

Quarantine : return to an Address of the honourable the House of Commons, dated 22 May 1860, for : copy of abstract of regulations in force in foreign countries respecting quarantine communicated to the Board of Trade.

Contributors

Great Britain. Board of Trade.
National Association for the Promotion of Social Science. Quarantine Committee.
Royal College of Physicians of London

Publication/Creation

London : HMSO, 1860.

Persistent URL

<https://wellcomecollection.org/works/u8h4xtjt>

Provider

Royal College of Physicians

License and attribution

This material has been provided by This material has been provided by Royal College of Physicians, London. The original may be consulted at Royal College of Physicians, London. where the originals may be consulted. 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>

99
a
The Library of the Royal College of Physicians.
QUARANTINE.

EB, Board of Trade.

RETURN to an Address of the Honourable The House of Commons,
dated 22 May 1860;—for,

"COPY of ABSTRACT of REGULATIONS in force in FOREIGN COUNTRIES
respecting QUARANTINE, communicated to the Board of Trade."

(N.B.—This Abstract was communicated to the Board of Trade by the National Association for the Promotion of Social Science.)

Sir,

3, Waterloo-place, 16 May 1860.

I HAVE the honour to acquaint you, for the information of the Lords of the Committee of Privy Council for Trade, that I am desired by the Quarantine Committee of the National Association for the Promotion of Social Science, to state, that a large amount of valuable matter, illustrative of the practice and results of Quarantine in all parts of the world, and which, in their opinion, is calculated to be highly useful to the public service, has been collected by them, in answer to their queries on the subject, a copy of which is herewith annexed.

These queries were, in April of last year, submitted by the Earl of Shaftesbury to Lord Malmesbury and Sir E. B. Lytton, then Her Majesty's Principal Secretaries of State for Foreign Affairs and for the Colonies, and were, by order of these Ministers, sent to all Her Majesty's Consuls abroad, and to the Governors of all British Colonies, with instructions to further the object in view. They were likewise addressed by the Directors General of the Army and Navy Medical Department to the principal medical officers of both services on foreign stations.

Between one and two hundred replies have been received from these different channels, many of them being accompanied with valuable statistical and other details.

The Committee having prepared, with much labour, abstracts of this extensive documentary evidence, are desirous of bringing them under the attention of their Lordships; and I am instructed to transmit the accompanying part which relates to the existing regulations respecting Quarantine in different countries.

I have, &c.

(signed) Gavin Milroy, M.D.,

Honorary Secretary to the Quarantine Committee
of the National Association, &c.

The Secretary to the Board of Trade.

52 (f)

ROYAL COLLEGE OF PHYSICIANS	
LIBRARY	
CLASS	614.46
VOLUME	42038
DATE	

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

DEPARTMENT OF PUBLIC HEALTH.

President—The Right Hon. the Earl of Shaftesbury.

Sub-Committee on Quarantine.

B. G. Babington, M.D., F.R.S., President of Epidemiological Society.
 Thomas Bazley, Esq., M.P.
 Walter Buchanan, Esq., M.P.
 A. Bryson, M.D., F.R.S., Inspector of Hospitals and Fleets.
 Sir James Clark, Bart., M.D., F.R.S., Physician to the Queen, &c.
 John Davy, M.D., F.R.S.L. & E., Inspector General of Army Hospitals, &c.
 W. Farr, M.D., F.R.S., Registrar General Department.
 J. Gibson, M.D., C.B., Director General, Army Medical Department.
 T. B. Horsfall, Esq., M.P.
 Sir John Liddell, M.D., F.R.S., Director General Navy Medical Department.
 Sir J. Ranald Martin, C.B., F.R.S., Physician to the Secretary of State for India in Council.
 J. O. McWilliam, M.D., C.B., F.R.S., Medical Inspector Hon. Board of Customs.
 Gavin Milroy, M.D., F.R.C.P., late Medical Commissioner in the West Indies, and in the Crimea.
 Richard Owen, F.R.S., Member Institute of France, President of the British Association of Science, &c.
 Sir William Pym, M.D., Superintendent General of Quarantine.
 T. Southwood Smith, M.D., F.R.C.P., Member of late General Board of Health, &c.
 T. Spencer Wells, F.R.C.S., late Surgeon Civil Hospital at Smyrna and Renkioi, &c.
 John Wiblin, F.R.C.S., Medical Superintendent of Quarantine at Southampton.

QUERIES, &c., drawn up by the Sub-Committee, for Transmission to Governors of Colonies,
British Consuls in Foreign Countries, and others.

I. What, if any, are the countries or ports from which arrivals in the port of are at all times, or in certain seasons of the year, subject to quarantine, whether the bill of health from the place of departure be clean or foul?

II. What are the diseases which render all arrivals, without exception, whether sick or well, from a place or country where such diseases are existing, subject to quarantine in the port of ?

And what are the quarantines imposed?

III. What are the other diseases which, from having occurred during the voyage or transit, render individual arrivals only subject to quarantine, irrespective of the bill of health from the last place of departure?

And what are the quarantines imposed?

IV. Can you procure a tabulated list of all the vessels put in quarantine in the port of during the last three or five years (or, if not for so long a period, during the last 12 months), specifying—

- (a). Whence the vessel came, the length of voyage, and date of arrival.
- (b). The bill of health, whether clean, suspected, or foul.
- (c). The cause of detention in quarantine.
- (d). The length of quarantine imposed.
- (e). The number of crew and passengers on board.
- (f). Cargo, the nature of.
- (g). Whether any, and how many cases of disease, and of what nature, had occurred during the voyage?
- (h). Whether any, and what, disease occurred on board during the detention in quarantine.

V. Is any difference, as to the quarantines imposed, made in favour of vessels having a medical officer on board?

Is any difference made between men-of-war or private yachts and merchant vessels?

