

APPENDIX J.

THE UNITED STATES.

(1) **THE QUARANTINE SYSTEM OF THE UNITED STATES AND A DESCRIPTION OF THE UNITED STATES PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.**

By WALTER WYMAN, M. D.,

Surgeon-General, United States Public Health and Marine-Hospital Service.

A.—THE QUARANTINE SYSTEM.

I propose, in the plainest terms possible and as briefly as possible, to describe the quarantine system of the United States, to show the conditions which render the system necessary, and to explain, so far as time will permit, the rationale of the regulations.

THE DEVELOPMENT OF NATIONAL QUARANTINE.

Until 1893 there was, properly speaking, no national system of quarantine. The colonies had their own quarantine regulations before the formation of the Union, and from that event to 1893 quarantine was left to the care of the State governments, and by the latter to county governments or to municipalities, as the case might be. There was, indeed, national legislation, but all the acts of Congress up to 1893 relating to quarantine specifically provided that the said national measures were in aid of the State and local authorities. Whatever opinions may have been held by members of the national legislature, quarantine was permitted to be exercised by the States as a police function, and even in the present law, which gives national supremacy, it is provided that assistance shall be given the States or municipalities by the Government authorities, the supremacy of the latter being asserted only when the State or local authorities fail or refuse to enforce the uniform national regulations.

As a result of the old system, prior to 1893, each State had its own quarantine requirements. Different cities in the same States had different requirements. One city, in order to divert trade from its neighboring rival, would be less exacting than the latter in the inspection and treatment of infected vessels. Some cities found quarantine to be a means of considerable revenue, laying heavy charges for unnecessary inspection and perfunctory disinfection of vessels. The position of quarantine officer became extremely lucrative, and one of the principal offices to be used as a reward for political service, and as a source from which could be derived contributions for partisan purposes. No wonder, then, that this system was faulty, a burden upon commerce, and did not protect. But while Congress had allowed, as it were, by sufferance, the State and municipal supervision of quarantine, it never by any act abandoned or disclaimed its right to maintain

quarantine under the clause of the Constitution which gives it the right to regulate commerce, and in 1893 it passed an act entitled "An act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service," empowering the Secretary of the Treasury to promulgate uniform quarantine regulations for the ports of the United States, to be enforced by the State or municipal authorities, if they will undertake to enforce them; but if they refuse or fail, directing the President to detail or appoint officers for this purpose. The law further provides that the Surgeon-General of the Marine-Hospital Service, under the directions of the Secretary of the Treasury, shall perform all the duties in respect to quarantine, and to quarantine regulations, which are provided for by the act.

In accordance with this law, regulations have been duly promulgated, and the States and municipalities have, with unanimity, agreed to and, with some exceptions, have enforced them. To insure their being enforced, a regular inspection is made yearly by the Marine-Hospital Service of every quarantine station in the United States, and more frequent inspections, when necessary, at points which are particularly threatening. At a great many stations, faults in methods or appliances have been discovered and rectified by the State or local authorities. This is prompted either by an honest desire to meet necessary requirements or by the penalty of being superseded, under the law, by the national authorities. At a large number of ports, the quarantine has been given over voluntarily to the National Government—which exacts no fees—and at other ports the National Government has assumed charge by virtue of the law, and because of noncompliance with the regulations.

Besides the power of the National Government of taking formal possession of quarantine, the Treasury Department has another resource, in that all vessels from foreign ports, before discharge of cargo or passengers, must have been legally entered by the collector of customs. As the collectors are officers of the Treasury Department, they may refuse entry, unless the quarantine, as well as other regulations of the Treasury Department, have been complied with.

It should be added, and it may be confessed to be a defect in the national system, that the General Government has at present no right to prevent State or local authorities prescribing and enforcing quarantine measures over and above those required by the Treasury regulations. The latter are minimum requirements. The States may add to them, and while in the interest of their own commerce, and as a result of an enlightened public opinion, absurd practices and those for revenue only have become far less frequent than formerly, nevertheless, such practices are, to a limited extent in certain localities, still exercised.

While here and there local authorities, prompted by pecuniary motives and feelings of States' rights, are protesting against the surveillance of the Federal Government, a strong sentiment for exclusive national control is developing, even in the States which have been heretofore most thoroughly identified with the States' rights doctrine, and also in the interior States, whose borders may not touch the sea, but may be reached by infection brought across it.

With the foregoing explanation, I come now to the system established by Congress, and which, notwithstanding the slight variations above mentioned, is the one dominant uniform system of the United States to-day. This system begins with

SHIP SANITATION AT FOREIGN PORTS.

The law requires that every vessel leaving a foreign port for the United States shall have a bill of health, in duplicate, signed by the United States consul. This bill of health contains a number of items regarding the vessel, crew, passengers, and cargo, a statement of the prevailing diseases at the port during the previous two weeks, and of conditions affecting the public health, and a certificate to be signed by the consul that the vessel has complied with the regulations made under the act of February 15, 1893. These regulations are such as to insure, so far as possible, that the vessel is not a carrier of epidemic disease. If the consul can not sign this bill of health, he is not expected to give it, and without it, if the vessel attempts to enter at a port of the United States, she is subject to a fine of \$5,000.

It should be noted that there is no such thing as a foul bill of health. The vessel must be safe, in the opinion of the consul, before leaving the port.

Now, to assist the consul in times requiring unusual precautions, the President is authorized to detail medical officers to serve at the consulates; and in 1893, when cholera was particularly threatening, 12 medical officers of the Marine-Hospital Service were thus detailed in foreign ports, and 16 sanitary inspectors appointed to assist them. The value of their services is illustrated by the record at Naples. During the season of 1893, after cholera had been declared epidemic in Naples, three vessels left for the United States—the *Masilina*, *Weser*, and *Cashmere*—and all were made to conform to the regulations. They all arrived at the port of New York, with no cholera en route, or at time of arrival. During the same period four vessels, with the same class of passengers, and their places of origin similar, in many cases identical, the water and food supply being the same as on the vessels for the United States, left for South America, and all were turned back by the South American authorities and returned to Naples. One, the *Vincenzia Floria*, had about 50 deaths; the *Andrea Gloria*, 90 on the way out—total not ascertained. Another, 84 deaths, and the fourth, 230 deaths from cholera.

The Marine-Hospital Service officers were recalled in December, 1893, but the service still maintains sanitary inspectors to assist the consuls at a number of foreign ports, as at Habana and Santiago de Cuba, Rio de Janeiro, and Yokohama.

