocation of the shoulder	3		3	2	1			
Dislocation of the phalangeal joints								1
Contusion of the lower extremities	19	1	18	17	2			10
Sprain of the knee	1		1		1			1
Sprain of the ankle	6		6	4	1		1	4
Wound of the lower extremities	11		11	9	1		1	2
Fracture of the femur	3		3	1	1		1	
Fracture of the patella	1		1	1				
Fracture of the leg, both bones	9	2	7	6	1		<i>a</i> 1	1
Fracture of the tibia alone	7		7	5				2
Fracture of the fibula alone	5	2	3	3	1		1	
Rupture of the muscles								1
Rupture of the tendons								1
Amputated toe <i>b</i>	1		1	1				
Hæmorrhage into the peritoneal cav- ity—source unknown	1		1				1	

a Pneumonia.*b* Operation performed prior to admission to hospital.

Table VII.—*Tabular Statement, by Districts, of Causes of Mortality among Patients of the Service during the Year ended June 30, 1882.*

CAUSE OF DEATH.	DISTRICTS.							
	Total.	North Atlantic.	Middle Atlantic.	South Atlantic.	The Gulf.	The Ohio.	The Mississippi.	The Great Lakes.
Total Deaths from all Causes.....	485	44	73	68	81	57	77	53
FROM DISEASE.....	458	39	73	60	78	56	72	50
FROM DEBILITY, POISONS, &c.....	5			1	1	1	1	1
FROM INJURY.....	22	5		7	2		4	2
General Diseases.....	251	21	46	28	37	37	40	30
Small-pox.....	62	3	2	2	8	27	17	3
Scarlet fever.....	1	1						
Cerebro-spinal fever.....	1			1				
Enteric fever.....	34	5	6	8	1	2	5	7
Ague—Quotidian.....	1			a 1				
Ague—Tertian.....	1	b 1						
Remittent fever.....	28	1	3	10	7		3	3
Pyæmia.....	2	c 1					d 1	
Acute rheumatism.....	1							1
Chronic rheumatism.....	2			1		1		
Secondary syphilis.....	5		1			1		e 2
Cancer—Scirrhus.....	7	1	1		3			2
Medullary.....	1							1
Epithelial.....	4		1		2			1
Tubercular meningitis.....	1				1			
Phthisis pulmonalis.....	91	6	31	4	13	6	12	12
Acute miliary tuberculosis.....	1				1			
Purpura, hemorrhagic.....	1						1	
Scurvy.....	2	1						
Anæmia.....	1						1	
General dropsy.....	4	1	1	1	1			
Local Diseases.....	207	19	31	28	40	19	32	20
DISEASES OF THE NERVOUS SYSTEM.....	27	4	4	3	5	3	2	1
Encephalitis.....	1	1						
Meningitis.....	4	1				2	1	
Apoplexy.....	3	1	1				1	
Sunstroke.....	1				1			
Spinal meningitis.....	1							
Myelitis.....	1		1					1
Paralysis.....	1							
Hemiplegia.....	7		1	1	1			1
Paraplegia.....	1							3
Tetanus.....	2			g 1	h 1			
Epilepsy.....	1	1						
Chronic chorea.....	1		1					
Acute mania.....	1			1				
Acute dementia.....	1				1			
Paralysis of the insane.....	1				1			
DISEASES OF THE CIRCULATORY SYSTEM.....	25	4		4	1	2	3	3
Valve disease of the heart.....	16	3		1	1	2	3	2
Hypertrophy of the heart.....	1			1				
Fatty degeneration of the arteries.....	1	i 1						
Aneurism of the arteries.....	7			2				1
DISEASES OF THE RESPIRATORY SYSTEM.....	61	6	7	12	11	7	6	9
Acute laryngitis.....	1			1				
Acute bronchitis.....	4		2					2
Chronic bronchitis.....	6	1	2	1	1			1
Asthma.....	1				1			
Pneumonia.....	40	2	3	9	5	7	6	5

a Congestive chill.

b Pernicious ague.

c Admitted for phlegmonous erysipelas.

d Admitted for primary syphilis—soft chancre.

e One accidentally drowned.

f Admitted for wound of back.

g Admitted for fracture of leg, both bones.

h Admitted for wound of lower extremities.

i Admitted for chronic enlargement of prostate gland.

j One admitted for fracture of leg, both bones.

VII.—Tabular Statement, by Districts, of Causes of Mortality, &c.—Continued.

CAUSE OF DEATH.	DISTRICTS.							
	Total.	North Atlantic.	Middle Atlantic.	South Atlantic.	The Gulf.	The Ohio.	The Mississippi.	The Great Lakes.
Local Diseases.								
DISEASES OF RESPIRATORY SYSTEM—Cont'd.								
Passive congestion of the lung	1	1						
Edema of the lung	1				1			
Acute pneumonic phthisis	2			1	1			
Chronic pneumonic phthisis	1				1			
Pleurisy	4	2			1			1
DISEASES OF THE DIGESTIVE SYSTEM.								
Abscess of the pharynx	63	2	12	7	19	4	14	3
Gastritis	1				1			
Chronic ulcer of the stomach	4		1	a2			1	
Enteritis	1						1	
Dysentery	5		1	1	2	1		
Perforation of the intestines	20	1	5	2	3	2	7	
Obstruction of the intestines	1		1					
Hernia	1				1			
Diarrhoea	12		1		8	1	1	1
Fistula in ano	1			b1				
Hepatitis	2				1			1
Abscess of the liver	4		1		2		1	
Simple enlargement of the liver	1							1
Cirrhosis of the liver	2						1	1
Jaundice	2		1				1	
Peritonitis	3	1	1				1	
Ascites	2			1				1
DISEASES OF THE URINARY SYSTEM								
Acute Bright's disease	25		4	6	5	2	5	3
Chronic Bright's disease	8			2	3	2	1	
Abscess of the kidney	9		1	1			4	3
Acute cystitis	1		c1					
Retention of urine	1			1				
Abscess of the prostate gland	1				1			
Stricture of the urethra	3		d2		1			
Extravasation of urine	1			1				
DISEASES OF THE ORGANS OF LOCOMOTION.								
Caries	5	1				1	2	1
Necrosis	1					e1		
Psoas abscess	3	1					f1	g1
	1						1	
DISEASES OF THE CUTANEOUS SYSTEM.								
Frostbite	1	1						
	1	1						
Poisons.								
	3			1		1		1
Alcohol	1					1		
Delirium tremens	2			1				1
Conditions not Associated with other Diseases.								
Old Age	1						1	
Debility	1				1			
Injuries.								
	22	5		7	2		4	2
GENERAL INJURIES								
Burns	4	1		2				1
Multiple injury	1			1				
	3	1		1				1

a One admitted for dislocation of foot at ankle.

b See reports of autopsies.

c Admitted for stricture of the urethra.

d Internal urethrotomy.

e Secondary hæmorrhage.

f Gangrene and exhaustion.

g Shock from amputation of the thigh.

VII.—*Tabular Statement, by Districts, of Causes of Mortality, &c.—Continued.*

CAUSE OF DEATH.	DISTRICTS.							
	Total.	North Atlantic.	Middle Atlantic.	South Atlantic.	The Gulf.	The Ohio.	The Mississippi.	The Great Lakes.
Injuries.								
LOCAL INJURIES.....	18	4		5	2		4	1
Concussion of the brain.....	4	2		1			1	
Fracture of the vault of the skull.....	1	1						
Fracture of the base of the skull.....	3			2				1
Wound of the face.....	1						a 1	
Contusion of the chest.....	1	1						
Fracture of the spine.....	1				1			
Contusion of the abdomen.....	1						1	
Wound of the parietes of the abdomen.....	1			a 1				
Contusion of the male perineum, rupture of the urethra, and extravasation of urine.....	1				1			
Wound of the bladder.....	1							
Wound of the upper extremities.....	1						1	
Fracture of the femur.....	1			1				
Hæmorrhage into the peritoneal cavity, cause unknown.....	1							1

a Gunshot.

Table VIII.—*Ratio of Deaths from Specific Causes.*

Deaths from—	Per 100 from all causes.	Deaths from—	Per 100 from all causes.
General Diseases.....	51.75	Diseases of the Digestive System....	12.99
Diseases of the Nervous System.....	5.57	Diseases of the Urinary System.....	5.15
Diseases of the Circulatory System...	5.15	Injuries.....	4.54
Diseases of the Respiratory System..	12.58	From all other causes.....	2.27

Table IX.—*Ratio of Deaths in each District.*

District.	Per 100 of patients treated.	District.	Per 100 of patients treated.
North Atlantic.....	4.00	The Ohio.....	5.64
Middle Atlantic.....	3.92	The Mississippi.....	3.51
South Atlantic.....	3.05	The Great Lakes.....	2.49
The Gulf.....	4.98	The Pacific.....	3.35

Table X.—*Exhibit of Operations of the Service during the Year ended June 30, 1882.*

Ports.	Total number of seaman treated.	Patients in hospital July 1.	Admitted during the year.	Total number treated in hospital.	Discharged.	Died.	Remaining in hospital June 30.	Number of days relief in hospital.	Number of seamen furnished office-relief.	Number of times office-relief was furnished.	Number of persons examined physically, including pilots.	Amount expended.	Tax collected.
Albany, N. Y.	11		11	11	8	1	2	359			52	\$469 00	\$4,439 21
Alexandria, Va.													1,008 62
Annapolis, Md.													873 70
Apalachicola, Fla.	129	1	49	50	41	3	6	998	79	84		1,288 50	1,083 97
Astoria, Oreg.	64	3	49	52	49	1	2	1,403	12	92		1,475 00	1,371 73
Baltimore, Md.	1,811	21	600	621	570	16	35	13,678	1,190	1,593	96	13,278 71	23,354 60
Bangor, Maine	105	1	35	36	32	1	3	856	69	308	6	1,444 41	1,430 98
Barnstable, Mass.	347								347	259		2,487 02	1,962 84
Bath, Maine.	88		43	43	41		2	738	45	92	4	1,071 47	2,140 93
Beaufort, N. C.	1								1	2		12 50	644 26
Beaufort, S. C.	11								11	13		97 80	498 36
Belfast, Maine	59		6	6	5		1	284	53	247	1	627 50	1,183 76
Bismarck, Dak.	77	5	69	74	69	1	4	2,166	3	12		3,121 90	(a)
Boston, Mass.	1,244	23	471	494	449	14	31	12,105	750	1,063	107	19,088 86	15,843 43
Brashear, La.	3								3			15 00	1,096 99
Bridgeport, Conn.													1,618 58
Bridgeton, N. J.													3,211 59
Bristol, R. I.													220 75
Brownsville, Tex.	10		10	10	9	1		380				529 14	234 04
Brunswick, Ga.	74		11	11	7	3	1	434	63	63		1,076 50	1,011 36
Buffalo, N. Y.	913	15	208	223	199	4	20	6,497	690	1,235	79	6,211 44	4,738 78
Burlington, Iowa	3		2	2	1	1		6	1	6		39 55	902 73
Burlington, Vt.	12		2	2	2			180	10	91		268 00	245 53
Cairo, Ill.	1,206	22	398	420	393	20	7	7,418	786	1,115	8	8,326 27	1,241 45
Cape Vincent, N. Y.	4	1	2	3	3			34	1	13		47 00	421 73
Castine, Maine	32								32	295		334 00	1,164 35
Cedar Keys, Fla.	114	1	41	42	39	1	2	798	72	73		1,075 00	1,021 99
Charleston, S. C.	509	4	203	207	199	5	3	3,300	302	430	72	4,271 10	3,602 78
Chattanooga, Tenn.	72		9	9	8		1	111	63	96	3	361 37	364 82
Cheboygan, Mich.	7		1	1	1			31	6	81		(c)	(c)
Chicago, Ill.	3,034	45	753	798	733	24	41	22,674	2,236	3,406	138	656,190 92	7,508 93
Cincinnati, Ohio	2,316	4	109	113	90	23		2,247	2,293	3,632	52	6,986 02	8,021 52
Cleveland, Ohio	521	15	292	217	203	3	11	5,004	304	516	76	4,170 82	3,315 11

^a Tax included in Pembina report.^b Includes extraordinary repairs.^c Expenses and tax included in Grand Haven report.

Table X. — *Exhibit of Operations of the Service during the Year ended June 30, 1882—Continued.*

Ports.	Total number of seamen treated.	Patients in hospital July 1.	Admitted during the year.	Total number treated in hospital.	Discharged.	Died.	Remaining in hospital June 30.	Number of days' relief in hospital.	Number of times office-relief was furnished.	Number of persons physically examined, including pilots.	Amount expended.	Tax collected.
Corpus Christi, Tex.	92	1	52	53	52		1	1,172	39	75	\$2,692 50	\$650 97
Crisfield, Md.	86								86	465	467 00	5,689 55
Detroit, Mich.	1,122	19	454	473	433	13	27	12,105	649	915	12,026 85	6,457 18
Dubuque, Iowa	254	13	192	205	187	3	15	3,646	49	65	3,365 17	1,452 88
Duluth, Minn.	36	1	7	8	6		2	232	28	32	397 35	169 15
Eastport, Maine.	53		6	6	6			85	47	236	333 00	2,641 38
East Saginaw, Mich.	9		6	6	4		2	40	3	6	90 25	
Eastville, Va.												
Edenton, N. C.	37		8	8	8			46	29	33	274 70	2,403 67
Edgartown, Mass. <i>b</i> .	107		1	1	1			8	106	151	11 73	1,052 13
Elizabeth City, N. C.	1										(<i>c</i>)	435 26
El Paso, Texas	66	2	10	12	11	1	1		1	1	2 00	76 33
Ellsworth, Maine	10		8	8	8		1	311	54	318	621 30	1,499 31
Empire City, Ore.	80	1	27	28	24	1	3	100	2	10	298 00	257 29
Erie, Pa.	23		7	7	7			836	52	107	872 41	1,609 63
Escanaba, Mich.	763	7	245	252	239	10	3	94	16	58	200 60	(<i>d</i>)
Evansville, Ind.								5,273	511	913	6,045 11	1,918 52
Fall River, Mass.	1								1	18	105 61	3,438 49
Fernandina, Fla.	72		11	11	10		1	94	61	86	384 59	638 88
Fort Hale, Dak.	2		2	2	1	1		22			22 00	
Galena, Ill.												
Galveston, Tex.	612	25	275	300	268	11	21	8,412	312	368	8,551 66	443 14
Georgetown, D. C. <i>e</i>	223	3	100	103	97	2	4	2,059	120	143	1,507 89	2,931 63
Georgetown, S. C.	35		10	10	9	1		167	25	57	571 75	1,808 55
Gloucester, Mass.	5		5	5	4	1		29			135 00	511 23
Government Hospital for the Insane <i>f</i>	15	10	5	15	1		14	4,443			2,856 18	715 11
Grand Haven, Mich.	25	1	3	4	4			94	21	80	568 19	4,569 88
Green Bay, Wis.	2								2	2		
Havre de Grace, Md.	1								1	2	3 00	(<i>g</i>)
Indianola, Tex.	6		4	4	4			70	2	2	265 71	337 81
Jacksonville, Fla.	130	3	53	56	53	2	1	1,010	74	210	1,127 50	2,011 91

Kennebunk, Maine	677	6	114	120	109	4	7	3,046	557	991	25	5,631 21	61 91
Key West, Fla.	100	3	84	87	82	1	4	1,162	13	19	14	1,292 91	2,671 13
La Crosse, Wis.	1	1	1	1	1			41				90 74	894 15
Leavenworth, Kan.	1	1										1 55	
Lorain, Ohio	1,197	39	377	416	356	20	40	17,220	781	1,657	21	14,741 80	2,302 82
Louisville, Ky.	83	3	26	29	24		5	781	54	103		897 19	1,293 11
Machias, Maine	3								3	4		9 50	(A)
Manatee, Fla.	1								1	13		13 00	(G)
Manitowoc, Wis.	121	3	24	27	22	1	4	339	94	106	10	771 61	144 00
Marblehead, Mass.	537	5	107	112	101	11		1,644	425	701	17	4,867 01	1,070 35
Marquette, Mich.	15		11	11	9		2	251	4	19		274 00	2,226 09
Memphis, Tenn.	603	5	269	274	248	6	20	5,704	329	418	82	4,616 61	1,629 63
Middletown, Conn.	385	9	216	225	197	15	13	5,231	160	240	40	7,651 98	5,755 05
Milwaukee, Wis.													3,313 15
Mobile, Ala.	35	2	24	26	24	1	1	507	9	13	9	612 30	529 98
Nashville, Tenn.													144 30
Natchez, Miss.													180 34
Nantucket, Mass.													1,123 12
Newark, N. J.	90	1	51	52	45	2	5	1,649	38	50	4	1,920 65	1,450 34
New Bedford, Mass.	385	5	53	58	50	6	2	1,079	327	492	17	1,557 49	1,279 84
New Berne, N. C.	1	1		1	1			62				127 00	215 57
Newburyport, Mass.	89	4	53	57	50	2	5	1,905	32	140	31	2,228 61	2,934 09
New Haven, Conn.	95		45	45	39	2	4	509	50	52		730 75	2,825 03
New London, Conn.	1,671	42	584	626	561	41	24	14,575	1,045	1,941	73	17,500 82	14,745 77
New Orleans, La.	56	3	34	37	34	3		954	19	20		1,050 11	755 77
Newport, R. I.	2,125	72	1,058	1,130	1,017	45	68	31,566	995	1,307	426	34,490 34	78,509 90
New York, N. Y.	1,439	11	435	446	397	21	28	13,414	993	1,263	64	17,355 09	6,909 79
Norfolk, Va.	46								46	261		337 18	299 07
Ogdensburg, N. Y.	25		6	6	5		1	93	19	22	16	603 55	446 14
Omaha, Nebr.	16		10	10	10			150	6	6		259 72	976 15
Oswego, N. Y.	278	5	139	144	130	5	9	1,942	134	205	23	3,045 77	516 06
Pascagoula, Miss.	1		1	1	1			10				(b)	2,297 78
Patchogue, N. Y.	6								6	6		1 85	2,687 69
Pensacola, Fla.	2											25 00	3,528 43
Pembina, Dak.	1,559	29	544	573	521	21	31	13,051	986	1,221	102	15,398 42	19,709 28
Petersburg, Va.	466	8	177	185	174	3	8	3,825	281	461	68	5,132 69	5,918 52
Perth Amboy, N. J.	4		2	2	2			52	2	19		130 00	155 18
Philadelphia, Pa.													
Pittsburgh, Pa.													
Plattsburgh, N. Y.													

a Including extraordinary expenses.

b Patients treated in United States Marine-Hospital

at Vineyard Haven, Mass.

c Expenses and tax included in Edenton report.

d Tax included in Marquette report.

e Patients treated at Providence Hospital, Washing-

ton, D. C.

f Washington, D. C.

g Tax included in Baltimore.

h Tax included in Key West report.

i Tax included in Milwaukee report.

j Includes all repairs.

k Tax included in Shieldsboro' report.

l Bill not received.

Tuckerton, N. J.....	46	.....	1	1	1	.....	.....	.....	8	45	105	1	622 30	625 47
Vicksburg, Miss.....	133	9	107	116	110	3	3	2,049	17	21	21	11	2,153 00	1,350 43
Vineyard Haven, Mass.....	105	4	55	59	49	8	2	1,744	46	51	.....	.....	3,777 54	(k)
Waldoboro', Maine.....	189	.....	1	1	1	.....	.....	30	188	706	4	.....	652 87	2,931 32
Wheeling, W. Va.....	11	1	9	10	10	.....	.....	355	1	15	.....	.....	370 00	3,281 19
Wilmington, Del.....	14	.....	6	6	4	.....	.....	37	8	19	.....	.....	128 00	2,532 56
Wilmington, N. C.....	400	8	216	224	215	3	6	3,438	176	240	39	.....	6,303 72	1,587 04
Wiscasset, Maine.....	10	.....	1	1	.....	1	.....	48	9	86	.....	.....	152 00	518 26
York, Maine.....	1	.....	.....	.....	.....	.....	.....	.....	1	23	.....	.....	23 00	15 25
Yorktown, Va.....	3	.....	.....	.....	.....	.....	.....	.....	3	3	.....	.....	8 50	1,028 31
Totals.....	36,184	657	12,391	13,048	11,878	485	685	333,475	23,136	40,136	2,396	417,720 87	408,871 13	

a Tax included in Milwaukee report.

b This report includes the period covered by the annual practice cruise.

c Paid at Cleveland.

d Including one hospital and thirteen out-patients treated at Wilmington, Cal.

e Includes Wilmington, Cal.

f Tax included in Marquette report.

g Tax included in New Orleans report.

h This does not include collections for June, 1882.

i Tax included in Pembina report.

j Tax included in Key West report.

k Tax included in Edgartown report.

In addition to the expenditures, as given in the above table, there were disbursed for miscellaneous expenditures, \$6,128.03; purveyor's division, for medical and surgical supplies, purchased for issue, \$20,651.47; for travelling expenses, \$3,764.99; office of Surgeon-General, \$22,721.51; making a grand total of \$470,986.87. Deduct repairs of buildings and grounds, \$54,192.02; leaving for net expenditures, \$416,794.85. (These figures vary from those given on page 9 of this report, which are those shown on the books of the Register of the Treasury. The warrants drawn and actual payments made, for almost any given period, differ in amount.)

1914

1915

1916

1917

1918

1919

1920

1921

1922

1923

1924

1925

1926

1927

1928

REPORT OF SURGICAL OPERATIONS.

OF THE

OF THE

OF THE

OF THE

OF THE

REPORT OF SURGICAL OPERATIONS.

REPORT OF GENERAL OPERATIONS

REPORT OF SURGICAL OPERATIONS.

SURGICAL OPERATIONS.

FISCAL YEAR 1882.

Operation.	No. of cases.	Remarks.
Total Number of Operations	594	
OPERATIONS ON THE EYE AND ITS APPENDAGES.	18	
For ectropium	1	
For tumor on the eyelid	2	Knife.
Cicatrix—eyelid	1	Reparative, to enable artificial eye to be worn.
For strabismus	1	Tenotomy.
For lachrymal fistula	1	
For ptosis	1	Elliptical flap from upper lid.
For pterygium	2	
Iridectomy	1	Opacities, both eyes; patient under treatment.
Extraction of lens	1	Traumatic cataract; three-fifth vision.
Extraction foreign bodies	2	
Paracentesis	2	One iritis, with great tension; one iritis, with hypopyon.
Excision of eyeball	3	Two staphyloma; one contusion, with rupture.
OPERATIONS ON ARTERIES	3	
Ligation of anterior carpal	1	For incised wound.
Ligation of facial	1	For incised wound.
Ligation of anterior interosseous	1	Do.
OPERATIONS ON ANEURISMS	5	
For aneurism of epigastric artery	1	Artificial coagulation of blood.
For aneurism of femoral artery	2	One, femoral ligated; knee-joint stiff. One, traumatic diffuse; pressure applied.
For aneurism of popliteal artery	2	One, compression; successful. One, compression, unsuccessful; femoral ligated in Scarpa's triangle; successful; knee-joint stiff.
OPERATIONS ON VEINS:		
For hæmorrhoids	12	External, 9; eight ligature, one by knife. Internal, 3; ligature.
OPERATIONS ON JOINTS	49	
Dislocations reduced	45	
Clavicle	1	
Shoulder	22	Two ancient, unsuccessful.
Elbow	6	
Wrist	3	
Radius	1	
Finger	2	
Thumb	3	
Hip	4	
Ankle	3	
Ankylosis of ankle	2	Forcible extension.
Ankylosis of knee	2	Do.
OPERATIONS ON BONES	25	
For caries	6	One each of malar, temporal, superior maxilla, cranial, sternum, and tarsal.
For necrosis	13	One each sixth and seventh dorsal vertebræ, finger, and os calcis; two superior maxilla, inferior maxilla, and finger; three of tibia. One death, that of os calcis. See autopsy report.
For synovitis of elbow	1	Partial excision of humerus; unsuccessful.
For ununited fracture of the humerus	1	Needles introduced four times, afterwards drilled; patient improving when he left hospital.
For ununited fracture of the femur	1	Needles introduced; repeated in three weeks; successful.
For ununited fracture of tibia	1	Drilling; not successful.
For union with deformity	2	One femur, refracture; successful. One tibia, V-shaped piece removed from inner side; successful.

Surgical Operations—Continued.

Operation.	No. of cases.	Remarks.
AMPUTATIONS		
Of the hand	64	
Of the fingers	1	At wrist-joint; primary.
	36	Necrosis, 11; frostbite, 3; injury, 21; gangrene, 1.
Of the thigh	2	One for necrosis, middle third; death. One aneurism, lower third; recovery.
Of the leg	10	Two deaths, one from tetanus. Four in middle third, two upper third, one lower third. For injury, 6; necrosis, 2; caries, 1; irritable stump, 1.
Of the ankle-joint	1	For gangrene.
Across the foot	2	One for injury, one frost-bite.
Of the toes	12	Necrosis, 2; caries, 1; gangrene, 1; injury, 4; frostbite, 3—in one case toes of both feet amputated; ankylosis, 1.
INCISIONS		
Of abscess	127	
For periostitis	83	
For osteitis	3	
For whitlow	1	
For carbuncle	6	
For cellulitis	1	
For abscess of liver	2	Both died.
For ankylosis of knee	1	Tenotomy.
For fistula, leg	1	
For fistula in ano	24	One, knife and zinc chloride; twenty, knife; three, elastic ligature.
For perineal fistula	1	Pin sutures.
For perineal and gluteal fistula	1	Knife.
For phagedenic ulcer of throat	1	Tracheotomy.
OPERATIONS FOR STRICTURE OF THE URETHRA.		
By gradual dilatation	89	
By sudden dilatation	30	Urethral fever in one case.
By divulsion	12	One death; urethral fever in three cases.
By internal urethrotomy	21	Urethral fever in one case; one death.
	26	One death; urethral fever in three cases.
OPERATIONS FOR HERNIA		
Oblique, reducible	5	
	3	Heatonian method; two successful, one unimproved.
Strangulated	2	By incision; one recovered, one died.
OPERATIONS FOR PHIMOSIS		
Circumcision	89	
Prepuce slit	67	One death.
Modified operation	13	
For redundant prepuce	6	
For paraphimosis	1	Circumcision.
	2	
PARACENTESIS		
For hydrocele	59	
	22	In fifteen cases, tr. iodine injected; in three cases, carbolic acid injected.
For abdominal dropsy	5	Three died, one recovered, one not improved.
For abscess of liver	4	Two recovered, two died.
For lumbar abscess	1	
For abscess	2	
For empyema	1	Both sides aspirated.
For pleurisy	3	
For synovial rheumatism	17	
For arthritis, with effusion	4	
NOT CLASSIFIED		
For chronic ulcer	49	
For open granulations	2	Skin-grafting.
For artificial anus	1	Do.
For scirrhus cancer	1	See report of selected cases.
For epithelial cancer	2	
For epithelioma, prepuce	2	
For fibro-cystic tumor	1	Ecraseur.
For fibro-cellular tumor	1	
For fatty tumor	2	
For horny tumor	2	
For molluscum	1	
For condyloma, penis	1	Seven removed.
	16	Six, knife; four, knife and cautery; five, nitric acid; one, chromic acid.
For cutaneous cyst	3	
For cystic tumor	1	
For cystic disease of testicle	1	Castration.

Surgical Operations—Continued.

Operation.	No. of cases.	Remarks.
NOT CLASSIFIED—Continued.		
For sarcoma, testicle	1	Testicle removed.
For round-celled sarcoma.....	1	
For sebaceous tumors.....	4	
For lupus exedens.....	1	Thermo cautery.
For papilloma, uterus.....	1	Do.
For dropsy, knee-joint	1	Esmarch's bandage.
For caries, vertebræ.....	1	Plaster jacket.
For synovitis, ankle	1	Actual cautery.
For spermatorrhœa.....	1	Cauterized prostatic urethra.

HISTORY OF THE

THE HISTORY OF THE

SELECTED CASES FROM HOSPITAL PRACTICE.

SELECTED CASES FROM HOSPITAL PRACTICE

CASES OF RHEUMATIC EFFUSIONS IN JOINTS TREATED BY ASPIRATION.

[REPORTED BY SURGEON HENRY W. SAWTELLE.]

It will be observed, from the subjoined notes, that in some instances the patients remained in hospital at rest but a short period after the joints were relieved, and it is not unlikely that in a few cases the subjects suffered from a recurrence of the disease; but, after considerable inquiry, it has been ascertained that most of the patients continued to follow their vocation as usual, after leaving the hospital, with no untoward results.

It may perhaps be well enough to add that no bad symptoms were noticed consequent upon the use of the aspirator. On the contrary, the histories abundantly attest the fact that after the removal of the imprisoned fluid the patients steadily advanced toward recovery. These results are confirmatory of those observed at other hospitals of the Service.

(*Vide* report of cases by Surgeon-General John B. Hamilton, then surgeon in charge of the hospital at Chelsea, *Boston Medical and Surgical Journal* for March, 1879.)

CASE I.—Robert Hornsby, (colored,) aged 28 years; admitted to hospital February 12, 1880, from the steamer "John B. Maude." He is a well-nourished man, strong and heavily built, with a history of secondary syphilis in addition to the synovial rheumatism. States that he has had intense pain in the affected joint of fifteen days' duration. Left knee very much swollen. On February 13, 1880, 124 C. C. of clear, amber-colored fluid were withdrawn from the left knee-joint by the aspirator, the pain immediately subsiding. No anæsthetic used. The joint was then tightly wrapped in flannel wrung out in hot water, and the patient kept in bed. On the 24th of the same month fluctuation was again detected, whereupon 62 C. C. of flocculent fluid were removed and the treatment pursued as before. He made a rapid recovery, and returned to duty March 9, 1880. The writer examined the aspirated joint in December, 1881, and found it in a normal condition.

CASE II.—Henry Jones, (colored,) aged 18 years; admitted to hospital April 30, 1880, from the steamer "Centennial." He is a small,

lightly-built, badly-nourished man; has been subject to malarial diseases. On admission the right knee was painful, with great disability. The joint subsequently swelled, and fluctuation being detected, on May 20, 1880, 60 C. C. of clear, amber-colored fluid were withdrawn, the pain being instantly relieved. No anæsthetic used. Hot fomentations were applied and the patient kept at rest for several days, when the joint appeared to be entirely relieved. He remained in the hospital under treatment for malarial cachexia until June 17, 1880, when he returned to duty, recovered.

CASE III.—Thomas Murray, (white,) aged 39 years; admitted to hospital September 20, 1880, from the steamer "Mattie Belle," suffering from cirrhosis of the liver. He is a small, lightly-built, emaciated man, with well-marked malarial cachexia. About March 25, 1881, he experienced pain in the right knee-joint, which steadily increased, and on April 18, 1881, the pain being most excruciating and the joint becoming much swollen, the aspirator-needle was introduced, and 225 C. C. of amber-colored fluid, containing flocculi, were withdrawn, the pain subsiding rapidly. Hot fomentations were applied to the joints for several days and the patient kept at rest. August 18 following he complained of pain in the left knee-joint, which became so severe that but little rest could be obtained. Chloral hydrate and bromide of potassium were of no avail, although given freely. Morphine or opium could not be used, as a dose of either produced suppression of urine, even though combined with belladonna. On September 1, 1881, fluctuation being detected, the joint was aspirated, and 80 C. C. of amber-colored fluid were removed, with instantaneous relief, the patient, after the operation, falling into a deep sleep, which lasted several hours. No anæsthetic was used. Hot applications and rest were continued, as before, for a few days, when the patient resumed his walks around the reservation. He was discharged September 28, 1881, recovered from the joint affection. The mate of the vessel in which this man formerly served reported to the writer, in April, 1882, that he saw Murray during that month in New Orleans engaged in peddling tobacco, and he stated that he had had no trouble with his knees since his discharge from hospital.

CASE IV.—Albert Wees, (white,) aged 22 years; admitted to hospital April 27, 1881, from the steamer "Annie P. Silver." He is a delicate, anæmic man, with a malarial history; has lately been watchman on the "Silver," exposed to the night air. About a week prior to admission he placed himself under the care of a physician in the city for his present disease. On admission had great pain, with some

swelling in joint, which increased, and, fluctuation being detected, on the 30th of April, 1881, the left knee-joint was aspirated, and 24 C. C. of clear, amber-colored fluid were withdrawn, giving instant relief. No anæsthetic used. The usual after-treatment (fomentations and complete rest) was adopted, and the patient kept in hospital for general constitutional treatment until June 20, 1881, when he was discharged, recovered.

Assistant Surgeon John A. Benson, on duty at the dispensary at this station, reports, under date of May 1, 1882, that he examined this patient in September, 1881, and found the aspirated joint in a normal condition, the patient stating that he had experienced no disability from the joint since his discharge from hospital.

CASE V.—Mark Washington, (colored,) aged 24 years; admitted to hospital July 20, 1881, from the steamer "Grand Pacific." He is a medium-sized, active man; gives a history of constitutional syphilis. On admission, he states that he has suffered from pain of right knee-joint for nine days, which has rapidly increased, the joint becoming swollen. Fluctuation being detected, on July 21, 1881, 80 C. C. of clear, amber-colored fluid were removed by the aspirator, the operation affording immediate relief. No anæsthetic used. Hot fomentations were applied and the patient kept at rest. Returned to duty August 22, 1881, recovered.

Assistant Surgeon John A. Benson reports, under date of May 1, 1882, that he examined this patient in February, 1882, and found the aspirated joint normal, there being no enlargement of the joint or relaxation of the ligaments. The patient stated that since his discharge from hospital he had experienced no disability from the joint.

CASE VI.—Henry Watkins, (colored,) aged 30 years; admitted to hospital from the steamer "Bright Light," August 31, 1881. He is a slender man, in fair condition. Patient stated that about August 28, 1881, he first experienced pain in both knee-joints, which gradually increased and became very severe. Fluctuation being detected in both joints, on September 10, 1881, 100 C. C. of clear, amber-colored fluid were removed from the right knee-joint and 125 C. C. from the left knee-joint, the operation affording immediate relief. No anæsthetic used. Hot fomentations were applied as usual, and the patient kept at rest. He remained under general treatment until October 31, 1881, when he returned to duty, recovered.

Assistant Surgeon John A. Benson reports, under date of May 1, 1882, that this patient was examined by him in January, 1882, and

that both knee-joints were found to be in a normal condition, the patient stating that he had experienced no trouble from the joints since his discharge from the hospital.

CASE VII.—John H. Nell, (white,) aged 24 years; admitted to hospital September 17, 1881, from the steamer "Gem City." He is a slender man, in fair condition. About September 10, 1881, he first experienced pain in right knee-joint. On admission the joint was found to be swollen and painful, which rapidly increased, and, fluctuation being detected, on September 19, 1881, 100 C. C. of clear, amber-colored fluid were withdrawn by the aspirator. No anæsthetic used. Hot fomentations were applied and the patient kept at rest. He was discharged, however, at his own request, convalescent, September 21, 1881, to rejoin his vessel.

CASE VIII.—Patrick Mayhoi, (white,) aged 40 years; admitted to hospital September 24, 1881, from steamer "J. G. Chapman." He is a badly-nourished man, with a malarial history. About ten days before admission he began to have pain in both knee-joints, which steadily increased, the right joint becoming swollen and very tender. On September 25, 1881, fluctuation being detected, 75 C. C. of clear, amber-colored fluid were removed from the affected joint, with instant relief. No anæsthetic used. Hot fomentations were applied and rest enforced. On the following day the left knee-joint was somewhat swollen and increasing rapidly. On September 29, 1881, 96 C. C. of clear fluid were removed from the joint. The usual after-treatment was continued, and the patient kept on constitutional treatment until October 19, 1881, when he returned to duty, recovered.

Assistant Surgeon John A. Benson reports, under date of May 1, 1882, that he examined this patient in December, 1881, and found both knee-joints in a normal condition, the patient stating that since his discharge from hospital he had experienced no disability from the joints.

CASE IX.—Lee Ersher, (colored,) aged 19 years; admitted to hospital October 5, 1881, from the steamer "Calhoun." He is a strumous and badly-nourished boy. About eight days before admission he experienced pain in the right knee-joint, which became swollen. On October 6, 1881, fluctuation being detected, 75 C. C. of clear, amber-colored fluid were removed from the joint, giving immediate relief. No anæsthetic used. Hot fomentations were applied and rest enforced. He left hospital convalescent, October 12, 1881, and rejoined his vessel.

Assistant Surgeon Henry R. Carter, of the Service, reported to the writer, under date of April 5, 1882, that he admitted this patient to hospital, at Cairo, October 28, 1881, re-aspirated the joint, and discharged him November 21, 1881, the joint being in a fair condition.

CASE X.—Charles Frames, (white,) aged 22 years; admitted to hospital January 24, 1882, from steamer "Jno. A. Scudder." He is a delicate, badly-nourished man, giving a history of a decided rheumatic diathesis. Has pain and disability of eight days' duration in left knee-joint, which is somewhat swollen. On admission the joint was aspirated, and 45 C. C. of clear, amber-colored fluid were withdrawn. No anæsthetic used. Hot fomentations were applied, and the patient kept at rest. He returned to duty, recovered, February 2, 1882, and continued his ordinary work on the river until March 7, 1882, when he was admitted from the steamer "David R. Powell." He stated that he felt perfectly well up to March 1, 1882, when, after exposure to a severe storm, the pain in the same joint returned. The shoulder and elbow joints were also involved, but there was no fluctuation, except in the left knee. Upon admission the left knee-joint was again aspirated, and 50 C. C. of clear, amber-colored fluid withdrawn, with immediate relief. The patient was put on systemic treatment, the usual local applications used, and on March 13, 1882, he left the hospital, convalescent.

CASE XI.—Joseph Covington, (colored,) aged 22 years; admitted to hospital March 6, 1882, from the steamer "City of New Orleans," disabled to such an extent that it was necessary to convey him to and from the ambulance on a stretcher. He is a well-built, strong man. On admission patient stated that he had been sick for twelve days with severe pain in both knee-joints. Fluctuation being detected, 50 C. C. of clear, amber-colored fluid were at once withdrawn from the right knee-joint, and 20 C. C. from the left knee-joint, which gave immediate relief. No anæsthetic used. Hot fomentations were applied, and rest enforced. He returned to duty March 11, 1882, recovered.

The writer examined this patient in June, 1882, and found both joints in a normal condition.

CASE XII.—Thomas Rogers, (white,) aged 26 years; admitted to hospital April 3, 1882, from the steamer "Bald Eagle." Is a strong, robust man. In August, 1881, he received an honorable discharge from the Army, his term of enlistment having expired. States he has been sick only one day. On admission had intense pain and tenderness in shoulders, wrists, knees, ankles, and in right hip, necessitating

the use of a stretcher to convey him to and from the ambulance. Soap liniment and hot fomentations were applied to all the joints, and solutions of salicylate of potassium and sulphate of quinia administered. April 4, fluctuation being detected, the right knee-joint was aspirated, and 55 C. C. of clear, amber-colored fluid were withdrawn, with immediate relief, the local applications being resumed. No anæsthetic used. Patient complained of pain in the spinal column with severe pain in the occipito-atloid articulation, and a blister was applied to the nape of the neck. April 8, the pain in the spinal column and neck was relieved; bowels loose. April 10, effusion being discovered in left wrist, the joint was aspirated and 8 C. C. of clear fluid, containing flocculi, were withdrawn. The joints very much improved, pain being felt only on motion. Patient complains of difficulty of breathing; has hurried respiration. On the morning of April 11 a loud mitral murmur was for the first time heard; pulse jerky and feeble. Tincture of digitalis administered. April 16, respiration and diarrhœa improved; the murmur, however, still continues. On the morning of the 17th the patient was delirious—mild at first, but towards evening increasing in violence. April 22, pain and tenderness in joints entirely relieved, but the delirium remained about the same until May 1, when a severe attack of dysentery supervened. In the afternoon of the 3d his pulse suddenly ran up to 135, and the delirium was of a more violent character. Tincture of veratrum viride was cautiously administered in small repeated doses, until the pulse was brought down to 95. From this date the patient steadily improved, the dysentery and delirium passing off, although the heart murmur was still audible. May 7, general condition good, appetite normal, bowels regular; sleeps well, and takes daily walks around the reservation. Was discharged, recovered, June 5, 1882.

CASE XIII.—Charles Snyder, (white,) aged 34 years; admitted to hospital May 22, 1882, from the steamer "Bart E. Linehan." Is a robust man. States he has enjoyed good health all his life, with the exception of general attack of acute rheumatism about two years ago. Was perfectly well up to the night of the 20th of May, when he experienced pain in right knee-joint. The pain steadily increased, and on the morning of the 21st the joint swelled. On the night of the 21st the pain was very great. On admission, right knee swollen and exceedingly painful. The joint was immediately aspirated, and 140 C. C. of clear, amber-colored fluid withdrawn, with immediate relief. No anæsthetic used. Hot fomentations were applied, the joint bandaged, and the patient kept at rest. Was discharged, recovered, June 2, 1882.

Assistant Surgeon Benson reported, under date of July 1, 1882, that he saw this patient June 30, and on examination found the aspirated joint in a normal condition; that the patient stated he has continued his usual work since leaving the hospital, without inconvenience.

CASE XIV.—Barney Burns, (white,) aged 51 years; admitted to hospital April 18, 1882, from the steamer "Calhoun." This man has been on a prolonged debauch, and his condition is much below par. Has eczema of back and thighs, and complains of pain of several days' duration in left knee-joint and shoulders. On April 23, fluctuation being detected in the left knee, 15 C. C. of clear, amber-colored fluid were withdrawn by the aspirator, (without the use of an anæsthetic,) with immediate relief. Hot fomentations were applied and the patient kept at rest. Remained under treatment for rheumatism of the shoulders until June 14, 1882, when he was discharged, recovered.

The writer examined the aspirated joint in August, 1882, and found it in a normal condition.

CASE XV.—William Smith (colored,) aged 50 years; admitted to hospital from steamer "Libbie Conger," July 13, 1882. Is a robust man. No venereal or malarial history. Has been healthy all his life, with the exception of an attack of rheumatism about seven years ago. About one week prior to admission he experienced pain in right knee-joint, which became very severe. On admission, fluctuation being detected, 45 C. C. of clear, amber-colored fluid were withdrawn from right knee-joint by aspirator, with immediate relief. No anæsthetic used. The usual after-treatment was pursued, and the patient returned to duty, recovered, July 19, 1882.

CASE XVI.—Charles Williams, (colored,) aged 21 years; admitted to hospital July 13, 1882, from steamer "Gold Dust." Is a strong, muscular man. Gives a malarial history. States that about two weeks before admission he experienced pain in right shoulder-joint, the left joint subsequently becoming involved. The shoulders were readily relieved by external applications. In the course of several days the left knee-joint became affected; the pain steadily increased and became very severe. On admission, fluctuation being detected in the left knee-joint, 25 C. C. of clear, amber-colored fluid were withdrawn by aspirator, the operation affording immediate relief. No anæsthetic used. The usual after-treatment was adopted, and the patient returned to duty, recovered, July 19, 1882.

CASE XVII.—Henry Epps, (colored,) aged 23 years; admitted to hospital July 31, 1882, from the steamer "Mattie Belle." Is a strong,

well-built man. Has malarial and venereal history. About two months before admission he experienced pain in shoulders and hips. Two weeks before admission both knee-joints became affected, the pain being very severe. On admission, fluctuation being detected, 35 C. C. of clear, amber-colored fluid were withdrawn from right knee-joint by aspirator, and 25 C. C. from left knee-joint, with immediate relief. No anæsthetic used. Rest was enforced, the joints bandaged and hot fomentations applied. He returned to duty, recovered, August 4, 1882.

NOTES ON THE HEATONIAN METHOD FOR THE PERMANENT CURE OF HERNIA.

[REPORTED BY PASSED ASSISTANT SURGEON W. H. HEATH.]

Some two years ago my attention was called to this method of treating hernia to effect what is termed a permanent or radical cure.

Sharing in the almost general feeling of distrust towards operative measures for the cure of this infirmity, from their general inefficiency and often formidable character, this method would not have been resorted to but for its claim to being devoid of danger, when performed with reasonable care, and its apparent simplicity. So, without much faith, but some curiosity which a review of Dr. Heaton's monograph on hernia by Davenport created, the first of a series of seventeen cases was operated upon in the spring of 1880, at the United States Marine Hospital, Bedloe's Island, New York Harbor, upon a seaman who was convalescing from another malady and about to leave the hospital, and with a result so encouraging as to enlist further interest in the procedure. Since that period, seventeen cases, selected, have been operated upon.

Variety.—Oblique inguinal hernia, reducible; two cases double; and all acquired mostly by heavy work.

Character.—Scrotal enterocele, varying in size from an egg to a small fist.

Duration.—One of 2 years, one of 3 years, eight of 5 years and over, one of 7 years, two of 10 years, two of 12 years, one of 17 years, one of 23 years.

The abdominal openings were in all the cases large and the pillars decidedly thinned. The precise size of the apertures cannot be given. In all, however, the index-finger could be readily passed into the canal.

All had been wearing trusses, in two the protrusion being retained with difficulty. All were seamen and laborers, occupations calling for hard physical work.

Result.—Two failures, two improved, one accident, twelve discharged as cured.

The failures were complete failures, though other circumstances contributed to the result, largely in one case to a nurse's carelessness,

and in the other to want of co-operation of the patient, which is very necessary.

The accident in question was when the areolar tissue of the cord was penetrated and some of the irritant fluid deposited there, causing abscess. This was in a case really unfit, having albuminuria, a fact not known at the time of operating. It exemplifies that more care is necessary in operating than at first would appear, and that the selection of cases is as absolutely necessary as in any other surgical procedure.

The cases improved were decidedly so, the protrusion descending with less ease, being much smaller in size, and retained by truss without difficulty, which before was not the case; the patients also complaining less of the sense of weakness and "goneness" characteristic of the difficulty.

The cases designated as cured were those in which, after a reasonable period, (as long as they could be kept under observation,) a return or descent of the hernia was not apparent, where no impulse was obtained by reasonable effort and examination, and the sensations of the patient were of strength and firmness in the region. All were discharged, instructed to wear a bandage as a precaution as long as possible, to be reasonably careful for a time, and, if possible, to report any recurrence. Four of the cases were seen by me some months after, where no return of the defect had occurred, although, from the nature of their vocations, a fair trial had been sustained. Nothing has been heard from any of the others.

Here the question of the permanency of these results arises, and, beyond what has been stated, I can add nothing; but the fact that Heaton's cures were known and seen by others at varying periods afterwards, and as other operators have been successful, it is reasonable to suppose that these cases were likewise cured.

The duration of changes of a similar character in similar structures or tissues—when set up by morbid conditions—are mentioned in this connection as corroborative evidence, as in the fibrous tissues around joints and in the heart-valves.

In view of the very general opinion held that a return of the infirmity at a subsequent period occurs in most cases reported as cured by any operation, this must remain a question until more cases are reported and followed up, and, in the case of the Heatonian method, until its more general use and experience are made known.

The method of injection, first introduced to the profession by Velpeau and afterwards by Pancoast, has since been resorted to by various

other surgeons, different substances being injected. These are what are known as the method of injection, and where the sac is attacked a distinction is to be observed between them and the Heatonian method, which is likewise an operation of injecting, but which differs from them entirely in principle and the structure involved. The author of the procedure inferred, and I believe correctly, that the tendinous structures were the principal ones in fault in this condition, and to them he directed his efforts to restore their proper strength and power of resistance. He sought to bring this about by subcutaneously wetting the parts with some fluid which would produce contraction and excite a degree of irritation to cause the effusion of plastic organizable lymph, the danger of suppuration ensuing not being great, from the want of vascularity of the tissues in question. Whether this view is correct or not, Dr. Heaton, after trying various fluids, finally adopted the preparation of white-oak bark, and was successful in curing very many cases.