And is any exception in the performance of quarantine made on the arrival of Royal personages, ambassadors, or high military and naval authorities, couriers, &c.?

VI. When a disease, which renders all arrivals from an infected or suspected place liable to quarantine, has been officially certified to have ceased, and when clean bills of health are issued by the local authorities, what period, if any, must elapse before free pratique is granted to arrivals from the place in the port of ?

VII. Is

VII. Is there a lazaret at or near to the town or port of _____?
Is it floating or on shore? Please to describe its position, distance from the nearest inhabited dwellings, construction and accommodation, its sanitary condition and that of its environs, means of exercise for the inmates, means of supply of food, and other necessary requirements.

Is there a tariff of charges for accommodation, food, &c.?

VIII. State the number of persons received into the lazaret during the last three or five years at least.

IX. Have any diseases occurred among the persons received? If so, what diseases? How many cases, and when?

X. What number of deaths, if any, have occurred in the lazaret among the persons received into it, or among the officials of the quarantine establishment, during the last three or five years; or, if possible, for a much longer period, say 20 or 30 years?

And from what diseases, and when?

XI. Have any instances occurred in recent years of the spreading of a disease from persons, or from goods, undergoing quarantine, to other inmates of the lazaret, or to the officials of the establishment, or to the inhabitants of the nearest dwellings?

If so, please to give the dates and other particulars briefly.

XII. Are cargoes sent to the lazaret? If so, what cargoes or articles of merchandise are considered to be "susceptible"? And what means are used for their purification?

XIII. When sickness occurs in a vessel while undergoing quarantine, and there is no medical officer on board, how is medical assistance provided, or to be obtained? Is medical assistance provided at the public cost?

XIV. When a vessel arrives from a suspected port, or in a sickly condition, rendering her subject to quarantine, is any inspection then made of her state, as regards cleanliness and ventilation? And if found filthy or badly ventilated, what means are taken to remedy such defects? Is any record kept of the sanitary condition of vessels put in quarantine?

XV. When a clean bill of health is given to a vessel on leaving the port of _____, is she previously inspected by any officer to ascertain her sanitary condition, and that of the crew and passengers? And is any certificate of such inspection given to the captain?

XVI. Have any of the diseases for which quarantine is liable to be imposed in the port or town of _____ occurred among the inhabitants of the place or of the neighbourhood during the last 10, 15, or 20 years? If so, under what circumstances?

It is very desirable that the exact dates of the earliest cases, and other authentic particulars respecting the origin or development of the disease, should be stated in a narrative of the circumstances.

XVII. Have instances of the evasion or infraction of quarantine in the town or port of _____ come to your knowledge? Have they been of frequent occurrence? And what penalties have been inflicted for the offence?

XVIII. What, if any, quarantine measures by land, such as sanitary cordons, &c., have been adopted, or are considered advisable, in the town or port of _____ against the introduction of pestilential diseases, or for arresting their progress?

If such measures have been of recent years employed, what have been the results?

OBSERVATIONS.

Please to append a copy of the Quarantine Act and regulations at present in force in the town or port of _____.

Also of any annual or other reports illustrative of the working and results of quarantine there, or containing evidence elucidatory of the importation or non-importation of the diseases for which quarantine is imposed.

And to add any remarks thereon from yourself, and from any resident medical officer or other gentleman acquainted with the subject, with suggestions for the amendment of quarantine regulations and practice in general.

Information is likewise very desirable on the following points:

- (a). The general sanitary state of the town, and of the port or harbour, docks, &c., of _____, and of the diseases mostly prevalent on shore, and among the shipping.
- (b). The general sanitary state of the vessels frequenting the port of _____, and the hygienic condition of the crews, as to their accommodation on board, their food and drink, &c.
- (c). The average annual number of vessels arriving from abroad in the port of _____.
- (d). The average amount of dues or fines levied on vessels and individuals while in quarantine, and the estimated annual amount of charges imposed.

**ABSTRACT of REGULATIONS in force in FOREIGN COUNTRIES respecting
QUARANTINE, viz: in**

Sweden.	Egypt and Barbary.
Norway.	United States:
Denmark and Colonies, viz., St. Thomas.	New York - New York.
Prussia.	Boston - Massachusetts.
Russia, in the Baltic.	Philadelphia - Pennsylvania.
Hamburg.	Baltimore - Maryland.
Holland and Colonies, viz., Curaçoa, Surinam, Batavia.	Richmond - Virginia.
Belgium.	Savannah - Georgia.
France and Algeria.	Charleston - South Caroline.
Spain and Colonies, viz., Teneriffe, Cuba, Porto Rico.	Mobile - Alabama.
Portugal and Colonies, Madeira, Cape de Verde, Azores.	New Orleans - Louisiana.
Sardinia.	Mexico; Guatemala; St. Domingo, &c.
Two Sicilies.	Brazil.
Turkey and Levant.	Buenos Ayres.
Ports in Black Sea, Turkish and Russian.	Chili.
	Peru.

Appendix.

Prepared by the Sub-committee on Quarantine of the National Association for the Promotion of Social Science.

May 1860.

The following Abstract has been drawn up from the replies received from Her Majesty's Consuls, &c., to queries 1, 2, 3, 5, 6, 7, 12, 13, 14, 15, 17 and 18, of the accompanying series.

A second Abstract, illustrative of the working and results of quarantine, and derived from the replies to queries 4, 8, 9, 10, 11, 16, and to "Observations," is in course of preparation.

THE BALTIC STATES.

Baltic States.