A feature of great value in connection with the regulations to be observed in foreign ports is, that they go into effect immediately, as soon as the consul learns of the presence of epidemic disease. There is never any formal declaration of the infection of a foreign port other than the information contained on the consular bill of health, or information published weekly in the Public Health Reports issued by the Marine-Hospital Bureau. In 1895, when cholera became epidemic in Japan, the United States consul immediately put into operation the regulations to be observed on vessels bound for the United States, and no cholera was brought on them.

QUARANTINE AT DOMESTIC PORTS.

Now, in speaking of the utility of inspection, disinfection and isolation stations at domestic ports, it is necessary to remark upon certain peculiar conditions attaching to the United States. First, the great

number of the ports of entry, and the great length of coast line, measuring, exclusive of Alaska, 5,450 statute miles, not counting the intricacies of the shore line. Then the great population, numbering in 1890 about 63,000,000, while that of the German Empire, without its dependencies, was 49,000,000; France, 38,000,000; Great Britain and Ireland, 37,000,000; Italy, 30,000,000, and Spain, 17,000,000. The areas covered by these populations are as follows: United States, 2,970,000 square miles; German Empire, 200,000; France, 204,000; Great Britain and Ireland, 121,000; Italy, 114,000; Spain, 194,000.

Again, special conditions exist in connection with the great crowds of emigrants that daily land upon our shores. In ten years (1882-1891) more than 5,000,000 of them arrived, and in one year alone (1891) more than 500,000 were received.

These emigrants are from all countries, from over populated districts; they are mainly of the poor and ignorant class, and through their baggage, as well as themselves, subject the United States to the importation of infectious disease to a degree far in excess of the exposure of any of the nations just mentioned.

Other conditions affecting the quarantine policy of the United States are found in the great variations of the climate and in the character of the commerce on different portions of our coast, by reason of which diseases much dreaded in one section give but little concern in another. There are, therefore, three geographical sections. First, the Atlantic coast, north of the southern boundary of Maryland. Here arrive most of the immigrants, and our chief concern is with regard to cholera, smallpox, and typhoid fever, while yellow fever excites but little apprehension. Second, the Atlantic coast, south of the southern boundary of Maryland and the Gulf coast. Here very few immigrants arrive, but on account of proximity to the Spanish Main, with its yellow-fever infected seaports and because climatic conditions favor the propagation of yellow fever if introduced, that disease is the chief concern. Third, the Pacific coast. Here there is some immigration from China, and guard must be kept against yellow fever from South America—smallpox, cholera, and the plague from the Orient.

INSPECTION, DISINFECTION, AND ISOLATION STATIONS.

The United States has each of the three kinds of stations mentioned in the subject of discussion. There are stations for inspection only. At these there is an examination of the bill of health, a medical inspection on the vessel, and the granting of a certificate of discharge, without which the vessel can not be legally entered at the custom-house. If the vessel is infected, it may be remanded by the Secretary of the Treasury to the nearest fully equipped station, national or State, for treatment.

At disinfection and isolation stations the quarantine procedures are based upon the life history of the bacillus or germ of the several epidemic diseases, its period of incubation in the human being, and its susceptibility to germicidal agents. When, as with regard to yellow fever, our knowledge is inexact the regulations are based upon observation and experience. At these stations a leading principle is to clear the ship of infection, make it safe, and allow it to proceed as soon as possible.

Smallpox.—If a vessel arrives with smallpox, the patient is removed

at once to hospital, all on board are vaccinated or must show evidence of recent vaccination or of having had smallpox. Those known to have been exposed are held under observation; others, after being vaccinated, are allowed to proceed. In case the vessel brings immigrants, it is not thought necessary to detain all of them, information is telegraphed to their points of destination, in order that they may be under observation by the local health authorities. As soon as the infected portions of the vessel have been disinfected and the sick and suspects removed and the quarantine officer has been satisfied as to vaccination the vessel is no longer detained.

Cholera.—If a vessel arrives with cholera on board all the passengers and all of the crew, save those necessary to care for her, must be removed, the sick to the hospital and those specially suspected isolated in barracks. The remainder are segregated in small groups, with no communication allowed between them. Those believed to be especially capable of conveying infection must not enter the barracks until they are bathed and furnished with sterile clothing, and if cholera has occurred in the steerage all occupants thereof must be bathed and their clothing disinfected. All baggage, including hand baggage and effects, accompanying steerage passengers, must be disinfected. The living apartments, and such other portions of the vessel as are liable to be infected, are then disinfected. The water supply is changed at once, and the casks or tanks containing the same thoroughly cleaned, and, if need be, disinfected. The passengers are detained on account of cholera until five days have elapsed since the last exposure to infection, and a final disinfection of their effects required before discharge.

Yellow fever.—With regard to yellow fever, the regulations vary according to the season of the year. From the 1st of May to the 1st of November vessels arriving at ports on the Atlantic and Gulf coast, south of the southern boundary of Maryland, if from yellow fever infected ports, undergo the same process as though they were actually infected. Those arriving at northern ports are not thus treated. Following are the regulations for the treatment of vessels infected or suspected of being infected with yellow fever:

Some exception is made to the above with regard to iron steam vessels bringing passengers, but stringent and specific requirements are made of these latter, such as immunity of the crew to yellow fever, the mooring of the vessel in the open harbor at the foreign port, non-communication of the crew with the shore and immunity to yellow fever of the passengers, no bedding or household effects being allowed shipment, and all baggage to be disinfected unless checked through under special regulations to Northern ports.

DISINFECTING AGENTS.

The disinfecting agents used at quarantine stations are steam, sulphur dioxide, bichloride of mercury in solution, and formaldehyde gas, the use of the last having been recently authorized by Department circular. Time will not permit a full description of the appliances and processes connected with each agent. It must suffice to state in a general way that steam is ordinarily used for the disinfection of clothing and dunnage, in an iron and jacketed chamber, provided with a vacuum apparatus. There are 35 of these steam chambers in operation at the several quarantines in the United States. Occasionally

steam has been used also for the disinfection of the living apartments of vessels above the water line.

Sulphur dioxide is used for the disinfection of the holds of vessels, and of special apartments, and is generated from a specially devised furnace provided with a fan blower for forcing the fumes of sulphur into the vessel's hold. The regulations require that the sulphur dioxide shall be of a 10 per cent per volume strength to insure penetration to all parts of the vessel, especially those parts which are constructed of wood, for it requires a 6 per cent per volume strength to penetrate wood containing 10 per cent moisture, and the additional 4 per cent is required to insure safety.