Since that time, Dr. Warren, of Boston, has given the subject much study, and, with an injecting syringe and needle of his own device and a fluid more irritating in character, he practises the operation with excellent results, and strongly advocates its use.

My views upon the subject appeared in the "Buffalo Medical and Surgical Reporter" for April, 1881, since which time I have had no occasion to alter them. I do not believe the operation is resorted to as often as its worth entitles it, in consequence of the prevailing feeling towards all operations for this malady.

Its claims upon the attention of surgeons are, that with reasonable care it is an operation of no great danger, is in no sense one of magnitude, and, in event of failure, no injury results. It is not attended by any degree of suffering, not even an anæsthetic being necessary, and, most important of all, its results are better than any other method I know of, while the theoretical explanation of its action is both satisfactory and rational.

It is not claimed for this operation that it is a cure-all, adapted to all and every hernia and all conditions. Failure and disappointment will surely follow such expectation and its indiscriminate use. There is no operation where more care should be exercised in the selection of suitable and proper cases.

Experience shows that a favorable result may be looked for most confidently in recent hernia in young persons under twenty-one years of age, or in congenital cases and of moderate size. The older the defect, and the larger the openings, the less likely will be the desired

result. Cases should be selected who are in good health generally, for obvious reasons, and, as much as possible, the co-operation of the patient secured. Neither is it to be supposed that a single injection will be sufficient in a large majority of cases, particularly *when they are of long standing*; on the contrary, they should be repeated, which can be done with safety, until the desired impression is made upon the parts. These injections can be repeated indefinitely, at suitable intervals, and with a fluid of more irritating property.

The operation itself, as described, is apparently simple, nor is it very difficult, but it certainly calls for more dexterity than at first would appear. The region abounds in structures to be avoided, and, though nothing but gross carelessness could endanger life, suffering and annoyance can readily be made. More especially should care be taken not to injure the cord or penetrate the peritoneum, which the alteration of the relation of the parts renders quite possible. The peril of concealed danger I do not consider great, especially if Warren's instrument is used.

In regard to this operation, I believe that its merits justify a more extended trial of it. The important question of the permanency of the changes induced must remain with many until the general feeling towards operating for this defect is changed, and the Heatonian method is more frequently used, the cases kept track of, and finally reported.

STAB-WOUND FOLLOWED BY ARTIFICIAL ANUS— OPERATION—RECOVERY.

[REPORTED BY ASSISTANT SURGEON HENRY R. CARTER.]

Thomas Jasper entered hospital December 17, 1881, for chronic diarrhœa, of six months' duration. He also had an artificial anus. He stated that about fourteen months ago he was stabbed in the side, causing this deformity. The opening was immediately under the twelfth rib on the left side, in the descending colon, about two-fifths of whose circumference must have been divided—about 15 centimetres from the edge of the quadratus lumborum. All the fæces passed by this opening, none by the rectum. It showed as follows: There were large protrusions of mucous membrane from the external (*i. e.*, divided) aspect of the gut above the upper and below the lower opening of the bowel. A very large protrusion from the internal (*i. e.*, undivided) aspect of the colon existed between the openings. The openings above mentioned were 20 millimetres apart, measured over this protrusion, and about 15 millimetres through it.

The passages were nearly at right angles with the body, but converged until there was only the double thickness of the intestine-wall between them. They then turned abruptly up and down, respectively. It was about 10 millimetres deep to this turn. A good-sized artery could be felt at this place running into the mass between the openings.

There was also a close stricture—admitting the end of the little finger with difficulty—about .05 metre below the sharp turn in the lower segment. The whole hand could be passed through the belly-wall easily. The shape of the mass protruding from the inner aspect of the gut (the "spur" of Dupuytren) was clearly that of a broad wedge, the ends of which, however, converged also, by which ends and its apex it was continuous with the gut-walls.

All the exposed mucous membrane was raw and brawny, fæces continually dribbled, and doubtless the irritation to this exposed mucous membrane caused the diarrhœa.

The diarrhœa was sufficiently under control by January 12, 1882, to admit of operation. The plan was to apply a clamp-scissors, with saw-teeth, on each side of the large mass, bringing their ends together internal to the body at *b*, so as to gradually remove a pyramid of tissue

without opening the peritoneum; dilate the stricture in the mean time and close the external wound.

The patient could or would not bear the clamp continuously, so, January 22, under anæsthetics, I put on the clamps quite tightly for three minutes, hoping to excite enough inflammatory action to get adhesion between the included layers of peritoneum. A ligature was also tied tightly around as much of the mass as I could get in it. On the 29th, this was cut off at the level of the string, the peritoneal cavity being obliterated at that point. One good-sized artery had to be tied, and three small ones.

February 9 the pyramid was excised in the line of the clamps, the peritoneum being opened the whole distance on one side, but the edges being well drawn out with tenacula, it was closely sutured, a stitch being taken at each cut of the scissors. The other side had adhered. The balance of the mucous membrane above and below the original skin wound was cut off and the wound left open for drainage. The hæmorrhage was considerable and, owing to the position and size of vessels, difficult to control. But little reaction followed, and on March 10 the edges of the wound were freshened for .08 millimetre and closed with silver sutures, first dividing a spur from the internal cicatrix. Owing to the proximity of the rib and the amount of cicatricial tissue, I could not get good coaptation of the edges.

The passages were now entirely per rectum for four days, but the posterior part of the opening did not adhere for a space as large as the little finger. Through this there was almost continual oozing, and at times a considerable discharge of fæces, although the passages generally were by the normal way.

Two more attempts to close this by the same method having failed, on March 30 I cut down on the gut by a longitudinal incision, as for lumbar colotomy, and dissected it up, turned the edges inside, and sewed the external surface of the two segments together. At the posterior angle the dissection was difficult, running up under the rib and through cicatricial tissue, and was not easily done. He was discharged April 11, with the opening closed, except at the posterior angle, at which place there existed an aperture into which a No. 4 catheter could be passed, and from which there was occasional oozing, which, however, was diminishing.

On May 4 I saw him at work loading cotton, and he said that the opening had closed. I had no opportunity to examine it.

The most embarrassing feature of this case was the tendency of the mucous membrane and the opposite gut-wall to prolapse into the arti-

ficial opening. I think the small opening left after the operation of March 10 would have closed except for the protrusion of mucous membrane, keeping it dilated. It was to prevent this that the last operation was done. Opium seemed to have *no* constipating effect in any dose.

ANEURISMAL VARIX.

A CASE OF ANEURISMAL VARIX INVOLVING THE EXTERNAL ILIAC AND FEMORAL VESSELS, WITH GENERAL OBSERVATIONS ON THE DISEASE.

By CHARLES E. BANKS,
Assistant Surgeon United States Marine-Hospital Service.

Authorities.

- Medical Observations and Inquiries. London, 1764. I, 340; II, 390; III, 118; IV, 377.
Lauth—*Scriptorum Latinorum de Aneurysmatibus Collectio*, CXV, Icon Argent, 1785. 203.
Bell, (Benjamin)—*System of Surgery*; Seventh Edition. Edinburgh, 1804. II, 26.
Parr—*London Medical Dictionary*. London, 1809. I, 113.
Bell, (Sir Charles)—*System of Operative Surgery*; First American Edition. Hartford, 1812. 60.
Hodgson—*Treatise on the Diseases of the Arteries and Veins*. London, 1814. 496.
Scarpa—*Sull Aneurisma Reflessioni ed Osservazioni Anatomico-Chirurgiche*, (1804.) Second Edinburgh Edition, 1819. 421.
Adelmann—*Tractatus Anatomico-Chirurgicus de Aneurysmate Spurio-Varicoso*. Wirceb, 1821. (Plates.)
Schottin—*Merkwürdiger Fall einer Aneurysmatischen Venengeschwulst*. Altenburg, 1822.
Lawrence—*Lectures on Surgery*. London, 1829. II, 166.
Hooper—*Lexicon Medicum*; Fourth American Edition. New York, 1832. I, 67.
Breschet—*Mémoires Chirurgicaux sur Différentes Espèces d'Aneurysmes*. Paris, 1834. 98.
Liston—*Elements of Surgery*. London, 1840. II, 676.
Fergusson—*System of Practical Surgery*. London, 1842. 218.
Burckhardt—*Archiv de Physiologischen Heilkunde von Roser und Wunderlich*. 1843.
Chelius—*System of Surgery*; South's Edition. Philadelphia, 1847. II, 546.
Druitt—*Principles and Practice of Surgery*; Sargent's Edition. Philadelphia, 1848.
Rokitansky—*Ueber Einige der Wichtigsten Krankheiten der Arterien*. Wien, 1852. 46.
Syme—*Principles of Surgery*; Maclean's Edition. Philadelphia, 1866. I, 149.
Gross—*System of Surgery*; Fifth Edition. Philadelphia, 1872. I, 744.
Erichsen—*Science and Art of Surgery*. Philadelphia, 1873. I, 273.
Holmes—*System of Surgery*; Packard's Edition. Philadelphia, 1881. II, 386.

JOURNALS.—In addition to the above references, articles on Aneurismal Varix may be consulted in the following periodicals and society publications: *Bulletin de la Société Anatomique*, vols. XIV, XXIX, (298,) XXX, (178;) *Guy's Hospital Reports*, vol. V; *Med.-Chir. Transactions*, vols. XX, XXIII, XLI, (1,) XLIV, (189,) XLIX, (29;) *Bulletin de Méd. et de Chir.*, 1852; *Dublin Medical Journal*, 1854; *Bulletin de l'Acad. de Méd.*, 1849; *Bulletin de la Soc. de Chir.*, vols. III, V; *Medical Times and Gazette*, 1867; *Gazette Hepdom.*, 1864; *Archiv für Klinische Chirurgie*, vol. XXV, (943.)

[PREFATORY NOTE.—The following article is a compilation from the authorities and sources above cited, which I have been able to consult in my own library and by the courtesy of others having some of the volumes and magazines enumerated. My experience with this rare form of aneurism is limited to the case which incited my interest; and after it had deceived all who had seen it, including myself, I was interested to know all that has been written upon the subject. I present it, hastily prepared, for the benefit of those who may find a pulsating tumor exhibiting anomalous symptoms.]

DEFINITION.—“An anastomosis, or an immediate connection between the artery and the vein of the part where the patient hath been bled, in consequence of the artery being wounded through the vein, so that blood passes immediately from the trunk of the artery into that of the vein, and so back to the heart.” (Parr.)

HISTORY.—In the days of tonsorial chirurgery it often happened that the barber-surgeon, ignorant of the topography of the arm, would plunge his lancet through the median basilic vein and pierce the underlying brachial artery. In a short time a tumor would appear at the site of this unprofessional phlebotomy, having all of the appearance and many of the characteristic symptoms of true arterial aneurism, besides certain features special to itself. The differential diagnosis does not appear to have been satisfactorily made by the ancient writers, although they were evidently acquainted with it.^a Galen speaks of one form of aneurism as “the dilatation of a vein.”^b Ætius may refer to it when he describes a wounded artery “with accompanying dilatation of the vessels,”^c and Paulus undoubtedly alludes to the condition in his definition of spontaneous and traumatic aneurisms when, on examination of the latter, he says, “with the fingers a sort of noise is heard.”^d Sennertus, however, is still more definite, and may be considered the first to have placed on record an intelligible statement of the morbid condition. He says: “The proximate cause of aneurism is an opening of the internal with a dilatation of the external coat of an artery. But very commonly it is opened by a wound, when unskilful surgeons open the artery for the vein or the artery with the vein.”^e Nothing practical seems to have been deduced

^a “A case which I am apt to believe must have often happened, though it escaped for ages the observation of surgeons, who probably mistook it for a common *aneurism*, to the great misfortune of some of their patients.” (Letter, Cleghorn to Hunter, 1765, in *Med. Obs. and Inq.*, III, 110.)

^b Galen—Ὅσοι ἰατρικοί. Kuhn's edition, par. cccclxxviii, vol. XIX, 441.

^c Ætius—Τετρα βιβλιον. Basileæ, 1542. Folio. Latin trans., Discourse XV, chap. 10.

^d Paulus—Βιβλία επτα. Basileæ, 1538. Folio. Book VI, chap. xxxvii, 188.

^e Sennertus—Opera. Paris, 1641. Folio. Vol. III, book V, chap. xliii, 797.

from the knowledge of this special form of aneurismal tumor, and for centuries this morbid growth seems to have been overlooked or forgotten by the surgeons of the mediæval ages and their successors, down to the middle of the last century. In 1756, Dr. William Hunter, of Jermyn street, London, read before a medical society of the metropolis a paper entitled "*The History of an Aneurysm of the Aorta, with some Remarks on Aneurysms in General.*" In this monograph he said: "Does it ever happen in surgery, when an artery is opened through a vein, that a communication, or *anastomosis*, is afterwards kept up between these two vessels? It is easy to conceive this case, and it is not long since I was consulted about one, which had all the symptoms that might be expected, supposing such a thing to have actually occurred."^a Five years later, (August 24, 1761,) he read a second paper, entitled "*Further Observations upon a Particular Species of Aneurysm,*" which embodied the results of his investigations into the pathology of this form of aneurismal enlargement, "which, so far as I know," he says, "had not been mentioned by any author." In this article he thus describes the cause and effects of the disease: "If ever this case happens, we are to suppose that in the operation of bleeding the lancet is plunged into the artery through both sides of the vein, and that there will be three wounds made in these vessels, viz., two in the vein and one in the artery; and these will be nearly opposite to one another and to the wound in the vein. * * * In the next place, we must suppose that the wound of the skin and of the adjacent or upper side of the vein heal up as usual, but that the wound of the artery and of the adjacent or under side of the vein remain open, (as the wound of the artery does in a spurious aneurism,) and by that means the blood is thrown from the trunk of the artery directly into the trunk of the vein."^b Having thus fully discovered the nature and described the characteristics of this tumor, it remained for another to baptize it. In a letter dated April 3, 1765, Dr. George Cleghorn, of Dublin, wrote to Hunter as follows: "To complete this useful improvement in the art of surgery, it were to be wished that you would contrive some peculiar name for cases like the following, and if a shorter or more expressive term cannot be found, let it be called an *aneurismal varix*."^c Hunter, however, did not adopt the suggestion, it seems, for in 1770 he calls it a "varicose aneurism;" yet the profession have accepted the title given to it by Cleghorn, and

^a Medical Observations and Inquiries, I, 340.

^b Ibid., II, 390-'1.

^c Ibid., III, 110.

varicose aneurism is the name of still another variety of false aneurism, which will be defined later.^a

ETIOLOGY.—Aneurismal varix, as has been shown, was of common occurrence in the days of barber-surgery and professional bleeding, but with the decline and fall of phlebotomy it became of great rarity. "By far the most frequent cause is the unskilful performance of venesection at the end of the elbow. Hence the affection is rarely seen now, when the operation is not often performed, and only by surgeons." (Holmes.) The majority of writers refer to this as the great cause, some stating that it "only happens" when that kind of an accident follows venesection. Authors and lecturers from Hunter's time have given it prominence in direct ratio to the prevalent custom of bleeding, and modern writers devote but little space to it. At the present time it may be looked for as a sequel to knife, bullet, and shot wounds, or any lesion of the soft parts in the region of prominent vessels from any cause. Spiculæ of fractured bones and simple contusions even may produce it. (Holmes.)

PATHOLOGY.—The morbid processes which lead to the formation of an aneurismal varix are theoretically simple. It is necessary that an inflammatory adhesion, either traumatic or idiopathic, shall unite the given artery and vein. It is also requisite that the vessels shall be contiguous, although a few unique cases are recorded where distant vessels have been violently pushed together and subsequently adhered. (Schottin.)^b It is not essential that there shall be any perforation of either vessel, for, with a destructive inflammation once set up, adhesion is followed by absorption at the point of contact, or ulceration ensues, and solution of the venous and arterial coats completes the work, leaving an aperture through which the arterial blood flows at each pulsation. The orifice of communication is always smooth and rounded. (Hamilton.) The effects of this diverted blood supply are to be seen in the altered structures of the vessels and the nourishment of the parts supplied by them. Of the latter results, reference will be made at length under the discussion of symptoms. The changes in the vessels are of two kinds: (*a*) The vein suffers first and principally, for the passive return flow in it yields to the active impulse of

^a Medical Observations and Inquiries, IV, 385. Benjamin Bell, of Edinburgh, a third of a century later, still followed Hunter's term: "This variety of disease," he says in his lectures, "was first accurately described by our celebrated countryman, Dr. William Hunter, and may, with great propriety, be termed the varicose aneurism." (System of Surgery, II, 15.)

^b In the museum of St. Bartholemew's Hospital, London, there is a preparation (series XIII, No. 121) in which a small sac is formed communicating with the internal jugular vein and the external carotid artery. The deep-seated vessels as well as superficial are liable to be affected with this variety of aneurism, as has been shown by the elaborate experiments of various surgeons.

the arterial current, and it becomes distended both above and below the orifice. The venous walls as a consequence become thinned, weakened, the valves destroyed, and a tubular pouch is formed. (*b*) The artery is usually but little affected, and that primarily in contraction of its calibre below the aperture, because of the decreased amount of blood passing through it after the diversion of the current into the vein. (Hunter.) Following the contraction, which soon becomes permanent, the artery above the opening becomes enlarged to adapt itself to certain extraordinary conditions of the circulation, its force or position of limb retarding the onward flow. (Holmes.) "From this interchange of function the veins assume more or less of the arterial character, and the arteries approach somewhat the type of veins." (Gross.) This change in the character of the artery has been denied. (Breschet.)

COURSE, DURATION, AND TERMINATION.—The lack of resilience in the veins is an obstacle to the rapid development of the varix, and generally is a check to its growth beyond the limit of distensibility of the venous tissues. In the upper extremities this is especially the case, and the veins after they become fully distended usually remain without any further change. (Syme.) In the lower extremities, where the blood has to work its way up against the principle of gravitation, it "may extend so greatly as to destroy the use of the limb or to threaten the destruction of the patient's life by hæmorrhage." (Holmes.) The progress in all cases is slow as compared to the course of true arterial aneurism, but this will depend upon the position of the tumor and the extent of the opening. It often happens that the tumor will not develop for months or years after the injury has been received and forgotten. In my own case it was over eighteen months before the patient "felt queer pulsations" in his groin, and it has been known to appear after the lapse of a third of a century.^a The duration of the disease is indefinite, and will have its relation to the importance of the vessels involved. Hunter's first case, the earliest on record, (which drew his attention to a differential diagnosis:) "A young lady in the country was bled in the basilic vein of the arm by a surgeon who was unfortunate enough to wound the artery through the sides of the vein."^b This accident occurred in 1747. Hunter examined her in

^a Rokitansky relates a case which developed thirty (30) years after a bullet wound in the axilla; Czerny had a case involving the femoral vessels following a wound of a knife twenty-five (25) years before; Monneret saw one on the femoral vessels which appeared twelve (12) years after a bullet wound; Beaumont tied the external iliac artery for an aneurismal varix which had not developed for ten (10) years after injury; Roux had a case following a venesection performed four (4) years before, and Pemberton produced one in the groin by prolonged instrumental pressure at that point for cure of popliteal aneurism, the cure of which it followed ten months later.

^b Medical Observations and Inquiries, II, 396.

1756, and in a letter to Benjamin Bell, of Edinburgh, 1782, he writes that the lady "is now living at Bath in good health, and the arm is in no sense worse, although it is now thirty-five years since she received the injury."^a The second case, furnished by Cleghorn, (Dublin:) "A country lad, now (1765) in the seventeenth year of his age, was bled in the basilic vein in the right arm, about five years ago."^b This patient was a shoemaker, and although advised to abandon his trade for lighter work, he "continued his business as shoemaker, and has lately (1782) recovered from a sprain in the affected arm, which he received while lifting a heavy burden"^c more than twenty years after the discovery of the aneurismal varix. The disease is thus seen to be often slow in development and extended in duration, especially in the arm, although these cases are somewhat exceptional. In the lower extremity the case is different, for although they may be tardy in appearance, yet the course is more rapid and rupture more apt to occur during violent exercise. This is the usual termination of the disease, the same as in true arterial aneurism, and it is to be watched with as much care as in the commoner variety of aneurism.

SYMPTOMATOLOGY.—(a) *Physical signs:* An imperfectly circumscribed, subcutaneous tumor at the seat of injury, of varying size, not larger than a nutmeg often at the bend of the elbow, or as large as an egg or orange at the groin. (Chelius.) If subcutaneous, it is of a blue or purple color, with dilated and tortuous veins leading to it. (Erichsen.) It has visible pulsations, limited to a small part of the enlargement at the level of the point of communication between the vessels, (Holmes,) but the venous pulsation seems to be tremulous rather than distinct. (Benjamin Bell.) Inspection of the affected part below the tumor will show an œdematous appearance of the limb with an enlarged knotty and varicose condition of the superficial veins, consequent upon the obstruction to the circulation by the entrance of arterial blood flowing in an opposite direction. (Syme.) A remarkable dilatation is also observed above the varix, where the veins become tortuous and like twisted ropes. (Holmes.) (b) *Palpation:* The most characteristic sign about the tumor is a vibratory thrill, which results from the impulsion of arterial blood into the patent aperture of the vein and its mixture with the venous current. Hunter describes it as a "pulsatile, jarring motion."^d The sensation is almost the same as that which is communicated to the hand by the vibration

^a Bell—System of Surgery, II, 27.

^b Medical Observations and Inquiries, III, 110.

^c Bell—System of Surgery, II, 27.

^d Medical Observations and Inquiries, II, 392.

of the string of a musical instrument. (Lawrence.) The sac can be emptied by compression of the artery leading to it or by pressure of its walls. (Adelmann.) (c) *Auscultation*: Upon this point the earlier authors exhausted their ingenuity in devising similarities descriptive of the sound which may be heard over and around the varix. Hunter said of his first case, "It will make a hissing noise;" and of his next, "It is like what is produced in the mouth by continuing the sound of the letter *r* in a whisper."^a Dr. Cleghorn furnishes some novel suggestions. "Some gentlemen," he says, "compared it to the noise of a whirligig; others to that of a nut-mill; others to that of a wool-spinning wheel; others to the waves of the sea; others to a boiling tea-kettle. The patient himself says that when he leans his head on the affected arm he hears like the buzzing of bees; and Mr. Talbot tells me that the peasant who first made him acquainted with this young man's indisposition assured him he had got a bee in his arm."^b Benjamin Bell returned to Hunter's first suggestion, "a hissing noise, which is characteristic;" Sir Charles Bell describes the sound as "between thrilling and whizzing;" Lawrence thinks it a "rilling noise;" Liston defines it as "somewhat resembling the noise of complicated and powerful machinery, softened and confused by distance;" Syme says it is a "peculiar, thrilling sound, like the purring of a cat or the prolonged articulation of the letter *r*—the *bruit de râpe*;" Chelius describes it as "a whizzing sound;" Porter compares it to the "noise made by a fly in a paper bag;" Erichsen speaks of it as "a loud and blowing, whiffing, rasping, or hissing sound;" Holmes says it is a "harsh, buzzing sound, which has been variously compared to that of a saw, a file, a bee, the hissing of burning metal plunged into cold water;" Gross follows Syme and Porter, and adds that "it is perceived both by the ear and finger, and is so extraordinary that it may be regarded pathognomonic;" while Liston goes a step further, and declares that "the peculiar noise is not only heard, but felt," as Paulus before him felt it, "with the fingers;"^c and Holmes says it may be so loud as to be audible to a person standing near the patient, in which he is confirmed by Erichsen. The character of the sound is continuous, although momentarily increased during pulsation, more distinct in the upper part of the limb than the lower, and is best heard when the limb is hanging down so as to become congested. (Scarpa.) It grows fainter on being propagated along the artery, and at some distance

^a Medical Observations and Inquiries, II, 403.

^b Ibid., III, 115, 116.

^c "The noise which Paulus and others perceived on touching *aneurisms*, which Paré expresses by the word *sissement*, and Munichs compares to the *strepitus bullientes aque*, is to me a strong presumption that such cases as you have described did formerly occur." (Medical Observations and Inquiries, III, 118, 119.)

from the tumor seems intermittent. (Hodgson.) In the *systole* the blood flows out of the artery into the vein, and in the *diastole* out of the vein into the artery. (Breschet.) (*d*) *Minor symptoms*: Below the point of communication the artery beats feebler, (Syme,) and there is said to be an impairment of sensation, (Chelius,) an augmented growth of hair, (Holmes,) a diminution of temperature and loss of power in the affected limb, (Erichsen.) Pulsation of the veins deserves to be borne in mind, (Holmes,) and the artery above the varix is said to beat more forcibly than its fellow on the opposite side, (Syme.) The formation of the disease is attended with considerable pain and discomfort. (Gross.)

DIAGNOSIS.—After the exclusion of tumors of adventitious growth, as in the process of differentiation in true aneurism, it is only necessary to distinguish it from varicose aneurism, true arterial aneurism, and false aneurism. (*a*) From varicose aneurism, aneurismal varix may be diagnosticated, if the former has the blowing sound of an aneurism in addition to the peculiar bruit which has been described as the effect of the venous communication. (Holmes.) (*b*) From true arterial aneurism it may be distinguished by the continuous character of the sound. (Lauth.) (*c*) From false or diffused aneurism there seems to be no special rules which can be laid down for guidance, except, perhaps, the more rapid development of diffused aneurism as compared to aneurismal varix. (*d*) It is to be noted that a varicose aneurism consists of a "circumscribed consecutive aneurism which communicates with a vein on one side and an artery on the other."^a It is an aneurism situated between an artery and vein, to which both contribute, neither vessel being involved in the enlargement as a rule; "and it is surprising," says Gross, "that they (aneurismal varix and varicose aneurism) should ever have been included in the same category." (*e*) From cirroid aneurism it is said to be distinguished by the rasping sound heard over the whole surface of the former, while the noise in aneurismal varix is only heard at the point of communication. (Holmes.) It will be observed that the differential diagnosis rests upon very slight variations in the quantity and quality of the sounds to be heard in each, but practically the value of distinguishing between them is only for the satisfaction of a correct diagnosis, as the treatment for them all look to the obliteration of the sac by the ligature or other well-known means. It seems to me, in addition to the auscultatory points enumerated, it would be well to take into account the general

^a Holmes—System of Surgery, II, 386. Comp. Sir Charles Bell—Practical Essays, (Edin., 1842,) II, 65.

element of time and progress of the disease, as indicated above; and even then, unless the tumor be quite superficial, as at the elbow, it must be quite impossible to determine the question. In the days of phlebotomy it might have been possible to differentiate between them, but with that prolific and specific cause removed and a common cause only to develop either variety, it is well calculated to puzzle the most acute diagnostician.

TREATMENT.—The size and position of the aneurismal varix will be the important guides in selecting “masterful inactivity” or radical measures for its relief. When the disease consisted of a small venous enlargement at the flexure of the elbow, the surgeons of the last century very properly decided to let it alone, as we have seen in the cases which first drew their attention to its peculiarities. In that situation it was a source of great discomfort, but not dangerous to life, and while it made no progress operative interference was not advised. (Benjamin Bell.) Various methods were employed to produce obliteration of the sac, but without much success, and it came to be the practice to put on either a compress (Syme) or an elastic band about the arm, (Hamilton.) This procedure was of no curative avail, and whenever the tumor grew to be a source of pain, annoyance, or suffering, no time was lost in ligating the artery both above and below the point of communication. (Lawrence.) And this, in fact, is the scheme of treatment in a few words: If the varix is small and gives no annoyance, let it alone; if it is large and causes discomfort, proceed the same as in true arterial aneurism, and use the ligature. It has been recommended to seek the closure of the aperture by indirect pressure on the artery above, forcible flexion, and digital compression, (Holmes,) but all of these means must fail from the nature of the lesion. The movement in the varix is constantly kept up by the current of two streams; if one is compressed the other moves, and so in the reverse. The enlargement is tubular, and not sacculated, and probably the mixture of the two kinds of blood is an obstacle to coagulation, if the form of the sac would favor the deposition of laminated fibrine. In my own case, there was not the least attempt at spontaneous cure by the formation of a coagulum or organization of a clot.^a When the disease involves the lower extremities or the abdominal cavities, I do not see what else can be of service but the ligature, especially if the subject be of the working classes. The violent exercise which the sailor has to take in the discharge of his duties would bring the aneurismal

^a Brambilla tried compression by graduated compress and bandage, curing two cases and failing in one. (Acta. Acad. Vindobon, tome I.)

varix and the arterial aneurism in the same category, as regards danger to life, if it should involve the great vessels of the trunk or thigh. Ligation above and below was recommended and practised by Bell, Schottin, Lawrence, Breschet, Liston, Chelius, Druitt, Hamilton, Syme, Nelaton, and Robert, as is now the method employed by Erichsen, Gross, and Holmes, and indeed by all whom I have consulted. Stromeier produced a cure of an aneurismal varix of the temporal vessels by tying the vein after the ligature of the common carotid had failed to give relief. It would seem, if the diagnosis could be clearly established, that it would be proper to cut down upon the tumor and ligate the communication between the artery and vein, but it has been declared unsuccessful. (Sir Charles Bell.)

Report of a Case of Aneurismal Varix involving the External Iliac and Femoral Vessels—Ligature of External Iliac Artery, resulting in Death.

Among the patients transferred to me April 1, ultimo, when I assumed charge of the Service at this port, was G. C. P., aged 29 years; nativity, Canada; height, five feet nine inches; eyes, gray; hair, brown; and complexion, fair. He was in bed in a semi-recumbent position, and over him was suspended an iron window-weight, the lower end padded and pressing on the left side of the abdomen, just above Poupart's ligament. Dr. R. G. Rex, of this city, one of the surgical staff of St. Vincent Hospital, who had professional care of the marine-hospital patients prior to my arrival, gave me the following facts about the case: The patient applied for admission to the hospital on account of hæmaturia, accompanied with frequent micturition and fever, but inspection of the genital region and surrounding parts showing, in addition to the complaints mentioned, a pulsating tumor in the left groin. A permit was granted March 1, and a diagnosis of femoral aneurism was reported as the disease from which he was suffering. The disturbance of the bladder was judged to be due to irritation from the aneurismal tumor, and was not recorded, as it subsided in a fortnight under appropriate remedies and never returned. When this symptom disappeared, the formal attempt to cure the aneurism began with the employment of interrupted compression, which was secured by suspending, as above mentioned, an iron window-weight, (twelve pounds,) which could be regulated by pulleys to the extent of the endurance of the patient. This plan had been followed about a fortnight, when he came under my charge, and, pending a critical

examination and study of the case, I directed that it be continued. In the mean time I requested him, after recalling all the facts bearing on his case, to write out for me a minute clinical history of the disease, and he furnished me the following statements in writing, which I transcribe literally:

"I was working in Louisiana, forty-four miles above New Orleans, and on the 2d of June, 1876, I was shot during a riot. After everything was quieted down, I was attended to by a French doctor. He dressed some knife wounds on my leg, but would not do anything with the bullet wound, saying that the bullet was all right and would not bother me. My penis and scrotum were both black, which he said must have been caused by a kick; but as I felt no pain in either part, I thought no more about it. In four weeks I was all right again, and went to work. In October I went to New Orleans, and was working there, when, in the latter part of the month, I felt a great pain in my right groin, which soon became a large swelling. It looked to me like a boil, and to bring it to a head I applied a flax-seed poultice, and when I thought it was ripe enough I cut it open, when a lot of thin matter came out. I kept on the poultices and went to work again, and I had only worked a few days, when another swelling came on the left side, and the one on the right side opened out about four inches up and down my groin. I then went to the hospital, and was examined by Student Metcalf, who said I had syphilis. He gave me poultices for both sides, and three days after I entered he cut the left-side swelling. He continued the poultices about four weeks, when I was visited by Dr. Castatina, who looked at my penis, and, as he saw no signs of chancres, he said I had secondary syphilis. A few days after, I was examined by Dr. Stone, and he discovered a hole in the right-side swelling, which he probed, and said he did not know the cause of. I told him about being shot; and, after looking and feeling, he said the bullet must have landed back of the neck of the bladder and formed abscesses. He gave me a copper solution to wash with, and told me to keep the holes open by wads wet in solution. The first of April [1877] the right-side wound was healed up entirely; the left side was healed half the length of cut, which was about one inch long at first, and was still running a thin matter. I left the hospital early in April, and went to work on the Mississippi sound. I felt no pain from the wound, but it would heal all up so you could not see the least opening; but it was not till August that it stopped running. The next winter [1877-'8] I felt queer pulsations in my left groin, and supposed it was caused by the bullet. In July, 1880, I saw the marine-hospital doctor at Philadelphia, [Passed Assistant Surgeon George W. Stoner,] who made a slight examination, and told me I had aneurism. He told me to call again; but I soon after shipped, and the next doctor I saw was at the New York custom-house. He said it was aneurism, and he would like to see me again, and told me to call; but I had no chance, as I then had shipped for Japan, where I saw Dr. Trippler, who told me I could not get cured, and that I would not live very long. I left Japan the 12th of August, 1881, and arrived in Franco the 28th of August. When I had recovered from the rheumatism, which I had pretty bad on the voyage out to Japan, I shipped on a coaster and made two trips to the Sound, [Puget sound,] and left the ship on the last trip. I then went to work at Carbonado,

and while working there last October I felt the first pains in the aneurism. The pulsations became stronger, and there was a dull pain beneath the artery. I worked on until the 20th of December, when it got so bad I thought it best for me to get East and get it cured, if possible, and while waiting for a vessel it got well again; that is, the pains ceased. I then came here on the [bark] *Vesuvius*, which had been driven into the Sound in bad weather. I was engaged to go to Europe in her, and was working on board, when I became troubled with my bladder. I was making water every half hour, and I was always thirsty. Then, when I had been this way three or four days, it pained me to make water, and after the water was stopped coming a few drops of blood would come, and the pain would then be very bad. I told the captain about it, and he said I had better go to the hospital, as he would not like to take me to sea in that fix, and he did not know what would cure it. I then went to Dr. Rex, who gave me a ticket to come to the hospital."

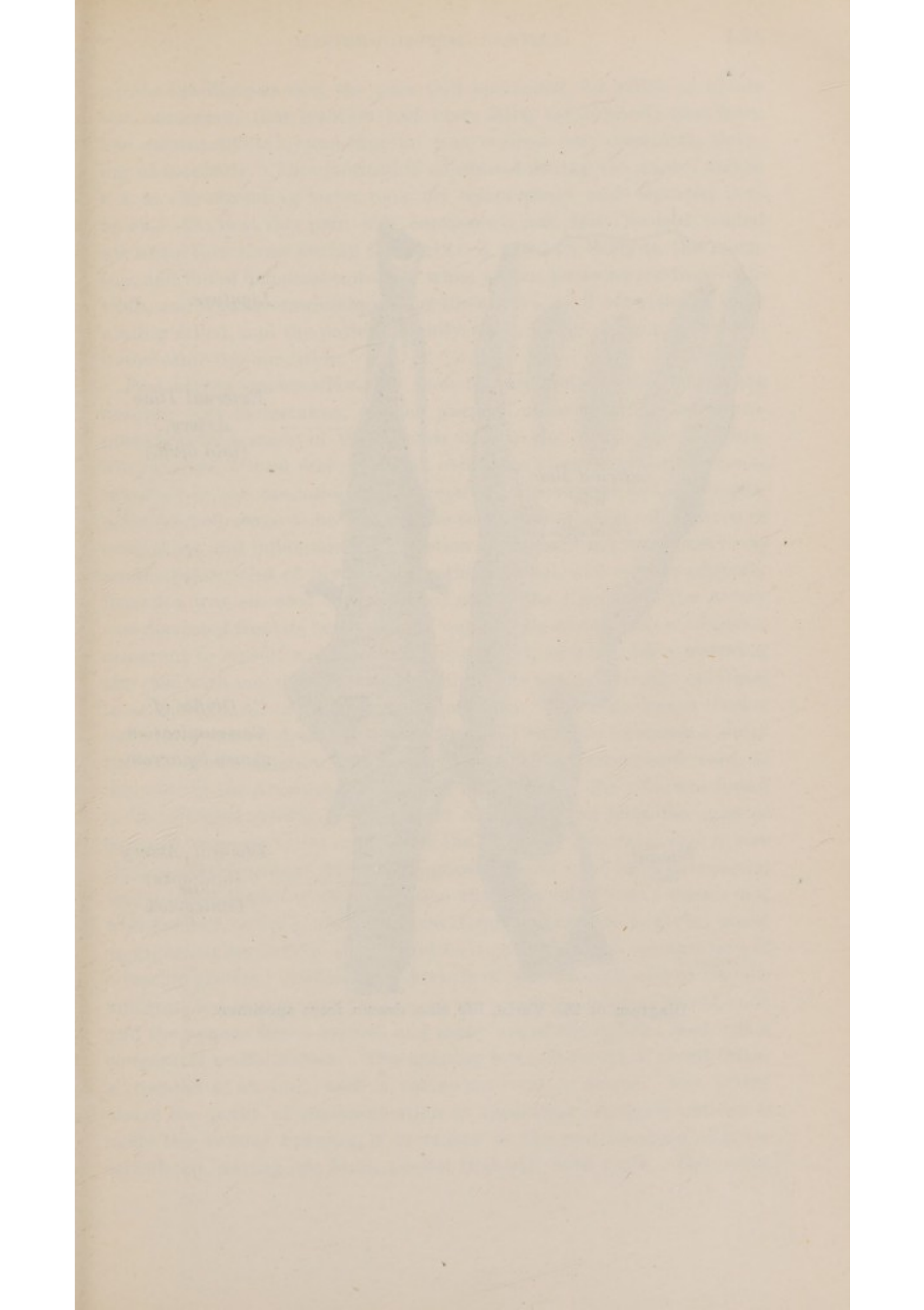
An examination of the patient resulted in the following collection of observations:

General appearance indicative of profound anæmia, but not much loss of weight was reported in answer to questions. A circular cicatrix on the external aspect of the left thigh just below the trochanter was the remains of the bullet wound which he had received six years ago, and in each groin two scars marked the suppurating points described above. The site of the aneurism was plainly defined by its rhythmical pulsation in the left groin just under Poupart's ligament, although there was but a trifling elevation of the tumor. It resembled the cardiac impulse, as seen on the chest of a person of spare habit—a tremor rather than a definite pulsation, and gave to the observer an idea of an aneurism with thin walls. Palpation revealed at once a peculiar sensation, which was conveyed along the fingers to the fore-arm—a sort of purring, jarring, vibratory movement, almost continuous, but increased with each beat of the heart. This was most marked when no pressure was used, and lost its characteristic when force was employed by the hand to effect compression of the external iliac artery. When the latter was attempted the pulsations seemed to be of great force, and when the weight was released the tumor would suddenly fill and the tremulous pulsation take the place of the distinct beat. The aneurismal enlargement itself seemed to be well defined by manipulation, and appeared to involve the lower half of the external iliac artery and about two inches of the femoral artery, and I judged it to be of the fusiform variety. An inspection of the limb on the affected side, and a comparison with its fellow, did not show any morbid changes in size, or nutrition, or temperature, and, after a thorough examination and consideration of the case, I saw no reason to change the existing diagnosis, which had received the sanction of

the entire hospital staff and the confirmation of various surgeons of the city, military and civil. I judged it to be traumatic inguinal aneurism, involving the external iliac and femoral arteries, caused by the passage of a bullet across the track of the femoral artery just below Poupart's ligament, wounding one of the coats. I decided to continue the attempt to effect consolidation of the aneurism by pressure, as inaugurated by Dr. Rex. In addition to this, I prescribed iodide of potash in gramme doses, to be taken twice daily, alternating with fluid extract of ergot in doses of one cubic centimetre twice daily, as a means of promoting the process of consolidation. This plan was followed faithfully for a month, when the medicine had to be omitted by reason of its unpleasant effects. The patient had become considerably emaciated, the result, as I discovered, of his attempts at low dieting to aid his cure, which he had learned from one of the medical books in the hospital library was sometimes employed in the treatment of aneurism. Annoying and obstinate constipation, followed by painful hæmorrhoids, complicated his case, and it was necessary to use rectal injections and laxatives for a long time to regulate the peristaltic action.

Frequent manifestations of ague rendered cessation of curative treatment for the aneurism necessary at several times, and thus the patient, originally anæmic, became considerably debilitated by his long confinement, and when opportunity offered compression by weight was renewed. I then tried the plan of forced flexion, which was to be kept up as long as possible, and when relief was necessary the weight was to be put in place immediately, so that there might be a continuous check upon the current. All this time expended in these measures seemed to be productive of no apparent benefit, for the walls of the tumor seemed to be just as thin and the pulsation equally as strong as at first. I was at a loss to explain the fruitlessness of such prolonged and careful pressure, for it was of sufficient power to close the external iliac artery, but no coagulum had formed, as far as could be detected by myself and others. Operation for ligature of the iliac artery was privately considered and negatived by his general condition, although it was advised by some of the hospital staff. I decided to follow up the plan of compression, accompanied with a tonic and supporting plan of diet and medication, so that he might be prepared for an operation as a last resort. Again the weight was adjusted, and after some weeks of trial I secured relays of assistants to make complete compression of the artery for twenty-four hours without intermission. Again failure was the result, and not the slightest change

could be discerned in the tumor, although the pulsation seemed to be a trifle less marked. I then told him the alternative: deligation of the external iliac artery, involving a mortality of 25 per cent., and advised him, in view of its stationary character and its long period of growth, to seek some light occupation and take his chances with it until it became larger and endangered his life from rupturing. As he was an intelligent person, of considerable education, a good penman, and above the class of seafaring men in mental ability, I judged it to be better for him to do that than submit to an operation when the aneurismal tumor was not large enough to be uncomfortable. He adopted my suggestion, and with directions for him to return to me if any change occurred, I discharged him July 18, improved, as he and I thought, by his four and one-half months of treatment by mechanical and medical measures. In about a week he came to the hospital to see me, and reported that the day before he had been obliged to run violently to get out of the way of a span of runaway horses, and that the pain and pulsation of the aneurism had returned with intensity and strength. Upon examination, the fact was apparent both to myself and several of the hospital staff, and it seemed then to us that the aneurism had extended upwards. He wished to try the plan I had suggested a little while longer; but on August 7 he again called upon me at the dispensary office, and said he could endure it no longer, and was ready for the operation. I issued a permit the same day, and prepared him for the surgical procedure by a system of stimulants and nourishing foods, and on August 12, judging him to be in good condition, better than he had been since coming into my care, I proceeded to put a ligature on the external iliac artery. The patient was anesthetized with chloroform, and by the method employed by Abernethy, modified by Liston, I secured the artery under the peritoneum, assured myself and the surgeons present that its compression stopped the pulsation, tied it with carbolized cat-gut ligature, sewed up the wound after the usual antiseptic precautions had been attended to, and put the man in bed. The pulse was 54 at the close of the operation. The leg was then swathed with hot blankets, hot bottles surrounded the foot, and reaction seemed in process of establishment. Slight vomiting ensued, and he complained of intense pain in the region of the instep. As this increased and continued, I gave him a hypodermic injection of morphine, which had to be repeated later in the afternoon after I left. The anterior portion of the left thigh was cold and the posterior warm, and this continued for some hours. Stimulants were directed to be given *pro re nata*, and telephone reports at 10 P. M. gave



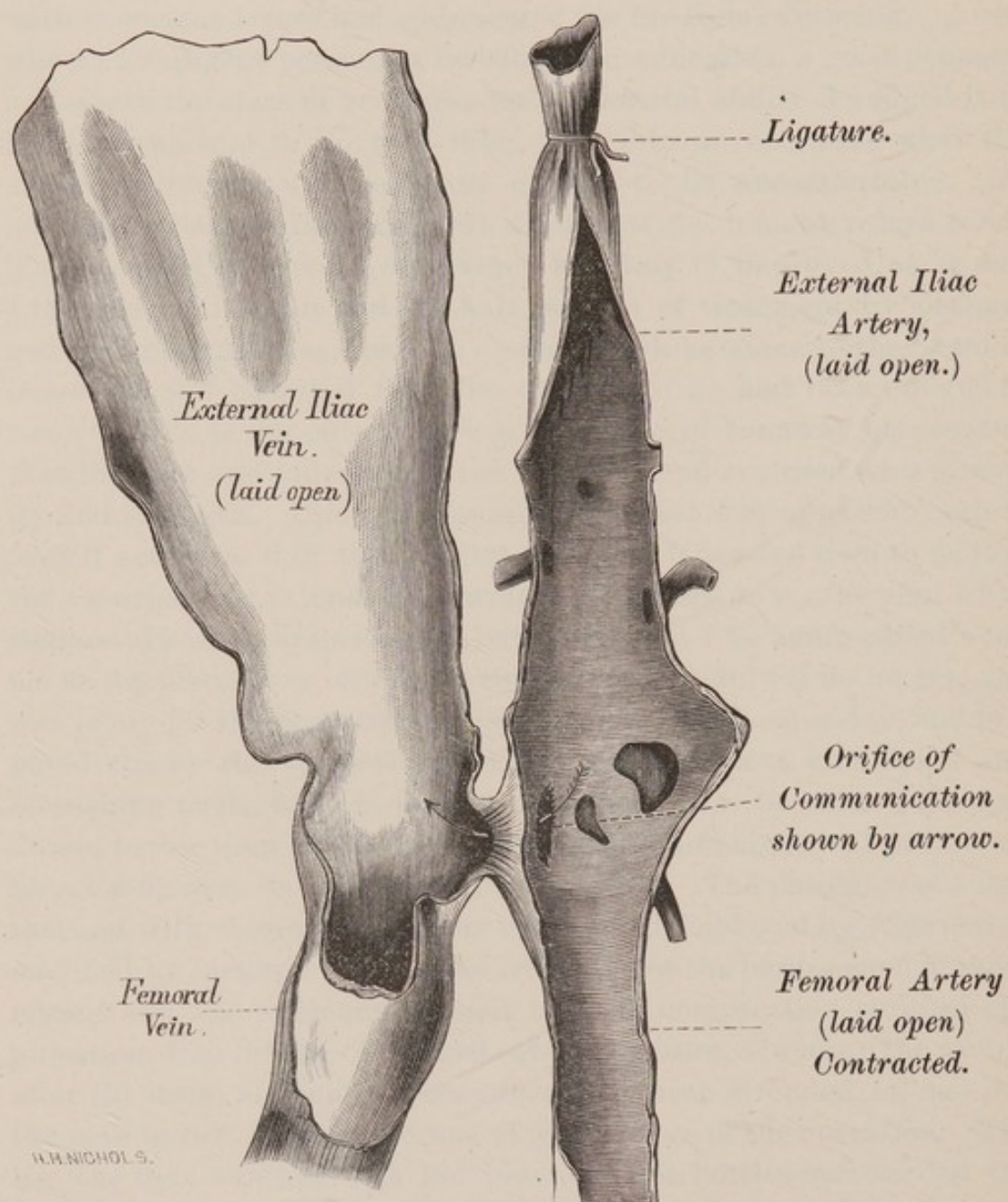


Diagram of the Varix, life size, drawn from specimen.

me the intelligence that the pain still continued, for which an opiate was necessary; that reaction had been fairly established; that fever had ensued, (39° C.,) and that he was restless but conscious, sleeping at intervals. This jactitation continued during the night, and at 6 A. M. the attending sister took his temperature and reported it to be 39.3° C.; that this pain was continuous, and that he had voided his urine four times during the night. I saw him early in the morning, and found him semi-conscious when awake, pulse almost imperceptible, and a gangrenous odor about the wound. All attempts at stimulation failed, and the patient rapidly sank, dying in twenty-two (22) hours after the operation.