THE quarantine station for the performance of strict quarantine and the detention of foul arrivals, used for this purpose by all the Baltic States, is situated on the small Swedish island of Kansa, at the entrance of the Catigat, opposite Gottenburg, and about six miles from the coast. The vessels are under the jurisdiction of their respective consuls resident at Gottenburg, who grant clean bills to the vessels when released. During the last four years only one vessel has been detained there, and that was in 1858, a Russian vessel quarantined for eight days on account of arriving from a country suspected of the plague. Vessels not detained at Kansa are subject only to a quarantine of observation, when deemed necessary, in their port of arrival, wherever that may be.

The extensive quarantine establishment on the Island of Oder, off Christiansand, was formerly the principal foul quarantine station for the Baltic. Of recent years it has for the most part stood empty; some years not a single vessel was detained; in others, one or two cases of typhus fever, cholera, yellow fever, or small-pox, have been landed from vessels, which were then liberated in a day or two.

In 1858 three vessels were detained for one day only, two for small-pox, and one for yellow fever, a fatal case having occurred during the voyage from Havannah.

SWEDEN.

Sweden.

It appears from the replies received from Stockholm, that plague is the only disease whose presence in a port of departure now subjects all arrivals therefrom without exception to quarantine. Until within the last few years, the detention was sometimes for as many as 80 days, in conformity with the regulations of 1806. It has recently been reduced from 8 to 15 days, according to circumstances.

In 1855 quarantine for cholera being present in the port of departure was formally abrogated. Up to the autumn of 1854 the quarantine on account of cholera was of extreme stringency and most vexatious. Repeated remonstrances were addressed by the British Government against the extravagant rigour of the system then in force against ports in this country merely suspected of the disease. The attempt to impose restraints upon the fleets of the Allies in the Baltic in 1854 seems to have brought things to a crisis.

Yellow

Yellow fever is now classed in the same category with cholera.*

No vessel has been quarantined at Stockholm for several years past.

A new code of quarantine regulations is about to be issued.

The quarantine dues have hitherto been less upon ships of war than upon merchant vessels.

Free pratique is now and will in future be granted immediately after the official declaration of a disease having ceased in the port of departure.

Cargoes are landed only on account of the plague. No instance has been known for 20 years. Susceptible articles are rags, hides, feathers, hair, woollen and silk goods, cotton, flax and hemp. The means of purification are airing, washing, heating, and fumigation.

Medical officers are maintained by Government where quarantines are established, whose duty it is to attend the sick. The sick are, when necessary, removed to the quarantine hospital, and treated there. A charge is made for attendance and medicines according to tariff.

At Stockholm foul and unhealthy ships are required to be cleansed, &c., and are detained until the defects are remedied; but no record is kept.

At Gottenburg an officer is sent on board to carry out all necessary measures for the thorough purification of the vessel, and the physician visits her every day, and examines the crew, assembled on deck. A record is kept. Before the vessel leaves, the medical officer makes a final inspection, and then the superintendent and the cashier go on board with him to receive the dues, and to deliver to the captain the ship's papers, and also a clean bill of health. The average annual number of vessels arriving from abroad at Gottenburg is 1,500.

Sweden.

NORWAY.

THE existing quarantine law came into force in 1849. As in Sweden, it is only for the plague that quarantine is imposed on vessels from an infected port, irrespective of the health of the vessel during the voyage and on arrival.

When cases of cholera, yellow fever, or small-pox have actually occurred on board, the vessel is liable to detention, not otherwise.

For cholera the period named is eight days; for yellow fever and small-pox only until the sick or dead are landed, and the clothes and bedding have been thoroughly cleansed.

In 1854 and 1855 the passengers in steamers from ports infected with cholera were inspected at the quarantine station at Christiansand, but no further measures were taken. Pratique is at once given to arrivals after a disease has been officially declared to have ceased.

Norway.

DENMARK.

ELSINORE.

THE quarantine regulations nominally existing are of the date of 1805, and are directed against all vessels having any malignant disease on board, and upon all arrivals from the Levant and other countries where plague was liable or suspected to exist. Even still such arrivals, it would seem, must ride a quarantine of four days.

If cases of cholera, typhus fever, or small-pox exist on board a vessel upon arrival at Elsinore, the sick may be landed, and sent to a building close to, but separate from, the general hospital on shore; while the vessel is detained apart from others for 24 hours to be cleansed and fumigated.

By a Royal ordinance of March 1852, quarantine on account of yellow fever and cholera existing in the port of departure was formally abolished in all Danish harbours. A tabulated list of vessels quarantined at Elsinore between 1854 and 1858 has been sent. No difference is made in favour of any particular vessels.

Cargoes may be sent to the lazaret at Kalso.

When there is sickness on board a vessel in quarantine, the quarantine physician would visit the sick, but without going on board, and would provide the necessary medicines at the expense of the ship.

No inspection is made previous to granting bills of health.

Mr. Consul B. Taylor observes, that "in any reform which the Danish Government may make in the existing quarantine regulations, it will be much influenced by the measures which are taken in other countries, and especially in England. This country has so little intercourse with places where epidemic diseases prevail, that our medical practitioners, from the want of experience in the working of quarantine measures, are not in a position to venture any suggestions for the amendment of the same. The desire exists in this country to make the intercourse with other ports as free as possible."

ST. THOMAS.

Denmark.

* Up to 1837, the West India islands were at all times suspected of yellow fever, and treated accordingly, the quarantine being then nearly the same as that imposed on arrivals from countries suspected of the plague.

Denmark.

ST. THOMAS.

Quarantine is imposed on arrivals from ports where small-pox or cholera exists, or when there have been any deaths during the voyage, or there is any sickness on board on arrival.

The quarantine is for five days, dated from the time the vessel left the infected port, &c.

No quarantine has been enforced on account of yellow fever since 1856.

No list of vessels put in quarantine is kept.

No exception is made in favour of any particular vessels.

There is no lazaret.