Three per cent volume strength is sufficient for most of the non-spore bearing microorganisms when they can be reached. The action of the gas on infected fabrics when in less than 6 per cent is extremely variable. A strong solution of the gas is always required when such articles are to be disinfected. Mattresses, pillows, and upholstered furniture can not always be disinfected by the gas, even when large percentages of the gas are used.

The bichloride mercury in solution is used for the dipping of stone ballast, and the washing of the fore-castle or cabin, and occasionally the washing down of the hold of the vessel.

Formaldehyde gas may be used instead of steam, as it is not injurious to fabrics. It is believed that it will in time prove to be a cheaper process, while its germicidal action is undoubted. The apparatus necessary for its generation and subsequent neutralization can be readily attached to the steam chambers now in use.

There are in the United States about 120 inspection stations; 26 of these are provided with disinfecting appliances, steam chambers, sulphur furnaces, and tanks for bichloride of mercury solution, and of the 26, 8 of the stations are provided with means of detention of persons held under observation.

ISOLATION STATIONS.

Isolation stations are chiefly in the North, at ports where immigrants arrive. A fair example may be cited in the United States quarantine station at the Delaware Breakwater, where barracks have been erected to accommodate nearly 1,000 immigrants while being held under observation.

The utility of these stations has been proven by success in the prevention of the introduction of epidemic diseases in the past few years.

In 1892 cholera gained admission into New York City, but not in the interior, but this was before the passage of the present quarantine law under which the present quarantine regulations have been promulgated.

In 1893 several vessels arrived at the New York quarantine, infected with cholera, but cholera did not gain admission if we except two isolated cases in Jersey City, from which there was no extension of the disease and concerning the origin of which no satisfactory explanation has yet been made. The widespread prevalence of cholera in Europe in 1892-93 will be remembered, and history shows that an European invasion was formerly invariably followed by an invasion of the United States. In 1893, however, its invasion was prevented.

During the present century, up to 1894, there were but seven years in which yellow fever did not visit the United States. It is now

four years since it has gained admission, the last time being at Brunswick, in 1893, before the present regulations were in operation. The last great epidemic was in 1878, and in that year yellow fever invaded 132 towns of the United States, caused a mortality of 15,934 persons, and the pecuniary loss to the country has been stated as \$100,000,000 in gold. The disease is constantly threatening the United States from Cuba and other ports in the Spanish Main, and to my mind there can be no question that to the quarantine restraints are we indebted for immunity since 1893.

The utility of quarantine is also illustrated by the epidemic inflictions upon those countries which have no quarantine, or whose quarantine is but a name.

Again, the disaster and death caused by the absence of proper quarantine facilities is strikingly illustrated in the history of those ships previously mentioned which went from Naples to South America, where, because of a want of proper quarantine protection, the authorities saw fit to turn them back—a harsh and cruel measure, each ship a floating charnel house, returning across the sea to its port of departure, Naples, leaving in its wake a string of dead bodies, the victims of cholera infection. Humanity, therefore, demands quarantine. I am well aware of the prejudice against quarantine caused by its absurdities and the preference that has been expressed for the sanitation of cities, so that even if epidemic disease is introduced it will not spread. But modern scientific quarantine is nothing more than sanitation of ships and the necessary precautions to prevent the spread of disease; and no protests are more vigorous than those of quarantine officers against the continued infection of ports and places which, with a due regard to healthful conditions and some expenditure of money for sanitary engineering, could be deprived of their character as foci of infectious diseases.

QUARANTINE LAWS OF THE UNITED STATES.

AN ACT granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service.

[Approved February 15, 1893.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any merchant ship or other vessel from any foreign port or place [to] enter any port of the United States except in accordance with the provisions of this act and with such rules and regulations of State and municipal health authorities as may be made in pursuance of, or consistent with, this act; and any such vessel which shall enter, or attempt to enter, a port of the United States in violation thereof shall forfeit to the United States a sum, to be awarded in the discretion of the court, not exceeding five thousand dollars, which shall be a lien upon said vessel, to be recovered by proceedings in the proper district court of the United States. In all such proceedings the United States district attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States.

SEC. 2. That any vessel at any foreign port clearing for any port or place in the United States shall be required to obtain from the consul, vice-consul, or other consular officer of the United States at the port of departure, or from the medical officer where such officer has been detailed by the President for that purpose, a bill of health, in duplicate, in the form prescribed by the Secretary of the Treasury, setting forth the sanitary history and condition of said vessel, and that it has in all respects complied with the rules and regulations in such cases prescribed for securing the best sanitary condition of the said vessel, its cargo, passengers, and crew; and said consular or medical officer is required before granting such duplicate bill of health, to be satisfied that the matters and things therein stated are true; and for his services

in that behalf he shall be entitled to demand and receive such fees as shall by lawful regulation be allowed, to be accounted for as is required in other cases.

The President, in his discretion, is authorized to detail any medical officer of the Government to serve in the office of the consul at any foreign port for the purpose of furnishing information and making the inspection and giving the bills of health hereinbefore mentioned. Any vessel clearing and sailing from any such port without such bill of health, and entering any port of the United States, shall forfeit to the United States not more than five thousand dollars, the amount to be determined by the court, which shall be a lien on the same, to be recovered by proceedings in the proper district court of the United States. In all such proceedings the United States district attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States.