Post-mortem examination—As soon as practicable after death, the autopsy was undertaken, for the purpose of ascertaining what progress had been made in the formation of a clot above the ligature. The surgical wound was reopened, evidences of gangrene of the parts involved in the operation were apparent, although it seemed impossible for that stage to be reached so soon through the usual steps of congestion and inflammation. Section of the external iliac artery was made at the point of division with the internal, and a comparatively firm clot was situated in the space above the ligature. The artery was dissected from its bed down to Poupart's ligament, where it became apparent to myself and the surgeons present, who had been watching the case with me, that the external iliac was not sufficiently enlarged to account for all the aneurismal symptoms. The superjacent tissues were then removed, and directly beneath Poupart's ligament a short tubular communication was seen connecting the artery and vein, as depicted in the drawing. Following up this clue, the vein was found to be enlarged greatly, its increased size extending from the apex of Scarpa's triangle to its union with the common iliac vein, and it was then clearly apparent that the diagnosis should have been aneurismal varix. The communication between the artery and vein consists of a well-defined vessel, if I may so term it, quite perfect as to shape, about an eighth of an inch in length, and having none of the appearances of a morbid growth. Indeed, the aperture of communication is so smooth and rounded that it is impossible to see where the arterial tissue ends and the venous tissue begins, and many are of the opinion that it is a congenital malformation. The opening has a diameter of about three-sixteenths of an inch, and is somewhat oval in shape. The artery above the point of communication is somewhat enlarged, and as it nears the venous opening, it increases in size and becomes slightly sacculated, having one blind pocket that will hold a pea. Below the

point of connection it is contracted, yet throughout the whole course the normal resiliency is retained. The vein presented no special characteristics beyond the enlargement. There was no attempt at spontaneous cure, no clot or laminated fibrine formed, and the interior surface was smooth and glistening. The bladder showed no signs of its disturbance four months previous, and the other organs were normal. The bullet could not be discovered during an extended search, but it is probably in the body somewhere. The ligature had been properly applied, and did not enclose any other vessel or nerve, as the pain in the foot might suggest.

Remarks.—The case was calculated to deceive the diagnostician, for several reasons: (a) The bullet in its track would naturally wound the artery first, owing to its relative position, and an arterial aneurism would be expected. (b) There were no disturbances of circulation, nutrition, or temperature of the limb on the affected side, such as are considered to be pathognomonic of varix and of differential value in diagnosis; the blood supply, warmth, size, and appearance of the limb were normal, and there was not any œdema or discoloration. (c) The tumor pulsed and had a bruit whose sound did not sufficiently attract attention to be mentioned as exceptional. Gross says it is impossible to distinguish the false aneurisms of the external iliac vessels “satisfactorily from an ordinary aneurism.” (Surgery, I, 768.) Mr. Beaumont, a surgeon of Toronto, had a case almost similar to mine, the usual signs of an arterio-venous aneurism being absent. He tied the external iliac artery, but the patient died under the chloroform. (Medical Times and Gazette, 1867.) The specimen is now in the possession of the Royal College of Surgeons, London. (Holmes.) I find three other parallel cases of aneurismal varix of the femoral and iliac vessels in which the external iliac artery was ligated and death resulted in each case. It would seem, therefore, that the statistics of ligation of that artery for arterial aneurism, affording about 70 per cent. of recoveries, cannot be used in prognosticating success in ligation of the same vessel for aneurismal varix.

CASES OF ANEURISM.

CASE 1.

HÆMORRHAGE FROM A FEMORAL ANEURISM—LIGATION OF THE EXTERNAL ILIAC ARTERY—RECOVERY.

BY ACTING ASSISTANT SURGEON C. A. WHEATON.

John O'Brien, a native of Ireland, 35 years of age, a sailor by occupation, and a man of dissolute habits, entered the marine ward of St. Joseph's Hospital, St. Paul, Minn., in the month of May, 1880, suffering from secondary syphilis. He had contracted the primary sore about six months before in New Orleans. In conjunction with the primary lesion there was much induration of the lymphatics in the right groin. This thickening resulted in suppuration, and finally phagedenic ulceration took place, uncovering nearly the upper half of Scarpa's triangle. Under specific treatment the ulcer healed, and our patient was nearly convalescent, when, by exercising too much, a fresh deposit was induced; rapid filling of the whole of Scarpa's triangle took place. The knee became contracted to a right angle; pain along the distribution of the anterior crural nerve became excruciating. The leg was cold; pulsation in the terminal superficial vessels was hardly perceptible, and general œdema from the middle of the thigh to the foot existed. This condition continued till fears were entertained that gangrene would supervene and end the patient's suffering. Iodide of potassium and mercury in large doses were given. Cod-liver oil, whiskey, sulphite of calcium, and iron and quinine were freely exhibited, but made little impression on the deposit or change in the case. Finally, a small ulcer appeared in the old cicatrix, and a short sinus developed, which discharged an unhealthy pus, frequently tinged with bright blood. Palpation gave a distinct femoral pulsation within the boundaries of Scarpa's space. No aneurismal bruit was heard at this time.

On Monday evening, August 12, I was summoned to the hospital in great haste, and found my patient lying on the bath-room floor in a pool of blood, where he had fallen while on his way to the water-

closet. He had lost, by actual measurement, 1.5 litres of blood. Inquiry developed the fact that during the afternoon he had been exploring the sinus in his groin with a toothpick, and had succeeded in introducing it about two inches. Examining the case closely, I inferred that the femoral had been injured by the improvised probe and the sanguinary flow excited by the fall. A spica bandage with compress controlled the hæmorrhage, and .12 Gm. of opium made him comfortable for the night. Auscultating the thigh the next morning, a well-marked aneurismal souffle was apparent. There now seemed to be nothing to do but to choose between probable death from hæmorrhage without operation and probable death from gangrene with it. In consultation with Drs. Stewart, Stone, and Owens, it was decided that passive treatment of the case would inevitably lead to a fatal issue, and euthanasia demanded the scalpel and the ligature. At 4 P. M., August 13, I tied the right external iliac artery. The incision was begun an inch above and anterior to the anterior superior spine of right ilium, and continued obliquely downward and forward parallel with Poupart's ligament to the outer border of the external ring. The incision was about four inches in length. The transversalis fascia was reached and separated from the peritoneum without doing violence to the latter important structure, and by now displacing the superimposed abdominal contents upwards with a broad retractor, the artery was to be felt at the bottom of the wound. It was easily exposed, and a double ligature, consisting of carbolized silk, was passed a little above the middle of its trunk. The course of the artery from about its middle to Poupart's ligament was obliquely upwards and forwards over the pelvic border of the mass, and seemed to enter it a little below its cutaneous margin. How much of the enlargement was aneurismal tumor and how much lymphatic thickening was impossible to determine. The integrity of the vessel was unimpaired at the point of ligation. Five interrupted silk sutures closed the wound. Three hours after the operation he had fully recovered consciousness. Pulse was 130; body cool and covered with clammy perspiration. Did not suffer pain when quiet. Was given 6 centigrammes of opium in suppository hourly till asleep. Leg and thigh were encased in sheet cotton-battling and surrounded by hot bottles. Knee supported by pillows, and shoulders raised to prevent traction on the stitches, which were removed on the third day following the operation. With the exception of a slight increase in the œdema and some tympanites for a few days, this patient had a slow but uninterrupted and painless convalescence. The ligature came away on the thirty-second day. The temperature

of the diseased limb ranged from a degree and a half to two degrees lower than the body temperature, as taken with the thermometer in the axilla. The contraction of the knee was overcome with Buck's extension and a gradually increasing weight. The fullness in Scarpa's triangle had disappeared almost entirely by the first of October. From 8 to 10 grammes of iodide of potassium was taken daily during most of the convalescence. The patient was discharged, recovered.

CASE 2.

FEMORO-POPLITEAL ANEURISM—LIGATION—RECOVERY.

[REPORTED BY ASSISTANT SURGEON CHARLES E. BANKS.]

Peter Murphy, aged 40 years; native of England; was admitted to the Marine Hospital at San Francisco, Cal., upon application of the British consul, August 1, 1881, presenting an ovoid tumor on the inner portion of the right thigh, extending from the apex of Scarpa's triangle to the condyle of the femur.

History and examination.—The patient when admitted was emaciated, anæmic, weak, and unable to walk, the affected limb being flexed at right angles, and almost immovable at the knee. The tumor, which was situated on the inner and latero-posterior portion of the thigh, presented a symmetrical contour, whose lines were lost in the condyle below, and terminated abruptly at the junction of the middle and upper thirds of the femur. The growth measured 50 centimetres at its greatest circumference, the size of the thigh just above it being 40 centimetres.

Ten years ago he was treated for rheumatic pains in the leg, and soon after contracted syphilis, of which he said he was "cured" by the mate of the vessel on which he was then sailing. Nothing of any importance occurred till four months prior to admission, when he was cleaning the side of his vessel in Rio Janeiro. At that time he was seized with excruciating pains in the region of the present tumor, followed by gradual swelling of the leg and foot, which continued without diminution for two months, when the tumor had reached its present size.

Diagnosis.—The diagnosis had to be made between sarcoma, chronic abscess, bursal enlargement, and aneurism. The solid feel, absence of pulsation, bruit, and fluctuation, made the differentiation somewhat difficult, but successive explorations of the aspirating needle bringing

out blood invariably, the weight of symptoms and developments favored aneurism.

Treatment.—After a preparatory course of tonics and stimulants preliminary to an operation, he was etherized August 21, and ligature of the femoral artery was made by the surgeon in charge.^a The usual incision for exposing the femoral artery was made, and that vessel was tied with silk ligature about an inch below the origin of the profunda. In twenty-four hours the tumor was sensibly diminished. The incision healed kindly, in part by first intention and in part by granulation, within a short period, and no unfavorable complications followed. At the end of four months of gradual absorption of the tumor, the greatest circumference was about 35 centimetres. He was discharged January 26, 1882, with a certificate of "recovery." This result, however, only applied to the aneurism and operations, for the man left the hospital a cripple, and probably will remain so the rest of his life. From a long period of confinement to the bed prior to admission the limb was rigidly flexed, at first to relieve pain, and then remained in that position by reason of the growth of the aneurism abridging the movement of the muscles and tendons involved in its course. Serious, and apparently permanent, contraction of these followed, which could not be overcome, but it was greatly improved by gradual manipulation. When he left his toes almost touched the floor, which was a reduction from 90° to about 45° of flexion. He was sent to England as a distressed seaman by the British consul for admission to the Greenwich Naval Hospital.

CASE 3.

TRAUMATIC POPLITEAL ANEURISM—COMPRESSION—GANGRENE—AMPUTATION.

[REPORTED BY SURGEON C. S. D. FESSENDEN.]

James Scarff, aged 33; nativity, United States; white; admitted to the United States Marine Hospital, Bedloe's Island, New York, July 7, 1881; discharged December 5, 1881.

History.—Patient states that he had always enjoyed perfectly good health until November 15, 1880. On this day, while working on the deck of his vessel, his right leg was caught between two barrels. His knee was resting against one barrel, when several barrels suddenly rolled against it on the other side. He suffered a good deal of pain for

^a E. Hebersmith, late Surgeon M. H. S.

a few minutes, and had to go to bed, but on the following day returned to his work, with no inconvenience save a little stiffness in the right knee. He had no further trouble, and worked on as well as ever until the first part of January, 1881, when one day, after running briskly for a few blocks, he felt slight pain behind the knee, and, upon examination, noticed a tumor, the size of a small bird's egg. He continued to work, although the tumor gradually grew larger and more painful. The captain of the vessel painted it with tincture of iodine, which he states relieved the pain somewhat. About the latter part of April he shipped for Cuba. After a few days the pain became more continuous, and at the same time he noticed that the swelling became larger. From this time he was confined to his bed. The tumor was now poulticed, but the pain was not relieved, and the tumor gradually grew larger, until it was the size of a hen's egg. On June 24 he left Cuba for New York, his foot and leg being very much swollen and painful.

Clinical examination.—On admission into the hospital, July 7, 1881, the leg was semi-flexed on thigh; foot and leg were very much swollen, and pitted on pressure. There were a few blebs on right foot. On examination, there was a large pulsating tumor found in popliteal space, extending around along the inner side of knee-joint. On auscultation, quite a distinct bruit could be heard of the tumor. July 10, tumor same in appearance. July 12, Esmarch's bandage was applied to leg and allowed to remain one hour. It was then removed and the popliteal artery was compressed just above tumor for another hour. After this it was removed, as all pulsation had ceased in the aneurism. The patient complained of no pain for the next two days; but on the morning of the 15th it was noticed that he had lost all sensibility in the foot and leg, which became very much discolored, and there appeared a great number of blebs on foot. The foot and leg were wrapped in cotton and hot bricks applied, but the foot and most of the leg became gangrenous. On the morning of the 16th it was decided that nothing could be done to save the leg, and that amputation was necessary. The operation was performed by Assistant Surgeon Carmichael, who amputated at the lower third of thigh. The operation was done by method of long anterior flap. Ether was the anæsthetic used. The patient rallied well after the operation. On the following day his temperature was 39° C.; pulse, 116. Quinæ sulph., .7 Gm., was ordered. The following morning the temperature was 37.77° C., where it remained with slight variations for three weeks, when it fell to normal. On the 19th and 27th the temperature rose to 39.44° C. On each occasion small collections of pus were found in the wound. The

temperature was never higher than this. The patient was kept on nutritious diet, port-wine being the stimulant used. The ligatures came away at end of fourth week. On examination of the amputated limb it was found that the aneurism, which was of very large size, had been completely solidified, being filled with layers of fibrine. At one spot on the inner side the wall of the aneurism appeared to be ruptured, as its continuity could not be demonstrated and there was some clotted blood in the neighboring tissues. Carbolyzed dressings were used, and the wound healed nicely. The cicatrix was posterior to and about two inches above end of stump. On the 5th day of December, 1881, was discharged from hospital.

REPORTS OF FATAL CASES, WITH AUTOPSIES.

RECORDS OF THE COURT WITH ATTACHMENTS

EPITHELIAL CANCER—REMOVAL—SPEEDY RECURRENCE—DEATH.

[REPORTED BY SURGEON TRUMAN W. MILLER.]

This case is interesting from the short period intervening between the removal of primary and the subsequent development of secondary cancer, and the rapidity with which the disease progressed after coming under observation.

Daniel McDonald, aged 60; Scotch; admitted January 30, 1882. Gave a history of epithelioma of lip, excised about six months previous to admission. About three months before admission he noticed a small kernel below the ramus of jaw, on the left side, which continued to increase until, when admitted, it was about the size of a hen's egg externally, and involved the ramus, a protuberance being plainly felt through the mouth on the inside of the jaw.

February 7.—The tumor had increased so rapidly in size that all idea of operative interference was abandoned.

February 27.—The growth had continued to increase until it was about twice as large as when admitted, immovably fixed to jaw and surrounding tissues, and extending well down the neck. A considerable quantity of apparently sebaceous matter was pressed from four or five points in its surface. Pain was and had been moderate only in severity.

March 12.—Losing strength rapidly; size of growth still increasing; a considerable quantity of a discharge similar to that above mentioned occurred.

April 9.—In dressing the then ulcerated surface a profuse hæmorrhage occurred in spurts sufficient to indicate the erosion of an artery of some magnitude. Controlled by styptic applications.

Hæmorrhages were frequent and occasionally severe after the above date.

April 21.—Able to only partially open the mouth. Deglutition difficult, owing to obstruction by the pressure of the tumor. The ulceration involved the cheek almost to the ear, and down the neck half-way

to the clavicle, extending anteriorly to the angle of the mouth. Able to take fluids only, and with difficulty.

Death occurred May 5.

Microscopical examination of the tumor revealed the characteristics of epithelioma.

CASE OF MORTIFICATION INVOLVING A PORTION OF THE NATES AND NEARLY THE WHOLE SCROTUM—RECOVERY.

BY W. H. LONG,
Surgeon United States Marine-Hospital Service.

T. M., a steam-boat engineer; aged 37; a native of Ohio; 5 feet 10 inches high; weight about 210 pounds; apparently a healthy and well-nourished man; was admitted to the United States Marine Hospital at this port (Louisville) on the 2d day of July, 1881. He said he came for treatment for piles, but an examination showed two small, unhealthy-looking ulcers, about the size of a nickel, on the left buttock about one inch from the anus, and the same distance from each other.

The buttock on that side was much swollen, hard, and red. There was a semi-purulent, greenish, fetid discharge from the ulcers. They were of a dark-brown color, with margins distinct, the skin only seeming to have been destroyed. Though I used a probe and could find no sinus or fistulous tract, I thought they must be the external orifice of some sinus communicating with the bowel, and that his trouble was fistula in ano.

The history of the case, as given by himself, was, that on June 30, three days previous, he noticed a "soreness" in the locality of the ulcers and some little swelling, and hardness occurred during the day, and on the next day (July 1) the raw surfaces or "piles" made their appearance. His boat arrived at Louisville July 2, by which time they were so sore, and discharged so freely, that he could work no longer, and applied for relief. For three days he had had a slight diarrhœa, (from three to five, free, watery evacuations in twenty-four hours,) but no pain or tenderness of bowels. His temperature and pulse were normal, tongue coated with a heavy brown fur; urine normal in quantity and color. R: Quiniæ sulph., 2 Gms.; opii pulv., .55 Gm. Ft. pill, No. x. S.: One every four hours. Hot fomentations to nates.

July 3, 8.30 A. M.—Temperature and pulse, normal. The ulcers have increased to double their size of yesterday, and present the appearance of gangrenous spots denuded of skin. The discharge from them has increased in quantity, is very offensive, and of the same charac-

ter. There is some swelling and hardness of right side of nates and perineum. The scrotum is œdematous and twice its natural size. The left buttock is more swollen, harder, and has an erysipelatous appearance. Treatment continued.

4 P. M.—The two ulcers or gangrenous spots have increased until they nearly meet. Right buttock more swollen and the œdema of scrotum increased. Quinine, opium, and hot fomentations continued.

July 4, 8.30 A. M.—Temperature, normal; pulse, 86. The two gangrenous spots have become one by increasing in every direction. Their surface has a greenish, dark appearance, is without sensation, and does not bleed on incising the surface. On the right buttock is a new spot, the same in character, about the size of a nickel. It is about one and a half inches from anus, and opposite the one on the left. There is a mahogany-colored spot on the perineum, about two inches long and one and a half inches wide, but the skin is unbroken.

The scrotum is much swollen, very red and tense, having lost the œdematous look and feel. The discharge from the gangrenous surfaces is profuse, very offensive, semi-purulent in character, and greenish water mixed with pus in appearance. The diarrhœa which he had on admission has continued, though partially checked, until last night, when he had four large, thin, yellow, offensive discharges involuntarily from the bowels. R: Tr. ferri chlor., 1.5 C. C; quinia sulph., .25 Gm.—every four hours. Tr. opii, 2 C. C.; tr. krameria, 8 C. C.—every four hours; to be alternated with the iron and quinine. Ale and egg-nog to be alternated and frequently given; eggs, beef-tea, and milk *ad lib.*

4 P. M.—Temperature, 37.5° C.; pulse, 90. The gangrene on left buttock has not spread, and a slight line of separation noticed. The mahogany-colored spot on the perineum noticed this A. M. is denuded of skin and presents all the appearances of the gangrene on left buttock, and is discharging the same character of fluid. That on the right buttock has not changed. The swelling of the scrotum has very much increased, and along the raphe is a mahogany-colored streak, half an inch wide and four inches long. The cellular tissue of penis has become enormously œdematous. Incisions were made on each side of raphe of scrotum, four on each side, half an inch deep and six in length. Treatment continued, and a poultice made of flaxseed meal and charcoal, with a solution of carbolic acid, applied to whole of scrotum and nates.

July 5, 8.30 A. M.—Temperature, 38° C.; pulse, 100. Bowels moved but once since yesterday. Gangrenous patches on both nates and on perineum show decided lines of separation of the gangrenous tissues

from the healthy. Three-fourths of the scrotum is black, but the skin is unbroken except where the incisions were made. It presents the appearance of a globe, eight inches in diameter, and, as above stated, three-fourths of which is gangrenous. Treatment continued.

4 P. M.—Sloughs on nates and perineum separating rapidly. The discharge is yet profuse, but is more of a purulent character. Gangrene of scrotum extended to four-fifths. Œdema of penis somewhat diminished. Discontinue tr. opii and krameria.

July 6, 8.30 A. M.—Temperature, 38° C.; pulse, 106. The gangrene of scrotum extended, but a distinct line of demarcation apparent. The other sloughs separating rapidly. No action from the bowels since the night of the 4th.

4 P. M.—Temperature, 38.5° C.; pulse, 104. Separation of sloughs progressing with great rapidity. Swelling of nates and œdema of penis subsiding. Treatment continued.

July 7, 8.30 A. M.—Temperature, 37.5° C.; pulse, 96. The gangrenous portion of scrotum is separating from the healthy. The discharge has increased in quantity, but is more healthy and purulent in character.

4 P. M.—The sloughs from both nates came away, leaving in the left buttock a hole or ulcer, healthy in appearance, four inches in length, one and a half inches in diameter, and from one and a half to two inches deep. In the right, a round hole nearly one inch in diameter and as deep. The purulent discharge from all surfaces is not less than 500 C. C. in each 24 hours.

July 8, 8.30 A. M.—Temperature, 37° C.; pulse, 90. Slough from perineum removed, leaving a large and deep ulcer, but healthy in appearance. A portion of the urethra is exposed. The swelling of all parts greatly reduced. The gangrenous portion of scrotum separating with a rapidity beyond expectation. Both testicles exposed by the falling away of the slough.

4 P. M.—Temperature, 37° C.; pulse, 90. The swelling everywhere nearly entirely disappeared. Healthy granulations on all the surfaces where the sloughs have separated. Treatment continued.

July 9, 8.30 A. M.—Temperature, 37° C.; pulse, 86. Tongue cleaning on edges. General condition good.

4 P. M.—With a small pair of scissors I cut a small pedicle, about one-eighth inch in diameter, and removed all the gangrenous scrotum, it being held by this only. It weighed four and a half ounces. Both testicles were entirely exposed, no portion of scrotum remaining over any portion of them. Granulations are seen where the earliest separation took place. Bowels moved by enæma.

July 10.—Temperature and pulse, normal. All the surfaces granulating nicely. Tongue, clean; appetite, good. The discharge yet profuse, but of a healthy character.

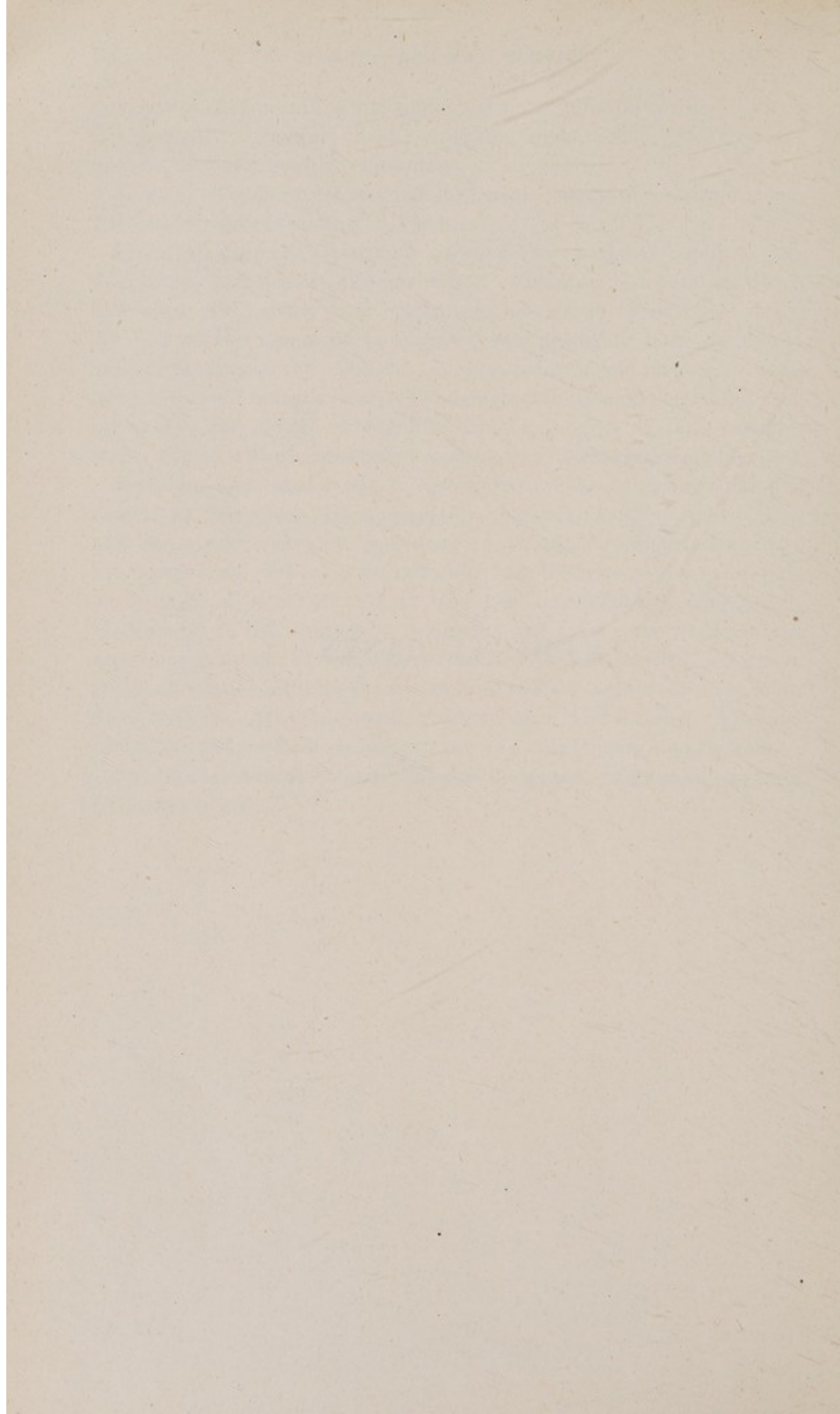
July 11.—Temperature and pulse, normal. General condition, good. The healing process going on nicely.

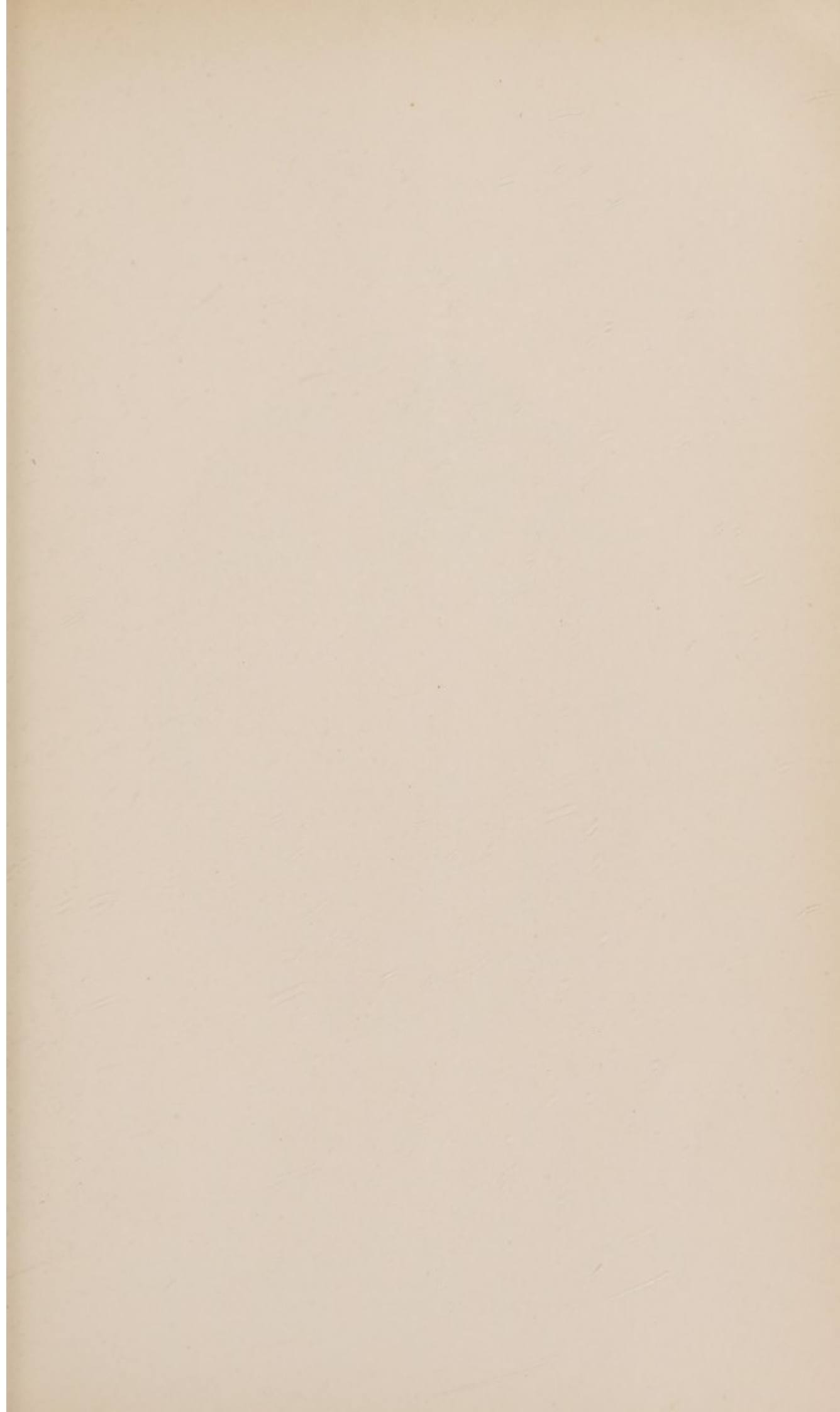
From this date the separative process was nearly as rapid as the destructive had been in the beginning. The iron and quinine, which had been given every four hours, was now given three times daily. By July 25 the ulcers on both nates and perineum had completely healed, leaving a red cicatrix. A new scrotum had begun to grow from the small margin left by the destructive process before the final removal of the slough on the 9th, and by August 17 both testicles were covered with a new scrotum, and he was discharged from hospital.

Remarks.—No cause could be discovered for the rapid destruction of tissues in this case. He seemed an unusually well-nourished man, and had never been sick, excepting an attack of remittent fever two years previous. I think it remarkable that from two gangrenous spots on left side of nates, noticed on July 2, a considerable portion of the integument of both buttocks, perineum, and nearly the whole of the scrotum should have become gangrenous, a line of demarcation formed, the dead tissues actually separated, and healthy action set up in eight days, with no more constitutional disturbance than is noted. On invitation several medical gentlemen saw the case during its progress.

Mr. M. called at the hospital about the middle of September, 1881, in perfect health.

MEDICAL CASES.







MOLLUSCUM FIBROSUM.

CASE OF MOLLUSCUM FIBROSUM.

[BY ACTING ASSISTANT SURGEON A. C. HAMLIN, BANGOR, MAINE.]

W. B. G., aged 50 years; a native of Maine, (has followed the sea for 35 years, chiefly in the coasting trade;) admitted to hospital at Bangor, December 13, 1881, suffering from the irritation of several tumors on the arm, back, leg, and thigh.

About 200 tumors, varying in size from a pea to a potato, are visible on different parts of the body, face, scalp, neck, arms, and legs, being most abundant on the face and trunk. They present varying shapes, some nipple-like, some nearly globular, others rather flat and oblong. To the touch they are soft; none are freely movable on the subjacent tissues, and to all the skin seems more or less adherent. None of his family or relatives have been the subjects of morbid growths. He has not had syphilis. He first noticed the tumors 25 years ago. Of late his memory has been failing, and he is evidently feeble in mental capacity. His appearance indicates also a stunted growth. Appetite, fair; sleep undisturbed; energy wanting. On his admission to hospital the patient was treated with potassic iodide and other alteratives. Later, seven of the largest were removed by the knife. He quite recovered and was discharged January 30, 1882.

A microscopic examination shows the tumors to consist of masses of fibro-areolar-like tissue, the individual fibres being short, wavy, curly, and irregular; also numerous granular nuclei, round, oval, and fusiform in shape, and in size rather smaller than white blood-cells. Vascularity marked.

That this disease is rare may be inferred from the fact that the statistics of the American Dermatological Association show only nine cases out of 16,863 cases of skin disease. That this disease has been little studied, and consequently is but poorly understood from an etiological and pathological stand-point, may be seen from the very meagre accounts, or even non-mention, of it by the writers who are esteemed authorities on pathology and dermatology.

The disease is a very obscure one, and Bateman was the first to call the attention of pathologists to this subject.

^a Two cases were reported by Dr. Atkinson, New York Medical Journal, December, 1875.

Niemeyer alludes to it as follows—"The molluscum simplex (or fibroma molluscum of Virchow) is the result of a circumscribed hypertrophy of the connective tissue of the skin."

Kaposi entertains a similar opinion, as does also Duhring, of Philadelphia.

Rokitansky believes molluscum fibrosum starts in the connective tissue of the deeper layers of the corium.

[NOTE.—The accompanying photograph (from the specimen) was taken by order of the Surgeon-General of the Navy, at the U. S. Naval Laboratory, in this city, upon request of this office.]

SMALL-POX, THREE CASES, ONE OF WHICH HAD BEEN PREVIOUSLY VACCINATED.

[BY ACTING ASSISTANT SURGEON W. D. STEWART.]

On the 20th of January, 1882, Captain A. E. Huston, commanding United States schooner "Florence N. Tower," and, on January 21, John Johnson, seaman on board same vessel, were admitted to the United States Marine Hospital, Vineyard Haven, Mass. Both patients presented typical symptoms of rather intense initial stage of remittent fever, and were so received into hospital. On admission, patients were suffering from pain in the head; had a chill the day before admission; stomach irritable, vomiting frequently; tongue coated; were treated for remittent fever. The same symptoms continued for three days, when an eruption appeared on the face, chest, and arms, the pain in head and stomach symptoms subsiding as the eruption appeared. The temperature up to this time had registered 103 F., which now dropped to 101 F. Diagnosis of small-pox was at once made. The facts here referred to are fully set forth in a communication of January 25, 1882, reporting the presence of small-pox in this hospital, to which reference is respectfully made, and which may be referred to as a part of this report. As stated in the record and report referred to, Captain Huston had never been successfully vaccinated. He had unmodified confluent small-pox, the eruption very profuse; constitutional symptoms violent and grave from the first. Death ensued on the twelfth day after invasion of the disease.

In the case of Seaman Johnson, received from the same ship, and the day after Captain Huston, to wit, on the 21st of January, his symptoms were typical of "varioid," of rather a mild type.

Seaman C. E. P., of schooner "Laura Bridgeman," had been received into hospital on January 18, and under treatment for soft chancre. He had been successfully vaccinated in infancy, and again about five years previous to his admission into this hospital, presenting two typical cicatrices on his arm. As soon as I could be supplied with vaccine points I revaccinated all the patients and employés of the Service in this hospital. Among the persons so vaccinated was Seaman P. The vaccination was effectual. Vesicles formed, with the attendant characteristic constitutional symptoms, on the 4th of February.

February 5.—Was taken with slight chill, headache, and general *malaise*. The progress of development and maturation of the vaccine vesicle was arrested, and on the 6th the typical eruption and vesiculation ensued, involving the whole cutaneous surface, fauces, and all the mucous membranes at all exposed to the air. Secondary or suppurative fever was marked; asthenic type.

February 23.—Two abscesses were detected directly over each carotid artery, which were immediately and freely opened and evacuated.

February 25.—Three abscesses were recognized on the right leg.

March 2.—Four more large abscesses were recognized and evacuated.

March 3.—Eight abscesses developed on right leg, one on the body, and one on the neck.

March 5.—Six more were opened.

March 6.—Two more were opened.

March 7.—Four more were opened.

March 8.—Three more were opened.

March 10.—Four more were opened.

March 11.—Three more were opened.

From this date in the history of this case the patient made a rapid recovery, and was discharged from hospital cured on the 19th of April. Forty-one abscesses, sequela to the septic fever, and asthenia that characterized the progress of the small-pox infection from its invasion to its termination, present a somewhat remarkable case of *multiple abscesses* sequela to a *confluent* varioloid occurring in a *successfully vaccinated* subject. This seaman when first admitted to hospital for "chancreoid" presented some marked indications of scorbutic condition of blood, and regard to that fact was had in his treatment for the "chancreoid."

I suggest that the scorbutic condition of this patient explains the asthenic type of the attendant fever and the septic condition that found expression in the protracted multiple abscesses that followed and so long made doubtful the issue of his convalescence.

Treatment energetically *sustaining* was enforced, disinfectants freely and constantly used. The *hospital tent* was occupied February 14, after which improvement in the cases moved into it was marked and rapid, and no new cases occurred.

The disease did not extend beyond the limits of the hospital, and but three cases were developed, as stated, one of which died.

REPORTS OF FATAL CASES, WITH AUTOPSIES.

CEREBRO-SPINAL FEVER.

CASE 1.

C. C., (colored,) aged 32 years; admitted to United States Marine-Hospital, St. Louis, Mo., June 22, 1881, from steamer "Colorado." Had been sick for several days. When admitted was in a state of great apathy, with wandering, muttering delirium; could not be roused to consciousness. Very weak; nausea and vomiting. Pulse, quick and feeble. Temperature, 37° C. Surface, moist; face, suffused; eyes bloodshot. Great tenderness over spine. Dark, mottled spots scattered here and there over the skin. Tongue, dark-colored, fissured, and swollen; sordes on teeth and gums. Pupils contracted. Breath, fetid; breathing slow and labored. Bowels, constipated; when an evacuation occurred it was offensive. Urine scanty. Had general cutaneous hyperæsthesia to a very great degree. A slight touch of the skin with the hand brought on reflex muscular contractions, and drew from patient a sharp, shrill cry. The muscles at the nape of the neck became rigid and contracted, drawing the head back. This rigidity and contraction extended quickly to the muscles of the back, the muscles of the jaw, and the flexors of the forearms and legs, amounting to trismus and opisthotonos. The patient became more and more stupid, and finally sank into a deep coma, in which state he died, June 26, 1881. At no time did the temperature rise above 38° C.

Autopsy.—Body: Much emaciated; covered with dark, mottled spots. Brain: On removing the skull-cap, the membranes of the brain were found exceedingly vascular, especially the pia mater, which was much congested. The cerebro-spinal fluid was greatly increased in quantity, and of a yellowish color. A quantity of soft, yellow, cheesy material was found covering the brain, thicker in some spots than in others. It was found over the hemispheres, at the base of the brain, over the cerebellum, and on the pons varolii and medulla oblongata. In some places this exudation dipped down with the pia mater into the sulci, between the convolutions. On opening the brain, a quan-

tity of turbid serum was found in the lateral ventricles, while in the posterior cornua of each of the lateral ventricles was found some of the cheesy material, like that seen on the surface. The substance of the brain was somewhat softened. Spinal cord: The meninges of the cord were found injected like those of the brain. Patches of the cheesy-like exudations were found, and the substance of the cord itself was somewhat softened.

CASE 2.

J. A. M., admitted to the United States Marine Hospital, Chelsea, Mass., September 18, 1878. Died September 30.

Autopsy.—On removing the calvarium, the membranes were seen to be engorged and thickened. The medulla oblongata and pons varolii were covered with exuded lymph, which also extended along the cord for a short distance. A section of the cord was removed from the dorsal vertebræ, but no exudation was discoverable; the membranes of the cord were thickened, and the dura mater everywhere adherent to the skull. The man, a few weeks before his admission to hospital, had received a fall from the top-sail yard to the deck, but no marks nor appearances were found that would connect the accident with his subsequent disease. A diagnosis of cerebro-spinal fever was made on his entrance, which the post-mortem appearances seem to sustain. The thorax and abdomen were opened, and the organs therein contained found to present a normal appearance.

ENTERIC FEVER.

CASE 1.

T. P., aged 19 years; nativity, Pennsylvania; was admitted to the United States Marine Hospital, Detroit, August 26, 1881, for enteric fever. The patient had been sick fourteen days. The urine was scanty and high-colored throughout the disease; in the latter stage of the disease it was necessary to use the catheter. The tongue was dry and fissured, the skin was bathed in a clammy perspiration, and petechial spots were abundant on the abdomen when admitted. The day after admission he vomited several round worms, (*Ascaris lumbricoides*.) There was no hæmorrhage from the bowels at any time. The abdomen was distended and tympanitic from time of admission until death. Congestion of right lung occurred on the twentieth day of the disease. Patient died comatose September 3, 1881, at 7 P. M., on the twenty-second day of the disease.

Autopsy.—About six feet of the ileum were examined. The mucous membrane of the bowel was found highly inflamed. Several ulcerated agminated glands were discovered, in some of which the ulceration had progressed through the tunica muscularis; a number of other glands of the same character were found in all the stages between congestion and ulceration. It was observed that none of these ulcers had perforated the tunica adventitia. Large numbers of the solitary glands were also found inflamed and ulcerated. The peritoneum presented evidences of inflammation, which was the probable immediate cause of death.

CASE 2.

J. M., aged 17 years; English; admitted to the United States Marine Hospital, Bedloe's Island, November 15, 1881. Patient was pale and emaciated. Could give no intelligent answers to questions. There was low, muttering delirium. He complained of pain in the head. There was abdominal tenderness. Pulse ranged between 80 and 120. Temperature December 7, 1881, was 40° C. The fever pursued its regular course. From December 16 to 20, patient was quite bright, and seemed to be improving. December 20, ate some meat contrary to orders; in evening, temperature again shot up to 40° C. From this time he continued to fail till he died, December 22, 1881.

Autopsy.—Lungs, normal; no pleuritic adhesions. Heart, small; otherwise normal. Stomach, liver, and kidneys, normal. Intestines: Colon quite healthy. About one metre of the small intestine beginning at the ileo-cæcal valve, was much congested. There were many ulcers on the mucous surface of the above-mentioned intestinal tract. There were some cicatrices of ulcers that had healed. There were in some places false membranes, with thin-walled blood-vessels.

CASE 3.

G. H., aged 29 years; was admitted to hospital at Cincinnati, June 30, 1880. He had been sick eight days before admission, and presented the following symptoms, viz:

Fever; irritable stomach; diarrhœa, with thin, yellowish discharges, containing also scybala. Pupils were dilated; the tongue was covered with a dirty, yellow fur. The patient was very restless, but gave evidence of no pain on pressure either in right iliac region or over other portion of the abdomen.

The second day after admission there was delirium. Temperature, 30.5° C. The fourth day after admission the same symptoms continued, and in addition the abdomen became tympanitic and the pulse

thin and wiry. On the sixth day there was marked relative coldness of the elbow and knee-joints. Towards evening of this day the patient became much worse. There was greater delirium; the eyelids were wide open, with upward rotation of the balls. There was carphologia and subsultus tendinum and incoherent muttering. The patient passed about a pint of thin urine of a light brick-dust color, and with it a number of cheesy lumps. Later there was evident pain in the abdomen; the thighs were flexed upon the belly, but the pain was not increased by pressure. The patient died July 7.

Autopsy.—On opening the abdomen, the omentum was found to be much congested; the peritoneum also, (in spots,) but no fluid or lymph was found within the cavity. The stomach was greatly dilated with gas, and contained a quantity of fluid of a dirty, greenish color, resembling bile. Its peritoneal covering was much congested around the cardiac orifice. The mucous membrane was normal, excepting that it showed slight evidence of congestion.

Small intestine: Peritoneal covering congested. The bowel contained pus of semifluid consistency and a dirty, greenish color. Mucous membrane, normal. In the lower portion of the ileum, near the ileo-cæcal valve, was found an ulcer of small size, which had perforated the peritoneal covering. The lymphatic glands of the mesentery were much enlarged and indurated.

Large intestine: The mucous membrane was greatly congested throughout, being of a very dark, purple color in many portions of its surface. The solitary glands were much enlarged, and a number had undergone ulceration. In the lower portion the fæces were fluid, resembling pus tinged with blood, and emitting a very foul odor.

The other organs were all examined, excepting the brain, but nothing abnormal was detected, excepting in the spleen, which was congested with a dark-colored blood, which escaped from the cut surface or section.

CASE 4.

W. J. S., aged 28 years; born in Kentucky; admitted to the United States Marine Hospital, Louisville, Ky., November 28, 1881; died November 29, 1881.

Clinical history.—He was in a semi-comatose condition when admitted to hospital; but from the statements of his companions who accompanied him, and his own statements, when sufficiently aroused to converse, the following facts were obtained: He had a slight chill on the 13th instant, followed by some fever, and a diarrhœa, that gradually increased from three or four evacuations in twenty-four hours to eight

to ten in the same length of time by the 22d of the month, or eighth day of illness. He performed his duties these eight days, but took to his bed in the evening of that day, which he kept until Louisville was reached by the boat, when he was at once sent to hospital. His diarrhœa had continued to increase, and for the past two days (26th and 27th) he had been very drowsy. He was admitted about 8 o'clock A. M., and the succeeding 24 hours his bowels moved eighteen times, the actions becoming involuntary by 4 o'clock P. M. When aroused, he complained of backache, pain in the back of his head, and on pressure over his bowels. Abdomen somewhat distended and tympanic. Temperature, $40\ 5^{\circ}$; pulse, 150. His coma gradually increased, and was profound on the morning of the 29th. He died at 11.30 P. M. on the 29th, the seventeenth day from his chill.

Autopsy.—Rigor mortis moderately marked. Body covered with *petechiæ*, possibly *post-mortem*; considerable emaciation of body. Abdomen distended with gas. Lungs congested posteriorly—*post-mortem*. Heart, liver, spleen, and kidneys normal in appearance. Stomach distended with gas, and contains about 60 C. C. of mucous and liquid of a brown color. Mucous membrane thickened. Small intestines of a purple color, with numerous spots, graded from a light-brown to a mahogany color, and distended with gas. Peyer's glands engorged and thickened, some of them being one-fourth inch in thickness, and many showing signs of ulceration. The large intestines were distended, much less discolored than the small. Many of the solitary glands were red, distinct and pointed. Brain and membranes congested, probably *post-mortem*.

[NOTE.—This is the first instance in which I ever noticed the solitary glands terminating in a sharp point.—W. H. L.]

CASE 5.

W. B., aged 18 years; admitted to the United States Marine Hospital, Chelsea, Mass., July 8, 1874. Died July 11, 1874. Diagnosis, typhoid fever.

Autopsy.—Surface of body somewhat congested and of purple color, especially legs and arms. The lower half of small intestines and the portion of large intestine near cœcum were congested and purple. Peyer's patches and the solitary glands in both small and large intestines were much enlarged and elevated above the surface plane; ulceration detected in some of the lower glands. The peritoneum was injected at spots corresponding to the affected patches and glands.

The neighboring mesenteric glands were much enlarged, their size varying from that of a pea to that of a small pigeon egg. Some of

the glands were much congested. The spleen was somewhat enlarged, congested, and softened.

The lungs were perfectly healthy, with no pleuritic adhesions. All other organs were healthy and in the normal condition.

CASE 6.