Cargoes suspected to contain contagious matter would be landed at an isolated store outside the town.

In the event of sickness on board a vessel the quarantine physician would go alongside, not on board, and prescribe at the ship's expense.

Vessels are not inspected before clean bills of health are granted.

The quarantine at this port is regulated by the Board of Health, which consists of the superintendent of customs, the King's physician, the harbour master, the police master, and one of the Burgher council.

The average annual number of arrivals is 3,000 large and 3,000 small vessels.

PRUSSIA.

Prussia.

By the replies received from Dantzic and Stettin, it appears that the existing quarantine regulations (of the date of April 1847), have reference chiefly to arrivals from the Mediterranean and Levant, where the plague or yellow fever may be raging at the time of their departure, and to vessels having had any malignant disease on board during the voyage. The quarantine varies in duration according to circumstances. Strict or foul quarantine can only be performed at the station at Kansa. As respects yellow fever, vessels are at once admitted if no case of the disease has occurred on board within ten days of her arrival, otherwise they must remain at the station till that period be completed. No mention is made respecting cholera.

During the last five years not a single vessel has been detained in even mere quarantine of observation (the only form of quarantine allowed in Prussian ports) in the great ports of Stettin and Dantzic, although the average annual arrivals from abroad at Swinemunde, the outport of Stettin, and where a Board of Health is established, alone amounts to 2,000.

No inspection is ever made of the sanitary condition of vessels on arrival or departure.

RUSSIA.

Russia.

WHAT has been stated respecting the Prussian ports applies equally to those of Russia. Vessels having foul or suspected bills of health, more especially for plague, must perform their quarantine at Kansa* before they can proceed on to Cronstadt, Helsingfors, or other Russian ports, quarantine of observation only being permitted in these ports. But during the last five years not a single vessel has had to undergo even this milder form of detention. No quarantine appears to be considered necessary against the cholera.

In the Finnish provinces, at least of this part of the empire, there has been no legislation on the subject of quarantine since the Imperial letters of the 2d of November 1819, and 11 December 1827.

In consequence of the plague at Bengazi, in the autumn of 1858, all arrivals, not only from that place and other ports on the Barbary coast, but also from Syria, Egypt, Gibraltar, and Malta, were required to perform quarantine at Kansa before being admitted into any Russian port.

ARCHANGEL.

"The port authorities have no instructions to ask questions concerning the health of arrivals here; no inspection is ever made, and no bills of health are inquired for.

"The average annual number of arrivals from abroad is 630.

"The diseases mostly prevalent here are, in autumn and winter, inflammation of the lungs; in spring, typhus and intermittent fever; and in summer, bilious diarrhoea. Among the shipping the most common disease is gastric fever."

* Until the abolition of the Sound dues in 1857, Elsinore was the quarantine station for Russia, the lazaret being then at Kyholm.

H A M B U R G.

By the Quarantine Act of December 1856, all the former stringent regulations previously in force, and which had long been held unnecessary by the leading medical authorities of the State, were repealed, and "the whole proceedings now adopted towards vessels arriving from the Levant and other parts of the Mediterranean, or from places declared to be infected or suspected for a time, or on board of which deaths from infectious diseases have occurred during the last eight days of the voyage, are, that such vessels are inspected on their arrival at Cuxhaven (the outport of Hamburg) by a regularly appointed medical officer," before they shall proceed up the Elbe, or have any communication with the shore.

In 1857 the Senate decreed that arrivals from Lisbon, while the yellow fever was raging there, should be subjected to quarantine, but it was not enforced.

Large discretionary powers to act as he deems necessary for the preservation of the public health are vested in the medical officer.

During the last five years no vessel was detained in quarantine, notwithstanding the annual number of arrivals from abroad averages 5,000 sail.

There is no lazaret at Hamburg. As soon as the decree of the Senate, declaring any port infected or suspected, is rescinded, free pratique is immediately granted to arrivals from such port.

When sickness occurs on board a vessel in quarantine, the regularly appointed medical officer will visit her. About nine shillings are charged for each visit, paid by the ship. The medical officer orders such means as he may consider necessary to remedy any defects in the ventilation or cleanliness of ships, and he sends in a report to the Government.

Bills of health are not given to vessels on leaving the port of Hamburg.

Hamburg.

H O L L A N D.

AMSTERDAM AND ROTTERDAM.

THE quarantine regulations in Holland consist merely of private instructions issued by the Minister of Marine to the Inspector of Quarantine at the Texel, where vessels have to be examined to ascertain that no deaths have occurred on board during the voyage. Not a single vessel out of the 2,000 arrivals from abroad every year, at Amsterdam, has been put in quarantine during the last five years; and seemingly for a much longer period, as the lazaret at Wieringen (an island in the Zuyder Zee) has not been used for more than 10 years past.

"The quarantine regulations of this country," says Vice Consul Flowers, "may be considered almost a dead letter." A similar remark is made by our consul at Rotterdam, where there has not been an instance of strict quarantine of recent years among the immense number of arrivals from foreign ports, averaging 3,400 in the course of the year.

The lazaret at Flushing has not been used for the last 20 years.*

Ships of war are not inspected by the quarantine officer, but the captain is required to send a declaration of the sanitary condition of all on board upon arrival to the commandant of the port.

Whenever an infected port is declared free from disease, free pratique is granted at once to arrivals therefrom.

Medical assistance is provided by the quarantine officer, at the expense of the vessel.

At Amsterdam bills of health are granted by the burgomaster, respecting the sanitary condition of the city. If there are a few cases of cholera it is stated in the bill.

At Rotterdam vessels are previously inspected, and a certificate given to the captain.

CURAÇOA.

Quarantine is imposed against yellow fever, measles, small-pox, cholera, and all contagious diseases. If sickness exists on board, the quarantine is for 40 days; if not, the quarantine of observation is from 1 to 10 days, or longer, if considered proper by the medical committee.