SEC. 3. That the Supervising Surgeon-General of the Marine-Hospital Service shall, immediately after this act takes effect, examine the quarantine regulations of all State and municipal boards of health, and shall, under the direction of the Secretary of the Treasury, cooperate with and aid State and municipal boards of health in the execution and enforcement of the rules and regulations of such boards and in the execution and enforcement of the rules and regulations made by the Secretary of the Treasury to prevent the introduction of contagious or infectious diseases into the United States from foreign countries, and into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia; and all rules and regulations made by the Secretary of the Treasury shall operate uniformly and in no manner discriminate against any port or place; and at such ports and places within the United States as have no quarantine regulations under State or municipal authority, where such regulations are, in the opinion of the Secretary of the Treasury, necessary to prevent the introduction of contagious or infectious diseases into the United States from foreign countries, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, and at such ports and places within the United States where quarantine regulations exist under the authority of the State or municipality which, in the opinion of the Secretary of the Treasury, are not sufficient to prevent the introduction of such diseases into the United States, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, the Secretary of the Treasury shall, if in his judgment it is necessary and proper, make such additional rules and regulations as are necessary to prevent the introduction of such diseases into the United States from foreign countries, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, and when said rules and regulations have been made they shall be promulgated by the Secretary of the Treasury and enforced by the sanitary authorities of the States and municipalities, where the State or municipal health authorities will undertake to execute and enforce them; but if the State or municipal authorities shall fail or refuse to enforce said rules and regulations the President shall execute and enforce the same and adopt such measures as in his judgment shall be necessary to prevent the introduction or spread of such diseases, and may detail or appoint officers for that purpose. The Secretary of the Treasury shall make such rules and regulations as are necessary to be observed by vessels at the port of departure and on the voyage, where such vessels sail from any foreign port or place to any port or place in the United States, to secure the best sanitary condition of such vessel, her cargo, passengers, and crew; which shall be published and communicated to and enforced by the consular officers of the United States. None of the penalties herein imposed shall attach to any vessel or owner or officer thereof until a copy of this act, with the rules and regulations made in pursuance thereof, has been posted up in the office of the consul or other consular officer of the United States for ten days, in the port from which said vessel sailed; and the certificate of such consul or consular officer over his official signature shall be competent evidence of such posting in any court of the United States.

SEC. 4. That it shall be the duty of the Supervising Surgeon-General of the Marine-Hospital Service, under the direction of the Secretary of the Treasury, to perform all the duties in respect to quarantine and quarantine regulations which are provided for by this act, and to obtain information of the sanitary condition of foreign ports and places from which contagious and infectious diseases are or may be imported into the United States, and to this end the consular officer of the United States at such ports and places as shall be designated by the Secretary of the Treasury shall make to the Secretary of the Treasury weekly reports of the sanitary condition of the ports and places at which they are respectively stationed, according to such forms as the Secre-

tary of the Treasury shall prescribe; and the Secretary of the Treasury shall also obtain, through all sources accessible, including State and municipal sanitary authorities throughout the United States, weekly reports of the sanitary condition of ports and places within the United States, and shall prepare, publish, and transmit to collectors of customs and to State and municipal health officers and other sanitarians weekly abstracts of the consular sanitary reports and other pertinent information received by him, and shall also, as far as he may be able, by means of the voluntary cooperation of State and municipal authorities, of public associations, and private persons, procure information relating to the climatic and other conditions affecting the public health, and shall make an annual report of his operations to Congress, with such recommendations as he may deem important to the public interests.

SEC. 5. That the Secretary of the Treasury shall from time to time issue to the consular officers of the United States and to the medical officers serving at any foreign port, and otherwise make publicly known, the rules and regulations made by him, to be used and complied with by vessels in foreign ports, for securing the best sanitary condition of such vessels, their cargoes, passengers, and crew, before their departure for any port in the United States, and in the course of the voyage; and all such other rules and regulations as shall be observed in the inspection of the same on the arrival thereof at any quarantine station at the port of destination, and for the disinfection and isolation of the same, and the treatment of cargo and persons on board, so as to prevent the introduction of cholera, yellow fever, or other contagious or infectious diseases; and it shall not be lawful for any vessel to enter said port to discharge its cargo, or land its passengers, except upon a certificate of the health officer at such quarantine station certifying that said rules and regulations have in all respects been observed and complied with, as well on his part as on the part of the said vessel and its master, in respect to the same and to its cargo, passengers, and crew; and the master of every such vessel shall produce and deliver to the collector of customs at said port of entry, together with the other papers of the vessel, the said bills of health required to be obtained at the port of departure and the certificate herein required to be obtained from the health officer at the port of entry; and that the bills of health herein prescribed shall be considered as part of the ship's papers, and when duly certified to by the proper consular officer or other officer of the United States, over his official signature and seal, shall be accepted as evidence of the statements therein contained in any court of the United States.

SEC. 6. That on the arrival of an infected vessel at any port not provided with proper facilities for treatment of the same, the Secretary of the Treasury may remand said vessel, at its own expense, to the nearest national or other quarantine station, where accommodations and appliances are provided for the necessary disinfection and treatment of the vessel, passengers, and cargo; and after treatment of any infected vessel at a national quarantine station, and after certificate shall have been given by the United States quarantine officer at said station that the vessel, cargo, and passengers are each and all free from infectious disease, or danger of conveying the same, said vessel shall be admitted to entry to any port of the United States named within the certificate. But at any ports where sufficient quarantine provision has been made by State or local authorities the Secretary of the Treasury may direct vessels bound for said ports to undergo quarantine at said State or local station.

SEC. 7. That whenever it shall be shown to the satisfaction of the President that by reason of the existence of cholera or other infectious or contagious diseases in a foreign country there is serious danger of the introduction of the same into the United States, and that notwithstanding the quarantine defense this danger is so increased by the introduction of persons or property from such country that a suspension of the right to introduce the same is demanded in the interest of the public health, the President shall have power to prohibit, in whole or in part, the introduction of persons and property from such countries or places as he shall designate and for such period of time as he may deem necessary.

SEC. 8. That whenever the proper authorities of a State shall surrender to the United States the use of the buildings and disinfecting apparatus at a State quarantine station, the Secretary of the Treasury shall be authorized to receive them and to pay a reasonable compensation to the State for their use, if in his opinion they are necessary to the United States.

SEC. 9. That the act entitled "An act to prevent the introduction of infectious or contagious diseases into the United States, and to establish a national board of health," approved March 3, 1879, be, and the same is hereby, repealed. And the Secretary of the Treasury is directed to obtain possession of any property, furniture, books, paper, or records belonging to the United States which are not in the possession of an officer of the United States under the Treasury Department which were formerly in the use of the National Board of Health or any officer or employé thereof.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That an act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service, approved February fifteenth, eighteen hundred and ninety-three, be amended by addition of the following sections:

"SEC. 10. That the Supervising Surgeon-General, with the approval of the Secretary of the Treasury, is authorized to designate and mark the boundaries of the quarantine grounds and quarantine anchorages for vessels which are reserved for use at each United States quarantine station; and any vessel or officer of any vessel or other person, other than State or municipal health or quarantine officers, trespassing or otherwise entering upon such grounds or anchorages in disregard of the quarantine rules and regulations, or without permission of the officer in charge of such station, shall be deemed guilty of a misdemeanor and subject to arrest, and upon conviction thereof be punished by a fine of not more than three hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court. Any master or owner of any vessel, or any person violating any provision of this act or any rule or regulation made in accordance with this act, relating to inspection of vessels or relating to the prevention of the introduction of contagious or infectious diseases, or any master, owner, or agent of any vessel making a false statement relative to the sanitary condition of said vessel or its contents or as to the health of any passenger or person thereon, shall be deemed guilty of a misdemeanor and subject to arrest, and upon conviction thereof be punished by a fine of not more than five hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court.