J. W., aged 54 years; nativity, Scotland; admitted to the United States Marine Hospital, Cleveland, Ohio, August 12, 1881. Diagnosis, enteric fever. Patient said he had been sick ten days with fever and diarrhœa, and was gradually getting worse. Temperature on admission was 39.4° C., and from that time till death temperature fluctuated from 38.3° or 38.8° to 40.5° . The tongue was heavily coated, very dry, and very brown. August 15, tympanites became more prominent. August 17, the diarrhœa became very profuse. August 19, very tympanitic. During the time he was in hospital he passed a great deal of blood, considerable of it coming away in masses, which were tar-like in appearance. The mental faculties were much blunted, followed by a semi-comatose condition, and the patient died August 20, it being the ninth day of his admission to the hospital, and the nineteenth day of his sickness.

After death the intestines were examined. The Peyerian patches and the solitary glands were found ulcerated, the ulcerations being furthest advanced and most extensive in the glands near the ileo-cœcal valve. In the ileum was found a perforation the size of an ordinary pea. In the abdominal cavity was found about a litre of fluid containing fecal matter and blood.

CASE 7.

B. S., aged 21 years; nativity, Canada; admitted to hospital, Cleveland, Ohio, October 18, 1881. Diagnosis, enteric fever. He had been feeling sick about a week. The symptoms which the case presented while in hospital were diarrhœa, tympanites, gurgling on pressure in the right iliac region, rose-colored spots on the lower part of the chest and abdomen, tongue coated and dry, sordes on the teeth, increased temperature, and a very feeble pulse; but some of the ataxic symptoms were particularly well marked. There was very great sub-sultus tendinum; there was the most excessive and incessant trembling and shaking of the extremities. Stupor was very pronounced, and during the last week it was impossible to arouse the patient to consciousness. He had a quiet, mild, passive delirium, and, with the exception of an occasional effort to get out of bed, he lay in an indifferent, stupid state. The case was characterized by extreme weak-

ness and prostration, and the patient died November 2, it being the fifteenth day of his admission to the hospital.

The *autopsy* revealed ulceration of the agminated and solitary glands near the cœcum, and infiltration of the glands further up the intestines. In the ileum was found a complete intussusception. This condition had not given rise to obstruction, as there was space sufficient for liquid fæces to pass.

CASE 8.

J. C., aged 23 years; nativity, New York; admitted to the Marine Hospital, Detroit, Mich., December 21, 1880.

On admission, the patient stated he had been ill for several days, with fever and diarrhœa. Temperature, 40.2° C.; pulse, 114. Face of a dusky hue; mind wandering, and incoherent; tongue, dry, brown, and fissured; abdomen tympanitic; bowels loose, dejecta yellow and fetid; urine scanty and high-colored.

Rose-colored spots and sudamina on thorax and abdomen were prominent throughout the course of the disease. Delirium was almost uncontrollable, requiring one constantly at the bedside to prevent personal injury. Hæmorrhage from the bowels occurred on the 27th and 28th.

Autopsy.—About six feet of the lower portion of ileum were removed, washed, laid open, and several ulcers of Peyer's patches, about an inch in diameter, found, extending through the mucous and muscular coats of the intestine.

CASE 9.

G. B. P., admitted to the marine ward, St. Mary's Hospital, Evansville, Ind., March 11, 1881. The patient had worked up to 10 P. M. of March 10, 1881, when he was attacked with a severe rigor, severe pain in the occiput along the spine, with a slight elevation of temperature. Shortly after reaching hospital, patient became violently convulsed, with rigid retraction of the neck and profound coma. Breathing was stertorous, the pupils were dilated, with a pinched and anxious facial expression. The pulse, 120, and soft; temperature, 38.8° C. Patient died, profoundly comatose, at 12.30 P. M., March 12, 1881.

Autopsy.—Upon removing the skull-cap and posterior half of the vertebral column, the membranes were found dry and partially adherent among themselves, both over the brain and cord. The vessels of the arachnoid and pia mater were enlarged and congested. The sub-arachnoid space was filled with turbid fluid, and the cerebro-spinal fluid was increased in quantity and had a milky appearance. The

ventricles contained serum, in which flocculi of lymph were floating. Small patches of exuded lymph were found scattered over the surface of the brain and cord, principally in convolutions and about the base of the brain, usually following the course of the larger vessels. The superficial portions of the brain and cord contiguous to the pia mater were injected and somewhat softened.

CASE 10.

P. B., aged 33 years; nativity, Ireland; was admitted to the University Hospital, Philadelphia, Pa., January 4, 1881, stating he had been ill for nineteen days, with the usual history of enteric fever, including lassitude, chilly sensations, frontal headache, epistaxis, nausea, and profuse diarrhœa, with irritable stomach. On admission he was suffering considerably from dyspnœa, occasioned by bronchitis or pulmonary engorgement, giving rise to a very viscid expectoration. Treatment and progress of the case were those usually observed in cases of enteric fever. On the fifth day after admission, January 9, 1881, symptoms of perforation of the intestine were observed. Peritonitis followed, and death occurred at 7 A. M., January 10, 1882.

The *autopsy* showed perforation of the intestine about two feet above the ileo-cæcal valve. Peyer's patches in state of extreme ulceration; marked evidences of peritonitis; coils of intestine bound together, and where not bound the intestine was greatly dilated.

The abdominal cavity contained four litres of fluid, in which floated layers and shreds of organized lymph. Spleen enlarged, softened; kidneys enlarged. Liver hypertrophied. Right lung engorged posteriorly, and both lungs contained a secretion of slightly viscid consistence, and extremely fetid. The intestinal tract showed not only a marked catarrhal condition, but also evidences of a high state of inflammation, in which both coats of the bowel participated.

CASE 11.

E. C., aged 25 years; nativity, Portugal; admitted to the Marine Hospital, Bedloe's Island, N. Y., October 19, 1880. Died October 28, 1880.

There was nothing unusual in the clinical history of this case. Patient had a convulsion a short time before death.

Autopsy.—Stomach, normal. Small intestines: Congested at seat of Peyer's patches, mostly toward lower end; no peritonitis nor perforation. Large intestines: Slight constriction about middle of transverse colon, diminishing at this spot, but apparently no impaction; mesenteric glands moderately enlarged. Lungs, normal. Heart: Valves,

normal; muscle softer than normal. Pericardial sac: Slight excess of fluid, but no signs of pericarditis. Spleen enlarged one-third and softened. Liver, normal. Kidneys: Capsules adherent; surface ecchymosed in spots; cortical portion much congested; medullary portion presented striated appearance; calyces seat of purulent deposit. Bladder a little distended with urine. Pia mater very much congested and slightly œdematous; remainder of brain appeared natural.

CASE 12.

F. W., (colored,) aged 22 years; admitted to the United States Marine Hospital, St. Louis, Mo., September 13, 1880. Was very weak; surface cold and clammy. Was much prostrated; very severe diarrhœa; no rose-colored spots; some tympanites. September 14, 1880, he had a profuse hæmorrhage from the bowels, and died about an hour after.

Autopsy.—Thorax: Lungs presented towards the bases posteriorly evidences of œdema; blood in the large vessels and heart, fluid; heart, very flabby and friable. Abdomen: Liver, large, soft, slate-colored, and congested; spleen, almost pulpified, and about double the normal size; kidneys, large and œdematous. Intestines: The solitary glands of the lower part of the ileum were greatly enlarged, the red, inflamed mucous membrane being dotted throughout with these granulations. The Peyerian patches were swollen, some of them rising about one-eighth of an inch from the surrounding surface; two of them near the valve had commenced to ulcerate. The mesenteric glands were enlarged to five and six times their normal size.

CASE 13.

Intercurrent Pneumonia.

E. P. C., aged 26 years; nativity, Massachusetts; admitted to marine ward, St. Joseph's Hospital, Baltimore, Md., August 15, 1881.

History.—For one week prior to his admission he had been suffering with violent headache, diarrhœa, pain in the lumbar regions, and epistaxis; but previously he had enjoyed perfect health.

When admitted his temperature was 38° C.; pulse, 96; respiration, 22. "Rose-spots" were seen over his abdomen, and a severe cough was present, with dulness on percussion over the right side of his chest posteriorly. He was put on a diet consisting of milk, beef tea, &c. Quin. sulph., .50 Gm., with .50 C. C. of tr. digitalis, were ordered to be given during the afternoon at intervals of a half hour, until three doses were taken.

August 16.—He passed a comfortable night; had only two stools; temperature, 38° C.; pulse, 90. Same treatment continued. At 7 P. M. his temperature was 41° C., but his pulse had decreased six beats, and was full and strong. He was sponged with vinegar and water frequently during the night.

August 17.—Temperature, 40° C.; pulse, 86; but at night the pulse went up to 110 and the respiration increased to 32, while the temperature remained at 40° C. His cough was very troublesome, but was relieved by turpentine stupes applied over his chest.

August 18.—Pulse only 84; temperature, 39° C.

August 19.—Stomach showed signs of irritability.

August 20.—No perceptible change in his condition.

August 21.—Pulse weaker; sudamina over abdomen. Whiskey, 15 C. C. every three hours, was ordered, in addition to his quinine, &c.

August 22.—As he had had no passage from his bowels for forty-eight hours, a teaspoonful of castor-oil was given, and caused four evacuations during the day.

August 23.—Slight delirium, with high temperature, slow pulse, and frequent respiration. Fine crepitant râles were heard on the right side of chest posteriorly.

August 24.—Respiration more frequent and shallow. Attempts were made to relieve the congested state of his lungs by means of counter-irritants, &c., and stimulants were administered freely; but he sank rapidly, and died on the morning of the 27th, the twentieth day of his disease.

Autopsy, August 28, 1881.—The middle and inferior lobes of his right lung were completely consolidated; the upper lobe was congested, but was permeable to air. The inferior lobe of his left lung showed hypostatic congestion. Heart was examined, but showed no abnormal condition. Liver was large and anæmic. Spleen was double its usual size, and very soft. Mesenteric glands were the size of walnuts. Near the ilio-cæcal valve Peyer's patches were inflamed and ulcerated. The lesions did not indicate that the typhoidal poison had been of a very intense character, and his death was certainly hastened, if not entirely caused, by the pneumonic complication.

Interesting features of the case were the continued high temperature, upon which large doses of quinia and digitalis seemed to have but little effect, the slow pulse, and the constipation.

TYPHO-MALARIAL FEVER.^a

W. C., aged 26 years; nativity, Maryland; admitted to marine ward, St. Joseph's Hospital, Baltimore, Md., January 20, 1882.

Gave a history of good health; except during the past summer and autumn, when he suffered from ague. About a week before he came to the hospital he again had ague, which seemed to be of the tertian type. On admission his condition was noted as follows: Pale, anæmic; pulse, 100—feeble; temperature, 37° C.; respiration, 20; slight cough, due to bronchial catarrh; tongue, flabby and coated; anorexia; bowels constipated; headache, and slight enlargement of spleen. The diagnosis was recorded as remittent fever. Although kept well under the influence of cinchonidia, his condition did not improve during the first week, and his temperature showed a daily rise of from one to two degrees every afternoon.

On the tenth day after his admission his nose bled freely and rose-spots appeared over his abdomen, showing that there was a typhoidal poison as well as a malarial one present in the case. His treatment was changed slightly. Quin. sulph., .50 Gm., *t. i. d.* whiskey, 15 C. C., every three hours; beef tea, milk, &c., *ad lib.* His bowels were opened every alternate day by small doses of castor-oil, until the third week, when mild diarrhœa set in.

Early in the third week, notwithstanding stimulants had been given freely, he became so prostrated that carbonate of ammonium, .50 Gm., with ten drops of sulphuric ether, was given every two hours, in addition to his other medicines; .50 C. C. tr. digitalis was given with every dose of quinine.

During the last days of his illness his temperature varied from 39° C. to 41° C.; pulse, 130 to 160; respiration, 50 to 60. There was no peritonitis, no irritability of his stomach, and very little delirium. He died February 11, 1882.

Autopsy.—Lungs showed hypostatic congestion, and there were old pleuritic adhesions on the right side; heart, of normal size, with healthy valves; liver, congested. Spleen measured eight inches in length, five inches in width, and two inches in thickness, and was very much softened. No signs of peritonitis. Kidneys were healthy. The entire small intestine gave evidences of intense inflammation, and Peyer's patches were ulcerated in several cases nearly through the external coat of the intestines. The mesenteric glands were as large as pigeon eggs.

^a Not recognized in Nomenclature, but recommended to be adopted.

Interesting points of the case were the combination of the typhoid and malarial poisons; later appearance of the typhoid symptoms, considering the severity of the lesions; and the constipation occurring during the first and second week, followed by a mild diarrhœa during the third.

REMITTENT FEVER.

CASE 1.

H. P., aged 28 years; admitted to United States Marine Hospital St. Louis, Mo., from steamer "Sam Roberts," July 2, 1881. Was a thin, cachectic man. A few days before admission had a severe rigor, followed by a febrile movement, which has been continuous, with diurnal remissions, for which he had received no treatment up to date of admission. On admission is in very low condition. Stomach, irritable; nausea and vomiting; diarrhœa. Low form of delirium. From the first this patient appeared to be entirely overcome by the malarial poison, from which he failed to rally under treatment, and died July 15, 1881.

Autopsy.—Thorax: Right lung, congested; lower lobe of left lung very much congested. Heart, large, flabby; fatty degeneration of walls; chicken-fat clot in right ventricle. Abdomen: Stomach, congested; intestines, somewhat congested. Peyerian glands, somewhat prominent; not appreciably softened. Liver, enlarged and softened; mottled color, bronze and olive. Gall-bladder containing a small quantity of rather thick, dark-colored bile. Spleen, enlarged; softened. Kidneys, very much congested.

CASE 2.

A. B., (colored,) aged 25 years; admitted to United States Marine Hospital, St. Louis, Mo., from steamer "Ste. Genevieve," March 11, 1882. Was a strong, well-nourished man. Had been well up to the day before admission, when he had a severe rigor, followed by a febrile movement, from which he is suffering on admission. The fever remained continuous, with slight remissions, until March 13, when diarrhœa and vomiting supervened. Conjunctivæ injected. Patient became stupid, and gradually comatose. Died, in a state of profound coma, on March 16, 1882.

Autopsy.—Lungs, congested. Heart, normal; large clot in right ventricle. Liver, mottled color; enlarged, softened, and gorged with blood. Gall-bladder distended with molasses-like bile. Spleen, enlarged and softened. Kidneys, congested. Brain, congested; ventricles distended with serum; effusion in sub-arachnoid space. Meninges very much congested.

CASE 3.

F. A., aged 54 years; nativity, Canada; admitted to the marine ward, Charity Hospital, New Orleans, May 26, 1882. Been sick for three or four months with ague. Patient badly nourished. Liver, slightly enlarged. Pulse ranged from 85 to 95; temperature never more than 1.5° C. above normal. Icterus developed soon after admission. Diarrhœa set in soon after admission, and was never controlled. Quinia and morphia administered freely.

May 28.—Patient in state of hebetude. When aroused, complains of great pain in region of liver; simulates gall colic. Jaundice increased. Great nausea; unable to retain medicines.

May 29.—Condition worse; cannot be aroused. Respiration, from 12 to 15; temperature, 36.5° C.

May 30.—Died.

Autopsy, eight hours after death.—Skin decidedly icteroid; rigor mortis great. Nothing special about any organ except the liver, which bore the usual appearance of malarial poisoning. The gall-bladder was distended with normal bile. The surrounding tissues were pigmented from transudation. The cystic duct was catarrhal, much swollen, and nearly occluded, admitting only a very small probe, and the bile secretion had evidently been suspended for some time.

PERNICIOUS AGUE.

P. M., aged 41 years; nativity, Finland; from the schooner "Joseph Souther." Transferred to the United States Marine Hospital, Portland, Maine, from Bangor, Maine, August 10, 1881. Previous duration of disease, one week.

Temperature upon admission, (P. M.,) 40.5° C.; tongue dry and coated; severe frontal headache, and pain in the knees. Ordered sponge bath and usual remedies.

August 11.—Morning: Temperature, normal, but there is still considerable pain referred to the knees. Evening: Temperature, 37.56° C, and patient very restless. Quinia continued, and one and one-half teaspoonfuls of sol. morph. sulph., U. S. P., given.

August 12.—Morning: Patient comatose and bathed in perspiration; his jaws are locked, and it is with difficulty that he can be made to swallow; the joints are all stiffened, and the limbs apparently in the condition of paralysis; pulse, 96 and soft; urine quite thick, and highly colored; no albumen present—Evening: Perspiration continues the same, although the entire surface has been rubbed and dried several

times with woollen cloths; temperature, 39.5°C ; clothing changed, and quinia given per rectum. Patient in about the same condition as he was this A. M., except that temperature is higher.

August 13.—Morning: Temperature, 40.25°C .; pulse, 150, and very weak; respiration, 44; complete coma. Died at 11.15 A. M., after being comatose for a period of thirty hours.

Autopsy.—Showed the following conditions: Brain, lower lobes of the lungs, and the cortical portion of the kidneys were intensely congested; the liver was quite soft and of a deep-bronze color, while the spleen was so black and soft that in color and consistency it simulated ordinary tar; other organs apparently healthy, except that the walls of the ventricles of the heart seemed thinner than normal. The tissues throughout the entire body were deeply tinged or jaundiced.

SCIRRHUS CANCER OF FACE.

J. O., aged 44 years; born in Delaware; admitted to the United States Marine Hospital, Bedloe's Island, New York, November 19, 1881. At that time there was an ulcer at the left angle of his mouth. This was about two centimeters long, one wide, and one-half centimetre deep. Various washes had previously been tried, but with no benefit to the patient. The ulcer was cauterized with liq. zinci chloridi, and immediately began to heal. In addition to the above, there was a tumor about half as large as a hen's egg over the left parotid gland, and apparently involving the gland. January 16 the tumor was aspirated, and about 4 C. C. of straw-colored fluid withdrawn. The tumor gave some pain, and was immovable. At his urgent request, the tumor was removed about January 20, 1882. After one and one-half weeks it began to return and to ulcerate. The discharge was very foul. He wanted a second operation, but it was refused. Died March 9, 1882.

Autopsy.—Large ulcerating surface on the neck and cheek; small cancerous nodule in left lung at apex. Tumor examined microscopically; proved to be a scirrhous cancer.

EPITHELIAL CANCER OF FACE.

CASE 1.

J. E., aged 60 years; born at sea; admitted to the United States Marine Hospital, Bedloe's Island, New York, June 9, 1881. Patient had always been well. In November last noticed small bunch on left cheek. It was painful, and grew rapidly. After a time it began to ulcerate. On

admission there was an ulcer on the cheek covering the entire back part of cheek, and involving the neck just under angle of jaw; ulcer covered with coarse, unhealthy granulations; fœtor intense; ulcer grew larger, involved the ear, destroying, in its ravages, the tragus and lobule; ulcer under angle of jaw spread and grew deeper till it threatened to lay bare the carotids; nothing could stay its progress. Patient grew weaker, and died October 12, 1881.

Autopsy.—Lungs, heart, liver, and kidneys normal; pericardium universally adherent; spleen smaller than normal, and apparently cirrhotic. No secondary deposits were found. Body extremely emaciated.

CASE 2.

W. J., aged 67 years; nativity, Wales; admitted to the marine ward, Charity Hospital, New Orleans, La., December 6, 1881. Has been suffering from epithelioma (beginning on bridge of nose, he states) for six years. He states that it has been burned out once, and he has been under treatment for the same by the physicians in the city. When admitted to hospital the disease had extended from the right eye to beyond the outer canthus of the left, which it involved. The nasal bones were absorbed, and it appeared to extend to the orbital plate of frontal. Above, it involved the orbicularis muscles, and probably the superciliary ridge of frontal. He suffered considerable pain, but was around the ward until January 2, when his temperature suddenly increased and pulse became rapid. He soon became comatose, and remained in that condition until he died, January 4, 1882. His breathing was quick, stertorous, and frequent. Slight hæmorrhages from the supra-orbital artery.

Autopsy.—Rigor mortis. Cadaver that of a strong man, but cachectic in color. The protuberant granulations of the cancerous mass had fallen in, leaving cavity involving bridge of nose, left eye, and inner canthus of right eye. On removing calvarium, a quantity of pus mixed with cerebral fluid escaped. Dura mater distended by fluid; its blood-vessels injected. Removing dura mater allowed purulent fluid to escape; a purulent deposit dipped between sulci of anterior hemispheres. The dura mater between the frontal sinus and the left internal plate of frontal bone was distended into a pouch, pressing against left anterior lobe. This pouch communicated with the cancer. The inner table of frontal bone, left side, was in part destroyed, small portions being adherent here and there to dura mater. A spicula of the remaining portion of the bone had been gradually deflected backwards and down-

wards by the fluid until it pressed against the second ascending frontal convolution. Left orbital plate entirely destroyed. Cancerous mass had invaded the antrum of Highmore. Left anterior lobe of brain softened. Rest of cadaver not examined.

CANCER OF LIVER.

R. S., born in Scotland; aged 68 years; admitted to the United States Marine Hospital, Mobile, Ala., February 28, 1882. Died of cancer of liver (medullary) April 5, 1882.

Autopsy.—Emaciation excessive. Inguinal, cervical, and axillary glands enlarged. Cancerous cachexia apparent but not marked. Heart under size and slightly fatty; otherwise normal. One or two cancerous nodules near root of left lung. No further lesion of its parenchyma. Right lung hyperæmic at base; contained a considerable amount of frothy, bronchial exudate. Diaphragm in small spaces adherent to liver. Spleen one-third normal size; dark-gray in color externally; within, darker than normal, exuding a thin, dark fluid, like disorganized blood. Liver totally diseased, except small part of concavity. (This part was pronounced exempt during life.) Masses of cancerous matter of a creamy white, somewhat resistant to the touch, and also to the knife, pervaded the whole gland. These masses were for the most part round in shape, of various sizes, the greater number being from 2 to 3 Cm. in diameter. They were generally isolated, being separated from each other by narrow boundaries of reddish, degenerated parenchyma. Weight, $4\frac{1}{4}$ kilos. Gall-bladder contained usual amount of bile; posterior wall diseased. Pyloric end of stomach and greater part of pancreas were involved. The entire duodenum, a few inches of the jejunum, and a number of retro-peritoneal glands were matted into a diseased mass. Some of the glands were as large as a walnut. Cancerous deposit here and there along rest of intestinal canal; likewise in peritoneum. Other organs not examined.

CANCER OF STOMACH.

CASE 1.

J. M., aged 44 years. When admitted to the Marine Hospital, Chicago, October 8, 1881, complained of a constant sensation of rolling and distension of stomach and frequent eructation of gas and fluid, with occasional vomiting. Scarcely ever complained of pain, and after a few

weeks vomiting seldom occurred. Appearance cachectic. Condition varied but little, and he walked about the ward until April 1, 1882, when he complained of an increase in severity of the previous symptoms; lost what little appetite he had hitherto possessed, became very weak, and took to bed.

April 10.—Began to complain of pain in left calf. Left foot and leg cold as far as the knee. Artificial heat applied.

April 12.—Pain has increased somewhat; toes and foot have become discolored.

April 14.—Found lying on the floor complaining of severe pain in the region of the stomach, which was quieted by morphia, hypodermically. The pain did not recede. Toes gangrenous.

April 15.—Right foot and leg cold; delirious.

April 16.—Right toes discolored; comatose.

April 17.—Died at 2 A. M.

Autopsy.—Chest and abdomen only examined. Lungs somewhat collapsed. Pleuræ firmly adherent, except anteriorly. Heart very small, pale, and flabby; no fat in the auriculo-ventricular grooves. Kidneys, liver, pancreas, and spleen, small and anæmic. Stomach large and flabby; an indurated nodular mass, two-thirds as large as the palm, was found at the pyloric extremity, involving the pylorus; an ulcer the size of a half dollar existed in the greater curvature near the pylorus in the centre of the largest nodule, at the bottom of which perforation into the abdominal cavity had occurred. Examination under the microscope revealed the characteristics of scirrhus.

CASE 2.

J. B. C., born in New York; aged 66 years; admitted to the United States Marine Hospital, Mobile, Ala., June 28, 1881. Died of cancer of stomach (scirrhus) July 7, 1881.

Autopsy.—Heart: Smaller than normal; muscles, weak and flabby; valves, sound. Lungs: Dark, purplish hue externally; congested; had a granular feel in running the hand over the surface; when cut into very little blood followed. The parenchyma was of a dark, sooty color, and contained a good deal of frothy bronchial exudate. Both lungs were studded with minute pellucid granulations, possibly miliary tubercles. (Lungs examined when patient entered hospital. Nothing indicating such a condition apparent at the time; no rational signs by which to discover miliary tuberculosis during last days of illness.) Stomach bound to left lobe of liver over small space, also to pancreas and contiguous epiploon. Nearly two-thirds of the organ, including

the pylorus and, what is unusual, also the duodenum, were found to be cancerous, (scirrhus.) About 100 C. C. of thin, smoky-looking fluid, with faint streaks of blood, (coagulated,) was contained in it. The peritoneum, large and small intestines, all were found more or less infiltrated with cancerous material. In some instances small glands were greatly increased in size, (hypertrophied;) in others, simply the seat of cancerous deposit. Liver: Smaller than normal; usual outlines altered; exceedingly hard to the touch; enclosed in a white, fibrous capsule, rather tough, and about three lines thick. The whole organ was diseased, but nothing in the gross appearances from which to positively declare cancer. The gall-bladder was nearly surrounded by the thickened hepatic tissue, and about one-fourth normal size. Spleen and kidneys, normal.

CASE 3.

J. D., aged 46 years; nativity, Ireland; admitted to the marine ward, Charity Hospital, New Orleans, La., April 29, 1882. Died June 6, 1882.

April 29.—Patient somewhat emaciated. Has decided cancerous cachexia. Complains of loss of appetite, and of occasional nausea.

May 1.—Vomited food (most milk partly digested) about two hours after breakfast. Contained smoky-looking particles, with minute traces of blood. Fed principally on milk and buttermilk; occasionally given sour milk or beef tea. Pepsin powders after eating. Farina, with pepsin mixture. (Pepsina, 2 Gms.; glycerine, 5 Gms.; acid hydrochlor., 1 C. C.; aqua, q. s. ad., 50 C. C.—5 C. C. after eating.)

May 10.—Patient gradually failing. Palpation of body reveals morbid mass at pylorus. Not perceptible at first. As patient wastes, tumor (although indistinct) becomes plainer.

May 31.—Patient dying of inanition. Has to be fed. Complains of great pain. Greatly troubled with singultus. Anodynes freely administered until June 6, day of death.

Autopsy.—Body emaciated. Stomach removed entire; contained about 300 C. C. of thin, greenish fluid, with one or two small shreds of meat. From the pylorus back, about two inches of the entire circumference was a scirrhus tumor, which barely allowed the passage of a small probe. All the duodenum seemed to be exempt from cancerous tissue. There was a slight adhesion of the pancreas and the pylorus, and the former was slightly diseased in the same way. The retro-peritoneal glands underneath the stomach were involved, and several of them greatly enlarged and indurated. The spleen, as usual, was much shrunken, flabby, and of a pale, slaty color. Nothing special in other respects.

PERINEAL ABSCESS—PHTHISIS.

J. T., aged 30 years; born in Alabama; admitted to United States Marine Hospital, Mobile, Ala., March 5, 1881, suffering with large abscess in perineal region, and, from symptoms, involving the prostate. The abscess soon extended over the whole ischio-rectal region. Incised about one inch outward and a little forward from anus, letting out about 500 C. C. of thick, fetid pus.

A few days after, discovered phthisis in right lung, just entering second stage. Notwithstanding the utmost care, the opening of the abscess does not heal. The tissues manifest a slow but decided tendency to break down. The symptoms of prostatic implication have somewhat subsided, and it appears that the prostate is not so much involved as was supposed; still it is considerably engorged.

Six weeks before death tissues on opposite side of anus broke down, making a sinus on each side. Disinfecting fluid thrown into that on the right side returns through anus, revealing fistulous communication. Nevertheless, it could not then be found, one reason being that the whole region was hyperæsthetic, and the patient was too far gone with phthisis to take anæsthetics. There was no intention, however, of surgical relief for the cure of the fistula.

The patient suffered continuously from diarrhœa; and the lung disease in particular wore him out persistently but gradually. There were no favorable turns from date of admission. Died December 27, 1881.

Autopsy.—Opening to right of perineal raphe size of an almond, and found filled with pus. What was singular, no sign of fistulous tract could be found through this opening. Continuing to explore, the probe was finally passed underneath and across the raphe to the opposite opening; thence ranging upwards and inwards, it entered a tract which led directly backwards and downwards, making its exit at a point directly in a line with the tip of the coccyx, and not more than a line from the anal margin. The prostate was not more diseased than has already been intimated.

Owing to the entreaties of the patient's sister, no further examination was made, except to remove about $1\frac{1}{2}$ inches of the radial artery near the wrist, which before death was supposed to be atheromatous, on account of its hard, beady feel. Such was found to be the case, although the patient was only 30 years of age. There were no indications of heart disease, nor of cerebral trouble during life. No cause could be assigned for the abscess, which came on at sea, and had to be endured for two weeks before the patient reached this port. It has subsequently been learned that the man was a confirmed drunkard.

SCROFULA—PHTHISIS PULMONALIS.

CASE 1.

J. P., aged 24 years; native of Cape De Verde Islands; admitted to United States Marine Hospital, Vineyard Haven, Mass., (transferred from St. Joseph's Hospital, New Bedford, Mass.,) with general symptoms of advanced phthisis, July 7, 1880.

The treatment seemed to have but little effect in arresting or controlling the progress of the disease. The patient died March 29, 1881.

Autopsy.—Cutaneous and superficial venous congestion, very marked. Left lung adherent to costal pleura over large part of surface. Very large vomica occupied nearly entire extent of anterior upper lobe of left lung, anterior wall of which was formed by thickened pleura, all the lung tissue having been disintegrated and removed. Extensive tubercular cavities, and deposition of tubercular matter, more or less softened and disintegrated, occupied the remainder of the lung tissue of the left side. Right lung presented extensive pleuritic adhesions; tubercular deposit throughout lung tissue, especially upper anterior lobe.

The history shows that there was a syphilitic taint.

CASE 2.

G. W., aged 28 years; born in Kentucky; admitted to the United States Marine Hospital, Louisville, Ky., November 10, 1881. Died November 12, 1881.

Clinical history.—On admission, the patient was carefully examined and all the signs of phthisis found to be present in both lungs, but more advanced signs, with cavity, in the right one. Heart sounds normal, but pulsations 108 per minute. Temperature, 37° C. He was able to walk and go down two flights of stairs to his meals. On the evening of the second day, at 9 o'clock, while preparing for bed, he suddenly expired.

Autopsy.—Rigor mortis well marked. Stomach, spleen, and liver healthy. Numerous small tubercles found in the coats of the small intestines. Kidneys large and pale. Right lung contains a great many tubercles in various stages of development. In the centre of upper lobe is one large cavity, and near the lower border one small one. Left lung contains several tubercles in upper lobe, but no cavity. Old pleuritic adhesions of left pleura and recent ones of right at site of one cavity, and one tubercle, in an advanced stage of softening. Heart normal as to size and situation. A large fibrinous clot was found

in the right ventricle, extending through the opening and two inches into the pulmonary artery, and believed to be the cause of death. This clot was nearly pure fibrine, white in color, and only stained by blood corpuscles mixed through it. Death was almost instantaneous; the heart had ceased to beat in two minutes from the time of his sinking on his bed. The valves were all normal in appearance. The brain and membranes were healthy, and no evidences of thrombus or embolism could be found.

CASE 3.

W. J. C., aged 43 years; nativity, Georgia; admitted to the marine ward, City Hospital, Memphis, Tenn., November 18, 1881. Died November 26, 1881. A confirmed drunkard; had suffered with cough and diarrhœa for six months.

Autopsy.—Lungs adherent to upper part of chest-walls; right also to diaphragm; cavities in both upper lobes; small pus collections throughout both lungs. Bronchi filled with sanguineous pus and mucus. Liver large and soft; vessels filled with blood. Colon ulcerated in spots in lower third.

CASE 4.

B. M., born in Germany; aged 51 years; admitted to the United States Marine Hospital, Mobile, Ala., January 19, 1882. Died February 1, 1882.

Autopsy.—Right lung, greatly congested at base; at apex and downwards as far as middle of upper lobe, small cheesy deposits of various sizes, from three-fourths to one-eighth inch in diameter. Left lung, shrunken and hid by anterior mediastinum; whole upper and outer portions firmly adherent to thoracic parietes; base adherent to diaphragm; had to be torn and dissected out; one-third the size of other lung; external surface bore no evidence of lobular division; covered by a thick, fibrous coat, from one to two lines in thickness, and extremely tough to cut through; upon section, found to be honey-combed with cavities throughout, divided by fibrous trabeculæ, and almost as resistant to knife as cartilage; cavities filled with a mixture of sanguino-purulent matter, in which floated numerous small particles of cheesy matter. Heart, normal in size; valves likewise; right ventricle, somewhat thickened; pericardial fluid, scanty. Liver enlarged and, as usual, decidedly fatty. Spleen and kidneys presented nothing of special interest.

CASE 5.

C. W., born in Louisiana; aged 44 years; admitted to the United States Marine Hospital, Mobile, Ala., October 18, 1881. Died of phthisis pulmonalis December 26, 1881.

Autopsy.—Pericardial sac adherent to lungs; small amount of fluid, which was lost in removing lung; auricles, normal; ventricles, slightly hypertrophied; valves, normal. Lungs: Both bound to thoracic parietes over nearly whole extent, also firmly adherent to diaphragm; bases much torn in removing. Where torn, of dark liver color, (red hepatization.) Filled with pneumonic nodules. A few bronchiectases showed here and there. Near the centre, and also about two inches from the apex of the right lung, were several small cavities, filled with thin bloody pus. Left lung had scarcely a vestige of healthy tissue. In addition to conditions just mentioned, small patches of miliary tubercles were found. That part of the lung extending under the sternal end of the clavicle was covered by thickened pleura, nearly two lines in thickness. Almost the entire lung had undergone excavation, save that there were thin partitions between the cavities; besides these, there were a number of small excavations near the base, all filled with the kind of pus hitherto mentioned. In this lung, also, there was a spot near the base that was tough and indurated, as if the lung had made an effort at fibroid repair. On the border of this hardened mass there were two small calcified masses, showing that nature had made two different struggles toward cure. Liver: As expected, this viscus was enlarged out of all proportion. It reached from the lateral border of one hypochondrium to the other, and had so pushed up the stomach that nourishment was out of the question. For two days previous to death patient complained of great thirst, and ejected everything eaten. This was attributed to reflex gastric irritability, fever, &c. *Post-mortem* showed that the liver had so compressed the stomach against the diaphragm that it contained no room for either food or drink. Spleen, normal. Nothing unusual about other organs.

CASE 6.

W. W. McF., born in New York; aged 48 years; admitted to the United States Marine Hospital, Mobile, Ala., May 25, 1881. Died of phthisis pulmonalis, August 7, 1881.

Autopsy.—Body not much wasted; rigor mortis not marked; pericardial fluid small in quantity. Heart of usual size; no true fatty degeneration, but rather more than normal amount of fat about the appendices. Lungs involved pretty much alike; cavities in apices

of both, (two or three;) middle lobes studded with small caseous masses, sometimes broken down to purulent matter, flowing upon incision; both lungs more or less indicative, especially posteriorly and from middle to base, of recent bronchitis; palpable signs of acute congestion, from which patient seemed to have succumbed. Liver, as usual, enormously enlarged; twice the normal size, and intensely hyperæmic, particularly the lower portion of both lobes; in color, dark, almost black. Peritoneum, of a darkish, dirty hue. Mesentery, destitute of adipose tissue. Intestines filled with flatus, but not inflamed. Spleen, normal in size; of pale, bluish color. Stroma appeared normal. Other organs not examined.

CASE 7.

P. M., aged 26 years; admitted to the United States Marine Hospital, Bedloe's Island, New York, March 6, 1882; English. The patient was very lousy. He said he was sick two months at sea, and evidently had been sadly neglected. He was weak, appetite poor, and had a cough; there was a small ulcer on one leg, which healed readily; dulness over apices of both lungs, and moist râles over same region. He failed gradually, and died April 13, 1882.

Autopsy.—Pus in very small amount in right pleural cavity, at base; many and strong pleuritic adhesions everywhere except at base of right lung. In both lungs were cavities as large as hickory-nuts. On section, pus flowed freely from the smaller bronchi; the pus was foul-smelling.

CASE 8.

O. J., aged 24 years; admitted to the United States Marine Hospital, Bedloe's Island, New York, January 10, 1882. Patient pale, and complains of much pain near anus; abscess in ischio-rectal fossa, (left;) opened it, and found connection with rectum; he had a cough, and raised some blood; dulness over both apices, and mucous râles in abundance. At first, where sphincter was cut, granulations looked healthy; later, the granulations looked gray; appetite failed; cough more distressing. Died April 5, 1882.

Autopsy.—Small cavities at the apices of both lungs. Other organs normal.

CASE 9.

E. McG., aged 31 years; born in Maine; admitted to the United States Marine Hospital, Bedloe's Island, New York, December 12, 1881. Dyspnœa, amounting almost to orthopnœa; respiration, 40 per minute, and pulse at the wrist almost imperceptible and very rapid. He was

too feeble to give any history of himself. Dulness over left lung, extending from the apex to the fourth intercostal space. Over this dull area was bronchial respiration and feeble respiratory murmur. Dulness over right lung, and respiration gave a cavernous sound.

December 13.—Pulse, 128; respiration, 38. Slept some; tore off his clothes. Died at 10 P. M.

Autopsy.—Large cavity in right lung, and the lung tissue nearly all destroyed. Left lung apex solidified. There was a large number of tubercles throughout the tissue of the left lung. On section, pus seemed to flow from every bronchiole. Right pleuræ were universally adherent, so that lung tissue would yield before the adhesions.

CASE 10.

E. B., aged 28 years; Norwegian; admitted to the United States Marine Hospital, Bedloe's Island, New York, July 11, 1881. Patient weak and emaciated. Sick for two years, though able to work most of the time. For the last two months laryngitis had prevented him from talking louder than a whisper. Had a dry cough. Respiration feeble; percussion-note dull. Chest-wall in intercostal spaces was retracted. There was also a depression above the clavicles. August 14, 1881, diarrhœa set in, which greatly weakened him. Died August 16, 1881.

Autopsy.—Heart and pericardium normal; right lung completely riddled with tubercles. There was hardly any healthy lung tissue to be found. At the apex were extensive adhesions, and two small cavities about the size of large beans. The cavities were deep-seated. Left lung likewise filled with tubercles, and with large adhesions at the apex. At the upper and back part of the inferior lobe was a cavity the size of a walnut, and full of pus.

CASE 11.

Enlargement of the Liver.

J. J., aged 31 years; nativity, Massachusetts; admitted to the marine ward, Hotel Dieu Hospital, New Orleans, La., December 2, 1881. Died June 24, 1882.

Autopsy.—Rigor mortis great. Emaciation very marked. Heart small, pale, flabby; valves normal. Left lung: Large, heavy; in color, from dark (nearly black) to pale gray; completely adherent to diaphragm, and in large patches to thoracic parietes. At these spots there was fibrous thickening of the pleuræ. Upon section, numerous small cavities were found, from the size of a buckshot to that of a hazel-nut; many were elongated—in diameter the size of the little finger, and about two inches long—traversing the lung in various directions. Caseous

matter, in divers stages of disintegration, occupied the lung throughout—patches of pneumonic nodules; old, cheesy residua; broken-down parenchyma; also a mixture of blood, caseous matter, and pus. Right lung: In color like the left, except that at the base it was fiery red and dark, (mottled,) and toward the posterior surface almost a uniform liver color. This portion indicated the seat of recent hyperæmia. At the apex was a cavity as large as a small orange, partly filled with thin, yellowish, purulent matter. The rest of the lung was similar in condition to the left. It was likewise adherent to the diaphragm, and bound down by pleuritic inflammatory deposits. Liver: Two days before death this patient was examined for hepatic enlargement. The physical indications, although carefully sought for, were very slight, and not sufficient to base an opinion that enlargement existed. The opinion that there was enlargement was based upon preceding clinical and necrotic experience, although neither the surgeon nor resident physician could get the physical signs of hepatic enlargement.

The liver, when removed and laid upon the table, measured across from right to left 29 Cm.; from above downwards, 20 Cm.; from before backwards, 12 Cm. The diameter of the waist was only 30.50 Cm., by careful measurement. It could plainly be seen before removal that the liver reached from one side to the other of the abdomen. The upper margin of the left lobe had a decided convexity, having grown upwards, thrusting aside the stomach. The right lobe was decidedly spherical, and had pushed its way against the diaphragm and lung. It was plainly fatty in character, somewhat tough in texture, and cut like new cheese. Although so large, it was quite light, weighing four pounds thirteen and one-half ounces. Nothing special about other organs, except that the stomach was small in proportion to the size of the liver. It is an old fact that fatty livers belong generally to phthisis patients, but it is not sufficiently recognized. The reporter thinks that hepatic enlargement plays a mechanical part in causing death. Even with a good appetite, this patient could not have eaten enough to have sustained life many days longer, for the reason that the stomach was too much compressed by the liver to admit sufficient food to supply tissue needs. It is also a little singular that the signs of liver enlargement are not manifest by palpation, as in other diseases.

CASE 12.

T. K., aged 50 years; nativity, Pennsylvania; admitted to the marine ward, Hotel Dieu Hospital, New Orleans, La., June 10, 1881. Died February 5, 1882.

Autopsy.—Abdominal cavity: All contained viscera normal, except spleen, which was filled with tubercles. Thoracic cavity: Lungs covered externally with pearl-shaped nodules—tubercles—although their color was that of a black pearl, from the excessive deposit of carbon. Old, but not numerous, pleuritic adhesions. On section of either lung, the tubercles were found to be very numerous and in every condition. There was much caseous degeneration, although in no locality had it progressed so far as to form a cavity. Pericardium and heart, normal. Brain not examined.

TUBERCULOSIS.

CASE 1.

J. M., aged 31 years; nativity, New Hampshire; admitted to the marine ward, St. Mary's Hospital, Galveston, Texas, September 10, 1881, for diarrhœa of about two weeks' duration. A large-framed man, of medium height; once of heavy build, now considerably reduced in weight; sallow, and weak from effects of diarrhœa; face drawn, and cheeks sunken. Stated that the diarrhœa came on at sea, and increased until he ceased to count the number of passages, which were profuse, watery, and sometimes slimy, and accompanied with considerable pain, both of bowels and at the anus. Appetite gone, and digestion apparently suspended. Eyes, sunken; skin, pale; pulse, small and feeble. Tongue, very large, flabby, and pale; blunt and thick when protruded from mouth. Mucous membrane of mouth and fauces very pale. Gave history of fistula in ano, for which an operation had been performed successfully. Complained, shortly after admission, of pain in rectum, and a slimy discharge, independent of the diarrhœa, which proved to originate in two or more ulcers situated above the internal sphincter. These ulcers were eventually healed by the use of iodoform suppositories, with entire abatement of all irritation of the lower bowel. Diarrhœa proved obstinate, and could be only partly controlled by the various remedies used. Besides pain in abdomen, there were also pains in the chest, over liver, spleen, or lungs, shifting from one place to another, and sometimes not recurring for long periods. These pains were first noticed about the middle of November, and examination failed to reveal their cause. Liver apparently normal, or slightly reduced in size; spleen, normal; no heart lesion, and lungs yielding only a varying bronchial râle of no apparent significance. A very slight, hacking "throat cough" was occasionally noticed, but there was no expectoration. Sleeplessness was complained of, and relieved by morphine. Vomiting

of a little slimy mucus was noticed once or twice. About the middle of December the pain in the chest became more marked, but was much relieved before January 1, and the patient's condition became so much improved as to warrant the belief that he would be able to leave for the north with cessation of hospital treatment. Emaciation, though present, was much less marked, and all symptoms, including diarrhœa, seemed to be slowly disappearing. About the first week in January night-sweats came on, and gradually became more prominent and intractable, producing, necessarily, much weakness. Patient again failed, lost appetite, slept little, lost flesh rapidly, had more or less diarrhœa, and became so sallow as to almost approach bronze-skin discoloration. Food was vomited shortly after ingestion, with the exception of milk, which was retained, and for some time constituted almost the only food taken. Vomiting became marked and serious about the middle of February. Hacking cough again appeared, and became quite annoying; but still no expectoration was noticed, except an occasional small quantity of mucus. Bronchial sounds more marked over lungs, but limited to no especial locality. No dyspnœa except on exertion incommensurate with patient's emaciated condition; no pain on deep inspiration except occasionally. All symptoms increased in severity until it became evident that recovery was not to be expected. About one week before death patient suddenly commenced to expectorate profusely, spitting up a half pint during the first night; dyspnœa became marked; pain increased; dulness found over anterior and posterior surface of right lung; loud mucous and sibilant râles over both sides; bronchophony on right side; rapid respiration, and great anxiety of expression of countenance. Patient failed rapidly, and died April 18, 1882.

No full record was kept of temperature, but it was found sometimes a degree above normal, and for several weeks during middle period of sickness there was more or less fever. Pulse rapid from the first. Mind clear to time of death, though great despondency was present during whole course of disease.

Autopsy.—Rigor mortis present, but not well marked. Body greatly emaciated and sallow; no true bronze color. Head not opened. Intestines pale and almost bloodless; their calibre much contracted, and walls attenuated. Intestinal contents, yellow slime. Stomach pale, and somewhat dilated, and its walls very thin. Rectum not examined. Kidneys not abnormal. Bladder firmly contracted. Liver apparently normal in size, color, and consistency. Spleen slightly softened, dark and friable, but not materially enlarged. Heart small and pale; no valvular lesion; firm clots, of the size of a quill, three inches long, and

having firm fibrous centres, were found extending into aorta and pulmonary artery. Supra-renal capsule normal. Upper lobe of left lung hepatized in about two-thirds of its extent, and adherent to the chest-wall over anterior and lateral surfaces; lower lobe affected only in upper portion. Hepatized tissue, yielding sanious fluid on section. Right lung strongly adherent over whole surface, and solid through almost its whole extent, no contraction being evident on opening the chest. Section of this lung yielded thick purulent matter, exuding from divided bronchial tubes and small cavities. About the centre of the middle lobe existed a cavity of the size of a large walnut, with irregularly excavated rigid and ragged walls, from which small masses of tissue depended. Cavity partly filled with thick matter, and not lined by a limiting membrane. On cross section the form of this excavation was retained perfectly, the surrounding lung being of the consistency of liver tissue.

The whole body of this man was noticeably deficient in fat, and scarcely any blood exuded from cut vessels, even the large vessels containing very little.

CASE 2.

C. C., (colored,) aged 29 years; was admitted to hospital at Cincinnati, December 17, 1880, with pneumonia. The acute symptoms subsided, but degeneration of lung tissue supervened, and the patient, after a lingering illness, died May 3, 1881.

Autopsy.—The right lung was œdematous, with some emphysema towards the lower and anterior margin. The apex presented several small cavities, filled with caseous and purulent material. Of the left lung there was little more than a caseous, purulent mass, the size of an orange. There was a slight excess of pericardial fluid. The mesenteric glands were enormously enlarged, some of them having undergone caseation. One portion of the ileum, about three feet in length, was found to be intensely hyperæmic, and a few tubercular masses were scattered over its mucous surface. No marked disease was evident in the other organs.

MILIARY TUBERCULOSIS.