During

* Sir James Gambier, Her Majesty's consul at the Hague in 1819, in a communication to the Foreign Office, writes, "No vessels whatever, of any nation, are subjected to quarantine, excepting such alone as come from the coast of Barbary. The latter are immediately visited, and carefully inspected by a medical person, who reports thereon to the Marine Department, which then determines to what extent quarantine shall be enforced in the particular case."—*Parliamentary Report from the Select Committee of the House of Commons on the Doctrine of Contagion in the Plague, 1819.*

Sir J. Porter, long British Ambassador at the Hague, states in his *Work on the Turks*, in 1771, that "the Dutch never received the contagion of the plague directly from Turkey; they have admitted ships into their ports either with clean or with foul bills, and have found themselves, as we may, always safe."

Holland.

During 1858, 236 vessels were quarantined.

The quarantine for cholera was for 40 days, for small-pox 21 days, and for yellow fever 14 days.

A period of 40 days must elapse after the last case of sickness in an infected port, before free pratique is granted.

There is no regular lazaret; a temporary one is erected when necessary.

No inspection is made before clean bills of health are given.

SURINAM.

The quarantine for small-pox is from 10 to 30 days, for cholera 40 days, for yellow fever 14 days after recovery, or the last case of sickness; for scarlet fever or measles eight days after recovery.

A list of vessels quarantined during the last five years is sent. Average annual number of arrivals is about 200.

There is a lazaret on shore, opposite to New Amsterdam; situation not good.

Medical assistance is provided for the sick on board vessels in quarantine, by the man of war stationed in the river, at the public expense.

When vessels in quarantine are found to be unwholesome, both here and at Curaçoa, they are ordered to be ventilated and fumigated, but no inspection takes place before bills of health are granted.

By a Royal Proclamation of May 1843, infractions of the quarantine laws "shall, according to circumstances, be punished with death, or with such other punishment as approaches thereto."

BATAVIA.

"There exists at this port no particular regulations with regard to quarantine, nor am I aware that any vessel arriving here from any port whatever, has ever had to undergo any quarantine." *

BELGIUM.Belgium.

THE most recent enactment relating to quarantine in Belgium, is by a Royal Decree of June 1851, whereby it is ordained that "all vessels, from whatever country they have come, shall be immediately after visitation admitted to pratique, provided they are furnished with a bill certifying the state of health of the crew and passengers at the moment of departure, and that no case of contagious sickness has occurred during the voyage.

"Vessels not furnished with such a bill, or on board of which any case of contagious disease has occurred during the voyage, or whenever other circumstances may call for extraordinary precautions, shall be immediately reported by the quarantine physician to the Governor, who, after consulting with the Board of Health, may either liberate the vessel or impose quarantine, according to circumstances. The quarantine shall be for three days, after which, if the health of the crew is found to be satisfactory, the vessel shall be released."

From the tenor of Consul Grattan's replies, it would appear that the various Acts and regulations relating to quarantine in the ports of Belgium are nominally rather than actually in force; for although lengthened periods are assigned for different cases, "practically a quarantine of more than from three to five days has been rarely enforced."

In 1849 all arrivals from all ports suspected of the cholera were examined by Government medical officers at the entrance of the Scheldt, and the quarantine imposed was regulated according to the circumstances of each case.

There is no lazaret at or near Antwerp. Vessels are, when it is deemed necessary, detained in the Scheldt, about 12 miles below the city, and such precautionary measures adopted there as the Governor of the province may require.

No record is kept of the vessels detained out of the 2,000 annual arrivals, on an average, from abroad. Consul Grattan says, that, as far as he could ascertain, the general feeling among persons best informed on the subject was, rather to relax than to add to the stringency of existing quarantine regulations.

FRANCE.France.

GREAT and salutary changes in the quarantine system has been introduced of recent years. In 1842 all merely suspected arrivals from any port in the Levant or on the coast of Barbary were detained for not less than 15 days, and foul bill arrivals for not less than 25 days; and this was regarded at the time as a considerable relaxation of the quarantines hitherto

* The same remark applies to Borneo and other islands in the Indian Archipelago; also to the port of Bangkok in Siam, where trade has so much increased since Sir J. Bowring's treaty. Consul Dr. Campbell, R. N., mentions the great prevalence and fatality of small-pox among the inhabitants.

hitherto imposed. Up to that date, no clean bill arrivals from Egypt or Syria were ever recognised, those countries being in permanent suspicion.

After the publication of the Academy's great report on Plague and Quarantine in 1846, more decided reforms were effected, first by a Royal Ordinance in April 1847, and subsequently by a decree of the President of the Republic in August 1849, founded on a report of the Minister of Commerce and Agriculture, wherein it is stated:—

"The Ordinance of 1847 very materially modified the sanitary code of our country. It not only reduced the duration of quarantines, and abolished them under certain conditions, on arrivals from Turkey and Egypt when these countries were free from any pestilential epidemic, but it also established (and it is this which gives to the act a peculiar importance), upon rational data, the new system of precautionary measures which it prescribed. Up to that period, the precautions which had been taken against the introduction of the plague, were not based upon any scientific observations; mere arbitrariness had for a great length of time determined the duration of quarantines. * * * * * While science casts so much light respecting the incubation and other features of the plague, an idea not less fruitful of good for the cause of sanitary reform was originated at the same time. Hitherto all defensive measures against the invasion of the disease had been organized merely on the sea-coast. It was now deemed to be both more simple and more logical to extend the surveillance over the countries themselves where the disease took its origin. This was done by the nomination of resident physicians by our Government in Turkey and in Egypt, to examine into the sanitary condition of those countries, and to fix the bills of health to be given to vessels on their departure, a measure that was the more useful as it provided for the more or less speedy introduction of important modifications into the regime of sanitary superintendence."