"SEC. 11. That any vessel sailing from any foreign port without the bill of health required by section two of this act, and arriving within the limits of any collection district of the United States, and not entering or attempting to enter any port of the United States, shall be subject to such quarantine measures as shall be prescribed by regulations of the Secretary of the Treasury, and the cost of such measures shall be a lien on said vessel, to be recovered by proceedings in the proper district court of the United States and in the manner set forth above as regards vessels from foreign ports without bills of health and entering any port of the United States.

"SEC. 12. That the medical officers of the United States, duly clothed with authority to act as quarantine officers at any port or place within the United States, and when performing the said duties, are hereby authorized to take declarations and administer oaths in matters pertaining to the administration of the quarantine laws and regulations of the United States."

Approved March 3, 1901.

[Extract from act August 1, 1888.]

Whenever any person shall trespass upon the grounds belonging to any quarantine reservation, * * * such person, trespassing, * * * shall, upon conviction thereof, pay a fine of not more than three hundred dollars, or be sentenced to imprisonment for a period of not more than thirty days, or shall be punished by both fine and imprisonment, at the discretion of the court. And it shall be the duty of the United States attorney in the district where the misdemeanor shall have been committed to take immediate cognizance of the offense, upon report made to him by any medical officer of the Marine-Hospital Service, or by any officer of the customs service, or by any State officer acting under authority of section five of said act.

[Extract from act March 27, 1890.]

SEC. 2. That any officer, or person acting as an officer, or agent of the United States at any quarantine station, or other person employed to aid in preventing the spread of such disease, who shall willfully violate any of the quarantine laws of the United States, * * * or any lawful order of his superior officer or officers, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not more than three hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court.

SEC. 3. That when any common carrier or officer, agent, or employé of any common carrier shall willfully violate any of the quarantine laws of the United States, * * * such common carrier, officer, agent, or employé shall be deemed guilty of a misdemeanor, and shall, on conviction, be punished by a fine of not more than five hundred dollars, or imprisonment for not more than two years, or both, in the discretion of the court.

B.—THE UNITED STATES PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

The Marine-Hospital Service received its name from the fact that it had charge of the marine hospitals which are located at our ports for the treatment of sick and disabled seamen of the merchant marine. It had, by law, however, many other duties and functions, particularly the conduct of quarantine, the management of epidemics, the medical inspection of immigrants, the maintenance of a hygienic laboratory, the investigation of sanitary problems, and other matters concerning the public health. In 1902 the name was changed to "Public Health and Marine-Hospital Service."

The Service is a bureau under the Treasury Department, and is conducted by a surgeon-general with a staff of assistants in charge of the various divisions.

The marine hospitals are maintained by a tax imposed on tonnage. The expense of the national quarantines is paid by appropriations of Congress, and the cost of suppressing epidemics is paid from a special fund set aside by Congress for this purpose.

HISTORICAL.

Marine hospitals existed in the early days of our country under charters granted by King George III, but the Marine-Hospital Service proper dates from July 16, 1798, when Congress passed an act for the relief of sick and disabled seamen, creating a fund for this purpose, designated "The marine-hospital fund." The benefits of these hospitals were extended to sailors in the U. S. Navy until 1811, when Congress authorized separate naval hospitals.

In 1871 the Service was reorganized and the position of supervising surgeon-general created. Since that time the Marine-Hospital Service has outgrown its name, for, in addition to conducting marine hospitals, Congress has from time to time imposed upon it additional duties and responsibilities, and its activities have been so extended and its functions so multiplied that its work is now that of a national board of health or public health service.

PERSONNEL.

The Service at present consists of a surgeon-general, 28 surgeons, 25 passed assistant surgeons, and 56 assistant surgeons—110 commissioned officers, who are appointed by the President by and with the consent of the Senate. In order to become a commissioned officer of the Service it is necessary to pass a competitive examination before a board composed of officers of the Service. Officers of the Service are not appointed to any special station, but are subject to change of station at any time in compliance with orders.

There are 171 acting assistant surgeons, appointed by the Secretary of the Treasury for duty at ports where the amount of work does not justify the detail of a commissioned officer.

There is a corps of 45 pharmacists in the Service. In addition to their professional work they have important executive duties.

MARINE HOSPITALS.

There are 22 United States marine hospitals and 115 additional relief stations in the various ports of the country. These hospitals are located on both the Atlantic and Pacific seaboards, on the Gulf of Mexico and the chain of Great Lakes, and at many of the larger river cities. A new hospital has lately been opened in Alaska, and relief stations have been established at San Juan and Ponce, in Porto Rico, and at Honolulu.

OVER 50,000 SEAMEN TREATED A YEAR.

The reports of the Service show that more than 50,000 sick and disabled seamen of the merchant marine are treated annually. For instance, during the past fiscal year 56,355 seamen were treated, of which number 12,904 were treated in hospitals. There were 1,580 important surgical operations performed during the year, requiring the use of anæsthetics.

A SANATORIUM FOR CONSUMPTIVES.

A sanatorium for consumptive seamen has been established at Fort Stanton, N. Mex., right in the heart of the dry, equable climate which is so beneficial for the unfortunates who have contracted this most dreadful of all modern scourges. The sanatorium was opened for the reception of patients November 18, 1899, and has at present about 140 patients.

The sanatorium serves a double purpose. It gives the consumptive sailor the best fighting chance to recover that is known to modern science, and takes the source of infection out of the fore-castle. In this way it helps check the spread of the disease. The sanatorium has so far been conducted with every indication of accomplishing the results anticipated.

DIVISION OF DOMESTIC QUARANTINE.

It is the duty of the division of domestic quarantine to keep infectious and contagious diseases out of the country. It is responsible for the conduct of the 15 national quarantines, and for a supervision of all the State and local quarantines.

Every vessel coming from a foreign or an infected port must pass through quarantine and have the certificate of the quarantine officer before it is admitted to any of our ports of entry. The vessel is carefully inspected as to its sanitary condition by the quarantine officer, who also examines into the health of everybody on board. The quarantine officer obtains much useful information from the bill of health and other papers which the captain of the vessel is obliged to present. In case anyone on board is suffering with a contagious disease, he is cared for in special isolated hospitals which are maintained at all national quarantine stations.