Seaman W. R.; nativity, Canada; aged 24 years; was admitted to the United States Marine Hospital, Detroit, from the steamer "S. J. Marcy," February 21, 1882, for acute phthisis pulmonalis. Previous to December, 1881, patient had always enjoyed good health and followed a life of hardship and manual labor. When admitted he was ema-

ciated, with rapid pulse; gasping, labored, and painful respiration; anorexia, hectic fever; profuse, colliquative perspiration; insomnia, and cough, with abundant purulent expectoration. There were also some œdema and ascites. Inspection revealed a flattened condition of the anterior-superior chest-walls, with decided depression in the supra and infra clavicular regions. Palpation discovered an increased vocal fremitus. Percussion showed solidification of the apices of both lungs, especially the right. The auscultatory manifestations were the existence of large crepitus, with large and small moist râles diffused over both lungs towards the apices, as well as the characteristic evidences of the existence of vomicæ.

The patient was placed on the vigorous treatment commonly prescribed in such cases, and, although death was expected at a very early date, he for a time improved, so far as his most distressing symptoms were concerned. After a few weeks, however, most of his symptoms became exaggerated, with rapid destruction of lung tissue. A few days before death an effusion into the right pleural cavity was noticed. He died comatose April 23, 1882.

Autopsy.—The right pleural sac was found to contain a large quantity of limpid serum in lieu of the lung tissue, which had been destroyed. The right lung was found very much contracted and collapsed, presenting, indeed, only a rudimentary appearance, studded with tubercular deposits, and perforated with vomicæ. The left lung was found about the normal size, but containing quantities of tubercular material in the apex and around the bifurcations of the bronchi and larger vessels. The heart was small, but normal in other respects. Other viscera were not examined.

The rapid degeneration of the lungs in this case is almost phenomenal.

PURPURA HÆMORRHAGICA.

CASE 1.

J. H., (colored,) aged 27 years; admitted to United States Marine Hospital, St. Louis, Mo., July 22, 1881, from steamer "Colorado." Is a badly-nourished man. States he has been sick about ten days. Body covered with purple spots, which do not disappear under pressure. Pulse feeble and quick. Has had several hæmorrhages prior to admission. Within a few hours after admission had severe epistaxis, followed by hæmorrhages from the bowels, bloody urine, and hæmorrhages from the lungs and stomach, under which great drain he sank and died July 24, 1881.

Autopsy.—Body rapidly decomposing, covered with purple spots and livid blotches. Lungs much congested. Apices, seat of tubercular disease. Purplish blotches on pleuræ; bloody fluid in pleural cavity. Heart very soft and flabby. Dark, bloody fluid in pericardial sac. Walls of great vessels soft and friable. Abdominal cavity containing a large quantity of fetid gas. Liver, very dark-colored and soft. Kidneys, congested and softened. Spleen, very soft, almost pulpified. Stomach contained a quantity of fluid blood, livid blotches, and patches of disintegrated mucous membrane. Intestines, congested; patches of disintegrated mucous membrane, and livid blotches. The cavity of the peritoneum contained a large quantity of grumous, bloody fluid. Infiltration and softening of mesenteric glands.

CASE 2.

J. H.; was admitted to United States Marine Hospital, Vineyard Haven, Mass., May 8, 1882, being in the second week of typhoid fever. When admitted the characteristic eruption was quite profuse over body generally, especially abdomen, which was tympanitic; tenderness and gurgling in right iliac fossa, over ileo-cæcal valve. The cerebral symptoms were not very prominent; tongue, dry; sordes on teeth; pea-soup discharges from bowels; scanty secretions of urine.

His temperature on admission was 38°C ., and never during the disease rose above 39.50°C ., which was reduced with alcoholic baths, for one night only, to 39.30°C . This temperature continued for one week, with evening temperature 39°C . In latter part of third week patient was convalescing, and by the end of the fourth week was able to sit up in an easy-chair for an hour.

May 29.—Patient while sitting was taken with chill which amounted to rigor. Symptoms of purpura hæmorrhagica made their appearance; purpuric, hæmorrhagic petechia over thorax, abdomen, inner surface of thighs, neck, and mucous membrane of mouth. Bleeding from mucous membranes, especially nose and mouth, appeared, with marked and rapid depression of temperature. This hæmorrhage was temporarily arrested and controlled for a few days by astringents—iron and ergot—administered internally, and by hypodermic injections.

June 11.—Profuse hæmorrhages from nose, mouth, and rectum occurred. Every effort to control the hæmorrhage was unavailing, and the patient sank into collapse, and died from exhaustion, June 13, thirty days after admission to hospital.

Autopsy.—Rigor mortis complete; body emaciated and markedly anæmic. Purpuric spots were found on the abdomen, lower and upper

extremities, and in the axilla. Upon opening to view the abdominal and thoracic viscera, the peritoneum, lungs, liver, and intestines were found covered with hæmorrhagic petechia. Bloody serum in peritoneal cavities, pleura, and pericardium. There were several tubercular deposits of considerable size found at the base of the right lung. The heart was flabby, anæmic, and contained very dark fluid blood. Liver somewhat enlarged, with a distended gall-bladder. There was no coagulated blood in any of the cavities; all the viscera were anæmic.

A pre-existing scorbutic condition of blood, with malarial toxæmia, from all the facts in this case observed and recorded, was manifestly the most important factor, etiologically and pathologically considered.

SCURVY.

C. L.; admitted to United States Marine Hospital, San Francisco, Cal., April 24, 1882. Died April 25, 1882. This case, when admitted, was very much emaciated, and unable to speak. Had not tasted food for three weeks, on account of his being unable to swallow. Tried to feed him when admitted, but found it impossible. The odor emitted from his mouth and nostrils was very offensive. Scorbutic spots were well marked.

Autopsy.—Linear incision from tip of chin to sternum. Found the posterior nares, upper part pharynx, and upper end œsophagus in a state of ulceration and gangrene, and complete destruction of part of the palate bones, looking very much like a syphilitic ulceration, with scurvy, the probable cause of its rapid progress. The abdomen was not opened, as it was not thought necessary.

GENERAL DROPSY.

Organic and Valvular Disease of Heart.

H. C., (colored,) aged 30 years; nativity, Maryland; admitted to the marine ward, St. Joseph's Hospital, Baltimore, Md., February 6, 1882.

History.—Had acute rheumatism in 1872, and since that time he has occasionally been troubled with "fluttering of his heart," as he termed it; but it had not caused him to discontinue his work. Six weeks before admission, while shovelling coal, he was seized with a sudden pain in the lumbar region, followed by vomiting, &c. He was carried to his home and put to bed. The next morning he noticed that his feet and ankles were swollen, and in two weeks' time his abdomen began to swell. When brought to the hospital there was general anasarca of

every portion of his body; dyspnœa; albuminuria; hypertrophy of heart, with mitral regurgitation. Cathartics, diuretics, &c., were tried, but failed to relieve; and finally his abdomen was tapped with the aspirator, and 5,000 C. C. of serum were drawn off. This gave temporary relief only. He died February 24, 1882.

Autopsy.—On opening the thorax, the pericardium was found firmly attached to an immensely enlarged heart. The walls of left ventricle were one inch in thickness; the mitral valve was thickened, and one leaflet bound down; all the other valves were thickened, but were probably capable of performing their functions. A large quantity of serum was found in the pleural cavity, and in the right side of the thorax, a large amount of partially organized lymph had caused collapse of the lung. The left lung was œdematous. The liver was cirrhotic; the spleen, normal; the kidneys were small, intensely congested; capsules adherent; but the disease of the kidneys was secondary to the disease of the heart.

MENINGITIS.

CASE 1.

D. J., (colored,) aged 35 years; nativity, Maryland; admitted to marine ward, St. Joseph's Hospital, Baltimore, Md., October 10, 1881, in an unconscious condition. No history of the case could be obtained, as his captain sailed away as soon as he had placed him in a wagon and given directions for him to be taken to the custom-house.

When admitted there was no sign of injuries having been received; no smell of alcohol; pulse, frequent, but irregular; temperature, 41° C.; respiration, 24; jaws so tightly closed, that it was impossible to administer either food or medicine by the mouth; muscles of his neck were stiff and rigid; great hyperæsthesia over all the surface of the body. He lay on his back, but was continually making efforts to get on either side, and there were general muscular tremors. His teeth were covered with sordes, and there was a hepatic eruption on his lips. There was physical evidence of slight congestion of his lungs. Fly-blisters were placed along his spine, his bowels moved by enemata, and quinine, beef tea, &c., given by his rectum.

October 11.—Great exhaustion; incontinence of urine and fæces, and the enemata of beef tea, &c., though forced high up into his rectum, were not retained. It was impossible to determine actually either his pulse or his temperature, owing to his constant movements. Hypodermic injections of ammonia, &c., had but little effect.

October 12.—No motion of his body below his diaphragm, but his arms were perpetually in motion. He died early in the morning of October 13, 1881.

Autopsy.—On removing the skull-cap, the membranes were found to be congested, and under the dura mater a small amount of fluid containing flocculi of lymph was seen. The ventricles were filled with serum. When the brain was removed a purulent fluid exuded from the spinal canal. The substance of the brain and cord was softened. The lungs showed evidences of congestion, which was probably hypostatic. The heart was large, but healthy. The abdomen was not opened.

CASE 2.

E. P., aged 19 years; nativity, Tennessee; admitted to the marine ward, St. Mary's Hospital, Evansville, Ind., February 10, 1882. Died February 14, 1882. On admission this patient had a high fever, constipation, flushed face, injected conjunctivæ, ringing in ears, agonizing headache, nausea, vomiting, irregular chills. Gradually became delirious. Incontinence of urine; fecal discharges involuntary. Passed into a comatose condition, and died on the fourth day.

Autopsy.—Extensive inflammation of the pia mater and arachnoid. Puncta vasculosa enlarged and numerous; thick, turbid fluid in arachnoid cavity and subarachnoid spaces. Lateral ventricles distended with fluid of a similar kind as that found in the subarachnoid spaces.

CASE 3.

A. McG., aged 24 years; nativity, Kentucky; admitted to the marine ward, St. Mary's Hospital, Evansville, Ind., April 8, 1882, in a comatose condition. Died April 9, 1882.

Autopsy.—Extensive inflammation, involving all the membranes of the brain; recent adhesions of pia mater and arachnoid; pus found on the general surface of the brain, circumference and base; brain substance soft. Ventricles contained a large quantity of bloody serum.

CASE 4.

S. B., aged 29 years; nativity, Italy; was admitted to the marine ward, Charity Hospital, New Orleans, La., January 30, 1882. When admitted to hospital patient was in semi-comatose condition, and no previous history could be gained. Pulse, 65; temperature, normal.

February 1.—Pulse, 60; temperature, 37.2 C. Pupils dilated; eyes oscillating rapidly. Patient boisterous in his delirium, and cannot be kept in bed without strapping his hands. Carphologia and violent

opisthotonos; no other convulsions. Ice was applied to head; the bowels freely moved; cathartic and bromide of potassium given.

February 3.—Bladder distended with urine; was drawn off several times during day. He died at 12 o'clock at night on the 3d of February, in severe convulsions.

Autopsy.—Rigor had not commenced. Abdominal cavity: Intestines distended with gas. In the duodenum and jejunum the capillaries were considerably congested, and in both these divisions were ulcerated patches one-fourth inch in diameter. The ileum was normal, as also the colon. The rectum was exceedingly contracted, with here and there a strictured portion. The stomach normal. Bladder distended to capacity of a pint and a half, full of dark-red urine; its walls, in patches, were infiltrated with blood, and the entire viscus was a bright pink color. Liver, kidneys, and spleen normal. Thoracic cavity: Lungs adherent by old pleuritic adhesions; considerable carbon deposited; otherwise normal. Heart normal. Brain: On removing calvarium, considerable cerebro-spinal fluid escaped; the sinuses were all filled with blood; arteries also congested; considerable inflammation and lymph deposit about medulla; brain substance quite soft.

S U N S T R O K E.

A. M., aged 21 years; nativity, Sweden; admitted to the marine ward, Hotel Dieu Hospital, New Orleans, La., June 19, 1882. Died June 20, 1882.

Autopsy.—Body well nourished. Rigor mortis marked. Hypostasis excessive, of dark-red, nearly purple hue, extending nearly to sternal line from posterior surface, from occiput to nates, and entirely around neck. A large pool of blood had escaped from nose, and a bloody froth was oozing therefrom when the body was first seen. While removing the skull there was a free flow of dark, venous blood as fast as the inner table was sawed through. Upon the removal, an extensive engorgement of the whole encephalon was apparent. No cerebral lesion could be found. The superficial blood-vessels were distended to the utmost, and pressure made upon the carotid served to cause the blood to flow back into the anterior and middle cerebral fossæ from the outlet of the internal jugulars and those vessels passing into the optic foramina. The fluid of the ventricles was interfered with and the medulla injured in removal. The velum interpositum was exceedingly vascular; in fact, everywhere were the signs simply of profound congestion. Other organs not examined.

This patient was brought to hospital in dying condition, and lived only a few hours.

WHITE SOFTENING OF THE BRAIN.

P. B., born in France; aged 27 years; admitted to the United States Marine Hospital, Mobile, Ala., November 8, 1881, in partly comatose condition, result of malarial poisoning. Died November 9, 1881.

Autopsy.—Brain: Decidedly hyperæmic; all blood-vessels greatly engorged; right hemisphere normal in contour; left markedly differed in conformation from the other. The outer and under surface about middle fossa had a shrunken, collapsed appearance, as if a portion within had been squeezed out. Upon section it had a white, sticky look, and was almost totally non-resistant to the knife. Further exploration showed that a considerable amount of the neighboring cerebrum had undergone white softening. No other lesion of the encephalon, but along the longitudinal sinus there was some thickening of the meninges, (pachymeningitis.) Lungs: Right adherent to pleura in several places. Both bore evidences of active congestion. Anteriorly, of pale, bluish cast; posteriorly, dark, almost black, except towards apices. Section showed complete engorgement. Spleen: Oversized; very dark; upon section it was found almost as friable as a fish-roe. Liver: Congested; weight, five pounds. Kidneys, normal size; slightly congested. Other organs not examined.

APOPLEXY.

J. O'C., aged 39 years; nativity, Ireland; admitted to the marine ward, City Hospital, Memphis, Tenn., November 9, 1881. Died November 11, 1881. In hospital forty-two hours. Patient was comatose on admission, with paralysis of motion, stertor, and inability to swallow. Six hours after admission, and for ten hours, able to swallow, but could not speak. Temperate and careful man. Had fallen three days before as if in a fit, and produced contusion on right outer canthus and on side of head.

Autopsy.—Skull intact; brain membranes healthy; brain firm and normal. Layer of clotted blood, one-eighth to one-half inch thick, covered anterior and middle fossæ. Small dilatations existed in the small branches of middle and anterior cerebral arteries. Anterior branch of middle cerebral artery was minutely ruptured where it crossed the lesser wing of the sphenoid bone.

HEMIPLEGIA.

CASE 1.

L. S., aged 49 years; French; admitted to the United States Marine Hospital, Chicago, September 1, 1879, transferred from Bismarck, Dak. No history accompanied him, and none was obtainable from the patient, as he was unable to talk plainly enough to give any account of himself or to give the address of his friends. He was able to move about by supporting himself against the wall. He continued in much the same condition, occasionally becoming quite irritable, until September 1, 1881, when he became very irritable, lost his appetite, and had considerable diarrhœa.

September 19.—While in the water-closet he fell to the floor, and after a restless night, during which he seemed at times to suffer great pain, he died at 4.30 A. M. of the 20th.

Autopsy.—Thorax: Old right pleuritic adhesions and hypertrophy of left ventricle. Abdomen: Kidneys atrophied to about one-half normal dimensions; fatty; scarcely any normal kidney tissue discernible. Other organs healthy. Cerebrum: Dura mater much thickened, opaque throughout, and quite adherent to skull, and in some places to arachnoid, especially at the upper portion of cerebrum and in the longitudinal fissure. Both hemispheres were considerably hardened, except the inferior portions of posterior lobes, which were of about normal consistency, as was also the cerebellum.

CASE 2.

Stenosis of Cerebral Arteries.

J. S., aged 40 years; nativity, England; admitted to marine ward, St. Mary's Hospital, Galveston, Texas, May 2, 1881, for right hemiplegia. Attack occurred during previous night while asleep. Condition on admission: Right side of face flaccid; right arm powerless, but shows some reaction to irritation; right leg perfectly powerless; pupils normal, but left eye turned upwards when right eye is directed forwards; sight "good in both eyes;" no ptosis; listless; yawns frequently, and answers questions in a confused and disconnected manner; pulse, 74; temperature, 37° C.; perfect control over sphincters; sensation apparently perfect over affected side; tongue deviated to left side when protruded; no lesion of heart discoverable. The following symptoms were noted in the course of this case: Ptosis on second day, and remaining; loss of power over abdominal muscles; pain in head, more or less severe; reflex action developed in affected leg on seventh day; loss of control of sphincters on eleventh day; reddened spot on buttock of

paralyzed side, (remained only ten days;) convulsion on night of twenty-fifth day; pupil of right eye dilated June 3; some return of control over flexor of affected arm June 7, and of leg June 15; occasional spasmodic contraction of all muscles of leg and thigh; right eye deviated outwards June 25, and painful; appetite always good, and mind clear after first few days.

October 13.—Patient dull and listless. Left arm contracted on forearm, and voluntary motion limited in extent. Left leg almost powerless; both legs swollen in lower part. Right arm used pretty freely, co-ordination improved, and grip strong. Evacuation from bowels and bladder sometimes controlled, sometimes involuntary.

October 22.—Implication of muscles upon left side slowly increased until patient became powerless upon that side; motion of right arm and leg almost lost; evacuation of urine and feces involuntary, but not continuous; difficulty in deglutition, which is increasing. Patient this A. M. in profuse sweat, (temperature, 39° C.,) and all flexor muscles of arm and forearm strongly contracted on left side, more moderately on right; some voluntary motion still retained in right arm. Adductor of thigh tense, and leg only flexed during sleep; pain in one or two small bed-sores existing over sacrum; pupils normal; speech lost, but patient still conscious.

October 23.—Temperature, 39° C.; respiration, cog-wheel; loud râles in throat; deglutition more and more difficult. Died at 8 P. M.

Autopsy.—Head alone examined. Body thin, but not emaciated; rigor mortis well marked; dura mater very closely adherent along border of longitudinal fissure and over a space the size of a half-dollar over posterior and inferior surface of cerebellum, where the brain substance was softened and broken down. Glandulæ pacchioni in considerable numbers along the longitudinal fissure. Veins over surface of cerebrum very much distended; sulci unusually deep, and convolutions well marked. Middle cerebral artery on right side in position, but occluded shortly after rising from the carotid; on left side in normal position. Left posterior communicating artery apparently a fibrous cord; all other arteries composing the circle of Willis destroyed. Both fissures of Sylvius closed by inflammatory adhesion between opposing lobes of brain. Pons varoli, a shapeless mass, twice its normal size, and unrecognizable except from its position. Medulla oblongata apparently normal. None of the features at the base of the brain traceable posterior to optic commissure, except the apparent origin of one or two nerves. Anatomical features in floor of ventricles apparently obliterated by increase of white matter, except the choroid plexus,

which was much enlarged. Anterior lobes of brain anæmic, almost a perfect white; in other portions section showed numerous black points, as of ends of dilated vessels. Considerable fluid flowed from ventricles and spinal canal after the removal of the brain.

The enlargement of pons and peduncles of cerebrum seemed due to a tumor occupying place of and including those parts.

DISEASE OF HEART.

CASE 1.

G. S., aged 36 years; nativity, Kentucky; has "followed the water" for eight years.

This patient was admitted to St. Mary's Hospital, Evansville, Ind., January 6, 1882, suffering from valvular disease of the heart. At the time of his admission the patient was in a very critical condition. Anasarca was well marked, and he suffered greatly from dyspnœa. He could not lie down. Pulse, hardly perceptible; cold extremities; face livid. The patient gradually improved, so much so that on the fifth day after his admission he had little or no difficulty in breathing, except on exertion, and the anasarca had almost entirely disappeared. When the patient had improved so that a careful examination could be made, the following was developed: The patient had been subjected to three severe attacks of rheumatism, each attack lasting about three weeks; had also contracted syphilis five years before.

Diagnosis.—Aortic and mitral regurgitation. The patient died March 19, from paralysis of the heart, while sitting up in bed.

Autopsy.—Rigor mortis well marked. Anasarca. On removing the sternum a large quantity of fluid was found in both pleural cavities. Lungs, œdematous. Recent pericarditis with effusion. Heart large, muscular structure soft. One segment of the mitral valve was completely destroyed, the other thickened and contracted. Aortic opening narrowed, with atheromatous deposit upon the valves, which were insufficient. *Ante-mortem* clot in left ventricle of about five days' duration. Abdominal cavity full of serum; liver fatty; kidney contracted, capsule adherent, with signs of chronic interstitial nephritis.

CASE 3.

Aortic and Mitral Disease.

W. W. D., aged 28 years; mate of steamer "Charles P. Chouteau;" admitted to United States Marine Hospital, St. Louis, November 26, 1881. Is a well-nourished man, with a good physique. This officer had

been under treatment at this station on several occasions, and had been relieved for the disease of the heart. Upon admission there were no indications of any immediate danger. He was at once placed in bed, and a few minutes after, while making an effort to take a glass of water from his stand, he fell back and expired before a medical officer, who was close by, could reach him.

Autopsy.—Body: Rigor mortis absent. Thorax: Lungs, normal; old pleuritic adhesions on left side. Heart, somewhat hypertrophied, dilated, softened; degeneration of walls. *Left* heart, dilated; slightly hypertrophied; thickening of aortic valves; rough constriction of orifice; inflammatory thickening of the corpora aurantii; mitral valve thickened and distorted. *Right* heart, very much dilated; filled with fluid blood, and two large *ante-mortem* clots, with their fibres interwoven with the chorda tendinæ, which were very much thickened; tricuspid valve thickened and distorted. Abdomen: Liver, normal. Spleen, large, soft, and light-colored. Kidneys, swollen and congested.

CASE 4.

W. W., aged 33 years; nativity, Ireland; was admitted to the United States Marine Hospital, Detroit, from the schooner "G. Smith," February 10, 1882, suffering from valve disease of the heart. His pulse was slow, strong, but irregular and intermittent, and at times rapid, compressible, and weak. Percussion showed dulness over a much greater area than that of normal præcordial dulness. On auscultation the first sound of the heart was found to be prolonged, but indistinct and muffled. With the second sound was discovered a regurgitant bruit over the region of the mitral valve, and a slight stenotic bruit over the aortic valve. There was pulsation of the jugulars, distressed respiration, (increased when in the dorsal decubitus,) and pain over the præcordia and abdomen, with some anasarca and ascites. The usual palliative treatment was resorted to, with temporary relief. Bronchitis was noticed February 27, 1882. At this stage the urine was examined, and found to contain a small quantity of albumen. On March 15, 1882, about 7 P. M., the patient had a convulsion from cerebral congestion; the quantity of urine passed was normal. March 16, A. M., the abdomen became tympanitic and painful, and the catheter was used. The surface became deeply cyanotic, and a boisterous delirium set in, requiring force to retain patient in bed. This condition gradually subsided, and was followed by a short lucid period, after which he slowly sank into a coma, and died March 16, 1882.

Autopsy.—Thorax: The lungs were highly congested. The heart was enlarged, (hypertrophied) both right and left sides. It was washed

and all contained blood removed, when the viscus was found to weigh 870 Gms. The pericardium was intimately adherent from base to apex, requiring considerable force to detach small portions, evidently from an old inflammation. The left auriculo-ventricular valve was insufficient, with slightly thickened margins, and the aortic valve slightly constricted. The endocardium was normal with the exception of its reflexion over the mitral and aortic valves, which, as mentioned above, was thickened. In the right and left ventricle and left auricle were contained a number of fibrinous clots of recent formation.

ANEURISM OF AORTA.

CASE 1.

S. C., aged 38 years; medium height and powerful build; was admitted to the marine ward, St. Joseph's Hospital, New Bedford, Mass., September 13, 1880, for an ordinary attack of acute bronchitis. Has been an exceptionally healthy man all his life. Present attack came on as a "head-cold," with subsequent cough and muco-purulent sputa. He apparently recovered from the attack and resumed his duties. While under observation, he complained of pain and numbness in his right arm and right side of chest, and was carefully examined for aneurism. No increased area of dulness, no abnormal pulsation, nor difference in radials or bruit could be detected, and the suspicion of aneurism was considered to be unfounded.

On the 30th of the following November he again came under observation with an attack of acute bronchitis, and stated that he had suffered more or less from cough, with muco-purulent sputa, ever since his first attack. A day or two before presenting himself for treatment he had during the night an attack which, from his description, was laryngeal spasm. He improved somewhat, and, on the fourth day after commencement of treatment, expressed himself as feeling better than he had for three months. During the evening of this day the medical attendant was hastily summoned to the hospital by the statement that the patient was "having fits." On arrival he was found in a sitting posture in bed, propped up by pillows, and breathing quietly; pulse small, and about 130. His head and neck were swelled to an enormous degree, and he was extremely cyanotic. His neck seemed a solid column from the spaces bounded by the clavicles and superior borders of the scapulæ upwards, and his ears seemed to be in depressions of the skin. The cyanosis was very great, justifying the remark of a fellow-patient, "he is as black as your hat." Shortly afterwards he

had an attack of laryngeal spasm of about two minutes duration. His seizure occurred at 7 P. M., on leaving the room after conversation with a friend. He fell to the floor and was carried to the ward. Between this hour and 12 P. M. he had six to eight attacks of laryngeal spasm at irregular intervals. After 12 he became comatose, and, breathing quietly but superficially, with persisting cyanosis, he died about 6.15 o'clock of the following morning, eleven hours fifteen minutes after his first convulsive attack.

Autopsy.—Thorax: Lungs slightly congested posteriorly, but markedly anæmic in other portions. Heart, normal. An aneurism of the aorta was found involving the first portion of the arch, and a small part of the transverse portion. The sac would have admitted a good-sized fist. Upon the posterior and right side of the sac a secondary dilatation was found, about the size of a small hen egg. *In situ*, the sac was entirely behind the sternum, and did not project beyond the borders of this bone. The sac-wall was intact and of uniform thickness. The vena cava was stretched over the posterior and right side of the sac, and appeared normal as to coats. Upon section, a large quantity of blood flowed into the thoracic cavity. The branches of the transverse portion of the arch of the aorta were not dilated to any marked extent, and the tumor did not project upwards to a sufficient degree to have been detected by the finger behind the top of the manubrium sterni. No pressure effects were visible upon the walls of the thoracic cavity or the viscera contained therein. Liver, kidneys, and spleen were markedly congested, blood flowing copiously on section. Brain, intensely congested and œdematous. The exact point of pressure upon the vena cava could not well be located, as after death no distinct point could be found. There was no evidence of sudden enlargement of the sac, as it was of uniform thickness throughout and was lined with old and recent coagula, as is usual in aneurisms.

CASE 2.

F. C., aged 45 years; was admitted to the Marine Hospital, Chicago, September 20, 1881. First came under observation during the winter of 1879-'80. A tumor and pulsation to the left of the umbilicus were plainly to be felt by the hand and were perceptible to the eye, but no bruit was at any time discernible. He stated that no movement had occurred in fourteen days before admission, and none were observed for seven days after. Afterwards he had involuntary movements of watery fluid. When apparently beginning to improve he became the victim of various delusions, and was for a week so violently insane as to require confinement and constant attendance. He recovered sufficiently

to resume his vocation, but returned for treatment from time to time. On each re-examination the pulsation was less marked, but the tremor remained. The patient had a history of syphilis, contracted fifteen or twenty years previously. September 20 he was admitted, suffering severe abdominal pain, and with a greatly enlarged tumor to the left of and below the umbilicus. He was unable to retain any food or to move his bowels. He was supported by rectal alimentation until his death, on the 24th of September.

Autopsy.—Thorax: Lungs and heart normal. Old pleuritic adhesions existed on left side. Heart empty. Abdomen: A large, dark-colored tumor presented at the incision, lying underneath the omentum, pushing the intestines to each side. Its covering was quite firmly adherent to the pancreas, stomach, intestines, and aorta, and was separated with the greatest difficulty. Upon tearing it loose from its attachments, the left ureter was found to enter the mass and the aorta to be included in it. The great mass of the tumor was of the consistency and appearance of clotted blood; and upon further examination it was found that an aneurism of the aorta had existed opposite the eleventh dorsal vertebra and had formed the above-mentioned attachments, and that death was due to its rupture. The left kidney, which was embedded in the centre of the clot, was about twice the normal size, white and fatty. The right kidney was atrophied to about two-thirds the normal size, and presented the usual appearance of contracted kidney. The rupture had occurred at the left side of the sac, and evidence of previous clotting was apparent in the organized fibrous tissue at one side of the point of rupture.

CASE 3.

E. M., (colored,) aged 33 years; nativity, South Carolina; admitted to the marine ward, St. Joseph's Hospital, Baltimore, Md., January 31, 1882.

History.—Good health until six months before admission, with the exception of an attack of acute rheumatism about ten years ago. During the last six months has had ague at irregular intervals, but he continued his work until a few days before admission. When admitted he was very weak; pulse barely perceptible at wrist; temperature, 36.6 C.; had a slight cough; pain on left side over region of spleen, and also immediately under the ensiform cartilage; suffered frequently from nausea, &c. He was put to bed, a blister applied over his stomach, and bismuth subnit. ordered.

February 1.—Unable to swallow any solid food, and frequently vomited even milk, &c. His bowels were opened by enemata, and nourishing liquids were administered the same way. The bismuth was

stopped, and one-drop doses of a mixture containing equal parts of tr. iodine and carbolic acid were given every two hours, and seemed to have a beneficial effect in retaining food on his stomach.

February 4.—No pulsation could be felt in the arteries of either arm, and only faintly in the femorals and carotids. A careful examination of his heart showed that the apex beat was about half an inch to the left of the ensiform cartilage; the impulse strong, and a faint murmur was detected with the first sound, but it was not distinct enough to judge of the exact nature of his trouble. The same murmur was heard very faintly between the spine and left scapula. As his constitutional symptoms did not point to any acute disease of his heart, the existence of aneurism was suspected. His treatment was continued, and the condition of his stomach improved.

February 7.—Faint pulsation detected in the radial artery of right arm, and his general condition was much better. He was kept perfectly quiet in bed, and small doses of quinine were given frequently, in order to control his malarial affection.

February 8.—At 5 A. M. he was noticed by a patient in the next bed to jump suddenly upon his hands and knees in his bed, and then to fall headlong upon the floor. He was picked up at once and placed on his bed, but he only gave a few gasping breaths, and expired.

Autopsy.—Pericardial sac distended with air or gas; it collapsed immediately on being pricked with the scissors; there was a gill of serum in the sac; no evidences of recent pericarditis. Heart was small; valves healthy; left ventricle slightly hypertrophied, and the apex was above half an inch to the left of the sternum. Immediately under and below the heart an aneurism of the aorta was seen, extending from the seventh to the eleventh dorsal vertebra; its transverse diameter measured six inches, and its longitudinal one four inches. In order to preserve the specimen in its entirety, it was taken out from the sixth to the eleventh dorsal vertebra. The stomach and œsophagus were distended with coagulated blood, and on opening the sac it was found that a rupture had taken place in the walls of the œsophagus opposite the ninth dorsal vertebra. The bodies of the seventh, eighth, ninth, and tenth vertebræ were encroached upon by the aneurism, and those of the eighth and ninth vertebræ were about one-half destroyed.

CASE 4.

J. E., admitted to the United States Marine Hospital, San Francisco, Cal., January 9, 1882. Died February 6, 1882.

When admitted this patient had wheezy respiration, and spoke in a whisper. He had cough, but little or no expectoration. He could not

rest at night, and had spasms of dyspnœa, resembling asthmatic attacks. He was treated with expectorants, hypodermic injections of aconite, strychnia, arsenic, with use of galvanic battery—all to no effect. It was finally decided that an aneurism or abscess was pressing on the trachea, œsophagus, and nerves of respiration. The respiration was so labored, and so many adventitious sounds complicating the same, that it was impossible to use the stethoscope. A few days before death an abscess broke, and discharged through the trachea and mouth. From want of food and sleep and exhaustion, he succumbed, and died in the evening, February 6, 1882.

Autopsy.—Thoracic cavity opened and lung removed, pleuritic adhesions being separated. The lung contained some small abscesses, and one large one near mediastinum, pressing on the left bronchus, into which it burst. The principal lesion, however, proved to be an aneurism (size of a goose's egg) of the ascending arch, pressing on the bronchial tube and phrenic and pneumogastric nerves. It was filled with an old clot, as were also the auricles and left ventricle. The latter extended up the pulmonary artery and aorta. The aorta was roughened, with a chalky deposit.

ANEURISM OF THE LEFT COMMON CAROTID.

R. J., aged 31 years; Norwegian; transferred as chronic patient from Savannah, Ga., to the United States Marine Hospital, Wilmington, N. C., August 27, 1881, with diagnosis of chronic bronchitis. Died September 23, 1881, twenty-nine days after admission. While sitting in the ward the patient had a coughing fit, when suddenly a violent hæmorrhage took place. At least a quart of arterial blood poured from mouth and nostrils, and he died almost immediately.

Autopsy.—Rigor mortis well marked; extensive hypostatic congestion; body much emaciated. Heart: The pericardium was adherent to the heart, the sac being entirely obliterated. The heart itself was flabby and thinned; right ventricle empty; left ventricle contained about 60 C. C. of dark fluid blood. Nothing abnormal was observed about the valves. Lungs: The left pleura was strongly adherent to the lung by firm fibrous bands, the pleural sac obliterated. The lung itself was intensely congested throughout; the apex showed a few points of gray degeneration. The right lung was healthy and crepitant. There was a large aneurism of the left common carotid, extending from its junction with the aorta to the root of the neck; it was about five inches long and three inches in diameter, very hard to the touch and adherent to the left lung. It contained a dense, firmly organized clot.

completely occluding the artery, and white in color. The carotid had ruptured at its point of origin from the aorta, where its coats had been thinned by the force of the blood-current, not being sufficiently relieved by the subclavian. The blood had been poured into the left bronchus, and thence through the larynx.

Remarks.—Owing to the firmly organized clot in the aneurism, there was of course neither bruit nor thrill during the short time the patient was under observation at this hospital. There was no swelling, no impulse; in fact, the only indication of its existence was partial aphonia and some pain about a week before death. The cure of the aneurism itself by organized clot was complete, but the situation was too close to the heart to withstand the blood-pressure. The treatment used had been large doses of potassium iodide.^a

CEDEMA OF THE GLOTTIS.

N. R., aged 20 years; nativity, Virginia; admitted to marine ward, St. Joseph's Hospital, Baltimore, Md., January 19, 1882.

History.—Had been in good health till a few days before admission, when he contracted a severe cold. When admitted he was suffering from pneumonia, and he was treated accordingly. On the ninth day after admission he felt so well that he sat up for an hour; but that night he complained of sore throat, and an examination showed that there was intense inflammation of the soft palate, uvula, tonsils, and pharynx. Chlorate of potassium was ordered internally and as a gargle; his bowels were opened with a saline; and a flaxseed-meal poultice was put around his throat. The next morning (January 29) he was better, but in the evening he vomited his supper, and soon afterwards he experienced great difficulty in breathing. His throat was examined, and it was found that the inflammatory condition had increased, and that the mucous membrane of his mouth and throat was œdematous. The epiglottis was very much enlarged and could be seen without depressing the tongue. A mustard plaster around his throat, a hot foot-bath, atomization with bromide potas., (2 Gms. to 30 C. C. of water,) and a hypodermic injection of morphia gave him such relief that he went to sleep, and he was left at midnight breathing easily. He woke up at 5 o'clock the next morning suffering from another attack of dyspnœa,

^a A case was reported last year from another hospital where the clot in an aneurism had apparently organized after the administration of iodide of potassium. (*Vide Annual Report M. H. S.*, 1881, page 143, *et seq.*) See also a report of Dr. Bean, of Philadelphia, on this subject. (*Philadelphia Medical and Surgical Reporter*, June 10, 1882, page 624.)

and, although the surgeon was called immediately, the patient died (apparently suffocated) before he could reach the ward.

Autopsy.—Lower lobes of both lungs were consolidated, showing the second state of pneumonia, (red hepatization.) There were old pleuritic adhesions on the right side. The larger bronchi showed signs of catarrhal inflammation; the trachea and larynx were slightly inflamed, but not œdematous. The epiglottis was swollen to ten times its normal size; was as large as the first joint of the man's thumb, and completely closed, even after death, the opening into the larynx. The pneumonic condition of his lungs, although of a severe type, would probably have cleared up, and, had not the throat complication supervened, it is thought the man would have recovered.

[NOTE BY THE REPORTER.—During November, 1881, three cases of phlegmonous erysipelas had been treated in the ward in which the above case died, but after their recovery the ward had been thoroughly cleaned, disinfected, and unoccupied for four weeks, during which time it was aired every day. On January 1, 1882, owing to the large number requiring hospital-relief, it became necessary to use the ward, but only medical cases were allowed in it. Several of the patients were attacked by a form of sore throat, which was characterized by very high fever, difficulty of deglutition, an intense inflammation of the mucous membrane of pharynx, soft palate and tonsils, and in two cases there was a cheesy-looking exudation on the tonsils. The two last-mentioned cases suffered from epistaxis on the second day, and on the third day from cutaneous erysipelas of the face. The throat symptoms disappeared simultaneously with the development of the disease on the face. All the cases recovered rapidly under a treatment consisting of large doses of the muriated tincture of iron internally, and a saturated solution of chlorate of potassium in the mur. tinc. iron used as a local application to the fauces.

In view of the above facts, I am confident that the inflammatory condition of R.'s epiglottis was erysipelatous in its character.]

BRONCHITIS, CHRONIC.

J. N., aged 50 years; admitted to the United States Hospital, Bedloe's Island, New York, October 10, 1881. He complained of severe and persistent pain in the region of right nipple. He had a severe cough. Sputa abundant and yellow, and at times very sticky. There was no dulness on percussion. There were moist râles over both sides of chest. There was a chronic laryngitis. April 11 he died from hæmorrhage of right lung.

Autopsy.—Right lung full of blood. No cavities, and no solidification. Some of the bronchi were void of mucous membrane. There were in many places long pieces of tough, tenacious mucus adhering to the bronchial mucous membrane.

PNEUMONIA.

CASE 1.

Heart-Clot.

H. J., aged 49 years; admitted to the marine ward, St. Mary's Hospital, Cairo, Ill., March 11, 1882.

Diagnosis.—Pneumonia. Patient died on the morning of the 23d.

Autopsy.—Almost the whole of the lower lobe of the left lung showed a resolving pneumonia; a dense, fibrinous clot, perfectly white, existed in the left ventricle, a piece of which reached up into the aorta, preventing the semilunar valves from closing. The right ventricle was overdistended with dark blood. The clot was evidently the immediate cause of death.

CASE 2.

H. C., aged 33 years; nativity, Kentucky; was admitted to the United States Marine Hospital, Detroit, from the propeller "City of New York," March 8, 1882, for pneumonia. At the time of admission he had been sick about three days.

The following is a record of temperature and pulse rate:

March 9.—Morning: Temperature, 39.6° C.; pulse, 130.

March 10.—Morning: Temperature, 37.6° C.; pulse, 130. Evening: Temperature, 37.4° C.; pulse, 102.

March 11.—Morning: Temperature, 35.8° C.; pulse, 90. Evening: Temperature, 36.9° C.; pulse, 100.

March 12.—Morning: Temperature, 37.6° C.; pulse, 80. Evening: Temperature, 37.6° C.

March 14.—Morning: Temperature, 37.6° C.; pulse, 84. Evening: Same as in the morning.

March 15.—Morning: Temperature, 37.6° C.; pulse, 84. Evening: Temperature, 37.6° C.; pulse, 90. From this date pulse became very rapid and weak, with temperature at or slightly below normal, until March 18, when he died.

Autopsy.—The middle and lower lobe, and a portion of the upper, were found to be completely hepatized. The remaining portion of the upper lobe gave characteristic evidences of pneumonitis, though it had not advanced to solidification. Left lung and other viscera were normal.

CASE 3.

Phthisis Pulmonalis.

J. H., aged 40 years; born in Kentucky; was admitted to the United States Marine Hospital, Louisville, Ky., March 16, 1882. Died March 23, 1882.

Clinical History.—He had a chill three days previous to his admission to hospital, followed by a severe pain in right side, just behind the nipple. His cough, which had existed for several months, was increased in frequency, the expectorated matter in quantity, and was bloody. An examination by percussion elicited marked dulness over middle lobe of right lung; more marked posteriorly. The left lung gave abnormally clear resonance over apex anteriorly, but slight dulness posteriorly at the inferior angle of the scapula. Auscultation gave distinct crepitation, seeming to involve the entire middle lobe of right lung and a portion of the upper lobe. Exaggerated respiration at apex and in lower lobe. A cavity of considerable size found in upper lobe of left lung anteriorly, while there is a diminution of the natural respiratory sound posteriorly. Expectorated matter; brick-dust sputa, imperfectly mixed with pus and mucus. Temperature, 39.5° C.; pulse, 120; respiration, 30. He gradually became worse, and died on the night of the eighth day after his admission, and eleventh day after the chill.

Autopsy.—Rigor mortis moderately marked. There is a sinking or depression midway between clavicle and nipple on left side. Body much emaciated. The entire middle lobe and lower one-fifth of upper lobe of right lung hepatized and sinks in water; one-half of the remaining portion of the upper lobe in the first stage of pneumonia. Numerous small tubercles in upper lobe; a few in middle one. Both lung and thoracic surfaces of pleura inflamed, with patches of lymph visible. There is a cavity in upper lobe of left lung, two inches from apex and two and a half inches from the anterior border, containing about 50 C. C. of thick pus, tinged with blood. The entire lobe was thickly studded with tubercles. The lower lobe also contained tubercles. The heart, liver, spleen, and kidneys were to all appearances normal. A number of small tubercles were found in the coats of the small intestines and mesentery. Diarrhœa had been one of the persistent symptoms. The brain was not examined.

CASE 4.

J. B., (colored,) aged 29 years; born in Missouri; admitted to the United States Marine Hospital, Louisville, Ky., March 9, 1882. Died March 13, 1882.

Clinical History.—He had a chill four days previous to admission, followed by pain in both lungs, cough, and bloody expectoration. On admission, a diagnosis of double pneumonia readily made. The upper lobes of both lungs were affected, and the upper part of middle lobe of right lung; great pain in both lungs; considerable dyspnœa and cough, with brick-dust sputa expectorated in large quantity. Temperature, 40° C.; pulse, 130. Urine scanty and high-colored; bowels, constipated. The inflammation in lungs extended day by day, all symptoms growing worse, until the morning of the 13th, when he died.

Autopsy.—Rigor mortis moderate. The body presents no unusual appearances; upper and middle lobes of right lung completely hepatized, all portions sinking in water. Upper lobe of left lung in the same condition. The external surfaces of the lower lobes of both lungs were congested, but the parenchyma was free from inflammation, except perhaps the extreme upper portion. The pleural surfaces were covered with lymph patches, and slightly adherent in places, easily separated. Right pleural cavity contained 125 C. C. of fluid; left, 32 C. C. Heart enlarged by dilatation. Liver, spleen, and kidneys unusually dark and congested. Stomach and intestines slightly congested. Brain not examined.

CASE 5.

R. J., aged 41 years; born in Pennsylvania; was admitted to the United States Marine Hospital, Louisville, Ky., November 18, 1881. Died November 19, 1881.

Clinical History.—On admission he stated that he had a chill on the 13th instant, followed by great pain in right side, attended by cough and bloody expectoration. On the 15th the pain extended to the left side; had much difficulty in breathing, and suffered intense pain in both sides. On admission, the diagnosis of double pneumonia was readily made. He was suffering severe pains in both lungs, and the dyspnœa was distressing. He also complained of pain in his head. Evidences of coma approaching were present. Temperature, 39.5° C.; pulse, 128. On the morning of the 19th he was in a comatose condition; temperature at 9 A. M., 40° C.; pulse, 160. Died at 10 P. M.

Autopsy.—Rigor mortis extreme; skin generally of a blue color, very marked on face and neck; liver enlarged and congested, also the spleen; kidneys, stomach, and intestines normal in appearance. Upper lobe of right lung and upper half of middle solidified, and sinks in water. Both lobes of a deep-red color throughout, with patches of lymph on external surface, which was slightly adherent to opposite

surface of pleura, but easily separated. The lower lobe seems slightly congested, but larger than usual, and does not sink in water. The lower half of upper lobe of left lung also solidified or hepatized, and presents the same appearance as upper half of middle lobe of right lung. The upper half contains numerous tubercles, and a small cavity filled with pus was found near the centre of upper half. The lower lobe (left lung) presents nearly a normal appearance; air-cells probably distended; pleuritic adhesions, old; brain and membranes congested. About 16 C. C. of clear serum escaped when the membranes were punctured.

[NOTE.—Phthisis was not expected in this case or known until revealed by the *post-mortem*.]

CASE 6.

Fracture, Tibia and Fibula.

J. F., admitted to the United States Marine Hospital, San Francisco, Cal., May 8, 1882. Died March 12, 1882. Case came in with transverse fracture of both bones of the leg. A few days after pneumonic symptoms were noticed, and patient died four days after admittance, as from congestion of lungs.

Autopsy.—Showed pneumonic lung tissue; the heart was in diastole, and filled with brownish clots, but no white ones. The liver was normal, as were all the internal viscera, with the exception of those before named. The fracture was doing well at the time of death.

CASE 7.

C. F., (colored,) aged 23 years; admitted to hospital at Cincinnati, Ohio, March 22, 1881. Died April 1, 1881. On March 20, the patient had a chill, followed by fever, accompanied by a sharp, lancinating pain in the lower portion of the right side of the chest. The pain was increased by inspiration. He had also headache and diarrhoea. There was dulness on percussion over both lungs posteriorly, with crepitant and sub-crepitant râles. The temperature ranged as high as 40° C.; the sputum, which at first was white, became rusty, and finally purulent; there was sordes on the teeth, and the patient died in delirium.

Autopsy.—The lower portion of the right lung in a state of red hepatization; the cut surface presenting a reddish and granulated appearance, and sinking immediately when placed in a vessel of water. The anterior-inferior margin was emphysematous, and imparted the characteristic crackling sensation on pressure. The middle portion of the lung presented a grayish-brown appearance, and was extremely friable, while the apex was in a state of gray hepatization,

and contained a cavity the size of a walnut. Every portion of this lung, excepting the lower, emphysematous portion, sank on being placed in water. The left lung was congested throughout, and its middle portion was in a state of red hepatization. Nothing of special importance was found in the other organs of the body.

CASE 8.

Edema of Lung from Chronic Pneumonia.

J. N., aged 19 years; born in France; admitted to the United States Marine Hospital, Mobile, Ala., January 19, 1882. Sick at sea three months, without medical relief. Could get no definite history of sickness. After two months got much better; convalescence lasted one week; then he grew worse, and continued thus till brought to hospital.

Present condition: Dyspnœa, very great; respiration, 50; temperature, 37° C.; extremities cold; face, particularly left cheek, and arms, particularly right, œdematous; lower extremities in same condition. Percussion: Dulness over lower half of right lung; base of left somewhat tympanitic; middle from dull to flat. Auscultation: Circumscribed crackling sounds opposite infrascapular fossa of right scapula; breathing at upper portion superficial, high-pitched, with prolonged expirium; over middle and base of left, respiratory sounds nearly wanting. Died January 21, 1882.