Arrivals from Turkey and Egypt having clean bills of health verified by French consuls, and remaining free from disease during the voyage, provided this was not less than 10 days, were to be admitted to free pratique.

By the decree of 1849, the period of 10 days was reduced to eight days, and other relaxations were introduced.

In 1850, the quarantine upon arrivals from a port infected with cholera, but without sickness during the voyage, was all but abolished. It was upon that occasion that the Quarantine Board of Marseilles, which had never been favourable to reform, placed itself in opposition to the Government, and was in consequence dismissed, and the task of reconstructing a new Board with more liberal views was entrusted to Dr. Melier of the Academy of Medicine.

At the close of 1851, the International Sanitary Conference on the subject of Quarantine in the Mediterranean, was assembled in Paris. It is upon the Convention embodying the recommendations and conclusions of that conference that the existing laws and regulations in all French ports are based, and which were promulgated by an Imperial decree of May 1853.* The leading regulations under this decree are the following:—

With respect to the plague, clean-bill arrivals are admitted to free pratique at once in the oceanic ports of France; also in the Mediterranean ports, provided eight days have elapsed since leaving the port of departure.

The French mail steamers from Alexandria to Marseilles land their postage bags at once, however short the voyage may be; but the passengers are liable to be detained for one or two days, until the required period of eight days is fulfilled.

Foul-bill arrivals are subject to a quarantine of 10 full days after arrival, and the cargo to a quarantine of 10 full days after disembarkation, in a lazaret. These regulations apply equally to the oceanic and the Mediterranean ports of the empire.

With respect to yellow fever, clean-bill arrivals are admitted at once to pratique. Foul-bill arrivals in the Mediterranean ports are subject to a quarantine of three, five, or seven days, according to circumstances detailed in the Convention. In the oceanic ports, free pratique is given provided no sickness nor death from yellow fever has occurred during the last 10 days of the voyage. No quarantine is imposed on the cargo in either case.

With respect to the cholera, foul-bill arrivals in the Mediterranean ports are subject to a quarantine of five days, including the voyage; in the oceanic ports, to a quarantine of from three to five days, when one or more cases of the disease have occurred during the voyage. No quarantine is ever imposed on the cargo.

When typhus, small-pox, or other contagious disease exists on board a vessel on arrival, a quarantine varying in length according to circumstances, may be imposed.

In all quarantines for whatever disease, the Minister of Commerce has the power, when he sees fit, of modifying or dispensing with the regulations now cited. This discretionary power appears to be frequently exercised, so that as little interruption to commercial intercourse as possible is ever practised.

BORDEAUX.

Mr. Consul Scott observes: "Vessels, from whatever country they proceed, with or without clean or foul bills, are subject only to quarantine according to the circumstances of the voyage, and not because they come from any particular port." And after stating that the

* An Epitome of the Proceedings of the International Sanitary Conference, drawn from the *procès-verbaux* of the meetings, is given in the Appendix.

France.

the plague, yellow fever, and Indian cholera, which render all arrivals from an infected place liable to detention, he adds: "But there is nothing positive in the subjection of vessels to quarantine; all depends on the circumstances under which they arrive. The quarantine enforced varies according to particular cases; the local authority alone determines provisionally (in the case of foul bills from yellow fever) the nature and extent of it, subject to the approval of the minister." And with respect to foul bills from the cholera, "all depends on the opinion of the Director of Health and the Council of Public Health, which serves as the basis of the Ministerial decision." The same remark applies to arrivals having cases of typhus or small-pox on board.

BREST.

Consul Sir A. Perrier states: "All vessels arriving with clean bills of health are generally admitted to free pratique. Ships may exceptionally be subjected to sanitary measures when they are not in a good hygienic condition, or when a sickness, presumed to be contagious, is on board. Vessels with foul bills are also mostly admitted to pratique when the crews and passengers are in good health. There must be serious motives to cause them to be sequestered: the exception is very rare."

ROCHFORD.

The practice is similar to that at Brest.

HAVRE.

It would seem that it is chiefly against the risk of the importation of yellow fever that quarantine measures are directed. From five to 10 days is the period assigned.

Recently at Boulogne, arrivals there from Lisbon, while yellow fever was in that city, were subjected to quarantine. Foul arrivals at Boulogne and Calais would be sent to the quarantine ground at Havre. Arrivals at Bayonne would be sent to Bourdeaux.

ALGERIA.

As in the other ports of France in the Mediterranean, the quarantine regulations now in force in the colony, and detailed in the official "Actes et Instructions concernant le Régime Sanitaire en Algérie, 1854," are based on the convention of the International Conference of 1851-2. Previously, the practice of quarantine at Oran, and other ports of Algeria, was, according to Mr. Consul General Bell, far from being regular or uniform; at times they were merely nominal.

Since 1841, clean bill arrivals from Algeria have received free pratique in French European ports. From that period, the quarantine system of France began to experience a considerable change, although for several years still it continued generally to be very oppressive.

Tabulated lists of vessels put in quarantine have been received from Brest and Bourdeaux.

Under ordinary circumstances, no difference seems to be made with respect to quarantines imposed in favour of any vessels or persons. Mr. Consul Scott states, that at Bourdeaux, "in cases of emergency, and in the interest of the public service, a Ministerial circular of 3d December 1854, authorises the Directors of Health, on their own responsibility, to admit to free pratique such vessels as are attached to a public service, and which come within the Article 4 of the International Sanitary Convention, it being perfectly understood that there shall be no motive to suspect the sanitary condition of such vessel."

At *Boulogne*, "special circumstances regulate the course taken. If there is danger to the public health, the measure is general; but if not, the facilities afforded to persons are taken into consideration."