DIVISION OF FOREIGN AND INSULAR QUARANTINE.

In order to assist the home quarantines an inspection and information service is maintained at some of the foreign ports, especially those where epidemics exist, or infectious diseases are apt to prevail. It is the duty of the officers of the Service stationed at these points to issue

the bills of health to vessels leaving for the United States. They carefully examine the sanitary condition of the vessel and its passengers, especially the emigrants, who have so often carried epidemic diseases from one country to another. These officers also keep the authorities at the home ports notified of all matters abroad that might affect the public health at home.

THE SANITARY-INSPECTION SERVICE.

For instance, sanitary inspectors are stationed at Hongkong and Yokohama, whose duty it is to keep plague and cholera, which are now prevailing in the Orient, from vessels bound for the United States. Sanitary inspectors are also on duty at all the Central and South American harbors where yellow fever is endemic, and they have accomplished much in keeping this fever from spreading to our country.

During the cholera epidemic in Hamburg in 1892 and 1893, and during the epidemic of plague at Glasgow last year, and at other ports of the world that have or are liable to have outbreaks of contagious disease, officers of the Marine-Hospital Service are stationed for the purpose named.

THE INSULAR QUARANTINES.

Maritime quarantines have also been established in Porto Rico, the Philippines, and Hawaiian Islands.

INTERSTATE QUARANTINES.

Congress imposed upon the Marine-Hospital Service in the law of February 15, 1893, the duty of preventing the spread of contagious and infectious diseases from one State or Territory to another State or Territory. This responsible trust has entailed an elaborate system of interstate-quarantine regulations, and in order to fulfill this duty properly the Service has trained a corps of its officers in the handling of epidemics, in which work some of them have been so successful as to have gained wide-spread reputation as sanitarians.

DETENTION CAMPS.

The prevention of the spread of yellow fever has been one of the chief works of the Marine-Hospital Service since Congress passed the interstate quarantine law. The object of a detention camp is to permit persons to travel from an infected area without carrying the disease to healthy towns or places. Persons from yellow-fever stricken towns are received and their clothing disinfected. They are then held for a period covering the stage of incubation of the disease. After this they may go to any place without danger of spreading the infection.

AID TO OTHER SERVICES.

The Service is required by law and regulation to extend aid of a professional character to other services of the Government, especially the Life-Saving Service, the Revenue-Cutter Service, the Steamboat-Inspection Service, the Coast and Geodetic Survey, the Light-House Establishment, the Immigration Bureau, etc.

AID TO THE IMMIGRATION SERVICE.

All immigrants coming into our country must be examined by a surgeon of the Public-Health and Marine-Hospital Service, whose duty it is to detect those suffering from a dangerous, contagious, or loathsome disease. All such cases are either sent back to their homes or are kept isolated in a separate hospital until they are cured and free from the danger of conveying infection. Lepers under no circumstances are allowed to enter the United States, and several such are discovered and deported each year.

Any immigrant who is suffering from a disease that is apt to render him a public charge within a year must be deported, unless he has family or friends to assume the responsibility of taking care of him. This class of cases formerly taxed the capacity of our almshouses and filled our public hospitals, and the enforcement of this measure has saved these institutions for the sick and needy of our own country.

At New York, where so many immigrants arrive, there is a hospital solely for the care of sick immigrants who are held under observation. This branch of the Service at New York requires 8 medical officers.

Medical officers of the Service stationed at Philadelphia, Boston, Baltimore, New Orleans, San Francisco, and other ports where immigrants occasionally arrive, are required, in addition to their other duties, to examine them.

AID TO THE LIFE-SAVING SERVICE.

All surfmen who desire to enter the Life-Saving Service are examined by surgeons of the Service as to their physical fitness. During the past fiscal year 1,467 surfmen and keepers were examined, of whom 75 were found to be physically unfit for the arduous duties required of them.

AID TO THE REVENUE-CUTTER SERVICE.

Occasionally officers of the Service are detailed as surgeons upon revenue cutters when ordered on long cruises. The officers and enlisted men of this service are entitled to the benefits of the marine hospitals.

AID TO THE STEAMBOAT-INSPECTION SERVICE.

No person can become a licensed pilot unless he has good eyesight, and he must obtain a certificate to this effect from a Service surgeon before the license can be granted. Between 2,000 and 3,000 applicants for pilots' licenses are examined annually as to their eyesight, and especially as to color blindness.

No fees are charged for these examinations, nor for any other service required of officers of the Service.

DIVISION OF SANITARY REPORTS AND STATISTICS.

This division, under the charge of a medical officer of the Service, is chiefly concerned in the collection of sanitary information and in the compilation of such matter for publication, weekly, in the Public Health Reports. This publication has a circulation of about 3,500 among quarantine officers, sanitarians, boards of health, and the health authorities of our own and foreign lands. It contains information of

the existence of and progress of epidemic disease, mortality tables of our own and foreign cities, and reports and information for the guidance of those engaged in work affecting the public health. For this purpose tables showing the prevalence of smallpox in the United States, and of yellow fever, cholera, and plague throughout the world, are published every week.

Our consuls are required to send monthly reports to the Surgeon-General of the health conditions and other matters of sanitary interest occurring in their consular districts. In this way the Service keeps in touch with the health conditions of the whole world.

The Public Health Reports also shows the movement of emigration and immigration, and keeps track of this class of travelers who are so apt to carry infectious disease.

HYGIENIC LABORATORY.

The hygienic laboratory is engaged in scientific work which has a particular bearing upon the public health. It is in charge of a director, who is an officer of the Service, and several assistants. The investigations of this branch of the Service consist of studies into the cause and methods of spread of infectious diseases, of the value and strength of disinfectants, of the value of vaccines, of the method of manufacture of antitoxic serums, the pollution of water supplies, etc. Bulletins are issued from time to time giving the results of the work done in the laboratory.

The following list of subjects is given to illustrate the scope and character of the research work carried on in the hygienic laboratory. This list includes studies of the organisms of malarial and typhoid fevers; of the cause of smallpox and the serum therapy of that disease; the preparation of the antitoxin for diphtheria; an investigation of the pollution of the water supply of the District of Columbia; investigation of cases and suspected cases of cholera, leprosy, and plague; a report upon the ventilation of the House of Representatives; the disinfection of the railroad coach; the serum therapy of pneumonia and typhoid fever, etc.