Autopsy.—Rigor mortis not complete; emaciation, moderate; hypostasis marked along body and extremities. Right lung engorged, hepatized, and filled with old pneumonic nodules; bound by old adhesions to chest-walls; some hydrothorax, (much more than suspected during life.) Left lung, at base, seat of fibrous induration; remainder resembled right, except that it was much smaller, with fewer nodules, and surrounded by a thickened pleura; the right thorax was much larger than the left. Nothing of interest about the heart. Spleen and liver, both congested; the latter greatly enlarged, especially right lobe, which was fatty. Gall-bladder, smaller than normal, and nearly empty, containing only a thin, pale-yellow fluid. Kidneys, contracted in size; cortex narrowed to one-half natural extent; nothing to the eye indicative of lesion in the medullary part. Rest of body not examined.

CASE 9.

L. J., aged 21 years; nativity, United States; admitted to Charity Hospital, January 6, 1882. Died January 12.

Autopsy.—No rigor mortis. Abdominal cavity: All glands and intestines normal. Thoracic cavity: Right lung dark, venous conges-

tion, with pleuritic adhesions, recently formed. Bronchial tubes contained tenacious, frothy mucus. Left lung covered with fibrinous exudation; upper lobe of gray color; lower lobe, red; the upper lobe on one section was breaking down, bronchial tubes occluded; lower lobe extremely congested; bronchial tubes filled with frothy mucus. Pericardium thickened; contained recently-formed lymph patches; no attachment to heart. Heart-valves normal.

ULCER OF STOMACH.

T. O'B., aged 39 years; admitted to the marine ward, St. Mary's Hospital, Cairo, Ill., February 26, 1882.

Diagnosis.—Chronic ulcer of stomach. Patient is very thin and weak; has had syphilis for years, and has been a hard drinker for years. Vomits about an hour after eating—a very acid, dark-brown, ropy fluid, with sarcinæ, and at times blood. Stomach tender; very tender near pylorus; very much enlarged; no thickening perceptible at the pylorus, and no cancerous cachexia. The patient died suddenly, March 22, 1882.

Autopsy.—Stomach dilated; walls generally thick, but in places the muscular coat seemed atrophied, and in one or two places almost lacking. There was a perforation, .01 metre in diameter, into the peritoneal cavity, which contained some of the same material as the stomach; the perforation was about 10 centimetres from the pylorus. The pyloric opening was no larger than a lead-pencil, contracted by cicatrices, evidently syphilitic. There was an ulcer on the anterior aspect of the stomach, which had nearly perforated that organ.

ENTERITIS.

CASE 1.

N. B. P., admitted to the United States Marine Hospital, Louisville, Ky., October 24, 1881, and died at 10.30 P. M. the 25th.

Clinical History.—On admission the patient complained of great pain and tenderness over abdomen. There was considerable tympanitis, and he had twenty watery evacuations from the bowels during the succeeding twenty-four hours, containing flocculi of lymph, moderately profuse and of a yellowish color. Temperature on admission, 39°C; pulse, 110; tongue furred and dry. Stomach irritable, ejecting everything taken. Had great thirst; urine scanty and high-colored. All

the above symptoms were worse on the morning of the 25th, except nausea not so persistent. Temperature, at 9 A. M. 40° C.; pulse, 128. Coma gradually supervened, and he died at 10.30 P. M.

Autopsy.—Rigor mortis marked; purple spots on back, due to congestion of capillaries, and undoubtedly *post-mortem*; lungs, heart, liver, and spleen healthy in appearance. The stomach somewhat distended with gas, and contains 125 C. C. of bluish liquid. The coats were congested and mucous membrane thickened. The small intestines were congested and dotted with purplish spots, some almost black. Coats thickened and mucous membrane covered in places with patches of lymph, and was abnormally thick and easily separated. A small quantity of yellowish liquid, with numerous flocculi of lymph, found in them. The Peyer's patches were thickened and slightly elevated, so much so as to be plainly marked; no ulceration. The large intestines were but slightly congested, and contained a small quantity of dark, grumous fluid mixed with lymph. A few solitary glands were visible, and red; kidneys congested and soft; bladder contained about 40 C. C. of high-colored, ammoniacal urine; brain and membranes normal.

[NOTE BY THE REPORTER.—This case was diagnosed enteritis, and the *post-mortem* examination would seem to verify the correctness of it in some particulars; but might it not have been a case of enteric fever, in which the system was overwhelmed by the quantity of poison contained, and succumbed before the later pathological conditions had time to appear. All the previous history that could be obtained was that he had been sick a day or two previous to admission to hospital.]

CASE 2.

W. M., aged 21 years; born in New York; admitted to the United States Marine Hospital, Bedloe's Island, New York, February 7, 1882. Well till two weeks ago. When admitted, was very weak. Had a severe pain in right side of abdomen. Resonance over bowels slightly tympanitic. There was marked tenderness to touch or pressure. No diarrhoea. Pulse, 120; temperature, 38° C. He improved, was able to sit up, walk about out of doors, and looked better in every way. This improvement did not last. March 27, he began to grow weaker; facies anxious; some cough. Took scarcely any nourishment. There was dulness over right lung. Aspirated, and some pus withdrawn. Continued to grow feeble, and died April 8.

Autopsy.—There was a large cavity in right lung, containing 1,200 C. C. of flocculent pus. The abscess had no connection with the bronchi, and its wall was 1 Cm. thick. The walls were firm. The pleura was very thick and adherent to the chest-wall. Liver was adherent to the diaphragm. Diaphragm perforated, and pus had gravitated down-

ward in front of ascending colon, and formed a small cavity to the outer side of cœcum. Pus-channel was formed by omentum adherent to outer side of ascending colon.

ACUTE DIARRHŒA.

Sudden Death from Heart-Clot.

P. S., aged 42 years; born in Kentucky; admitted to the United States Marine Hospital, Louisville, Ky., June 22, 1882. Died June 30, 1882.

Clinical History.—The patient was attacked with diarrhœa three days before he was admitted to hospital, having had from twelve to fifteen profuse watery discharges each twenty-four hours. Had considerable pain with each evacuation the first day; suffered but little since. He was much debilitated, and presented all the appearances of a person who had been rapidly depleted by acute diarrhœa. By the 25th his bowels were checked, and he was considered convalescent. The 29th his evacuations were again thin and watery. He had four operations during the day and two during the night, the last one at 4 o'clock A. M. the morning of the 30th. After returning from the water-closet, he smoked for half an hour, after which he went to bed. Twenty minutes later the night-watchman, making his rounds, found him unconscious, and he died in ten minutes after.

Autopsy.—Rigor mortis well marked. Brain and membranes examined first, and nothing abnormal found. Lungs, healthy. Heart, normal in size and location. The mitral valve was thickened, and to the margin of the left half was found attached a small clot or shred of fibrine, one-half inch in length, the upper end free, three lines in thickness and the width of one-half of the valve. It was very white, and firmly attached. Both ventricle and auricle were filled with coagulated blood. Liver congested, and presented on section the "nutmeg" appearance. Two gall-stones were found in gall-bladder, but not obstructing the duct. Spleen, kidneys, and other viscera normal.

DIARRHŒA, CHRONIC.

H. J., aged 25 years; Dane; admitted to the United States Marine Hospital, Bedloe's Island, New York, December 31, 1881. No sickness till one month ago. Then had diarrhœa. No blood in dejections. No abdominal tenderness, and no rose-spots. Facies dull and stupid, pale and emaciated. Muscles soft and flaccid. Tongue moist and

slightly coated. Diarrhœa could be checked, but not controlled. Temperature never rose above 39° C.; most of the time it oscillated between 38° and 39°. Died January 13, 1882.

Autopsy.—Small intestines in some places congested; otherwise normal. Colon normal, except about one-third of a metre of the descending colon, the walls of which were much thicker than normal, and the lumen much smaller. The surface of this contracted and thickened portion was covered with ulcers. The mesenteric, or rather lymphatic, glands of peritoneum covering this portion were much enlarged, feeling much like the indurated glands of the groin in syphilis. This contracted and ulcerated condition began and ended abruptly. Elsewhere the colon appeared normal. Right lung was solidified at apex. Other organs normal.

DYSENTERY, WITH PERFORATION.

CASE 1.

G. B., (colored,) aged 21 years; admitted to United States Marine Hospital, St. Louis, Mo., from steamer "City of Greenville," January 14, 1882. Died March 6, 1882.

Autopsy.—Lungs: Congested; containing small metastatic abscesses scattered throughout their substance. Kidneys very much congested and enlarged. Liver: Mottled color, bronze and olive. All through the organ were here and there softened portions, very friable and yellowish in color. Intestines: The large intestine from the cœcum to the rectum very much softened and extremely friable, of a dark color. Large ulcers found in the colon, with perforations in the sigmoid flexure; peritoneum injected and very much inflamed; intestines agglutinated together by bands of fibrinous, coagulated material. Abdominal cavity filled with serous fluid, containing masses of coagulated material.

CASE 2.

G. L., aged 25 years; admitted to the United States Marine Hospital, St. Louis, Mo., July 12, 1881, from steamer "City of Providence." Died July 17, 1881.

Autopsy.—Lungs somewhat congested. Heart: Large clots in both ventricles. Liver: Enlarged, softened, mottled color. Spleen, softened in texture. Kidneys congested. Peritoneum: Injected; thickened, serous fluid in cavity. Intestines: Congested, thickened, and friable; ulcerations and perforations in colon and cœcum.

CASE 3.

O. O., aged 18 years; nativity, Norway; admitted to United States Marine Hospital, Bedloe's Island, New York, August 12, 1881. Condition fair. Some ulcerations in throat which resembled mucous patches. Denies that he ever had syphilis. Temperature, normal. Few days later temperature was a little elevated. Patient apparently in a stupor. Had some diarrhœa. Tenderness in the right iliac fossa. Diarrhœa grew worse and patient weaker. Patient worse, became delirious, and died August 20.

Autopsy.—Cœcum covered with ulcers; so was the ascending colon to a distance of eight centimetres above it. Ascending, transverse, and descending colon and sigmoid flexure were intensely congested. Ulcers in cœcum, in various stages of progress. In some cases ulceration had proceeded almost to perforation. Spleen enlarged and intensely congested. Small cavity full of calcareous deposit in upper lobe of right lung. Heart and kidneys, normal.

CASE 4.

C. B., aged 27 years; nativity, Germany; admitted to Charity Hospital, New Orleans, La., July 20, 1881. Died July 27, 1881.

Autopsy.—Abdominal cavity: Omentum, congested; smaller intestines distended with gas; blood-vessels, engorged. There was no lesion of the smaller intestines. The ascending colon was congested, its mucous surface very rough. In the transverse colon a section, six inches in length and of half the perimeter of the intestine, was greatly indurated and ulcerated; in the descending colon, sigmoid flexure, and rectum the induration and ulceration were so great that the calibre of the gut was diminished two-thirds; no perforation existed. Liver, engorged; normal size. Gall-bladder and duct, normal. Kidneys and spleen, normal; stomach-walls, thickened. Thoracic cavity: Right lung adherent to pleural cavity by old adhesions; tubercles found throughout the lung. Left lung also tuberculous; tubercles firm, pearly color; no degeneration, (caseous.) Pericardium, normal. Heart, contracted firmly; valves, normal. Right auricle, slightly hypertrophied. Brain, not examined.

CASE 5.

D. G., aged 35; nativity, Kentucky; admitted to St. Mary's Hospital, Evansville, Ind., January 30, 1882. Died February 7.

Autopsy.—Great emaciation; rigor mortis diminishing. Chest and head not examined. Extensive inflammation of large intestine; large ulcers in lower portion, and perforation, with peritonitis. A fine specimen of the newly-formed plastic lymph was observed.

ABSCESS OF LIVER.

CASE 1.

G. P., aged 49 years; was admitted to the United States Marine Hospital, St. Louis, Mo., November 3, 1881, from the steamer "Maggie P." Was a slender, anæmic man; had always been a steady drinker, and gave a malarial history; denied ever having had venereal disease. On admission, was suffering from a very severe form of quotidian ague. Upon examination he was also found to have tubercular disease of lungs. The ague was speedily controlled. Had severe, racking cough and night-sweats; bowels constipated; no pain in chest; patient emaciated, and rapidly failing in strength. On the 23d of November he complained of pain in the right hypochondriac region. A slight swelling found in right hypochondrium, with some tenderness on pressure, indicating an abscess of the liver. Poultices were applied, and the pain abated, disappearing almost entirely, about December 1, 1881; but he subsequently complained of occasional deep-seated pains in that region. He died December 26, 1881.

Autopsy.—Body emaciated; rigor mortis disappearing. Thorax: Extensive, and firm pleuritic adhesions on the right side. Slight effusion in pleural cavity. Tubercles undergoing ulceration and infiltration in right lung, more extensive in left lung, the apex of which was considerably degenerated and broken down. Heart slightly hypertrophied and fatty. Large *post-mortem* clot in left ventricle. Abdomen: Spleen pulpified, light color. Kidneys congested. Liver enlarged, softened, bronze-colored, firmly bound down by extensive adhesions to surrounding structures; an immense abscess found, filling the entire right lobe, the lobular structure being destroyed and the lobe converted into an immense pus-sac, containing about 600 C. C. of extremely foul pus. Small abscesses were found scattered throughout the other lobes. Gall-bladder distended with thick, grumous, dark-colored bile.

CASE 2.

Pneumonia.

T. M., aged 56 years; nativity, Michigan; was admitted to the United States Marine Hospital, Detroit, from the barge "Chas. Hinckley," June 12, 1882, for pneumonia. The patient's physique was shattered by age, secondary syphilis, and the abuse of alcoholic liquors, together with the exposures incident to his calling.

On the day of his admission to hospital, he had fever of an intermittent type, rapid pulse, tongue heavily coated, and a short cough, with

a scanty rust-colored, tenacious sputa, in which condition, according to his statement, he had been for three days previous. Percussion gave absolute dulness over middle and lower lobes of right lung. Auscultations was negative over this region, with the exception of friction sounds in the pleura; but over the upper lobe marked crepitus was discovered.

Temperature and pulse ranged as follows:

June 14.—Morning: Temperature, 38.2° C.; pulse, 90, with some delirium. Evening: Temperature, 38.8° C.; pulse, 96, weak and irregular.

June 15.—Morning: Temperature, 37.6° C.; pulse, 120, followed by collapse and death.

Autopsy.—The middle and lower lobes of the right lung were found completely hepatized, as well a portion of the upper lobe, the remaining portions having a marked inflammatory appearance. The heart was small and anæmic. The liver was enlarged, and when removed it weighed 2,500 Gms. On the under surface of the right lobe of this viscus was discovered an unilocular abscess, containing about 250 C. C. of greenish pus. The walls of the abscess were very tough, about one-quarter inch in thickness, and, even when empty, kept their form under considerable pressure. This condition of things seemed to indicate that the abscess had been of long standing.

CASE 3.

Aspiration, followed by Incision.

R. W., aged 35 years; nativity, England; admitted to the marine ward, St. Mary's Hospital, Galveston, Tex., July 9, 1881, for abscess of liver. Never been in southern United States before; never had malarial fever; has been in East Indies, and about seven years since had yellow fever in Rio Janeiro. About eighteen months ago fell across a crane-rope, and received injuries of the chest, from which he suffered for two weeks, three or four days of the time in hospital. Has "always" suffered from attacks of diarrhœa, which could be induced at any time by drinking "ship's coffee." Never had any other sickness that he can recall. Nineteen days ago, fell unconscious while at the wheel, and did not recover for about fifteen minutes. Has had pain in the right side from that time until the present, but did not notice any swelling until several days later. Was three days at sea, and then in quarantine, receiving no treatment except mustard plaster and some other local irritant to side. Has had dysentery ever since fall, together with pain over liver and in bowels, and difficult breathing. Emaciated, feeble, bronzed, but not yellow; tongue, clean and firm, but pale; eyes,

untinted; no disturbance of vision and no headache. Abdomen distended and lower portion of chest-wall bulging outward, a little more on right than left side. Fluctuating points in four places: one to left of median line, just below border of the ribs; another an inch or two to left of this; another, the size of an egg, between seventh and eighth ribs of right side, and another two inches immediately above this. Dulness, from line of nipple to two and one-half inches below border of ribs on the right side and for four inches on vertical line over left lobe. Aspiration was attempted and failed, the largest tube immediately choking. An incision was then made between seventh and eighth ribs on anterior axillary line, and five pints of very offensive pus and disintegrated liver tissue evacuated. Subsequent treatment consisted of supporting and antipyretic remedies, and a liberal use of antiseptics locally. Patient improved for a time after the operation, but finally succumbed to the effects of the profuse discharge from the wound, and died of exhaustion on the seventeenth day of treatment.

Autopsy.—Body much emaciated, and of dark, bronze color. Abdomen opened by crucial incision, the vertical portion of which entered immediately into the abscess. Very little fat found over abdomen. Right lobe of liver entirely gone, with exception of small portion to right of longitudinal fissure, and its place occupied by the abscess, whose walls were adherent to, or formed by, the diaphragm, intestines, inner surface of chest-wall, and inner surface of walls of abdomen. Cavity contained some pus, and bands and fragment of liver tissue in small amount. Left lobe of liver much larger than normal, but weight not ascertained. Spleen of normal size, and of dark, bluish-black color. Kidneys normal, but left kidney flattened on upper and outer border by contact with left lobe of liver. Stomach almost white, and elongated, presenting scarcely any constriction at pyloric orifice. Intestines pale, and contracted in calibre. Small amount of golden-yellow faecal matter found in the jejunum. Heart, under size and tissue flabby; otherwise normal. Lungs pigmented, and over lower lobe of right lung there were adhesions between the layers of the pleura.

CASE 4.

S. T., aged 51 years; American; admitted to the marine hospital, Chicago, Ill., September 10, 1881. When admitted he presented a slightly-jaundiced appearance, and complained of more or less constant pain over the region of the liver, which was considerably enlarged and tender on pressure. He was fairly nourished; functions quite regular; was not confined to his bed until November 1, when his appetite failed; diarrhoea set in, and he suffered greatly from dyspnoea. Abscess had

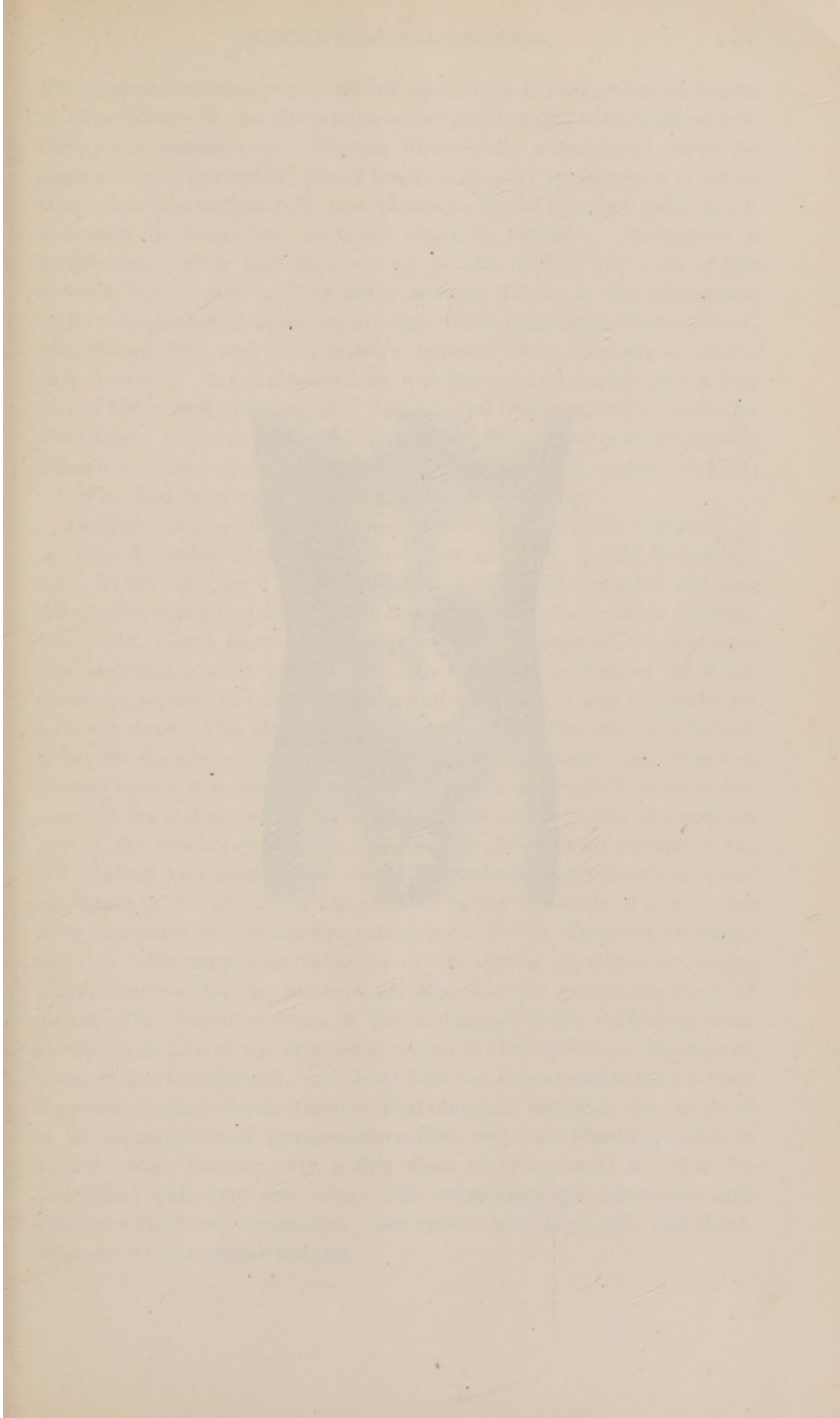
been feared, but physical examination failed to determine it. The difficulty in respiration continued; and on the 5th the right side was found cedematous and dull to the clavicle. No respiratory sounds to be heard. It was believed that an abscess had perforated the diaphragm; but repeated attempts to locate a purulent collection, with a view to aspiration, were unsuccessful. Death occurred on the 16th.

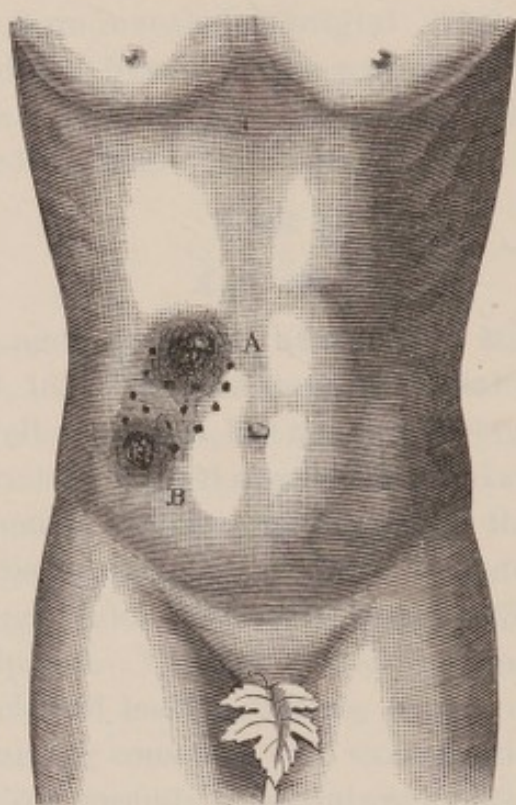
Autopsy.—Only the thorax and abdomen examined. Thorax: The heart was found enlarged, the pericardium containing about one-half more fluid than normal. Left lung normal; some firm adhesions of right pleura. The right lung was found compressed to the utmost, and the right pleural sac distended with thick, creamy pus. A perforation of the diaphragm revealed its origin. Abdomen: The upper and external portion of the liver was the seat of an abscess, with a firm, limiting membrane. The remainder of the liver was soft and friable, congested and one-half larger than normal.

CASE 5.

Aspiration.

D. D., (colored,) aged 48 years; admitted to Marine Hospital at St. Louis, Mo., May 24, 1881, from the steamer "Tidal Wave." The patient was found to be a well-nourished, but not a muscular, man. Had been all his life a steady drinker; denied ever having had venereal disease; had been subject to malarial diseases, having passed the greater part of his life in miasmatic districts. April 2, 1881, he suddenly experienced a severe pain in his right side; his bowels, which before had been regular, now became constipated. In a few days he noticed a slight swelling in his right side, which had been increasing in size up to date of admission, the pain remaining constant, with exacerbations. On admission, pulse and respiration normal; temperature, 38.3° C.; a hard swelling found, its greatest diameter being from end to end, placed horizontally in the right hypochondriac region, extending into the epigastric region. The patient was put on supporting and antipyretic treatment, and poultices applied to the tumor, which steadily increased in size, and, becoming soft, was aspirated on May 31, 1881, and 685 C. C. of thick, grumous, hepatic-colored pus were withdrawn, which gave relief for a time, but on the tumor returning, a free and deep horizontal incision was made in the abdominal wall, directly in the line of the swelling, which gave exit to a large quantity of dark-colored pus. The abscess was immediately washed out with a weak solution of tinct. iodine, and the patient kept on supporting treatment, with antiseptic injections into the cavity. The discharge continued profuse and hepatic-colored up to June 20, 1881, when blood and biliary fluids appeared with it.





His general condition remained fair up to July 1, 1881, when he began to have œdema of the lower extremities and ascites, with marked constitutional disturbance. Bowels obstinately constipated, appetite capricious and perverted; loss of bodily strength; temperature at times below normal; surface cold and clammy; furred tongue; pulse much increased in frequency, at times 124–150; thready. Meanwhile a gangrenous action had been set up in and around the area of the incision, the tissues melting away, leaving a hole in the abdominal walls three inches in diameter, through which large quantities of blood, pus, biliary fluid, and broken-down hepatic tissue discharged during each dressing. A counter opening was subsequently made, about four inches below and to the right of the original incisions, to facilitate the discharge. In spite of antiseptic dressings, the odor was extremely offensive. The patient lingered in this condition until August 25, 1881, when he died from a sudden and profuse hæmorrhage.

Autopsy.—An opening was found, about three inches in diameter, at A, Fig. 4, (point of aspiration and first incision,) in the abdominal walls, at the junction of the right hypochondriac and epigastric regions. Another opening, not as large, at B, (point where the counter opening was made,) about four inches below and to the right of the first one. The abdominal walls between the two openings perforated by small openings, so that the area between and adjoining A and B resembled a coarse sieve. The stench almost intolerable. The liver was bound firmly to the abdominal walls by extensive adhesions. An immense abscess cavity was found, involving anteriorly the right lobe for a distance of six inches to the right from the anterior notch; the greater part of the lobulus quadratus, and the left lobe for a distance to the left of about two inches. The ulceration extended very deeply into the substance of the liver. In the abscess cavity the walls of one of the main branches of the hepatic artery were found ulcerated through, together with numerous branches of the portal and hepatic veins, which accounts for the hæmorrhage that was the immediate cause of death. The muscular tissue of the abdominal walls extending from about the middle of the epigastric region to the right for a distance of seven inches horizontally, and about four and three-quarter inches from the point of counter opening, somewhat obliquely upwards, was involved in an ulcerative and gangrenous action, and had almost completely melted away, leaving only a thin shell of integument to form the abdominal wall over this area. The lungs, stomach, intestines, and kidneys were found congested. The spleen was large, soft, and light-colored. Other organs normal.

HEPATITIS.

W. J., aged 48 years; nativity, Maine; admitted to the marine ward, Charity Hospital, New Orleans, La., July 21, 1882. Temperature, 38° C.; pulse, 100; respiration, 40.

July 24.—Temperature, 35.20° C.; pulse, 120; respiration, 52. Pain and very tender in the right hypogastric region, also over the left lobe of liver. Great tympanitis over entire abdomen. Bowels regular. Conjunctiva yellow; pain under right shoulder blade. No albumen in urine. Appetite poor; tongue red. Acid nitric. dil., 8 C. C.; quin. sulph., 4 Gms.; syr. simp., 60 C. C., *m.* Sig., teaspoonful *t. d.* Has had no chills since he entered hospital. Mustard over liver. Has been a hard drinker for several years. Chills and fever before he was admitted to hospital, but no chills afterwards. Just before he died, July 25, 1881, he vomited black-vomit in large quantity.

Autopsy.—Cadaver that of a strongly-built man. Rigor mortis well developed. Median incision from sternum to pubes. Abdominal cavity: Omentum contains large deposit of fat. Effusion of lymph over all intestines. Intestinal and stomach walls are thickened to slight extent, otherwise normal. Stomach, that of an alcohol-drinker, roughened, containing a bile-colored fluid. Liver: One-half of right lobe of blue-black color; the left lobe lighter, of a slight waxy color. Superior portion of right lobe adherent to diaphragm, and its texture was so soft that it was torn in separating it from the diaphragm. In the right lobe, commencing from the attachment of broad ligament for some five inches, and extending to within two inches of edge of lobe, was an abscess cavity about two inches deep. It was ruptured in making examination, and the contents (pus, bile, and blood) escaped into stomach. At the anterior external and upper portion of the abscess was a blood-clot of recent formation, between the serous and fibrous covering of the gland. The clot was from one-half to three-quarters of an inch in depth, and represented about six ounces of blood. Left lobe was soft and waxy. Kidneys, normal. Spleen, very soft. Thoracic cavity: Pleuritic adhesions in both lungs. Considerable carbon deposit in lungs, otherwise normal. Heart, normal. Brain not examined.

CIRRHOSIS OF LIVER—ASCITES.

CASE 1.

H. S., aged 44 years; native of Finland; admitted to the United States Marine Hospital, San Francisco, Cal., November 25, 1881. Died January 17, 1882. When admitted, this patient had considerable

ascites, and reported that he had been tapped about two weeks before. The treatment adopted was mainly palliative. He was relieved of the accumulation of fluid in the peritoneal cavity seven times, by paracentesis.

Autopsy.—Linear and transverse incision made over abdominal cavity, and liver removed. Evidences of peritonitis (old) were noticed, the liver, stomach, spleen, pancreas, and intestines, being adherent, and requiring force to separate them. The liver was enlarged, and weighed over 10 pounds. External surface, white mottled, and presenting a rough, hob-nailed appearance. Section showed a cirrhotic condition, and from the parenchyma could be scraped with the scalpel small bodies which appeared like inspissated pus. The other organs were healthy.

CASE 2.

B. F. K., aged 41 years; nativity, Ohio; admitted to the marine ward, City Hospital, Memphis, Tenn., September 12, 1881. Died September 16, 1881. Patient had suffered with malarial fever for three weeks prior to admission, which had supervened on two or three months of continued intoxication. Had been a hard drinker for years.

Autopsy.—Eye-balls and skin deeply tinged yellow; body emaciated. Lungs: Cavity two inches in diameter in upper lobe of left; anterior edges of both emphysematous; lower and posterior portions congested. Liver pale, shrunken, and cirrhotic. Stomach empty; mucous coat congested and soft. Kidneys large and congested.

FATTY LIVER, OCCLUSION OF BILE-DUCTS, AND ULCER OF STOMACH.

G. McL., aged 57 years; born in New York; admitted to the United States Marine Hospital, Mobile, Ala., 3 o'clock P. M., November 9, 1881, suffering with diarrhœa. Died at 2 o'clock A. M., November 10, 1881.

Autopsy.—Heart normal in size; slight concentric left hypertrophy; valves normal, with the exception of slight roughing of the tricuspid. Stomach somewhat under size; contained about 200 C. C. of thin, milky-looking fluid. Further examination showed catarrhal thickening, especially about the pylorus. A space about four by six inches near left outer third of greater curvature presented evidences of old inflammatory deposit; surface, dark-red. Rugæ considerably raised. Just below cardiac orifice, to the left of lesser curvature, there was an ulcerated patch about the size of an almond, hard to the touch, of

irregular surface, rather whitish, in fact looking a good deal like pancreatic tissue. Upon section, it had the firm, peculiar feel which one gets in cutting through scirrhus deposit; the gross appearance was cancerous. Liver enlarged; fatty. Gall-bladder contracted; indurated; filled partly with dark, concentrated bile. Cystic duct completely occluded, a dark, thready line representing the canal; walls of duct much thickened. Intestines filled with flatus; no special indications of disease. Kidneys under size; pale, hard, giving the appearance of the white, contracted variety. Cortex nearly wanting.

PERITONITIS.

CASE 1.

Typhlitis.

J. R., aged 20 years; admitted to the United States Marine Hospital, Bedloe's Island, New York, January 14, 1882. Patient came to custom-house, New York, January 13. Had localized pain in right iliac fossa and diarrhoea. Came again next day and was sent to hospital. His condition, when admitted, was critical; he had suffered no injury; had no cough; facies, anxious; had localized pain in right iliac fossa; no discoloration of skin; tenderness over right iliac fossa was extreme, least touch giving him intense pain. Pulse, 140, feeble, and thready.

January 15.—At 10 A. M., pain and tenderness over whole abdomen; pulse, 160; respiration, 44; temperature, 38.8° C. At 7 P. M., pulse, 160, and feeble; slight delirium.

January 16.—At 10 A. M., pulse, 140; respiration, 50; temperature, 39° C.; extremities cold and bathed in a profuse perspiration. At 7 P. M., pulse, 160–200, scarcely to be detected; respiration, 60; temperature, 38.6° C.; no pain in abdomen; feet drawn up; tongue dry; extremities cold.

January 17.—At 10 A. M., pulse not to be detected. Given ether and brandy subcutaneously. Had two tonic spasms at 11 A. M., then died quietly.

Autopsy.—Lungs and heart normal. Small intestines congested and adherent. Peritoneum covering abdominal walls was congested and had a dull look. Omentum congested and adherent to small intestines as well as large. At lower part of abdomen was a cavity full of pus. The small intestines, pushed up and united by false membrane, formed the upper wall of the cavity, the false pelvis the lateral wall, and the

bladder the lower wall of the cavity. The vermiform appendix was lying over the brim of the true pelvis. At its lower two-thirds it was black and sloughing. Water poured into the cœcum washed out of the vermiform appendix, through a ragged opening, a piece of hardened fecal matter about the size and shape of a date-stone. The lower edge of the omentum was adherent to the appendix cœci. The omentum was much thickened, black, and sloughing.

CASE 2.

C. W., (colored,) aged 18 years; admitted to United States Marine Hospital, St. Louis, Mo., September 9, 1881, from steamer "Calhoun." Was a lightly-built, well-nourished boy. Stated that a few days before admission he had a severe rigor, followed by a febrile movement, which continued with remissions. Bowels constipated. On admission, had pain in abdomen, with tenderness on pressure, which rapidly developed into general inflammation of the peritoneum. He died September 15, 1881.

Autopsy.—Abdominal cavity filled and distended with a large quantity of purulent fluid, in which floated flakes of fibrinous coagulated material. Peritoneum injected, opaque and thickened, the whole membrane being involved. Spleen enlarged and light-colored. Liver, stomach, intestines, and kidneys congested.

CASE 3.

A. B., aged 27 years; native of Maine; steward and cook on schooner "J. M. Riley;" admitted to United States Marine Hospital, Portland, Maine, June 9, 1882. On June 5, 1882, was taken with a sudden and severe pain over the abdomen, with a chill, followed by vomiting, anorexia, fever, &c., which continued up to the time of his admission to the hospital, at 7 A. M. on June 9, 1882. No further particulars could be obtained, except that he had taken a quantity of "cuticura."

Examination on the morning of the 9th showed a temperature of 40° C.; pulse, 138, and respiration, 24 per minute; the pulse weak and soft; hiccough with respiration; stomach irritable, and some vomiting. There was extreme tenderness upon slight pressure over and about the umbilical region, and some gurgling in the right iliac fossa. The pupils were contracted almost to "pin's point," the patient stating that he had a hypodermic injection on the night previous to admission. Tincture of aconite, rad., was prescribed, in three doses of three drops each, three hours apart, and a flaxseed poultice sprinkled with mustard ap-

plied to the abdomen. At 3 P. M., R: Morph. chlorid. .333 Gm., in 75 C. C. water. A teaspoonful of this solution was given every two hours, and turpentine stupes to abdomen.

Evening record: Temperature, 39.75° C.; pulse, 130; respiration, 21, and somewhat irregular. Later, at 11 P. M., he seemed to be under the control of the morphia. Respiration, 16; pulse, 120.

June 10.—Morning: Temperature, 38.75° C.; pulse, 130, and weak; respiration, 30. Milk and sol. morph. were rejected by the stomach, but after a hypodermic injection of morph., (.022 Gm.,) brandy and milk were retained. Slept well, with profuse perspiration. At 1 P. M., 5 C. C. of morph. sol. (.022 Gm.) were retained by the stomach for twenty minutes, but were then rejected. At 3 P. M. there was considerable delirium; hypodermic injection, sol. morph. (.022 Gm.) given, and turpentine stupes renewed. Brandy and milk was also given in small quantity at a time, and retained. The hypodermic injections of morphia were continued every half hour until evening, when .066 Gm. had been given.

Evening record: Temperature, 38.75° C.; pulse, 150, and very weak respiration, 16. At 7 P. M. he was rapidly sinking—cold extremities, clammy sweat, &c. Hot bottles were applied to extremities, and rectal injection of brandy and milk given. Died at 11.30 P. M.

Autopsy showed the following conditions: The abdomen was greatly distended, hard, and tense to the touch. Upon an incision being made, the peritoneum was found to be thickened and striated, especially towards the thoracic boundary, showing the marks of intense inflammation. This also appeared on the external coats of the duodenum and ileum. A quantity of fluid was found in the abdominal cavity, containing flakes of lymph, and pus mixed with serum in the more dependent portion—the region occupied by the bladder—which was collapsed. The vermiform appendix was found to contain calcareous deposits, and seemed shorter than normal. The gall-bladder was distended, but the duct did not seem to be occluded or obstructed. Several of the solitary glands were inflamed, but no perforation was apparent. The stomach showed some marks of inflammation. The kidneys and liver were congested, the right lobe of the latter being somewhat softer than normal. The diagnosis of acute general peritonitis was confirmed, but the cause was not apparent, owing to obscurity in the primary history of the case and the earlier neglect of the patient before his admission to the hospital.

ACUTE BRIGHT'S DISEASE.

CASE 1.

T. N., aged 30 years; born in Michigan; admitted to the United States Marine Hospital, Louisville, Ky., May 27, 1882. Died June 4, 1882.

Clinical History.—This seaman was admitted to this hospital December 6, 1881, with the same disease, and discharged in January, apparently well. When readmitted (as above) his face was swollen and had a peculiar shining, sallow color; lower extremities much swollen, pitting on pressure. Temperature, 36.5° C.; pulse, 96. An examination revealed pleuritic and pericardial effusions. Urine contained albumen, and through the microscope were seen granular casts in abundance, both vesical and renal epithelium, but no blood corpuscles or hyaline casts. Average quantity of urine first, second, and third days, 850 C. C., each 24 hours. Breathing stertorous when asleep; not able to lie down; considerable cough, with frothy mucous expectoration. He became worse each day, and died comatose on the afternoon of the 4th. There were 250 C. C. of urine drawn by catheter on June 3, and 200 on the 4th.

Autopsy.—Rigor mortis well marked; great œdema of lower extremities, considerable of the face, and a little of the hands. Lungs œdematous and congested posteriorly. There were 300 C. C. serum in right pleura, 250 C. C. in left, and 100 in the pericardium. Heart normal in size and location, but structure (tissue) pale, soft, and easily torn; mitral valve thickened. There were 800 C. C. serum in peritoneum. Stomach, spleen, and intestines normal in appearance. Liver slightly enlarged, pale, and softened. Right kidney normal in size, slightly nodulated, pale in color; its capsule easily torn and separated. A few small cysts were found in making section, in both the cortical and medullary portions. The microscope showed granular matter, granular casts, epithelium, and blood-corpuscles in abundance. The small cysts proved to be dilatations of the uriniferous tubes. The left kidney was one-third smaller than the right one, more nodulated, redder in appearance, with capsule firmly attached. On section, no cysts were found. The cortex and pyramids were diminished in thickness and size; about the same microscopical appearances as in the right, except the dilatation of the tubes. Brain and membranes congested. The puncta vasculosa more marked than usual.

CASE 2.

F. K., aged 41 years; admitted to United States Marine Hospital, Wilmington, N. C., June 25, 1881. Died July 8, 1881. History unim-

portant. Was in an extremely feeble condition on admission, with exhausting diarrhœa, œdema of feet, and unable to walk. An examination of urine, chemically and microscopically, resulted in diagnosis of chronic tubal nephritis, large white kidney. Treatment had no effect. Although there was complete suppression of urine for forty-eight hours before death, there were no symptoms of uræmia except a urinous odor to the breath.

Autopsy.—Rigor mortis well marked; body much emaciated. Heart and lungs in normal condition. Both kidneys very white, and enlarged at least a third above normal size. On section, showed complete disorganization of secreting tubules. The cortical portion was apparently healthy. A marked example of the large white kidney.

CASE 3.

M. S., aged 44 years; born in Germany; was admitted to the United States Marine Hospital, Louisville, Ky., October 23, 1881. Died November 13, 1881.

Clinical History.—As stated by himself, he had been an intemperate man for many years. Had been on a "spree" for six weeks prior to his admission. Three weeks before he noticed blood passing from the bladder, after voiding urine. Since that time (about October 1,) he had more or less trouble with his kidneys, sometimes a small quantity of blood was passed. Occasionally the urine was high-colored and scanty; frequently normal in quantity, but always of a reddish or brown color. Eight hours after admission (4 P. M.) his temperature was normal; pulse 90; tongue clean. There was slight puffiness of the eyelids, and a peculiar color of the skin. There was some œdema of feet and ankles. During the succeeding 24 hours he passed 1,280 C. C. of urine; the second 24 hours, 1,150 C. C., and the third 24 hours, 1,260 C. C.; all of which was of a pale-brown color, and contained a large amount of albumen. The microscope showed both granular (many) and hyaline (a few) casts, blood-corpuscles, epithelium, and granular matter. Acetic acid added to the urine caused a very dark precipitate, and, allowing it to stand a few days, crystals of uric acid in considerable quantities and a few of triple phosphates were found. The œdema gradually extended over the lower extremities as the disease progressed. The urine became scanty, and once a small quantity of blood was voided. The total quantity of urine secreted on the 12th of November was 125 C. C., and he became comatose. On the 13th he had three convulsions, and died at 5 o'clock P. M., shortly after the third convulsion.

Autopsy.—Rigor mortis well marked. Two or three bruised spots on back and one on forehead. Lower extremities much swollen, the

œdema extending to abdomen. Lungs congested posteriorly, *post-mortem*. Old adhesion upper third of left pleura; 100 C. C. serum in right pleural cavity; 50 in left; 125 C. C. in pericardium. Heart normal; fibrinous clot in left ventricle; liver and spleen congested; 250 C. C. serum in peritoneal cavity. Kidneys enlarged; pale on surface, but on cutting across presented a mottled appearance; occasional red specks, due probably to congestion. Microscopic examination showed uriniferous tubes blocked with granular matter, blood-corpuscles, and epithelium. The bladder contained about 32 C. C. thick muco-bloody urine. Stomach and intestines congested. Brain and membranes congested, and a small (not measureable) quantity of fluid in ventricles.

CASE 4.

A. W., aged 32 years; nativity, Sweden; admitted to marine ward, Charity Hospital, New Orleans, La., June 21, 1881. Died August 1, 1881.

Autopsy.—Rigor mortis; cadaver slender; numerous scabs upon thighs and lower extremities, of probable specific origin. Abdominal cavity: Intestines, normal. Bladder, greatly distended with urine. Liver, dark-blue color, studded with small white spots; normal size. Spleen, slightly enlarged. Right and left kidneys enlarged; upper two-thirds of a flesh, pink color; lower third dark-blue. Tunica albuginea, opaque; easily separated; on section the surface was quickly covered with thick exuded blood; cortical substance thickened but easily torn; pyramids and tubules enlarged and cirrhotic. Blood-vessels of pelvis injected. Suprarenal capsules of a bronze color. Thoracic cavity: Lungs, adherent to pleura by old adhesion; normal. Pericardial cavity contained about three ounces of fluid. Heart, flabby; mitral valve diseased slightly.

CHRONIC BRIGHT'S DISEASE.

CASE 1.

S. H. W., aged 38 years; admitted to United States Marine Hospital, St. Louis, Mo., August 28, 1879, from steamer "Belle of Memphis." Some time after admission, upon examination, a rectal stricture was found, and on May 16, 1880, the stricture was successfully relieved by divulsion. He died December 1, 1881.

Autopsy.—Lungs congested; fluid in pleural cavity. Heart dilated and hypertrophied; insufficiency of valves. Fluid in pericardial sac.

Kidneys very much enlarged, and of a yellowish-white color. The entire parenchyma pulpy and friable, especially the cortical substance. Intestines congested. Leading up from the upper part of the rectum was a pus tract, running the length of the intestine, and becoming lost high up in the small intestine.

CASE 2.

J. B., aged 21 years; nativity, Tennessee; admitted to the marine ward, City Hospital, Memphis, Tenn., November 6, 1881. Died November 20, 1881. Patient was dropsical on admission, with dyspnoea and albuminous urine; second attack; other one about three years ago. Abdomen tapped twice after admission.

Autopsy.—Lungs: Left completely adherent to chest-walls; both œdematous, with hypostatic congestion. Abdomen: Cavity contained one quart fluid; bowels distended with gas. Kidneys large, pale, friable; cortical portion averaging one-eighth inch in thickness; capsule loosely adherent; numerous abscesses under cortex.

CASE 3.

G. M., aged 19 years; German; admitted to the Marine Hospital, Chicago, Ill., August 24, 1881. Applied for relief for swelling of the feet and legs, which interfered with walking or working. He stated that he first noticed slight swelling some months previously, which came and went at irregular intervals. Examination revealed a small accumulation of fluid in the abdominal cavity. The patient complained of no headache, nausea, or diarrhoea; his appetite was fair. The urine was pale; specific gravity, 1,010; 1,400 C. C. passed in twenty-four hours; albumen somewhat more than one-half the volume; copious sediment, revealing, under the microscope, casts and epithelial cells containing oil, with free-oil globules. The anasarca progressed rapidly, unaffected by treatment, the face becoming puffy on the 30th. Coma supervened suddenly during the night of September 13, and death occurred at 7.30 P. M. of the 14th.

Autopsy.—Only the abdomen and thorax examined. Lungs œdematous; old pleuritic adhesions existed on the right side. Heart hypertrophied; the pericardium contained 100 C. C. of fluid. The liver was hypertrophied; spleen and pancreas of usual dimensions. Both kidneys were enlarged to double their normal size, and were fatty; scarcely any trace of normal tissue remained.

ABSCESS OF KIDNEY—STRICTURE OF URETHRA.

J. D., about 50 years of age, though claiming to be 42; admitted to the marine ward, Jefferson Medical College Hospital, Philadelphia Pa., March 6, 1882. Patient was a very small, dried-up-looking man. He had a history of gonorrhœa several years ago, followed by stricture of urethra. When he was admitted, he could scarcely pass his water. The urine came away in drops. His scrotum was badly excoriated by constant passage of urine, which had continued for about four months. A large tumor, just above the pubes, was discovered by palpation, which, on being percussed, gave out a dull sound, showing that the bladder was overdistended. The patient was in a very low condition; had no appetite; could not sleep; was "nervous" and trembling. It was impossible to introduce the smallest-sized catheter. He was placed upon whiskey, 16 C. C., four times daily; quinine sulphate, .15 Gm., four times daily; liquor potas., 1 C. C., four times a day, largely diluted, with pil. opii, .15 Gm., *pro re nata*, to quiet pain and induce sleep. Milk or beef tea every two hours constituted his diet.