By the existing quarantine code of France, it is required that after the official declaration of the cessation of a disease in an infected port, a period of—

30 days,	in the case of plague,
20 "	" " yellow fever,
10 "	" " cholera,

must elapse before free pratique is granted to arrivals from the place in French ports.

At *Havre*, "As soon as the decree of the senate declaring any port infected, or suspected, is rescinded, free pratique is immediately granted to arrivals from such port."

There is no lazaret at Havre, "nor has the want of it been felt;" but only a quarantine station, to which vessels liable to quarantine at Calais, and the other northern ports are also sent. No vessel has been put in quarantine there during the last five years.

At *Brest*, the lazaret is on the Island of Treberon, five miles from Brest, and half way across the bay. It can easily receive more than 200 persons. The accommodation is good, being in three stone-built wards.

The administration of the Imperial navy furnishes the medical and administrative "personnel" for ships of war.

French or foreign merchant ships are granted all desirable facilities for carrying out the measures ordered by the sanitary authorities.

Lodging is given "gratis" by Government; food, and all other necessities are brought from Brest, where all the beds and furniture of the lazaret are kept in store until wanted. There is no tariff of charges.

There

There are large sheds for the ventilation of merchandise, but now very seldom made use of. No cargoes have been landed within the last 20 years.

At *Bordeaux* there is a lazaret in the Gironde on the shore; but the lazaret at *Trompeloup* is at present in a provisional situation, which does not allow of its fulfilling its destination. Constructed on a very large scale in 1831-33 (the period of the first European invasion of Asiatic cholera), at the cost of 80,000*l.*, and distant about 38 miles from *Bordeaux*, it was given over, in 1851, to the Government. The edifice replacing it has been acknowledged to be unfit for the purpose, and there is talk of a new one being constructed in the neighbourhood. Cargoes may be sent when the superior authority deems it necessary.

There is no lazaret at *Rochfort*; but at *Bayonne*, there is one about two miles from the town on the banks of the *Adour*, established at the first appearance of cholera in France, but which does not seem to have been made use of.

At *Bordeaux* the sanitary physician is obliged to visit the sick in quarantine, whether on board ship (when there is no medical officer of the vessel) or in the lazaret; and he is liable to be put in quarantine himself, if the case requires it. When disease has rendered quarantine necessary the attendance is gratuitous; under other circumstances a charge is made.

At *Brest*, a medical officer from the naval hospital, or from the guard ship, would be sent to visit the sick on board a vessel in quarantine, which had not a medical officer on board.

At *Havre*, under such circumstances, the "garde de santé" communicates with the health officer, and medical assistance is provided at the public cost.

At *Brest*, "all ships performing quarantine are visited in order to ascertain their cleanliness, ventilation, and hygienic condition; and if they are in a bad condition they are ventilated and lime-washed."

"Registry books are kept of all the acts of the sanitary departments."

At *Bordeaux*, "no inspection is required to ascertain the state of a vessel before giving her free pratique. Instances of excessive filthiness frequently occur, particularly among ships employed in the cod fishery, and which are admitted to free pratique without any difficulty. If the vessel is however in such a filthy state as to compromise public security, the Director of Health is empowered to have her washed, scraped, and cleansed; to have the cargo removed if necessary, and to cause the hold, &c. to be ventilated. These measures would be adopted before granting free pratique."

At *Havre*, "the master, under oath, reports the state of his ship, and the rules of the sanitary service are put in force. A record is kept of the sanitary state of vessels put in quarantine."

No bill of health shall be granted to any French merchant vessel, without an attestation of the surgeon, or if there be no surgeon, of the captain, certifying the good sanitary condition of the ship; the health of the crew and passengers; the quality of the water, and of the provisions on board. The health officer of the port may satisfy himself on these points by a personal inspection, when he deems fit.

In the case of foreign vessels to which bills of health are given, no mention shall be made of the above particulars, unless the officers in command are willing to permit the necessary visit and verifications when required."

At *Brest*, "although required by the instructions, no previous inspection ever takes place, although the sanitary condition of the ship, crew, and passengers, quality of provisions, water, &c., are specified in the bill of health."

At *Havre*, "the bill of health, and the state of provisions, &c., are attested by a medical officer, or by the master."

At *Bordeaux* "There is no special officer for visiting ships before granting clean bills of health. The Controller of the Customs, charged with the delivery of them, generally contents himself with the assertions of the captain, which are required to be more or less satisfactory according to the destination of the ship."

"If bound to any country where the yellow fever reigns, the captain must give a detailed account of the accommodation provided for the passengers and crew, and of the stores of all kinds, whether provisions or medicines, for the use of all on board. He must also have a certificate from some known doctor, of the healthy state of the vessel, and of all the persons intending to sail in her."

"In all other cases, and whatever may be the destination of the vessel, all that is required is a certificate from the Marine Office, and a written declaration from the captain, indicating the name, description, and destination of the vessel, whether she carries guns, and whether there is a medical officer on board, the number of the crew and passengers, and whether there is a sufficiency of provisions and good water on board."

The principle of quarantine measures by land is recognised in the International Sanitary Convention; but for many years past the practice does not seem to have been adopted in any part of France.

"In 1823, a sanitary cordon was established on the Spanish frontier when the yellow fever existed in Barcelona. The same might be done again under similar circumstances."

France.

SPAIN.

Spain.

By the Sanitary Law of November 1855, clean bill arrivals from Egypt, and all ports of the Ottoman Empire, must undergo a quarantine of observation of eight or ten days, according as there is or is not a surgeon on board the vessel, before they can be admitted to pratique; also, clean bill arrivals from the West Indies, the Gulf of Mexico, or the Brazils, are subject to a similar quarantine of seven days (counted after the discharge of the cargo), if they left the port of departure between the 1st of May and 30th of September.