New disinfecting apparatus of ingenuity and great value have been designed by officers of the Service on duty in the hygienic laboratory. Some of these are now used by sanitarians in all parts of the world. Congress has recognized the value of the work done by this branch of the Service in appropriating money for a new laboratory building, which is now in progress of construction, and which under the terms of the law is "for the investigation of infectious and contagious diseases, and matters pertaining to the public health."

Recognizing the great importance of the subject of bacteriology in relation to the public health, it has been one of the duties of the hygienic laboratory to instruct officers of the Service and others in this science. The Service now numbers among its officers a number of skilled bacteriologists, the experience of some of whom is very wide in the study of the various infectious and contagious diseases and in the investigation of sanitary problems.

THE LEPROSY COMMISSION.

Congress passed an act for the investigation of leprosy in the United States in 1899, authorizing the appointment of a commission of medical officers of the Marine-Hospital Service to investigate the origin and

prevalence of leprosy in the United States, and to report upon what legislation is necessary for the prevention of the spread of this disease.

Three officers of the Service were appointed as the members of the leprosy commission, and they have since pursued their studies on this subject and have presented their report.

THE YELLOW-FEVER COMMISSION.

In 1897 the President appointed two officers of the Service as a commission to investigate the cause of yellow fever. The commission spent the best part of two years in scientific work in Habana and at other places where the disease prevailed. Their report has thrown much additional light upon the cause and methods of spread of yellow fever—a subject which has baffled many investigators. A “yellow-fever institute” has been established by the Service and a working party of three was engaged in the summer of 1902 in a scientific investigation of the cause of yellow fever in Vera Cruz.

THE PURVEYING DEPOT.

The purveying depot is now situated in New York, and is in charge of a surgeon of the Service. Through this depot the marine hospitals and quarantine stations, both in the United States and Porto Rico, and to a limited extent in the Philippines, have received their supplies. Purveying has also been done for the Immigration Service and the Revenue-Cutter Service.

PUBLICATIONS OF THE SERVICE.

The Surgeon-General publishes annually a report in which are detailed the operations of the Service for the fiscal year. It also contains reports and articles of interest from the officers of the service on medical and sanitary subjects.

The Public Health Reports is published weekly.

The hygienic laboratory publishes bulletins from time to time on the scientific work which it accomplishes. Some of these bulletins are upon The Viability of the Baccillus Pestis, Sulphur Dioxide as a Germicidal Agent, Formaldehyde Disinfection without Apparatus, etc.

The foregoing is the merest outline of the growth, scope, and duties of the Public Health and Marine-Hospital Service, the greater part of which growth has come about within the last ten years. The growth of the Service has kept pace with that of the country. With the increase of the American merchant fleet the recipients of its benefits have constantly increased in number, and in the management of its hospitals advantage has been taken of every new development of modern medicine, surgery, and hygiene. The investigation of the causes and prevention of epidemic diseases is a subject of constant study within the Service, and every day brings to light some new problem in their management and control requiring consideration and action.

The development and evolution of the Service has kept pace with the advancement of medical and sanitary science, both at home and abroad.

ADVANTAGES OF A CORPS TRAINED IN MARINE HOSPITALS AVAILABLE FOR QUARANTINE AND PUBLIC HEALTH SERVICE.

Under present conditions the quarantine stations maintained by the Federal Government and controlled by the Public Health and Marine-Hospital Service are administered by officers who have received their practical medical training in the marine hospitals maintained by that Service.

The advantages resulting are apparent. At the quarantine outposts of the country the treatment of vessels having suspicious disease on board depends upon the diagnostic acumen of the medical officer in charge. On the one hand, the public health will be endangered if a case of contagious disease is permitted to pass quarantine. On the other hand, much hardship and pecuniary loss result if a vessel is detained through the lack of experience and training on the part of the quarantine officer. Practical training in the detection of the various forms of disease and the highest development of the diagnostic faculty can be had only by the prolonged study of the sick. A quarantine officer originally appointed as such and given no more opportunity to gain knowledge of disease than is afforded at a quarantine station can not be expected to perform his functions with the certainty and confidence born of long experience, and when a mistake is made the public suffers and pays the cost.

The hospitals and the hygienic laboratory are the training schools of the officers sent out to administer the quarantine stations. In the former they acquire the practical acquaintance with disease necessary for its prompt detection; in the latter they receive instruction in bacteriology and in the use of the instruments of precision which modern science has placed in the hands of the practitioner of medicine. The three divisions of the Service thus complement each other, and could not be divorced except at the expense of its general efficiency. The quarantine officer should, from time to time, renew his acquaintance with hospital work; otherwise he is likely to lose to some extent the diagnostic acuteness which should distinguish him. The cases which he is called upon to decide admit of no hesitation, and the mental equipment necessary for prompt decision must be acquired elsewhere than under the exigent conditions which obtain at an active quarantine station. The training must be had under more favored conditions, and can be acquired best in the calm atmosphere of the general hospital and scientific laboratory.

Accordingly, the regulations of the Service prescribe a tour of three years' duty at a quarantine station, and the officer in command is then returned to hospital work. His place at the quarantine is supplied by an officer who has been for one year his assistant. Moreover, the officers engaged in quarantine work are given special courses of instructions in bacteriology in the laboratory of the Service.

Following is a copy of the law approved July 1, 1902, changing the name of the Marine-Hospital Service to that of the Public Health and Marine-Hospital Service, and enlarging the scope and increasing the efficiency of the Service:

AN ACT to increase the efficiency and change the name of the United States Marine-Hospital Service.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the United States Marine-Hospital Service shall hereafter be known and designated as the Public Health and Marine-Hospital Service of the

United States, and the Supervising Surgeon-General and the officers now or hereafter commissioned under the act of January fourth, eighteen hundred and eighty-nine, entitled "An act to regulate appointments in the Marine-Hospital Service of the United States," and acts amendatory thereof, shall hereafter be known as the Surgeon-General, surgeons, passed assistant surgeons, and assistant surgeons of the Public Health and Marine-Hospital Service of the United States. Nothing in this act contained shall be held or construed to discharge any of the officers above named, or any of the acting assistant surgeons, pharmacists, and other employees of the Marine-Hospital Service, or to deprive any officer of his commission or the benefits derived by longevity of service. The care of sick and disabled seamen and all other duties now required by law to be performed by the Marine-Hospital Service shall hereafter be performed by the Public Health and Marine-Hospital Service, and all funds and appropriations now provided by law for use by the Marine-Hospital Service and all properties and rights pertaining to said Service shall be available for use for like purposes and in like manner, under the Treasury Department, by the Public Health and Marine-Hospital Service.