On March 7, 1882, a filiform bougie was with great difficulty passed through three strictures into the bladder, and on this was threaded a Thompson's stricture-expander. This was pushed down and two of the strictures dilated. Holt's dilator was then passed, preceded by a flexible pathfinder, (Bumstead,) and the strictures rapidly and forcibly dilated to allow of easy introduction of a No. 25 (French) sound. A silver catheter was then introduced, and about 200 C. C. urine, pus, and blood drawn off. The patient lost some blood, though little, during the operation. No anæsthetic used, in view of the feeble condition of the heart. Immediately after the operation, .04 Gm. of morphia was given hypodermically, with 1 Gm. quinia sulph. *per orem*. The catheter was left in the bladder overnight. No chill was felt. Temperature, 11 P. M., 38.4 C. Difficulty was experienced in keeping the catheter free from mucus, which was very ropy. Temperature at 8 A. M., March 8, 37.1 C., the patient having rested comparatively easy all night. In the morning of the 8th, the catheter was removed and replaced by a No. 25 (French) sound, which was allowed to remain in the bladder for twenty minutes. It was then removed and the catheter replaced, and the patient was given tincture ferri chlorid., 1.5 C. C., four times a day. The patient vomited a great deal, the vomited matter having a urinous odor. Lime-water was given to quiet the stomach, but without effect, everything being rejected. Other drugs were used to quiet the stomach, but without effect. The sounds, up to

(French) No. 25, were used every day, and but little difficulty was offered to their introduction.

March 10.—Mistura copaiba was administered to overcome the cystitis.

March 11.—The patient had a chill in the afternoon, followed by high fever; temperature, 39.5 C. Quinia, 1 Gm., was administered, but the stomach was too irritable to retain it. Fever-mixture was also administered, but with no effect.

Every evening after the 11th instant the patient's temperature went up, until the 17th, when it remained normal. The patient's stomach continued irritable, and rejected everything except milk and lime-water. The patient grew weaker, and lost a great deal of flesh. Nothing could be done to overcome the irritability of patient's stomach. The urinous odor still existed in the vomited matter. The bladder could not contract, and the sphincter urethra was paralyzed, so that the urine continued to be voided in drops. On March 14, tincture belladonna, 1.5 C. C., was administered thrice daily to strengthen the bladder, but with no effect. The patient continued to grow weaker every day until March 19. About 6.15 P. M. of that date the patient said something to the nurse, and then attempted to turn over, complaining of a pain in the left groin. As he turned his head fell and struck the stand by his bed. He gasped several times, and before the nurse could get to him he was dead.

Autopsy.—The lungs were normal, except some old pleuritic adhesions. *Ante-mortem* clots were found in the heart. An *ante-mortem* clot, several inches long, was drawn from the aorta. The heart clot was entangled in the mitral valve, and was probably the immediate cause of death. Both kidneys were very much enlarged, either one being twice as large as a normal kidney. A large abscess was found in the left kidney, which had ruptured into the pelvis. The pelves of both kidneys were greatly enlarged. The ureters were more than five times their normal size, and their walls thickened. The bladder was very much dilated, and the walls thickened. The other viscera of the body were normal.

CARIES OF THE OS CALCIS.

Excision—Mortification.

W. A., (colored,) aged 22 years; admitted to the United States Marine Hospital, St. Louis, Mo., June 18, 1881, from the steamer "John A. Scudder," for secondary syphilis, with caries of the calcaneum. The general condition of the subject was bad. He stated





CARIES OF CALCANEUM.

FIG. II.

The drawing represents a side view of the specimen.



that he considered himself healthy up to three years ago, when he contracted syphilis. Upon examination, a fistulous tract was found in right foot, leading down into the central portion of the os calcis, just below the external malleolus. Subsequently, a second opening appeared a little in front and below the internal malleolus. There was a slight sanious discharge from these openings. The constitutional condition of the patient was such as to render immediate surgical interference hazardous, and a course of treatment was pursued with a view of improving his shattered system; but, despite the supporting treatment instituted, the result was but little, if any, improvement, and on November 20, 1881, the patient having been placed under the influence of ether and Esmarch's bandage applied, the operation was performed, with the aid of Assistant Surgeons Benson and Ames, as follows:

An incision was made round the heel from a little in front of the calcaneo-cuboid articulation, just below the calcaneum, to a corresponding point on the other side. A vertical incision was then made through the middle of the tendo-achilles, about two inches in length, and carried downwards into the horizontal one. The flaps were then carefully dissected, the knife hugging the bone. The arteries were not injured. Upon making slight traction to the bone, the forceps broke through into a cavity in the central portion, containing broken-down osseous tissue, of a granular character, bathed in foul matter, the greater portion of which dropped out *en masse* on the removal of the forceps. The diseased parts thus shown indicated that the destruction of bone tissue had progressed very rapidly. After the disarticulation of the bone, the wound was thoroughly cleansed with a solution of chloride of zinc. On removing the Esmarch's bandage there was little or no hæmorrhage. Lint, saturated with carbolized oil, was stuffed into the cavity of the wound, the flaps brought together by silver sutures, and the limb placed in an elevated position, with the foot fixed at right angles to the leg by means of a moulded felt splint. The fever following the operation was slight. Supporting treatment was continued, and the wound kept thoroughly cleansed. The temperature of both extremities remained about the same until November 22, at which time the temperature of the extremity side operated upon was lower. There was but little discharge, the odor of which was slight. On the evening visit the odor was more offensive, and there was more constitutional disturbance. The surrounding tissues were found to be boggy, crepitating under pressure. The wound was now carefully syringed with a strong solution of permanganate of potash, which was repeated and the dressings changed thrice daily. The gangrenous action, however, advanced

rapidly until November 25, when the entire limb was found involved, with no appearance of a line of demarcation. The prostration of patient was now increased by the supervention of diarrhœa. Early in the morning of November 26, 1881, a slight secondary hæmorrhage occurred from the posterior tibial, which was controlled at once by pressure, but the patient died a few hours later from gangrene and exhaustion.

[NOTE BY THE REPORTER.—A successful case of excision of the os calcis by Surgeon-General Hamilton, then surgeon in charge of the Chelsea Hospital, is reported in the annual report of this Service for 1879. The specimen is preserved at the hospital. The drawings accompanying the various reports from the St. Louis Marine Hospital were made by Assistant Surgeon John A. Benson.]

CARIES OF PELVIC BONES AND FEMUR.

CASE 1.

Fistula in Ano.

S. M., (colored,) aged 25 years; American; transferred from Savannah, Ga., as chronic patient to the United States Marine Hospital, Wilmington, N. C., August 27, 1881. Died May 10, 1882.

Two operations had been performed in Savannah for fistula in ano, without success. The patient was in wretched condition, emaciated and totally helpless; large suppurating sinus extending through buttock to rectum, ankylosis of one knee, and evidences of hip-joint disease. Examination with the probe showed extensive disease of the pelvic bones. The extent of disease and the patient's condition forbade any operation, as he would probably have died on the table. Lingered several months, and finally died from exhaustion.

Autopsy.—Body emaciated; hypostatic congestion along the spinal region; lower extremities very œdematous; right leg inverted, and thigh apparently subluxated. Large sloughing bed-sore over sacrum, but not very deep. Large blebs on posterior aspect of thighs. An incision was made from a point directly over the coccyx, and carried upwards to a point midway between the wings of the sacrum. This incision was crossed and the flaps so formed dissected back. The bones of the pelvis only were examined. The tuberosity of the ischium on the right side was almost totally disorganized, black and spongy. The posterior aspect of the sacrum was in a similar condition. The head of the right femur was so much necrosed as to break down under pressure, and the marrow of the shaft for the upper third was soft and fluid. The acetabulum was necrosed and perforated. The fistula com-

municated by a large opening with the rectum, downwards with the acetabulum and head of femur, upwards with the posterior and outer aspect of the ileum, and also backwards with the sacrum. The whole of the surrounding tissues were soft, black, and pultaceous. The specimens are preserved in the hospital museum.

CASE 2.

Psoas Abscess.

J. T., (mulatto,) aged 25 years; admitted to United States Marine Hospital, St. Louis, Mo., July 19, 1881, from steamer "Osceola Belle." Is a strumous subject, and his general condition is very much below par. The abscess was opened, drainage-tube introduced, and cavity cleansed daily. Subsequently an abscess formed above the crest of the left ileum, and 320 C. C. of extremely foul pus were withdrawn by the aspirator. An incision was afterwards made to the bone, which was found to be in a carious condition. The patient lingered until November 5, 1881, when he died.

Autopsy.—Body much emaciated; rigor mortis well marked. Abdomen: Fistulous opening in left groin, leading at first upwards, backwards, and inwards, then bending downwards into the iliac fossa. Tissues over the fossa, puffy. Fistulous opening in back, half an inch above and a little towards the middle line of the posterior superior spinous process of the ileum, found to lead also into the iliac fossa. The fistulous opening in left groin found to pass into a pus sac, the size of a hen's egg, situated at about the centre of the left iliac fossa. From this point the tract passed obliquely across the psoas magnus, and finally ended near the sacro-iliac junction, on the anterior surface of the ileum, which was found to be in a carious condition. The last lumbar vertebra and the whole of the promontory of the sacrum were found in a soft, spongy condition, easily broken down, and bathed in very foul pus. Peritoneum, pale, and a few old inflammatory adhesions to the diaphragm. Spleen, normal. Kidneys, small, contracted. Thorax: Heart, normal. Pericardium effusion in sac. Lungs, normal. Pleuræ: Marked pleuritic adhesions on both sides.

INJURY TO THE NATES, FOLLOWED BY ABSCESS.

Caries of the Vertebrae.

B. J., (colored,) aged 24 years; admitted to hospital at Cincinnati, Ohio, March 30, 1880, with a large abscess upon the left natis. Three or four days before, while working on a steamboat, a heavy barrel fell from a

tier of barrels two or three feet above his head, striking him upon the natis, (left.) The patient was of unusual physical development, and in robust health. The abscess which had formed so quickly was opened, with the discharge of about a pint of pus. Though the patient wished to go to work again, he was sent to the hospital, where the discharge continued rather freely. In six weeks he complained of tenderness on percussion from the middle dorsal vertebra to the sacrum, and particularly over the sacro-iliac synchondroses. His appetite disappeared, his decubitus was abdominal, and about the middle of May he became unable to walk on account of pain and weakness. All these symptoms persisted with occasional intermissions until the latter part of September, when pus was found burrowing over the crest of the right ileum posteriorly, and was evacuated by means of incision. The patient's subsequent record was one of steady decline until December 8, 1880, when he died.

Autopsy.—The opening in the gluteal fold on the left side connected with a sinus, which measured at least two inches in circumference, and the walls of which were very thick. This sinus extended about seven inches to the sacrum, upon whose anterior surface it could be traced a distance of two and a half inches, the bone being greatly roughened. The opening upon the right side over the dorsum of the ileum was found to connect with a large abscess cavity, which extended upwards to the lumbar vertebræ, which were found to be softened and roughened. The cavity of the abscess also extended downwards into the venter of the ileum, (right side,) which, together with the crest, was likewise rough and soft.

DELIRIUM TREMENS.

CASE 1.

Intercurrent Pneumonia.

H. E., aged 48 years; nativity, England; admitted to the marine ward, St. Joseph's Hospital, Baltimore, Md., January 11, 1882.

History.—Had been a hard drinker for many years, and had, while on a drunken spree, shipped on an oyster-vessel, January 2, 1882. The master of the vessel, in order to sober him, let him go to sleep on the deck; but he was seized with *mania a potu*, which obliged his removal to the cabin, where he was strapped in bed for several days.

When admitted to hospital he was delirious; his feet, calves of his legs, penis, and hands were severely frost-bitten; and his general condition showed extreme prostration, resulting from neglect and ex-

posure. He had high temperature and rapid respiration, and his lungs were involved; but it was impossible, owing to his restless condition, to make any satisfactory examination by percussion or auscultation. Every effort was made, by means of diffusible stimulants, quinine, and nourishing food, to sustain life, and during the first twenty-four hours after admission there were hopes of his ultimate recovery; but on the second day he began to fail rapidly, and died about fifty hours after his admission.

Autopsy.—Both lungs were bound tightly to chest-walls by old pleuritic adhesions. All the lobes of right lung showed evidences of the second stage of pneumonia, and the lower lobe of left lung was in a similar condition. Heart was normal in size; valves in a healthy condition, but under the microscope the muscular structure gave evidence of fatty degeneration. Liver large, but otherwise in a normal condition. Kidneys were large, but gave no evidences of disease. Spleen normal in size and consistency. Brain not examined.

CASE 2.

N. M., aged 49 years; born in Ireland; admitted to the United States Marine Hospital, Louisville, Ky., February 22, 1882. Died March 3, 1882.

Clinical History.—On admission, he presented all the evidences of having been on a "long spree." He was very nervous, the muscular agitation being so great that he could only with difficulty place a glass of water between his lips. He had a wild and haggard look, and was delirious. At times his delirium was violent. Complained of great pain in his head, referred to the top and base of brain. His tongue was dry and brown. Pulse, 130; temperature, 37° C. His only quiet hours and sleep were while he was under the influence of large doses of bromidia or chloral. The pain in his head increased until March 1, when symptoms of coma became manifest. Coma was profound twenty-four hours preceding death, March 3, at 4 P. M.

Autopsy.—Rigor mortis moderately marked. Several purple spots on abdomen and back, probably *post-mortem*. Liver congested and much enlarged, but smooth and regular shaped. Spleen enlarged and congested. Stomach and intestines congested; mucous membrane of stomach thickened and softened—easily torn or removed. Kidneys, normal in appearance. Lungs, healthy. An old adhesion of entire right pleura rendered it impossible to separate the lung from thoracic wall without the use of the knife. Heart slightly enlarged, softened, and a fibrinous clot found in left ventricle, probably *post-mortem*. Surface

of brain very red and much congested. When the membranes were punctured, about 32 C. C. of straw-colored fluid escaped; 125 C. C. of the same-colored liquid was found in the ventricles, (lateral,) and collected, while a quantity estimated at 25 C. C. escaped, making a total of 150 C. C. This serum had a disagreeable odor, more like ether than anything else, and gave an acid reaction. No unusual appearance of brain substance.

[NOTE BY THE REPORTER.—While a slight quantity of serum in the cavity of the pia mater and ventricles of the brain may be found without evidence of disease or being the cause of death, I am of opinion that in this case, the symptoms being considered, viz., pain in the head, violent delirium, followed by coma, that it was the result of congestion of the cerebral vessels and cause of death.]

MULTIPLE INJURY.

CASE 1.

The following is a fair sample of the terrible injuries sustained in consequence of a fall from aloft:

At 20 minutes past 8 o'clock P. M., on Thursday, April 6, 1882, the schooner "Enoch Roberson" came to anchor in harbor at Vineyard Haven, and Seaman W. was sent aloft to furl the foretop-sail, seventy feet above the deck of the vessel. While engaged in that duty he fell from the position indicated, striking the deck on the posterior part of his head and shoulders, with the following results, as ascertained by a *post-mortem* twelve hours after death: Extensive lacerated wound of the scalp, denuding upper half of occipital and posterior portion of parietal bones, fracture of the spine at fifth cervical, tenth and eleventh dorsal vertebræ, crushing the body of the tenth, comminuted fracture of the left scapula, dislocation of right humerus into the axilla, and fracture of seven ribs at their posterior angles, including their vertebral articulations. There was extensive hæmorrhage into the meninges of the cerebrum, lateral ventricles, and into the whole of the spinal canal. The spinal cord as it passes through the body of the tenth dorsal vertebra was severed and the vertebra crushed.

The patient lived about three hours after the injury.

CASE 2.

H. R., a Scotchman; aged 35 years. On the morning of May 13, 1882, while drunk and trying to reach his vessel, fell through an opening in the coal-trestle, to the wharf below, a distance of some twenty feet, striking, probably, on his right knee and the right side of his head.

On admission to the marine ward of St. Joseph's Hospital, Baltimore, Md., (2 P. M.,) thirteen hours after the accident, his symptoms were as follows: Patient unconscious; temperature, 36° C.; pulse, 50; respiration, 8 per minute, and very shallow; skin, cold and clammy; pupils, slightly contracted, the right one the more so, and both refusing to respond to light. There had been bleeding from the left ear. No irregularity in the bone surface could be detected through the scalp. Both thigh-bones were fractured; their exact condition to be mentioned further on.

The patient's urine was drawn, heat was applied externally, stimulants were administered, and in two hours his temperature was 37° C.; pulse, 65; and there was a partial return of consciousness. He complained of pain in the back of head and neck, and asked constantly to be lifted up.

At 7 P. M., five hours after admission, the temperature was normal, pulse, 85; respiration, 20 per minute. At this time he answered all questions rationally, and continued in this condition until 1 A. M., May 14, when suddenly respiration became stertorous, fell to 7 per minute; the pulse was imperceptible at the wrist, and at 1.25 the heart ceased to beat.

Autopsy.—Rigor mortis well marked. On reflecting the scalp a clot of blood was found over each parietal bone, extending on the right side into the temporal fossa. There was also a fracture of the right parietal, imperfectly parallelogramic in shape, the piece of bone thus mapped out by the four lines of fracture being about one inch and a half in its longest diameter. This appeared to be the site of direct violence, and from it in all directions extended lines of fracture, whose ramifications could be traced around the whole cranium, making an irregular circle, which would have been complete but for a space of one inch in the occipital bone on the left side, between the jugular process and the foramen magnum. One line extended upwards across the right parietal protuberance to the apex of the vault. Another began at the lower anterior angle of the right parietal bone, and ran downwards through the squamous portion of the temporal bone, through the body and greater wing of the sphenoid, extending into the orbital plate of the frontal to within half an inch of the crista galli. At right angles to the one just mentioned another line started, at the foramen rotundum, and passed backwards through the greater wing of the sphenoid, petrous portion of the temporal and basilar process of the occipital bone, to the foramen magnum. There was also a fracture of the zygoma on the same side. On the left side the middle meningeal artery was torn.

There was fracture in the left parietal bone which began, *externally*, at the coronal suture one inch from the centre, and extended in a curved line backwards and downwards into the squamous portion of the temporal bone to the external auditory meatus. On the inner surface this line could be further traced, across the petrous portion to the petro-occipital suture, thus crossing the auditory meatus and causing rupture of the auditory artery. (The hæmorrhages from the left ear will be remembered.) On the *inner* surface the fracture of the left parietal bone could be seen to cross to the right side, and become connected, with the fractures of the right parietal through the fronto-parietal suture.

It should be remarked that there were no signs of injury to the scalp, which is accounted for by the patient wearing a thick, tight-fitting cloth cap, and at the spot where he fell the wharf was covered to the depth of one-half or three-fourths of an inch with fine coal dust.

In the right femur there was a transverse fracture at the junction of the lower and middle third, with two inches overriding of the upper fragment. A very small opening in the skin on the outer side connected with this fracture. There was also a comminuted fracture of the right patella.

The left femur had sustained a comminuted fracture in the middle third, and on making incision at its lower end a quantity of serous fluid escaped, showing there had been a rupture into the knee-joint.

—

GUNSHOT WOUND OF FACE, WITH FRACTURE OF SKULL.

F. K., aged 22 years; admitted to the marine ward, St. Mary's Hospital, Cairo, Ill., February 24, 1882.

Diagnosis.—Gunshot wound of face and head. Patient large, strong, and well built. Ball passed through the length of the tongue, fractured the pterygoid process of the sphenoid, and glanced upward and inward. Cerebitis and symptoms of an abscess in the back part of the brain supervened. The patient died suddenly March 22, 1882.

Autopsy.—Kidneys sound; a clear, fibrinous clot in the right ventricle of the heart, detached, and filling up the pulmonary artery, which was evidently the immediate cause of death. The brain was markedly congested everywhere; at the base on the right side was a piece of "red-softening," at one portion breaking down into pus. The lesion was as big as a walnut. Immediately under it was a small abscess between the dura mater and bone, which was necrosed at this point. The necrosed bone was immediately posterior to the jugular fossa.

GUNSHOT WOUNDS AND CONTUSIONS.

Death from Peritonitis.

Seamen G. E., (colored,) was admitted to marine ward, City Hospital, Charleston, S. C., on the morning of June 14, 1882. He was much exhausted, suffering from gunshot wounds, bruises, and cuts. He complained of great pain in the abdominal region, where he said he had been kicked and beaten with a club. Attempts were made to probe the gunshot wound, which entered between the tenth and eleventh ribs on the right side, six inches from the lower edge of the sternum. It was impossible to pass the probe into either the thoracic or abdominal cavity. Symptoms of violent peritonitis set in on the afternoon of the 14th, and continued till his death, on the 16th. Tympanites and tenderness were great, and accompanied with persistent vomiting, at first the contents of the stomach, afterwards bile. Large doses of morphia were administered subcutaneously. Alcohol and condensed nourishment were given by rectum, and the vomiting was partially allayed by lime-water and chopped ice, and counter-irritants applied to the pit of the stomach. He was under no other treatment, sank rapidly, and died of exhaustion. He was unconscious the last few hours, and the sphincters were relaxed. The gunshot wounds of the thigh passed entirely through, and, as the autopsy proved, the wound in the side did not penetrate either the thoracic or abdominal cavity. He died of peritonitis, caused by the kicks and blows.

CLINICAL RECORD.

Permit No. 199.—Seaman G. E., aged 30 years; rank or rating, ordinary seaman; nativity, South Carolina; admitted, June 14; disease, gunshot wounds.

	June 14.		June 15.		June 16.	
	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.
Time of day.....						
Temperature, (Fahrenheit).....		{ 99¾ 100¾ }	{ 100¾ 100¾ }	{ 102 103¾ 103½ 103 110 }	101½	{ 101½ 102½ }
Pulse per minute.....		95	{ 108 110 }	{ 115 130 130 }	115	{ 135 140 }
Respiration per minute.....		20	30	35	21	35
Brain symptoms.....		<i>r</i>	<i>r</i>	<i>r</i>	<i>i</i>	<i>i</i>
Character of pulse.....		<i>b</i>	<i>b</i>	<i>b</i>	<i>w</i>	<i>w</i>
Character of respiration.....		<i>n</i>	<i>g</i>	<i>s</i>	<i>d</i>	<i>d</i>
Condition of stomach.....		<i>a c</i>	<i>a c</i>	<i>v n</i>	<i>v n</i>	<i>v n</i>
Urine <i>a</i>						
Stools—						
Number.....			1	1	2	
Character.....		<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	

a Normal; drawn by catheter.

ABBREVIATIONS.—Brain symptoms: *r*, Restlessness; *i*, Jactitation. Character of pulse: *b*, Bounding; *w*, Weak. Character of respiration: *n*, Normal; *g*, Gasping; *s*, Superficial; *d*, Dyspnoea. Condition of stomach: *a*, Appetite; *c*, Cardialgia; *v*, Vomiting; *n*, Nausea. Stools: *s*, Soft.

Autopsy.—External lesions: (1) A gunshot wound in the right hypochondriac region, the ball not entering the thoracic cavity, but the muscular tissue was ecchymosed about the orifice of entrance; (2) a gunshot wound of the thigh, entering lower part of left buttock, passing through, injuring no important structures, and making its exit on anterior aspect of thigh, four inches below Poupart's ligament; (3) a gunshot wound, entering the posterior aspect of the thigh, passing through, making its exit anteriorly, again injuring no important structures; and (4) an incised wound over the left eye, and one on the upper lip, but neither of them were of any consequence. The abdomen was very much distended. The peritoneal cavity contained about a quart and a half of bloody serum. The intestines were adherent to the peritoneum, and bound together by lymph deposits. The omentum was congested, and the intestines were highly ecchymosed on right side; they were black and blue, and the congestion was general. The right kidney was hypertrophied, the capsule adherent to peritoneum, the suprarenal capsule was diffuent. The spleen, heart, and lungs were normal, but the latter were greatly compressed by the intestines pressing against the stomach and diaphragm. The liver was a little enlarged, and on the right lobe was found a contusion, about two inches in diameter. The peritoneum was congested.

WOUND OF BLADDER AND PENIS.

G. J., admitted to the Marine Hospital, San Francisco, Cal., February 13, 1882. Died February 14, 1882.

When this patient was admitted he came with a history of rectovesical puncture for retention of urine and urethrotomy for stricture. He was under the influence of some powerful sedative or narcotic drug, and was somewhat incoherent. His penis was bound tightly by adhesive plaster, and blood was oozing from the urethra. He said he had micturated in the morning. After careful examination, the surgeon injected into urethra a penis-syringeful of diluted liq. fe. chlor., (4 Gms. to 30 C. C.,) and the bleeding ceased after the injection had been immediately spontaneously passed with force from the urethra. In the night the nurse reported that he voided about a cupful of urine, deeply tinged with blood. The next day it was learned from the physician who operated on him that he had punctured the bladder per rectum with a trocar, and drew off about two basins of urine, (February 11,) and the next day performed urethrotomy (February 12) with divulsion, giving him a mixture of hyoseyamus and potassium bromide, and did

not see him afterwards. On the morning of his death he seemed to be still under the influence of the narcotic, and when sick-call was made had a slimy discharge, tinged with blood, from the bowels. Laudanum was administered hypodermically, (about .04 C. C.) He appeared to be in about the same condition, and at noon his death was reported.

Autopsy.—The bladder and lower pelvic cavity intensely congested; areolar tissue engorged with blood. Urethra, on being slit up, was found filled with blood-clots and lacerated extensively about the bulb, and engorged at the spongy portion. The bladder was filled with blood and inflamed. Death took place (1) from shock of operation, (2) hæmorrhage, (3) narcotic action of drugs, and (4) from pelvic inflammation combined.

RUPTURE OF THE URETHRA.

Extravasation of Urine.

S. McN., (colored,) aged 22 years; nativity, Alabama; was admitted to the United States Marine Hospital, Mobile, Ala., Friday night, June 2, 1882.

History.—Four days previous to his admission he had fallen about ten feet, striking astride a plank, and injuring his perineum, penis, and scrotum. He had suffered intense pain in those parts; had been unable to urinate or defecate, and his scrotum had begun to enlarge very soon after the accident. A physician saw him about forty-eight hours afterwards, and passed a catheter. When admitted his scrotum was the size of an ordinary cabbage-head, and ammoniacal urine was oozing through its walls; his penis was swollen, and showed evidences of a severe contusion, and his general condition was that of great prostration, with delirium.

Treatment.—The aspirator was used at once, and a pint of bloody urine was withdrawn from the scrotum. A soft rubber catheter was carefully introduced, and, when two inches within the meatus, bloody urine, with pus, flowed through it. The catheter readily slipped down into the scrotum, rendering it evident that the walls of the urethra had been broken through about midway between the meatus and the membranous portion. As both aspirator and catheter became blocked up with the pus, the trocar and canula were used, free vent given for the pus, &c., and the parts washed out with antiseptic solutions. Efforts were made to sustain his vital powers with brandy, milk, opium, quinine, digitalis, &c. During the first twenty-four hours after admission there was a slight discharge, through the openings in the

scrotum, of urine with pus. There was no passage from his bowels, and enemata were retained for only a brief period. There was intense pain over the pubic region, which was partially relieved by warm applications. The skin and cellular tissue of the scrotum sloughed; there was no secretion of urine for forty-eight hours before death, but there was a constant puriform discharge from his bladder; he was pulseless at the wrist; his extremities were cold, with a profuse, clammy sweat; his temperature was below the normal; and he lay in this condition of apparent enæmic coma, with the exception of two convulsions, lasting for a few minutes, from Sunday, June 4, till Tuesday morning, June 6, 1882, when he died.

Autopsy.—A dissection of the penis showed that the urethra was intact for about two inches from the meatus, but from that point to the prostatic portion no sign of the urethra could be found, and the parts had sloughed to such a degree that only a small part of the corpora cavernosa could be distinguished. The prostate gland was enlarged and congested, but had not suppurated; the bladder held a small quantity of pus, and its mucous coat showed signs of active inflammation; the ureters contained no fluid, and the kidneys were intensely congested. Between the anus and scrotum the perineum was bruised slightly. No peritonitis was found. The fact that the man passed no urine through his penis and had swelling of his scrotum soon after the accident led to the conclusion that the urethra was ruptured at the time of the accident or that the parts were so bruised that the first pressure from the urine in the bladder caused the walls to break down. Urine certainly escaped into the scrotum before suppuration commenced. An examination of the testicles showed that they had sustained but little injury, as they were only slightly enlarged. The urine, pus, &c., had backed up the inguinal canal as far as the external ring, causing the belief, at first sight, that there was a double inguinal hernia.

APPENDIX.

HYGIENE OF STEAMBOATS

ON THE

WESTERN RIVERS.

HYGIE OF STEAMBOATS

OF THE

WESTERN RIVER

HYGIENE OF THE STEAMBOATS ON THE OHIO RIVER.

[BY SURGEON WALTER WYMAN.]

One thousand miles of "The Beautiful River," and one thousand more of "The Great Father of Waters"—this is the noble highway which gave birth to "Losantiville," and upon which still depends much of Cincinnati's prosperity.

Less than one hundred years ago these great streams were undisturbed, save by the eddies of their own currents and an occasional canoe. There is a haze of romance about their early navigation, when, from 1786 to 1811, the barges and the keel-boats were the sole carriers of commerce, and when to pole, to warp, and to cordelle, to fight the Indians, and fight each other, formed in constant succession the labor and pastime of the hardy boatmen, and called into being such wild characters as those of James Girty, Joe Stevens, and the renowned Mike Fink.

There is much to interest one in reflecting upon the time when, in 1811, the "Orleans," the first steamboat on the Ohio river, was launched, near Pittsburgh, by the immortal Fulton, and in studying the first twenty-five years of steam-navigation, with their gradual developments, and when the steamboatmen themselves retained much of the character and hardihood which distinguished the keel-boat pioneers.

In later years, also, there is much to admire in the structure of the palatial boats, beautiful in design, and with tonnage far exceeding that of ocean craft, yet so marvellously light upon the water as almost, in the boastful language of their owners, to float upon the morning dew. But to-day romance has gone, the old-time river-man has gone, and the handsome steamers no longer wear the charm of novelty. Yet the present age of river-life is not without its own peculiar features, and among them, unhappy though it be, there is none more striking than that which forms the subject of my paper—the condition of those who work upon the lower deck.

"Deckeneering" in the olden times, from 1811 to about 1830, was the work of a class of men entirely different from those who now occupy that sphere. They were native Americans, whose manhood exacted a manly treatment, and whose intelligence enabled them to learn the

channel, to gain promotion to the pilot-house, to become masters and owners. I could call to-day the names of many living pilots, captains, and owners—yes, the names of some whose wealth is reckoned in hundreds of thousands—who began life as common deck-hands on the Ohio river. Subsequently, the Americans appear to have wholly abandoned this calling, and for a number of years their places were filled entirely by Germans. Later, between 1835 and 1840, the Irish came upon the scene, appearing first at New Orleans, where they had immigrated from various Irish ports, and quickly driving off the Germans, until the war monopolized nearly all the deck labor upon western steamboats. Although in *ante-bellum* days the slaves were sometimes rented out to southern boats, it was not until the breaking out of the rebellion that negroes became generally engaged in this pursuit; but since the war their numbers have steadily increased, until to-day the whites have been almost wholly supplanted. With these successive changes in the nationality of the deck crews there have been changes in their individual condition from good to bad, and from bad to worse, until to-day it is one to excite remonstrance.

The winter of 1880 and 1881 will be remembered as one of unusual severity. During these cold months the river columns of the daily papers were filled with complaints against the crews of steamboats, who caused continual annoyance by their demands for higher wages and by the frequency of their desertion. At the same time there might daily have been seen coming to the office of the Marine-Hospital Service many individuals of this censured class, whose breath, shortened by pneumonia, extremities nipped by the frost, and joints swollen with rheumatism, whose weakened limbs, scarce able to perform their function, and whose faces, distorted with pain, gave ample testimony of the exposures to which they had been subjected on the river.

These newspaper complaints on the one hand, and the silent but eloquent complaints of disease on the other, gave striking evidence of a want of proper balance in the relation between owners and crew, and suggested an inquiry into what might be said for the side whose cause has never yet been pleaded.

The chief complaint against the deck crew is desertion. For example, while a steamer is on her down-river course, from Cincinnati to New Orleans, at some small landing, the crew, whether from harsh treatment, the sight of a large freight-pile, or from malicious desire to harass the boat, will leave her. Not only this, but they will demand their wages for such time as they have served, and, if denied, may consult the United States commissioner, procure a citation upon the cap-

tain, and detain the boat till they are paid. Such desertion on ocean-vessels would be mutiny, and on its face is outrageous. But let us look a little deeper. The boat has made no contract with these men. Why? Because she wishes to discharge them in such numbers and at such times as may be most to her advantage, and at any point, no matter how remote from home. If, then, the captain would discharge at pleasure, what just complaint has he if the crew exercise a paramount right and leave at pleasure.

The fault is with the boat, which, for mercenary reasons, has avoided a contract or shipping articles, and is thereby guilty of direct violation of the law.

Section 4520 of the Revised Statutes of the United States reads as follows:

"Every master of any vessel of fifty tons or upward, bound from a port in one State to a port in any other than an adjoining State, except vessels of the burden of seventy-five tons or upward, bound from a port in the Atlantic to a port in the Pacific, or vice versa, *shall, before he proceeds on such voyage, make an agreement in writing or in print with every seaman on board such vessel, except such as shall be apprenticed to himself or owners, declaring the voyage or term of time for which such seaman shall be shipped.*"

Section 4521 further provides that—

"In case any master of such vessel of fifty tons or upward shall carry out any seaman or mariner, except apprentices or servants, without such contract or agreement being first made and signed by the seaman, such master shall pay to every such seaman the highest price or wages which shall have been given at the port or place where such seaman was shipped, within three months next before the time of such shipping, if such seaman shall perform such voyage; or if not, then for such time as he shall continue to do duty on board such vessel, and shall, moreover, be liable to a penalty of twenty dollars for every such seaman, recoverable, one-half to the use of the person prosecuting the same, and the other half to the use of the United States."

This law is just, and was evidently intended to prevent the very practice of which these boats are guilty. If it were obeyed, these troubles would cease.

But not only are the men thus illegally employed, but wilful deceit is frequently practised upon them. Mr. D. H. H., himself an old steamboatman and the son of a steamboat captain, testifies that a common trick of the boats, through the mates, when wages are high and there is a great deal of freight on the levee, is to hire a lot of men *as though for the trip*, and *after getting loaded* to discharge one-half of them.

Hon. S. F. C., a veritable Nestor in river interests, says he knows that men are shipped at Cincinnati *as though for New Orleans*, are

worked night and day as far as Cairo, and are then discharged, and, in conversation with a mate on this subject, the latter had expressed to him such disgust at this imposition upon the men that he intended to abandon his calling.

The wages, too, are made to begin on the morning following shipment, and the boat extorts a whole night's labor from these men without any compensation. In the language of one of the men: "It's like as if I'd ship to-night on the ——— just before she's goin' out, and I'd have to work all night, but my wages won't begin until next day."

Life on the deck of a western steamboat is the roughest life there is. The hardships of the oystermen, proverbial on the coast, do not compare with it. The men who engage in this work are all young, for it rarely permits the attainment of middle age, and never an age beyond the prime. They come from the farms and small towns adjoining the river and from the plantations of the South, stout, lusty fellows of eighteen or twenty, and after an average existence of not more than ten years, are either seen no more or have become worthless wrecks of their former selves. Said Mr. W. B., mate of the "Gen. S.," "I see men on the wharf-boats and around town at every port along the river who used to be rousters, and are now broken down and played out." Their harsh treatment by the mates has been a matter of frequent comment, but because the mates themselves are more humane than formerly, and because the men, ignorant as they are, have learned their rights, and do not fail to seek redress in courts of admiralty, this evil has in some measure abated. But their usage is still too harsh and rough, and the average mate to-day would stare with surprise if his right were questioned to use personal violence in the enforcement of his commands.

The writer was greatly interested in a conversation with Mr. D. C., mate of the steamer ———, who bitterly denounced a certain commissioner for citing him before the court because he had "only" knocked senseless with a stanchion a deck-hand guilty of sullen mien and tardy movement. "Well, Mr. C.," I inquired, "do you think you had a *right* to knock the nigger senseless," using his own words. "Of course I had," was the emphatic answer; "how else could I retain my authority!"

Also, in conversation with Mr. S. E. A., a steamboat mate for more than thirty years, he said: "Of course, we have to knock one of them down once in a while, or they'd think you were afraid of them; and when they think that, you might as well get off the boat." To avoid the penalty to which such action of a licensed officer may render him liable, the mates have shrewdly devised the plan of deputizing their

violence to one of their deck-hands, who has been elevated with some slight authority in stowing freight, and to whom a nod and a significant glance towards the offending party is sufficient, and who is not amenable to the law which provides punishment for *officers* who maliciously and without justifiable cause beat one of the crew.

Some of the mates, however, are unable to restrain themselves, as may be illustrated by the following extract from the "Cincinnati Commercial" of November 19, 1881:

"Last May, Gabe Morgan, a negro roustabout, was shot by ———, mate of the '———,' at the Louisville wharf. The wounded man was taken to the Marine Hospital, and there died. * * * At the time of the murder Morgan was shovelling coal, while ——— stood by swearing at the men. The mate ordered the negro to pick up a coal-box, but the laborer was slow about obeying. As he arose from picking up the box, the mate drew a pistol and shot him. After the shot the mate seemed to be in a frenzy, and, flourishing the pistol over his head, exclaimed, 'I'm a wild Irishman, and I'll shoot some more of the G—d d——d niggers.' He then tried to fire again, but was stopped. The police soon heard of the murder, and went on board to arrest the perpetrator, but Captain ——— refused to let them search for him, and rang the bell for the boat to start, compelling the officers to jump over the rail to get ashore."

The man died. The mate was subsequently arrested, sentenced to seven years in the penitentiary, but was pardoned by the governor of Kentucky. The following paragraph, taken from the personal column of the "Marine Journal," of recent date, completes the story:

"M. J., mate of the '———' at the time he shot and killed Gabe Morgan, at Louisville, on that boat, and who was sentenced to the penitentiary for the act, but shortly afterward pardoned, is now mating on the Cincinnati and Pittsburgh packet, 'G. E.'"

Comment is unnecessary.

But violent deaths are not the only ones of which they stand in danger. Neglect when sick may be added to the list of causes.

In August, 1880, Benjamin Warfield, a colored deck-hand, was brought from the steamer "———, No. —," to the marine ward of the Good Samaritan Hospital, in the last stage of cholera morbus—the stage of collapse—and died within two hours. For five days he had been sick on the boat without medical attendance. No disease is more amenable to treatment than is cholera morbus; but not one thing was done for the relief of this man. Had it been the captain or other officer, a passenger, or any one whose friends might create trouble, a landing would have been made, and a physician summoned. But no; this would cause a doctor's bill; and by waiting until they reach the port of Cincinnati, where a regular stop must be made, he may be

gotten to the marine hospital at no expense whatever. The steamer "——, No. —," is responsible for the death of Benjamin Warfield.

Every now and then one may read in the river columns such squibs as this, taken from the Cincinnati "Commercial" of April 21:

"While the 'R. L. J.' was lying at Hanging Rock last Friday night, Green Osborne, a colored deck-hand, fell overboard and was drowned. Another colored deck-hand, whose name we did not learn, fell overboard, and was also drowned, just after the 'J.' left the Rock."

This is the last of them. No inquest, no investigation—usually no announcement at all. This squib is a long obituary for them.

"Probably drunk," the mate might say in explanation of such an incident. More probably overworked, stupefied by want of sleep and needless exposure, the argument will show further on. But happening to make inquiries concerning this chance case, the writer was able to gather from three eye-witnesses the following account, which so fitly illustrates the terrorism wielded by some of the mates, and their reckless disregard of human life, that he is justified in giving it in full:

"In the first place, doctor," said one of the eye-witnesses, "that's a mighty rough mate on that boat, that 'O. B. I've seen him take a club and coal, and knock men down often. They won't employ him in the Anchor Line at Saint Louis, because he's known there, and they can't get a crew to go with him. He can't ship any men except some strange fellows just out of the country that don't know anything about steamboatmen. No, sir; he don't hire me. I'm a fireman; the engineer employs me. I've seen him many a time run the men with heavy loads on their shoulders, striking them on their backs as they run. You know it's a mighty mean man that'll do that. Yes, on this trip, too. This boat generally carries two mates; but since A. B. has come on her they've only had one, 'cause he can get as much work out of the men as two ordinary mates. Well, these men that were drowned were both of them young fellows; neither of them more than nineteen or twenty; and it was their first trip. One of them, Green Osborne, lives in Glasgow, Missouri, and the other belongs in Hannibal. His father's name is Isaac Woodson, and he's secretary of the colored Mason's lodge there. They'd been on the boat about ten or eleven days.

"Well, the first man was drowned, about dusk, at Hangin' Rock. We laid there about two or three hours, taking on fifty tons of pig-iron.

"Understand, the boat didn't lay up close against the bank, but there was a coal-barge between her and the shore, and between the barge and the boat they had out two planks; the planks were a foot and a half wide, and about three feet apart. The men went in with the iron-ore on the forward plank and came back on the aft one. But you know the deck of the boat was higher than the barge, and then, on account of the coal-barge being unsteady in the water, (they are always unsteady,) it kept the planks twisting out of place, and there wasn't any-one there to keep them straight. The mate kept running the men all the time, and made them pick up their own bars of iron. Generally there's a man to shoulder, and it's customary for a man, when he's loaded, to walk, but this mate made them run. Well, what with the

hurrying and running, and being scared of the mate, and the plank being twisted out of place, this man missed the plank, and fell in between the coal-barge and the boat, just back of the aft plank.

"There was lots of men around, but it looked like they were scared to do anything without orders from the mate—afraid he'd get after them if they stopped their work. Nobody tried to get him. The mate walked up and looked over the guard and said, 'Well, pick up your iron and get out of the way; the man's drowned now; needn't be standing around.'"

Said another of the three eye-witnesses:

"The other man was drowned off a barge, about eight o'clock. The 'J.' was towing the barge up-stream, and the men were taking in coal from her while under way. It was a pitch-dark night, and when they first started to coaling they had a pine torch lit; but the pilot ordered it to be put out, and then they only had two common hand-lanterns—one at the forward end of the boat, near the gang-plank, and the other at the head of the barge, in front of the foremost coal-pile. The light didn't reach to the outer side of the barge nor to the back of the coal-pile, where the men had to go around. There were two men to a box. Woodson was in the first gang, and I was in the second gang, just behind him. The mate caught hold of him and told him 'Hurry along, — — — you;' and so he was hurrying along where he couldn't see, and went too far, and just walked off the side of the barge.

"No, sir; neither of these men had been drinking anything. The boat slowed up a little and stopped her headway, but didn't back, and nothing was thrown overboard."

This terrorism inspired by the mates is no fiction of the mind, but a reality; nor are other instances wanting, though their narration must be omitted from a fear of proving tedious. The mates have had it all their own way, unhindered by restrictions from the owners or by public opinion. Hundreds of men have noticed and commented on these abuses, but it seems to have been no one's business to call attention to them in any formal or persistent manner. Occasionally, indeed, newspaper comments like the two following may appear, but they are isolated and have no effect; yet they at least show that the writers have been personal observers.

The St. Louis "Globe-Democrat" of a recent date, commenting on "a roustabout's revenge," says: "The murder seems to have been the natural outcome of the system of cruelty and brutality pursued by many of the mates on western rivers; and David's life simply paid the penalty of his own rash and intolerant conduct."

A correspondent of the Cincinnati "Marine Journal," under date of April 11, 1882, says:

"I have often wondered that you do not occasionally publish a few words regarding the treatment of steamboat hands by mates and other officers of steamboats. The way the mates treat their men is scandalous, and should not be tolerated in a Christian country. There is a society for the prevention of cruelty to animals, but there is apparently

no society for the prevention of cruelty to men. I could a tale unfold that would greatly astonish kind-hearted people, but I refrain at present. If a driver beats his balky horse, he is liable to be fined or imprisoned; but if a mate knocks down one of his men with an iron bar, nothing is ever done about it."

The labor of the deck crew is unavoidably severe. In low water the boats get stuck upon the bars, and, since the longer they remain the more deeply do they become embedded in the sand, the tedious work of sparring must be done—hard, exhaustive work—night and day, sometimes for several days, and often in the rain and snow. In high water, landings are difficult, and to effect them, no matter how low the mercury, these men are sometimes made to jump waist-deep in water, to carry out the fastening-line. Cases of sickness directly due to these two kinds of work are not uncommon.

QUARTERS.

Who of us has not stood on the guard of the upper deck of a western steamboat—it may have been some cold, wintry night—when, at a wayside landing, by the light of a pine torch the huge piles of heavy freight were made to quickly disappear upon the shoulders of these men, and marvelled at the labor and the rough lives of the laborers? But you would marvel still more if you were told that the time employed in this hard work is the only healthful time for these poor men in all the trip, and that when this work has ceased their greatest hardship is to be endured. Go to the captain, clerk, or mate, and ask where these men sleep, and you will be told with the greatest nonchalance that their repose is found upon the softer side of a pine board, with a stick of cord-wood for a pillow. And this is true. No place whatever is provided for them in which to sleep, or eat, or yet to rest, their treatment being in no wise better than that accorded to the stock which the boat may be transporting. They have no table, knives, or forks, and their food is fed to them as though to dogs, in one large pan. Upon side-wheel boats, indeed, bunks occasionally may be found built in the stern, but so unwisely placed as to be devoid of comfort. On some boats, too, there is a so-called deck-room, provided with a small stove; but I am told that water left in a bucket will freeze in this room, and, moreover, not uncommonly the crew are subject to eviction by a drove of hogs.

The Pittsburgh tow-boat is a creditable exception to the rule, and is well provided with every comfort and regard for decent living. But the stern-wheel passenger-steamer is typical of this river barbarity, and it should be remembered that stern-wheel steamers form a large majority of all the Ohio boats.

The following is a list of steamers personally inspected by the writer with a view to gaining information on this point. The tonnage is inserted to contrast their enormous dealings in freight with the nature of their dealing with the men:

Name of steamer.	Tonnage.	Side or stern-wheel.	Where bound ordinarily.	Bunks.	Mess-room.
Guiding Star.....	1, 121. 97	Side-wheel..	New Orleans.....	No bunks...	Has mess-room.
New Mary Huston...	1, 163. 93	do	do	do	Do.
Jas. W. Gaff.....	600. 00	do	Memphis	do	Do.
R. R. Springer.....	1, 215. 35	do	New Orleans.....	Has bunks..	Do.
Thomas Sherlock	1, 353. 02	do	do	do	Do.
Fleetwood	1, 036. 60	do	Huntington, W. Va.	do	No mess-room.
John D. Lewis.....	266. 41	Tow-boat...	Pittsburgh	do	Has mess-room.
Virgie Lee	380. 60	Stern-wheel.	Kanawha river....	No bunks...	No mess-room.
Andy Baum	735. 76	do	Memphis	do	Do.
Emma Graham.....	530. 47	do	Pittsburgh and St. Louis.	do	Do.
Paris C. Brown	903. 87	do	Memphis	do	Do.
Cons Millar .....	.....	do	do	do	Do.
Carrier	815. 60	do	Pittsburgh and St. Louis.	do	Do.
Vint Shinkle.....	620. 84	do	Memphis	do	Has mess-room.
Jas. D. Parker.....	505. 40	do	do	do	No mess-room.
Laura L. Davis	560. 61	do	do	do	Do.
Andes	622. 18	do	Pittsburgh.....	do	Do.

To the above list could be added, if desired, another equally suggestive, compiled from competent authority.

Of the ten stern-wheel steamers examined, on not a single one was there found provision for sleep or rest for the crew on deck, and but a single one possessed a mess-room.

To realize what this absence of accommodation means, consider for a moment the construction of these stern-wheel boats.