SEC. 2. That the salary of the Surgeon-General of the Public Health and Marine-Hospital Service shall be five thousand dollars per annum, and the salaries and allowances of the commissioned medical officers of said Service shall be the same as now provided by regulations of the Marine-Hospital Service.

SEC. 3. That commissioned medical officers, when detailed by the Surgeon-General for duty in the Public Health and Marine-Hospital Bureau at Washington, District of Columbia, in charge of the administrative divisions thereof, namely, marine hospitals and relief, domestic quarantine, foreign and insular quarantine, personnel and accounts, sanitary reports and statistics, and scientific research, shall, while thus serving, be assistant surgeons-general of the Public Health and Marine-Hospital Service, but their pay and allowances shall be the same as now provided by regulations of the Marine-Hospital Service for officers in charge of said divisions; and the senior officer thus serving shall be the assistant within the meaning of section one hundred and seventy-eight, Revised Statutes of the United States: *Provided, however*, That no such officer shall be detailed in charge of said divisions who is below the rank of passed assistant surgeon.

SEC. 4. That the President is authorized, in his discretion, to utilize the Public Health and Marine-Hospital Service in times of threatened or actual war to such extent and in such manner as shall in his judgment promote the public interest, without, however, in any wise impairing the efficiency of the service for the purposes for which the same was created and is maintained.

SEC. 5. That there shall be an advisory board for the hygienic laboratory provided by the act of Congress approved March third, nineteen hundred and one, for consultation with the Surgeon-General of the Public Health and Marine-Hospital Service relative to the investigations to be inaugurated, and the methods of conducting the same, in said laboratory. Said board shall consist of three competent experts, to be detailed from the Army, the Navy, and the Bureau of Animal Industry by the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Secretary of Agriculture, respectively, which experts, with the director of the said laboratory, shall be ex officio members of the board, and serve without additional compensation. Five other members of said board shall be appointed by the Surgeon-General of Public Health and Marine-Hospital Service, with the approval of the Secretary of the Treasury, who shall be skilled in laboratory work in its relation to the public health, and not in the regular employment of the Government. The said five members shall each receive compensation of ten dollars per diem while serving in conference, as aforesaid, together with allowance for actual and necessary traveling expenses and hotel expenses while in conference. Said conference is not to exceed ten days in any one fiscal year. The term of service of the five members of said board, not in the regular employment of the Government, first appointed shall be so arranged that one of said members shall retire each year, the subsequent appointments to be for a period of five years. Appointments to fill vacancies occurring in a manner other than as above provided shall be made for the unexpired term of the member whose place has become vacant.

SEC. 6. That there shall be appointed by the Surgeon-General, with the approval of the Secretary of the Treasury, whenever, in the opinion of the Surgeon-General, commissioned medical officers of the Public Health and Marine-Hospital Service are not available for this duty by detail, competent persons to take charge of the divisions, respectively, of chemistry, zoology, and pharmacology of the hygienic laboratory, who shall each receive such pay as shall be fixed by the Surgeon-General, with the approval of the Secretary of the Treasury. The director of the said laboratory shall be an officer detailed from the corps of commissioned medical officers of the Public Health and Marine-Hospital Service, as now provided by regulations for said detail from the Marine-Hospital Service, and while thus serving shall have the pay

and emoluments of a surgeon: *Provided*, That all commissioned officers of the Public Health and Marine-Hospital Service not below the grade of passed assistant surgeon shall be eligible to assignment to duty in charge of the said divisions of the hygienic laboratory, and while serving in such capacity shall be entitled to the pay and emoluments of their rank.

SEC. 7. That when, in the opinion of the Surgeon-General of the Public Health and Marine-Hospital Service of the United States, the interests of the public health would be promoted by a conference of said service with State or Territorial boards of health, quarantine authorities, or State health officers, the District of Columbia included, he may invite as many of said health and quarantine authorities as he deems necessary or proper to send delegates, not more than one from each State or Territory and District of Columbia, to said conference: *Provided*, That an annual conference of the health authorities of all the States and Territories and the District of Columbia shall be called, each of said States, Territories, and the District of Columbia to be entitled to one delegate: *And provided further*, That it shall be the duty of the said Surgeon-General to call a conference upon the application of not less than five State or Territorial boards of health, quarantine authorities, or State health officers, each of said States and Territories joining in such request to be represented by one delegate.

SEC. 8. That to secure uniformity in the registration of mortality, morbidity, and vital statistics it shall be the duty of the Surgeon-General of the Public Health and Marine-Hospital Service, after the annual conference required by section seven to be called, to prepare and distribute suitable and necessary forms for the collection and compilation of such statistics, and said statistics, when transmitted to the Public Health and Marine-Hospital Bureau on said forms, shall be compiled and published by the Public Health and Marine-Hospital Service as a part of the health reports published by said service.

SEC. 9. That the President shall from time to time prescribe rules for the conduct of the Public Health and Marine-Hospital Service. He shall also prescribe regulations respecting its internal administration and discipline, and the uniforms of its officers and employees. It shall be the duty of the Surgeon-General to transmit annually to the Secretary of the Treasury, for transmission by said Secretary to Congress, a full and complete report of the transactions of said service, including a detailed statement of receipts and disbursements.

Approved, July 1, 1902.

CSP1/J2 EN (2) MARITIME HYGIENE AND QUARANTINE.

By RHETT GOODE, M. D., of *Mobile, Ala.*

[Read at the third Pan-American Medical Congress, Habana, Cuba, February, 1901.]

MR. PRESIDENT, MEMBERS OF THE CONGRESS: There are few subjects which have a wider bearing, and in the treatment of which the medical profession has had a harder battle against commercial demands on the one hand and the extreme demands of a timid people on the other than the one I purpose to discuss in this paper. It concerns a course of action the aim of which is ever to secure both to society and commerce every concession and safeguard. Hence it is that the rules and regulations of one year are subject to revision the next year; but whatever change is made is made with full recognition that the rights of commerce are second to the right of society, and that the very safety and continuation of commerce are possible only by recognizing that honesty in the enforcement of quarantine regulations is absolutely necessary.

The labors of the bacteriologists are of much moment; and to them is due in great part the changes that are made in sanitary work, and there is always discovery being made in etiology, and bacteriology and disinfection. It is due in great part to them that it is possible for sanitarians to make innovations, departing gradually from rigid rules to those that are just as effective though not so stringent.

There is but one end to be attained by quarantine, and that is the