The chief characteristic of the boiler-deck is *openness*, in a straight sweep of 150 feet or more of planking from stem to near the stern, unbroken excepting by the boilers and the furnaces. Some few feet forward of the wheel a bulkhead is thrown across the deck, behind which is sheltered the engine, for dumb mechanism must be protected, though human life is not; and sometimes the sides are bulkheaded also, but as frequently not. When loaded heavily with freight, the protection afforded thereby and the heat from the steam-pipes give fortuitous comfort, but when, as often happens on the return trip, the boat is lightly loaded, and there occurs a sudden fall of temperature, to which our climate is so liable, the men suffer terribly.

Said a white deck-hand recently, who had just left the "D. L. L.," on account of sickness caused by exposure: "No; there wasn't no place to keep comfortable. They had freight piled up on the sides, but it made a draught of wind suck right through the boat from end to end; so we had to spread a tarpaulin in front of the furnaces and creep under

the b'ilers to keep from freezing. I was a fool for ever going on the river, and I'm going to quit and go back to West Virginia as soon as I get well enough to go."

Said Mr. Brown, mate of the "B. C. P.:" "She has nothing on her lower deck—all is open. They have a little bit of a stove back of the donkey-engine, around which they huddle, until the cook gets mad and drives them away. Then they get on top of the boilers, and crawl under them, and after awhile the engineer will get out his hose and attach it to the donkey and wash them off and out from underneath, because they break the plaster on top, and because he has to get under the boiler himself sometimes to turn on the mud-valves." This crawling under the boilers is an every-day occurrence on western steamboats, and either at once causes acute disease or speedily undermines the constitutions of the men. Forced to find some place where they will not freeze, the crew crawl on their hands and knees into the narrow space of about three and a half feet between the boilers and the deck, and there lie and bake. It is either freeze or bake, and they prefer the latter. At first they perspire freely, but soon the heat becomes so great that perspiration is checked; they become stupefied or "dizzy and crazy-like," and when called upon for duty come out dried and parched, scarcely able for some moments to go about their work.

Says Engineer Smith, of the steamer "Vint Shinkle:" "They just get under the boilers and lay there like hogs. You and I would be roasted."

Mr. A. J. Zornes, mate of the "Cons Millar," says: "The men go under the boilers in cold weather, sometimes as many as twenty-five of them, and get terribly hot, and when called out to do their work are forced into the cold air without any extra clothing, and it's just like as if you'd take a man from a fire and throw him into cold water. Yes, they suffer a great deal."

The writer has yet to talk to a steamboat mate who does not express sympathy for his men in this respect, admit that something could be done to better their condition, and complain that this wretched neglect makes them harder to manage and less efficient.

If this matter excites an interest in the reader, he is urged to personally inspect one of these boats, such as the "Laura L. D.," for example, while she is lying at the landing; but do not choose a warm, balmy day, when the genial sun and southern breeze render the river and all about it so attractive, but go on a cold, biting day, when by preference you would hug your fire; step aboard the boat, and feel the icy blast across the deck, and think how much severer it must be when under way. Imagine to yourself the poor, half-clothed fellows return-

ing from some work at the forward end. Surely there is some room to which they now may go to sleep, or smoke and talk. No! Well, of course there is some shelter made, and a red-hot stove round which to stand and be comfortable. No! But there must at least be some provision to protect them from the wind. Again, no! But they will freeze. Yes, so they would, but for that little space below the boiler, where you see the wood is scorched. You think you could not live and lie under there? Yet these men have learned to do it, but not with impunity; for that it does imperil their lives and produce permanent organic disease, the record books of the Marine-Hospital Service during these cold winter months give ample testimony.

Perhaps now may be understood the ungrateful disregard of these men for the owners, and what prompts them to such frequent desertion. In November last, while the steamer "Geo. C." was on her upward trip, fifteen men deserted her at Louisville because of exposure, giving as their reason that not even a deck-stove was provided.

Said Mr. B., mate of the "B. C. P.," which plies between Pittsburgh and St. Louis: "Two months ago I shipped a crew of thirty men at Pittsburgh, who all jumped the boat at Cincinnati; I got a new crew, and they jumped the boat at St. Louis. Then I shipped another crew for the home trip, all of which jumped again when we got to Cincinnati, excepting four, who lived further up the river. I had to get a fourth lot of men to get up to Pittsburgh. Four new and entirely different crews in making the round trip. At each desertion, the reason given was "poor accommodations."

What disgrace to owners and to captains, that men desert their vessels because they cannot stay on them and live! What striking contrast in the treatment of passengers in the cabin above, for whom, as advertised, there is provided "every comfort and luxury," and of the employés upon the naked deck below, to whom are denied one of the barest necessities of existence!

While it is admitted that some boats on the river make comfortable provision, and some mates are humane, yet it is believed that the wrongs portrayed above have been understated rather than exaggerated, and any old steamboatman who may read this paper will doubtless call to mind incidents corresponding to those narrated.

But the one evil which the writer would make more prominent than all the rest, the one for whose correction there is most urgent demand, and which is a proper subject for emphatic protest by the physician, is exposure. True, in the summer-time its dangers are but slight, but in the winter it cries aloud for reform. This is no idle sentiment. It

is written with the images of suffering black men before the writer's eyes, men whom he has seen actually crawling into his office on hands and knees, tears of pain rolling from their eyes, and groans escaping from their lips; of men lying in bed burning with fever, racked with a tight and painful cough; of men with glassy eyes and flickering pulse, whose untimely fate he knows is due to causes which might have been prevented.

It seems strange that gentlemen who own these vessels can look with such indifference upon the suffering of this humble class of laborers. Aside from the moral responsibility which intelligent employers usually feel towards their ignorant employés, a more practical motive should influence captains and owners to change the existing condition of affairs. The service which they now secure is of the poorest description. The better class of deck-laborers have been driven from the river. There are many poor but industrious and able-bodied men who would serve in this capacity, and many who have tried it, but have been repelled by their ill usage. When a mate can tear down the bunks and tell the men to go under the boilers where they belong, and refuse to hire a man because he brings his "dunnage" with him, (his mattress and bed-clothing,) saying he wants men to come prepared for work, and not to sleep—instances of which are known—no wonder the better class of laborers seek other occupation. The present inefficiency of the deck crew, compared with former times, is striking. Captain Samuel Parker, of the steamer "Thomas Means," whose experience embraces a period of thirty-two years, is authority for the statement that thirty years ago two-thirds of a crew would accomplish work that requires now a whole crew; and Engineer J. McCurdy, whose opportunity for observation has been ample, states that it now takes thirty men and the modern mechanical helps to do what could formerly be done by ten men. The reason is obvious, and has just been stated.

To what end, now, is this narrative? Is it with the expectation that if read by river-men it will effect any amelioration of affairs? By no means. The writer is too familiar with the subject to entertain such a hope. But there is an inspection service of the Government, organized to secure safety to life upon all steam-vessels, to which authority should be granted, if it does not now exist, to compel the erection of quarters and humane treatment of the crew. The Government may well enforce some regulation for these men. When we think what it does for the owners, how it employs skilful engineers to protect the banks, deepen the currents, and keep a clear and open channel for their boats; how it maintains a costly system of lights along the river, and an inspection

service to give assurance of the skill of engineers and pilots to whom their vessels are intrusted; and when we think of its watchful care for the safety of passengers, the regular inspection of each boiler and hull, the limitation of numbers, and the strict provision for life-floats and preservers, should it not do something for the protection of these men whose only home is on the river, and whose service is an indispensable factor of commerce?

It now remains only to briefly note the extenuating answers made by those in authority, when addressed upon this topic.

"These deckers deserve no better treatment," is their reply; "when bunks are built they will not use them, and any quarters provided for them would be uncleanly and intolerable. They would quickly steal every bit of bedding and every plate, knife, and fork that might be furnished; they are treacherous and depraved, and their physical condition is the result of their own excesses on shore."

To which assertions the writer would reply *seriatim*. Your bunks are uncomfortably placed, and do not afford protection from the draught; your engineer could with equal ease turn his hose upon the quarters as upon the men beneath the boilers. With but trifling expense your property could be guarded. Your treatment prevents any improvement in their moral character, and, as to their physical condition, your statement of its cause is not in accordance with the facts.

Upon those who might assert—and two-thirds of the river-men would so assert—that any effort for better housing of the deck crew would be impracticable, a visit is urged to the stern-wheel steamer "Ohio," where, through the exceptional care and ingenuity of her mate, Mr. Hazlett, can be observed a simple arrangement, which insures both sleep and warmth, does not encroach upon the room for freight, and can be kept clean without trouble. The boat is well bulkheaded on the sides, and a large steam-pipe, about twelve inches in diameter, extends clear aft, running close to the deck-ceiling, and along its centre. In the most sheltered portion of the deck-space, a broad platform, about twenty feet square, is raised upon stanchions to a height of three feet below this steam-pipe. Here the men repair in cold weather, when through their work, to lie down and rest. Not a luxurious arrangement, surely, yet one which allows a preservation of health, and so infinitely superior to no provision whatever that its adoption by other boats would be a boon to their crews.

Recently, the writer talked with an old sailor, who had seen service in many parts of the world and sailed in many kinds of craft. He had cruised on steamships from London to the West Indies; in a screw-

collier, had been up the Mediterranean and Black Seas to Odessa; in a brig-rigged vessel, had sailed, as common seaman, through the Suez Canal and Red Sea to Java; had steamboated on the River Platte, in South America; later, had served as mate of a sailing-vessel plying on the Great Lakes, between Buffalo and Chicago; and for the past two seasons had been steamboating on the Ohio river; and his assertion is entitled to belief, that nowhere has his work and mode of life been so rough as here. And this opinion, to which he also gave expression, is worthy of credit: that the man who ships as ordinary seaman on a whaling-vessel, bound for a three-years' cruise in the Arctic seas, stands a greater chance of returning with his life and health than does he who labors for one or two cold, winter seasons upon the deck of an Ohio river stern-wheel passenger steamboat.

REPRINTS OF PUBLIC REPORTS

RELATING TO THE

MARINE-HOSPITAL SERVICE.

REPORTS OF THE
MARINE HOSPITAL SERVICE
FOR THE YEAR 1900

REPORTS OF THE PUBLIC REPORTS

MARINE HOSPITAL SERVICE

MARINE HOSPITAL IN GALVESTON, TEXAS.

JANUARY 24, 1882.—Referred to the Committee on Appropriations and ordered to be printed.

Mr. Reagan, from the Committee on Commerce, submitted the following report, to accompany bill H. R. 1662:

The Committee on Commerce, to whom was referred the bill (H. R. 1662) to provide for the construction of a marine hospital in Galveston, Tex., have instructed me to report the same back to the House, and to ask that this report be printed, and that the bill and report be recommitted to the Committee on Appropriations, with the recommendation of the Committee on Commerce that an appropriation be made in the proper general appropriation bill to carry out the object of this bill. By section 4585 of the Revised Statutes of the United States forty cents per month is collected from each seaman on vessels from foreign ports, and from those engaged in the coasting trade, out of their wages, towards the support of the marine-hospital fund. And under section 4801 of the Revised Statutes of the United States the President is authorized to receive donations of real and personal property for the erection and support of hospitals for sick and disabled seamen.

In the last three annual reports of the Supervising Surgeon-General of the Marine Hospital Service, he has recommended the establishment of a marine hospital at Galveston, Tex.

The number of sick and disabled seamen treated in the contract hospital at Galveston during the fiscal year ending June 30, 1881, was 556. The aggregate number of days' relief to sick and disabled seamen at that port during that year was 7,897. The average daily number of such seamen who received relief at this port during that year was 21.6. The amount collected at that port during that year for the marine-hospital fund was \$3,154.20.

Under section 4806 of the Revised Statutes of the United States, the Secretary of the Treasury is authorized to lease or sell, when deemed

advisable, marine hospitals, but not at places where relief is given to an average number of twenty seamen per day for the last preceding four years. And the Supervising Surgeon-General of the marine hospitals is of opinion that it is to the best interest of this Service that Government hospitals should be established where there is an average daily number of twenty patients. He also advised your committee that patients were better and more cheaply treated, with more attention, better medicines and food, in Government than in contract hospitals; and that the average number of days which patients remained in Government hospitals was fewer than in contract hospitals.

The number of places in the United States at which relief was provided during the last fiscal year for sick and disabled seamen was 210. The number of sick and disabled seamen relieved during that year was 32,613, at an average cost of \$12.27 each.

The following table, furnished your committee by the Supervising Surgeon-General of the Marine-Hospital Service, shows a gratifying improvement and reduction of expense in the administration of this Service, having reference to the number of patients treated and the aggregate cost of their treatment during the last fourteen years; the number treated in the year ending June 30, 1868, being 11,535, at an aggregate expense of \$446,846.53, while the number treated in the year ending June 30, 1881, was 32,613, at an expense of \$400,404.46.

Number of Patients, by Years, and Cost.

	Number.	Cost.
1868.....	11, 535	\$446, 846 53
1869.....	11, 356	406, 089 23
1870.....	10, 560	367, 796 84
1871.....	14, 256	483, 758 73
1872.....	13, 156	439, 072 14
1873.....	13, 529	399, 218 69
1874.....	14, 364	411, 103 35
1875.....	15, 009	310, 400 61
1876.....	16, 808	446, 340 38
1877.....	15, 175	375, 817 86
1878.....	18, 223	367, 950 32
1879.....	20, 922	375, 164 01
1880.....	24, 860	402, 185 49
1881.....	32, 613	400, 404 46

When we remember the vast extent of our maritime frontier, including oceans, gulf, and lakes, and our great system of navigable rivers, to which this Service also extends; our large ocean and inland commerce; and how intimately our navigation interests are connected with, and how important they are to every other industry and interest of the

country; and when we remember that the men engaged in this service are of necessity nearly wholly separated, while in this service, from family and friends, and that a special tax is levied on them to pay for their care and treatment when sick and disabled, it seems to be reasonable, just, and necessary that, to secure their better treatment, the Government should provide the necessary hospitals and medical attention, at least at the more important seaports.

MARINE HOSPITAL AT NEW BERNE, N. C.

FEBRUARY 14, 1882.—Laid on the table and ordered to be printed.

Mr. McLane, from the Committee on Commerce, submitted the following report, to accompany bill H. R. 2544:

The Committee on Commerce, to whom was referred House bill 2544, beg to report the same back to the House with an unfavorable recommendation; and, referring to the accompanying letter of the Supervising Surgeon-General as a part of this report, they recommend that the bill be laid on the table.

TREASURY DEPARTMENT,

*Office Supervising Surgeon-General, U. S. Marine-Hospital Service,
Washington, February 6, 1882.*

SIR: I have the honor to acknowledge the receipt, by reference, of a copy of a bill entitled "A bill to provide for the establishment of a marine hospital at New Berne, N. C.," and to respectfully report that, in my opinion, a marine hospital at New Berne, N. C., is not necessary at the present time; that while the business shows a slight increase, it is not at present of sufficient magnitude to warrant the expense attending the construction of a marine hospital and its administration.

The total number of patients treated in hospital at New Berne during the fiscal year ended June 30, 1881, was 45. Number of days' relief in hospital furnished, 1,279. There were but two patients remaining in hospital on July 1, 1881.

The medical attendance is now furnished by an acting assistant surgeon. Mrs. S. A. Wambold is the contractor for board and nursing, at \$1 a day.

Cases requiring long-continued treatment are furnished transportation to the United States Marine Hospital at Wilmington, N. C.

Very respectfully,

JOHN B. HAMILTON,
Surgeon-General, M. H. S.

The Honorable SECRETARY OF THE TREASURY.

HOUSE OF REPRESENTATIVES—47TH CONGRESS, 1ST SESSION.

REPORT NO. 1211.

MARINE HOSPITAL AT PORT TOWNSEND, WASHINGTON TERRITORY.

MAY 10, 1882.—Referred to the Committee on Appropriations and ordered to be printed.

Mr. McLane, from the Committee on Commerce, submitted the following report, to accompany bill H. R. 5875:

The Committee on Commerce, to whom was referred the bill (H. R. 5875) authorizing the purchase of a marine hospital at Port Townsend, Washington Territory, beg leave to report the same to the House, with the recommendation that it do pass.

This recommendation is based upon the examination and report to the Treasury Department of a board of officers; the favorable views of the Surgeon-General of the Marine-Hospital Service; the indorsement of the Secretary of the Treasury; and especially upon the representation that to build a marine hospital will cost the Government much more than to purchase this one, which is substantially new.

TREASURY DEPARTMENT, *February 24, 1882.*

SIR: Referring to the communication of your committee of the 21st instant, enclosing bill H. R. 3164, of the present session, "authorizing the purchase of a marine hospital at Port Townsend, Washington Territory," and requesting a report thereon, I have to invite your attention to the enclosed copy of a letter from this Department to the chairman of the Committee on Appropriations of the 5th of April, 1880, when the subject of the purchase of the hospital was first presented to Congress, containing the approval of the Department in regard to the purchase. It will be seen from the letter referred to that copies of all papers in the case were transmitted for the consideration of the com-

mittee, together with the report of Dr. John B. Hamilton, Surgeon-General of the Marine-Hospital Service, as to the advisability of the purchase.

A copy of Dr. Hamilton's report is enclosed herewith, and papers and memorandum returned.

Very respectfully,

CHAS. J. FOLGER,
Secretary of the Treasury.

Hon. FRANK HISCOCK,
Chairman Committee on Appropriations, House of Representatives.

—
TREASURY DEPARTMENT, OFFICE OF THE SECRETARY,
Washington, D. C., April 5, 1880.

SIR: I have the honor to transmit herewith, for the consideration of your committee, copies of papers presented by the Surgeon-General of the Marine-Hospital Service in regard to the purchase of the hospital at Port Townsend, Washington Territory, for the accommodation of marine-hospital patients, as follows:

A. Original proposal of Dr. Minor, of Port Townsend, the proprietor of the hospital, to sell or lease the same to the United States.

B. Order of the Treasury Department of September 18, 1879, convening board to investigate Dr. Minor's proposition.

C. Report of board of officers convened to examine the purchase of the hospital.

D. Second proposal of Dr. Minor to lease or sell the property to the United States.

Attention is invited to the indorsement of Dr. Hamilton, Supervising Surgeon-General Marine-Hospital Service, of the 2d instant, upon the accompanying papers, from which it will be seen that the purchase of this hospital is recommended in view of the present necessities of the service at Port Townsend and the rapid increase in its commerce, and for the additional reason that there is no marine hospital on the Pacific coast except that at San Francisco, more than 1,000 miles distant.

The views of Dr. Hamilton are approved, and an appropriation of \$18,000, to purchase the hospital, is recommended.

I am, very respectfully,

JOHN SHERMAN,
Secretary.

Hon. J. D. C. ATKINS,
Chairman Committee on Appropriations, House of Representatives.

TREASURY DEPARTMENT,
Office Surgeon-General Marine-Hospital Service,

April 2, 1880.

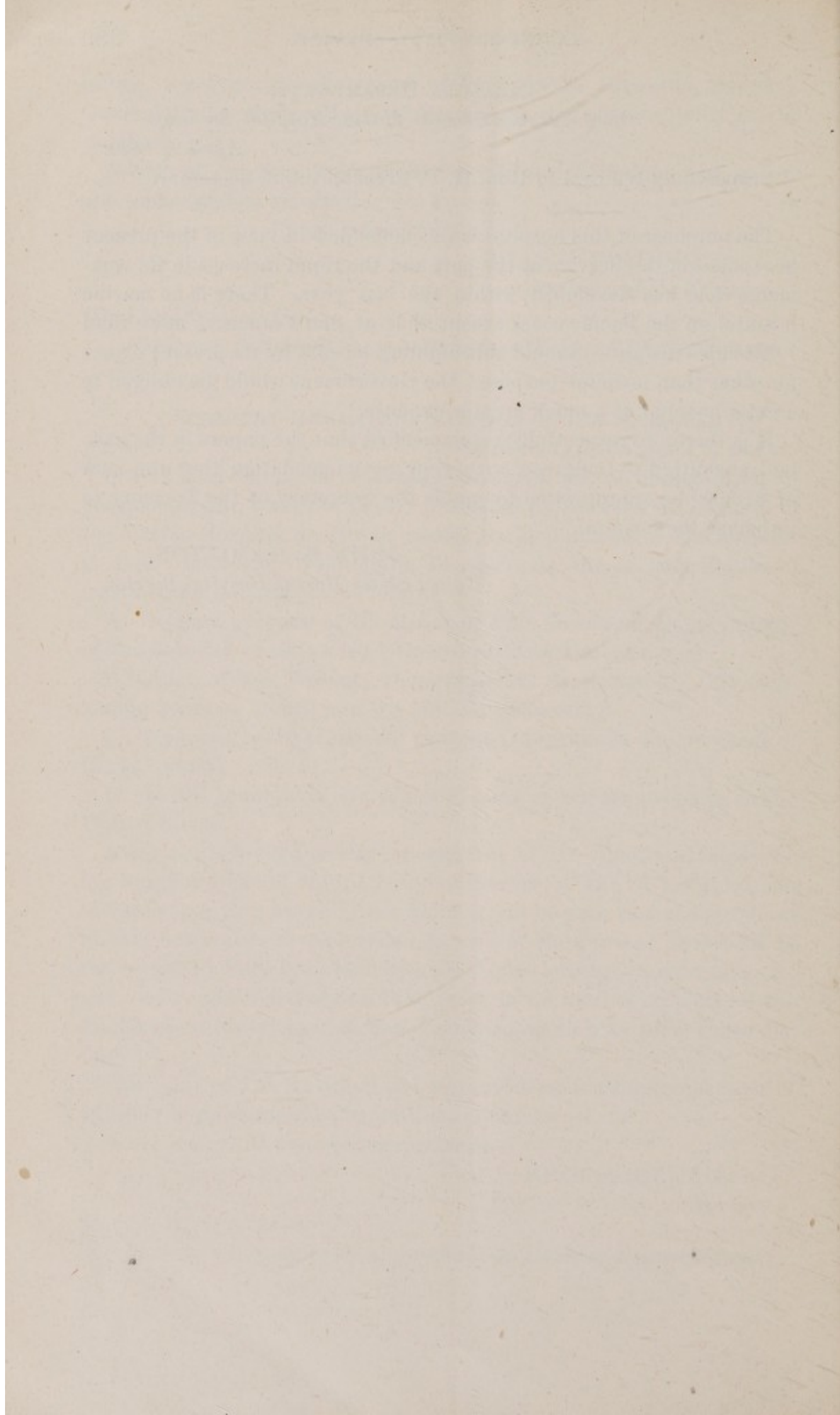
Respectfully referred to Hon. H. F. French, Acting Secretary.

* * * * *

The purchase of this hospital is recommended in view of the present necessities of the Service at the port and the rapid increase in its commerce that has developed within the last year. There is no marine hospital on the Pacific coast except that at San Francisco, more than 1,000 miles distant. Should this building be sold by its present owner for other than hospital purposes, the Government would be obliged to erect a hospital at a much greater expense.

It is therefore respectfully recommended that the papers in the case be transmitted to Congress, with your recommendation that the sum of \$18,000 be appropriated to enable the Secretary of the Treasury to purchase the hospital.

JOHN B. HAMILTON,
United States Marine-Hospital Service.



IN THE SENATE OF THE UNITED STATES.

APRIL 28, 1882.—Ordered to be printed.

Mr. Conger, from the Committee on Commerce, submitted the following report, to accompany bill S. 1402:

The Committee on Commerce, to whom was referred the bill (S. 1402) for the relief of shipping, have considered the same, and report:

On examination of the statute, they find the fees chargeable to vessels have been largely increased, both in number and amount, during the last twenty years, while the value of vessel property and its earnings have gradually decreased; that while in the coastwise trade vessels are compelled to compete with railroads, the former are loaded down with Government taxes, and the latter bear none; that the carrying trade between the United States and the Dominion of Canada is almost entirely in English bottoms, the taxes imposed upon the American excluding them from any participation in it. Your committee find that before the war the fees provided for by law were, for measurement:

If 5 tons and less than 20.....	\$0 50
If 20 tons and not over 70.....	75
If 70 tons and not over 100.....	1 00
Over 100.....	1 50
For enrolment.....	50
For license—not over 20 tons.....	25
Over 20 and not over 100.....	50
Over 100.....	1 00

Registry fees were same as now. Hospital-tax, 20 cents per month.

Now they are as follows:

The charge for papering a new vessel:

For enrolment, \$1.10; for license, 70 cents, if under 100 tons, and \$1.20 if over 100 tons. If a register were required, it would cost \$2.25. The fee for measuring a new vessel is \$1.50 for each section. A vessel of 50 feet keel or under is divided into six sections; one over 50 and not over 100, eight sections; over 100 and not over 150, ten sections; above 150 and not over 200, twelve sections; above 200 and not over

250, fourteen sections; over 250, sixteen sections. Hospital-tax, 40 cents per month; tonnage-tax, 30 cents per ton. There are also taxes for passenger permits, certified list of crew, shipping papers, clearance for, bill of health, entry from, license for, surveyor's fees, permit to land, protections oath, bill of health oath, blanks, &c.

As an illustration of the burdens our vessels labor under, take the schooner "L. A. Boardman," built at Calais, Maine., and trading with Canada. Her tonnage is 112.74 tons. She pays as follows:

Measurement and first papers:

Enrolment and bond	\$1 10
Passenger permits	1 20
Admeasurement	15 00

Clearance for the Provinces to load:

Register and bond	2 25
Certified list of crew	65
Clearance for	2 50
Blanks	40

Bills paid on entry back from the Provinces:

Entry from	2 50
Hospital-money, one month, five men	2 00
Tonnage	33 60
Surveyor's fee	20
Permit to land	20
Protections oath	20
Bill of health	10

Change papers back to coasting license:

Enrolment and bond	1 10
License for	1 20
Total	<u>64 40</u>

Besides, our coasters taking freight for the Provinces are compelled to pay this enormous tonnage-tax. There are cases where it takes a tenth of the value of the vessel to pay the taxes.

If this vessel had been built just across the river, at St. Stephen's, in the Provinces, the following are the only taxes she would have paid:

Admeasurement	\$3 00
Hospital fund, each year	2 24
Blanks	25

The Canadian fees for measurement are as follows:

For vessels under 100 tons register	\$2 00
For vessels 100 tons and not exceeding 200 tons	3 00
For vessels over 200 tons and not exceeding 400 tons	4 00
For vessels over 400 tons and not exceeding 1,000 tons	5 00
For vessels over 1,000 tons	6 90

Under our law the fee for the admeasurement of a 100-ton schooner is \$15, while under theirs it is \$3.

Your committee fail to see any reason for such difference in fees; surely there is no such existing necessity in our Treasury as requires the retention of the war-tax known as "tonnage."

The bill referred to us provides for, and the memorial accompanying the same claims the repeal of, the hospital-tax of 40 cents per month to a man.

The memorialist says:

The hospital-tax, which is \$4.80 annually to the sailor, should be removed altogether. The sailor in one of our coasting vessels pays taxes at home like other citizens, and when sick he gets well when and as he can. I annex a statement, as to the benefit the sailor receives from hospitals, by Mr. Nutt, who for the last twenty years has served most efficiently as deputy collector and collector of the port of Passamaquoddy, and knows what he writes about.

Much has been said about the decadence of our shipping, and many propositions have been made for its restoration. Bounties and postal compensation have been proposed; but, in the nature of things, nothing of this kind can be done for coasters.

It is true these vessels are of small tonnage, running ordinarily from 50 tons to 200, but there are large numbers of them; and any one looking into the statistics of tonnage will see that a large proportion of United States tonnage is enrolled and licensed, or what we call coasting tonnage.

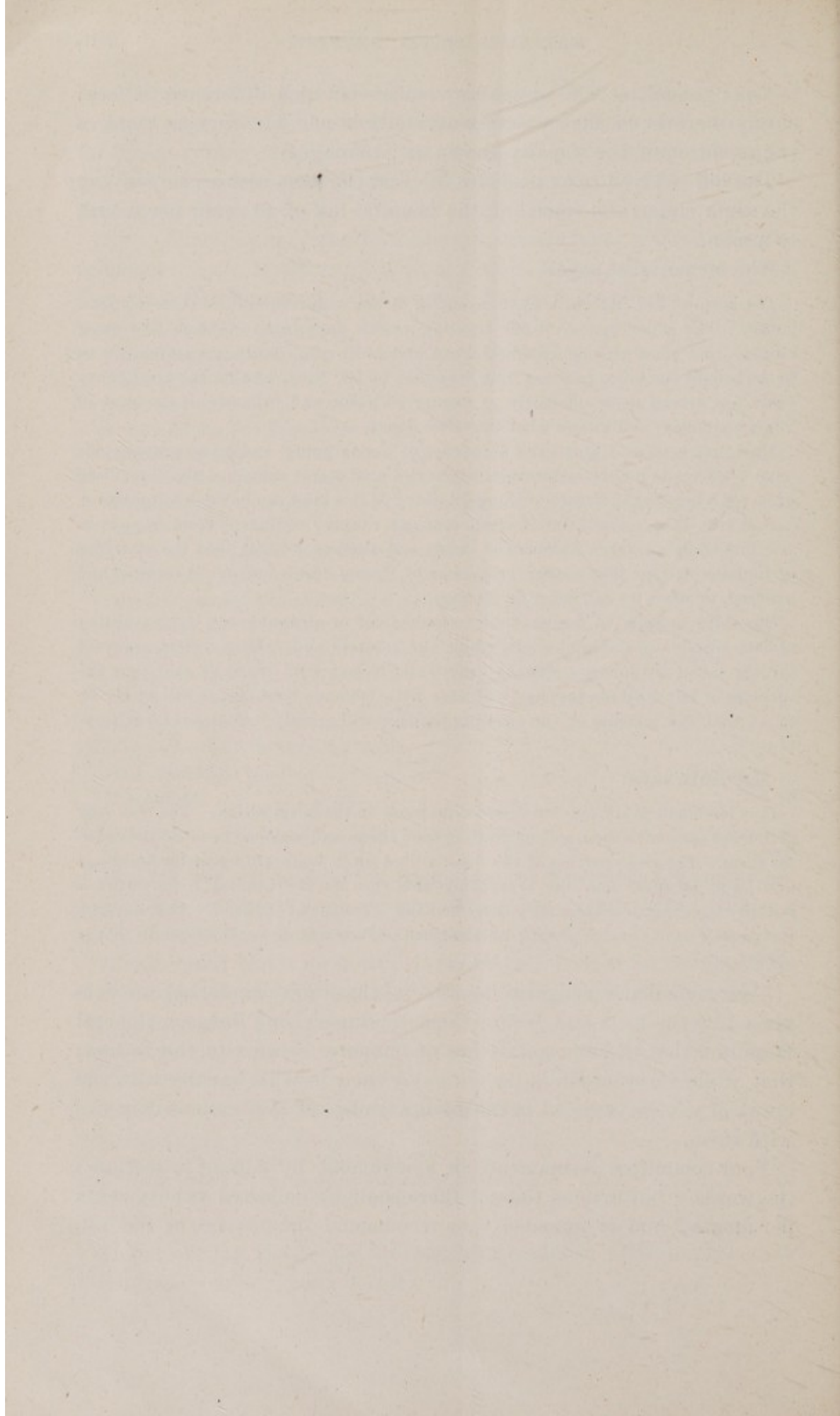
Our ships engaged in foreign trade, whether sail or steam-vessels, are navigated almost wholly by foreign sailors, while our coasters and fishing-vessels are very largely sailed by our own citizens; and while it may with truth be said that the increase of our deep-sea tonnage will have little effect on coasting, it will surely be found that the increase of our coasting tonnage will greatly benefit our large shipping.

Mr. Nutt says:

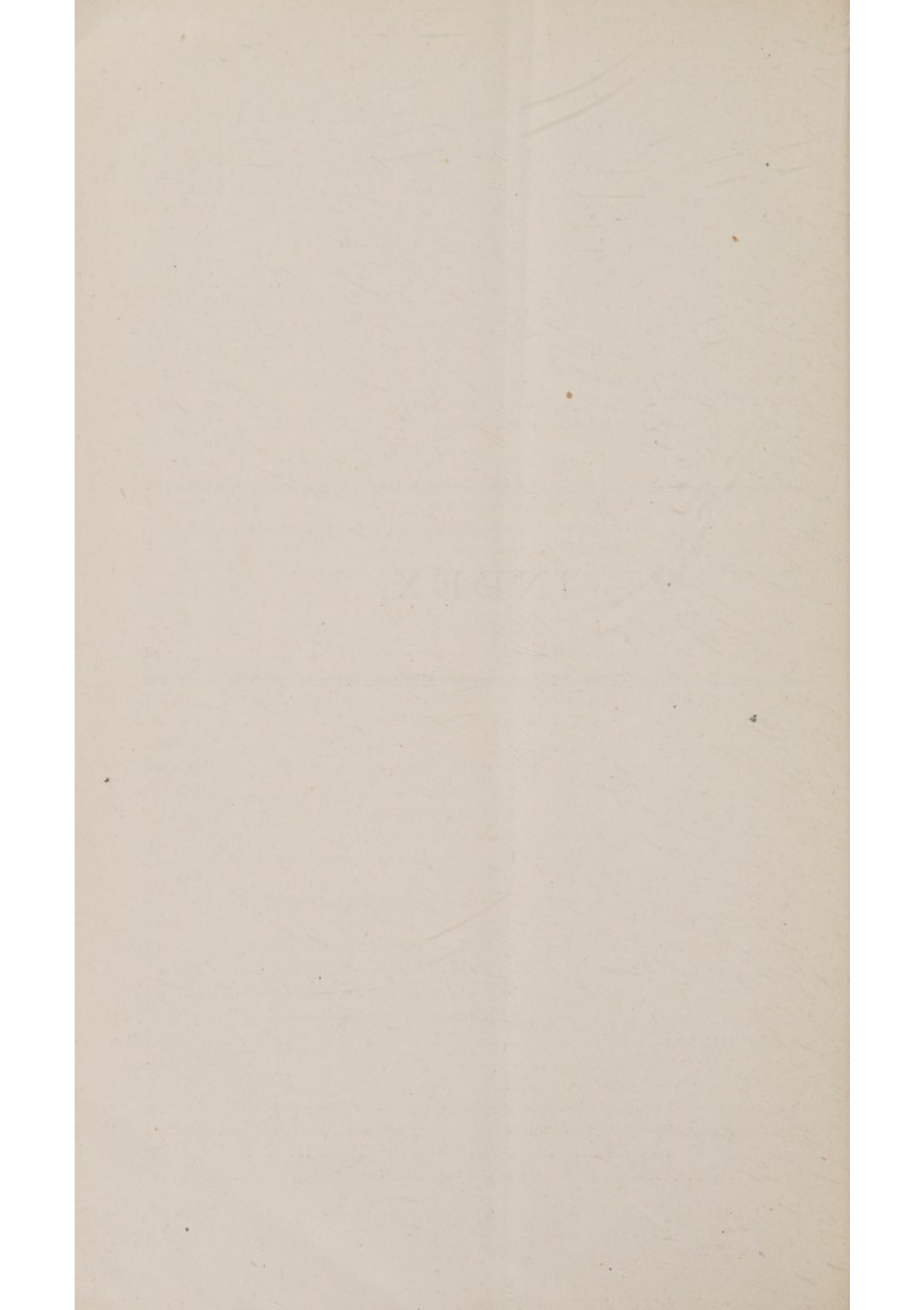
It is too much to try for, but there is no sense in the hospital-tax. The true way is to treat seamen as men, collect nothing from them, and make no hospital provision for them. The great portion of the fund is used up in maintaining costly buildings and large salaries, and, like everything else, the Marine-Hospital Department is steadily laboring to enlarge its powers and the influence of its head. That and the Revenue-Marine Service should be abolished. They are of no earthly use to the people.

Your committee recognize the force of these statements, but are convinced by the facts laid before them by Supervising Surgeon-General Hamilton that these hospitals are of immense service to the sailors; that while these coasters do not enjoy their benefits equally with the crews of vessels engaged in the foreign trade, yet they cannot dispense with them.

Your committee recommend an amendment by adding to section 3 the words, "but instead thereof there shall be collected twenty cents per month," and as amended they recommend the passage of the bill.



INDEX.



INDEX.

A.

	Page.
Aneurism, femoral, case of.....	157-159
femoro-popliteal, case of.....	159, 160
traumatic popliteal, case of.....	160-162
Aneurismal varix, case of.....	141-156
Anus, artificial, operation for.....	137-139
Arrangements for care of seamen.....	48-57
Astoria, Oreg., scurvy at.....	20, 21
Autopsies, reports of—(See Hospital practice.)	

B.

BABSON, F. T., letter of, relative to seamen of schooner "Almon Bird".....	45
BANKS, CHAS. E., Asst. Surgeon, aneurismal varix, report on, case of.....	141-156
femoro-popliteal aneurism, report of case..	159, 160
Bismarck, Dak., acting assistant surgeon appointed at.....	18
BURTON, H. R., letter relative to seamen from schooner "Mary C. Arnold"..	44

C.

Canada, Deputy Minister of Marine and Fisheries for.....	39
CARMICHAEL, D. A., Asst. Surgeon, amputation of thigh.....	161
CARTER, H. R., Asst. Surgeon, report of, case of artificial anus, operation for.	137-139
Cases selected from hospital practice.....	125-174
" aneurism, femoral.....	157-159
femoro-popliteal.....	159-160
popliteal, traumatic.....	160-162
aneurismal varix.....	141-156
anus, artificial, operation for.....	137-139
epithelial cancer.....	163, 164
hernia, Heatonian method for permanent cure of.....	133-136
mortification involving a portion of the nates.....	165-168
reports of fatal cases, with autopsies—(See Hospital practice).....	177-260
rheumatic effusions in joints treated by aspiration.....	125-132
Chelsea, hospital at.....	11
Chicago, hospital at.....	14
Cincinnati, hospital at.....	10
CLARKSON, J. B., letter relative to seamen from schooner "Mary C. Arnold".	44
Color-blindness, examination of pilots for.....	18, 19
number examined for.....	62
Corpus Christi, Texas, acting assistant surgeon appointed at.....	17

D.

	Page.
Deaths among patients of the Service	108, 109
ratio of, from specific causes	110
in each district	110
on voyages from foreign ports	22-24
Diseases and injuries treated, (fiscal year 1882)	64
North Atlantic District	64-69
Middle Atlantic District	69-74
South Atlantic District	74-80
District of the Gulf	80-86
Mississippi	91-96
Great Lakes	97-102
Pacific	103-107
Donations	18

E.

East Saginaw, Mich., acting assistant surgeon appointed at	18
Escanaba, Mich., acting assistant surgeon appointed at	18
Expenditures	9
for alterations and extraordinary repairs	14-16
at Boston	14
Chicago	14
Detroit	15
Key West	15
Louisville	15
Mobile	15
New York	15
San Francisco	16
Vineyard Haven	16
Wilmington	16
purveying division	10
table of, by ports	111-115

F.

Fatal cases, report of—(See Hospital practice.)	
FESSENDEN, C. S. D., Surgeon, report of, case of traumatic-popliteal aneurism.	160-162
FOLGER, CHAS. J., Secretary, letter to Committee on Appropriations relative	
to marine hospital at Port Townsend	287
telegram to Fort Benton relative to small-pox	29
Fort Benton, Mont., arrangements for care of small-pox cases at	27, 28
report of Surgeon-General Hamilton to the Secretary on	
small-pox at	27-29
Fredericksburg, Va., acting assistant surgeon appointed at	18

G.

Galveston, Texas, report from Committee on Commerce relative to marine	
hospital at	281-283
Grand Haven, Mich., acting assistant surgeon appointed at	17

H.

	Page.
HACKER, ISAAH, letter relative to seamen from bark "Raimer"	44, 45
HAMILTON, J. B., Surgeon-General, annual report to Secretary	9-57
endorsement relative to purchase of marine hospital at Port Townsend....	289
letter relative to small-pox at Fort Ben- ton	28
telegram relative to small-pox at Fort Benton	28
report to Secretary relative to abolition of marine-hospital tax	30-39
report to Secretary on small-pox at Fort Benton	27-29
hospital at New Berne, N. C.	285
HAMLIN, A. C., Acting Asst. Surgeon, case of molluscum fibrosum	171
HEATH, W. H., Asst. Surgeon, report on Heatonian method for permanent cure of hernia	133-136
HEBERSMITH, E., ligature of femoral artery	160
Hernia, Heatonian method for cure of	133-136
Hospital buildings	10-16
practice	125-174
reports of fatal cases, with autopsies	177-260
abscess, perineal	195
ague, pernicious	189
aneurism of aorta	216-219
left common carotid ..	220
apoplexy	211
brochitis, chronic	222
brain, white softening of the	211
Bright's disease, acute	243-245
chronic	245-246
cancer of face, scirrhus	190
epithelial	190, 191
liver	192
stomach	192-194
caries of os calcis	248, 249
pelvic bones	250
delirium tremens	252, 253
diarrhœa, acute	230
chronic	230
dropsy, general	207
dysentery	231, 232
enteritis	228, 229
fever, cerebro-spinal	177, 178
enteric	178-186
remittent	188, 189
typho-malarial	187
glottis, œdema of the	221

	Page.
Hospital practice, reports of fatal cases, heart, disease of	214, 215
hemiplegia	212, 213
hepatitis	238
injury of nates.....	251
gunshot wound of face with frac- ture of skull.....	256
wounds and contusions..	257
multiple injury	254, 255
kidney, abscess of.....	247
liver, abscess of.....	233-237
cirrhosis of.....	238
fatty	239
meningitis.....	208, 209
peritonitis	240-242
phthisis pulmonalis	196-202
purpura hæmorrhagica	205, 206
pneumonia	223-228
scurvy	207
stomach, ulcer of.....	228
sunstroke.....	210
tuberculosis	202-204
miliary.....	204, 205
urethra, rupture of.....	259, 260
wound of bladder and penis.....	258
cases selected from	125-174
aneurism, femoral, cases of	157-159
femoro-popliteal, case of ...	159, 160
popliteal, traumatic, case of.	160-162
aneurismal varix, report on, with case of	141-156
artificial anus, operation for.....	137-139
cancer, epithelial	163, 164
hernia, Heatonian method for perma- nent cure of	133-136
rheumatic effusions in joints treated by aspiration	125-132
HUNT, W. H., Jr., letters of, with regard to small-pox.....	27, 28
Hygiene of the merchant marine.....	20
steamboats on the Ohio river.....	265-278

I.

Indianola, Texas, acting assistant surgeon appointed at	18
Iodide of potassium in aneurism.....	221

L.

Life-Saving Service, number of seamen physically examined.....	62
Light-House Service, number of seamen physically examined.....	9, 62
LONG, W. H., Surgeon, case of motification, report on.....	165

M.

	Page.
Marine hospitals	10
at Cincinnati	10
Chelsea	11
Chicago	14
Memphis	13
New Orleans	13
St. Mark's	13
St. Louis	12
Wilmington	13
additional, required	17
expenditures for alterations and repairs	14-16
at Boston	14
Chicago	14
Detroit	15
Key West	15
Louisville	15
Mobile	15
New York	15
San Francisco ..	16
Vineyard Haven ..	16
Wilmington	16
Marine-Hospital Service, donations to.	18
extension of the facilities of	17
proposed reduction of tax for, or abolition of	30-39
exhibit showing condition prior to 1871	40
medicines prior to 1871	40
1881	41
hospitals, how managed	41
medical officers, how appointed	41
property records	42
medical statistics	42
benefits to seamen	42
relief to municipalities	43
advantage to science	43
carrying trade	43
proposed legislation	43
relief furnished by	9
table of relief districts	61, 62
tax, proposed reduction of	30-39
report of Committee on Commerce relative to	291-293
concerning, not a tax upon the	
vessel	32
when twenty cents, relief was denied a large class	35-37
only \$2.80 per year instead of \$4.80, as alleged	38
ought not to be reduced unless annual appropriation	
is made	35
movement for reduction does not come from the sailor.	37

	Page.
Marine hospitals, Congressional reports relative to, at Port Townsend.....	287-289
New Berne	285
Galveston	281-283
Medical corps.....	10
appointments	10
casualties.....	10
promotions	10
Memphis, hospital at.....	13
Merchant marine, hygiene of the	20, 21
insufficient accommodations for seamen on vessels	21
number of seamen physically examined	9, 62
MERRIMAN, J. O., relative to cases of scurvy at Astoria	20, 21
MILLER, T. W., Surgeon, case of epithelial cancer, report of	163
Molluscum fibrosum.....	171, 172
Mortification, involving a portion of the nates	165-168

N.

Newport, R. I., acting assistant surgeon appointed at.....	18
New Berne, N. C., report of Committee on Commerce relative to hospital at.....	285
New Orleans, hospital at	13

P.

Pascagoula, Miss., acting assistant surgeon appointed at.....	17
Patients, days' relief furnished.....	9
number treated in hospital.....	9
dispensaries	9
surgical appliances furnished.....	9
transportation furnished to homes.....	9
Pest-house built at Chicago	29
Vineyard Haven	29, 30
to be built at Portland, Maine.....	29
Physical examinations of seamen, table of number made at each port.....	111-115
Pilots, examinations of, for color-blindness.....	18, 19
number examined for color-blindness.....	62
Plymouth, Mass., acting assistant surgeon appointed at.....	17
Port Huron, Mich., acting assistant surgeon appointed at.....	17
Portland, Maine, pest-house to be built at.....	29
Portland, Oreg., assistant surgeon stationed at	18
Port Townsend, Wash., report of Committee on Commerce relative to hospital at.....	287-289
Purveying division.....	9, 10

R.

Receipts	9
table of, by ports	111-115
Relief districts, list of.....	61, 62
Relief furnished	9
Rheumatic effusions in joints treated by aspiration	125-132
Revenue marine, examination of pilot of, for color-blindness.....	18, 19
number of seamen physically examined	9, 62

S.

	Page.
SANBORN, J. E., Dr., letters relative to seamen from schooner "Almon Bird"	45, 46, 48
Saulte Ste. Marie, acting assistant surgeon appointed at	17
SAWTELLE, H. W., Surgeon, cases of effusion in joints treated by aspiration	125-132
Scurvy at Astoria, Oreg	20, 21
Seamen, arrangements for care of, (1882)	48-57
distressed, from schooner "Mary C. Arnold"	44
bark "Raimer"	44, 45
schooner "Almon Bird"	45
insufficient accommodations for, on vessels	27
number, vaccinated	27
physical examinations of, table of	62
by ports	111-114
total number treated in hospital	9, 64
office	9, 64
SHERMAN, JOHN, letter relative to the purchase of hospital at Port Townsend	288
Shreveport, acting assistant surgeon appointed at	17
Sitka, Alaska, assistant surgeon stationed at	18
Small-pox, arrangements for care of sailors at Fort Benton, Mont.	27, 28
passengers	28
at Vineyard Haven, report on	173, 174
letter of W. H. HUNT, Jr., relative to	28
measures to prevent spread of	27
number of cases treated	26
deaths	26
outbreak of	24
on Upper Mississippi	27, 28
ports and places where disease appeared	25, 26
SMITH, WILLIAM, Deputy Minister of Marine and Fisheries, Canada, relative to hospital-tax	39
Statistics—(See Tables)	61-121
STEWART, W. D., Acting Asst. Surgeon, report on cases of small-pox	173, 174
St. Louis, hospital at	12
St. Mark's, hospital at	13
Surgeons, Acting Assistant, appointed at Bismarck	18
Corpus Christi	17
East Saginaw	18
Escanaba	18
Fredericksburg	18
Grand Haven	17
Indianola	18
Newport	18
Pascagoula	17
Plymouth	17
Port Huron	17
Sault Ste. Marie	17
Shreveport	17