Previously the quarantine on such arrivals was for 15 days, or "for the time the physicians may deem expedient."

Clean bill departures from these countries from the 30th September to the 1st of May are admitted at once to pratique.

Arrivals from ports adjacent to those above-mentioned, or from intermediate ports where strict quarantine measures, as in Spain, are not duly enforced at all times, are considered compromised, or suspected, and have to undergo a quarantine of observation of three days all the year round.

Great Britain and the Northern United States are in this category, and consequently arrivals therefrom are generally obliged to perform three days' quarantine.

Arrivals from Canada and Newfoundland receive pratique at once.

Mr. Consul Mark, at Malaga, says, "Arrivals from Egypt with raw cotton are admitted to pratique after eight or ten days' voyage; while arrivals from England with a cargo of coals, and after a passage of 25 to 40 or 50 days, are all quarantined for three days!"

Arrivals with foul bills, on account of the plague or yellow fever, are not admitted into any of the commercial ports of Spain, but must proceed either to Vigo or Port Mahon, where there are regular lazaret establishments, and where they must be quarantined for 15 days for the plague, and 10 days for yellow fever,* provided no death has occurred during the voyage; otherwise, the quarantine is for 15 days.

Formerly there were lazarets at Corunna, Bilboa, and Santander.

Foul bill arrivals on account of cholera are subject to five days' quarantine of observation, which may be performed in the ordinary ports of the kingdom. If a case has occurred on board, the detention is for ten days in rigorous quarantine.

In 1853 and in 1854, the quarantine against Great Britain, and other countries where the cholera existed, was most stringent in all the ports of Spain. In 1854, the pestilence nevertheless raged throughout the Peninsula.

Besides the three diseases now cited, the occurrence of any cases of typhus, malignant small-pox, dysentery, or other infectious or importable malady during the voyage, renders individual arrivals subject to a quarantine varying according to the circumstances of each case, but does not affect other arrivals from the same port of departure, if they have clean bills, and have been free from sickness before arrival.

Lists of vessels put in quarantine have been received from Alicante, Carthagena, Malaga, and Vigo.

At *Alicante* no difference is made between men-of-war or yachts or merchantmen.

"In practice, no difference is here made in favour of vessels having a surgeon on board, though by the sanitary regulations two days are added to vessels not having one."

At *Carthagena*, "No exception is made except to persons on a very particular mission."

At *Malaga*, "On two very recent occasions, certain authorities and persons of rank arriving here from places infected with cholera were admitted immediately." * * *

"Although cholera is raging with considerable intensity at Algesiras and other places along the coast, arrivals from the first-named place are admitted to free pratique; and a Royal order has been issued commanding that troops and military stores coming from infected places shall not be subject to quarantine."

At *Vigo* "No difference in the quarantine imposed is made in favour of any vessels; the sanitary prescriptions are applied equally to all, and are also imposed without any consideration to such vessels as may have on board royal personages or high military or naval authorities."

When a disease which renders all vessels from an infected place liable to quarantine has been officially certified to have ceased, by Art. 10 of the Sanitary Regulations:

30 days	-	-	for cases of	-	-	-	plague,
20 "	-	-	"	-	-	-	yellow fever,
10 "	-	-	"	-	-	-	cholera,

must have elapsed before free pratique is granted; but in practice, as in the instance of cholera in Galicia four years since, 40 days were fixed on after the official date of its having ceased.

When sickness occurs in a vessel under quarantine, "The visiting medical officer has the man brought on deck if possible, and prescribes from the health boat; the medicines are sent.

* In the autumn of 1858, arrivals, not only from the Barbary coast, but also from Alexandria, &c., were not admitted into Cadiz and other commercial ports, but were ordered to quit the roadstead.

sent. If the man cannot be brought on deck, the doctor prescribes according to the reports of the master and crew. But although the instructions require a practitioner to be put on board, I have not seen this," says Mr. Consul Barrie, at Alicante, "carried into effect. All expenses are paid by the masters of vessels."

The health guard, who is placed on board every vessel in quarantine, is charged with the inspection of her sanitary condition. It is also his duty to fumigate the ship; but these matters, Mr. Consul Mark observes, are very badly attended to.

No inspection is made of a vessel previous to granting bills of health.

The lazaret at Vigo is on the islands of San Simon, in the upper part of the bay, between six and seven miles from the port. The site was chosen by the Supreme Board of Health, in 1838, and the buildings were ready for use in 1842. Everything connected with the establishment is considered to be eminently favourable to health, and suitable for all the objects and requirements of a first-rate quarantine establishment. There is a hospital with six large wards, besides other rooms for the sick and the attendants, and on the ground floor is an apartment for the fumigation of persons undergoing quarantine. There are warehouses and sheds for ventilating goods, and two quays for discharging, that on the east being very large for the landing of susceptible goods, such as raw cotton, &c., not liable to be damaged by exposure to the open air. Besides the supply of provisions from the inn on the larger island, the lazaret is daily supplied with fresh provisions which are left outside of the establishment, and are afterwards taken in to the persons in quarantine without any contact. Water is also supplied by means of pipes so as to avoid all communication, and in future the supply will be conveyed, by means of a floating tank and hose, to the inner part of the lazaret with still greater security against the possibility of contact with the persons employed.

All cargoes of ships subjected to quarantine are sent to the lazaret, except mails or letters in cases or boxes, which are received at the port and distributed after being cut and fumigated. The articles considered as susceptible are hides, skins, raw cotton, flax and silk, yarns and wool, which undergo a scrupulous purification and ventilation, in the sheds and warehouses of the lazaret; and even those articles which do not suffer by being exposed, are purified in the open air. The purification lasts as long as the period assigned to the vessel, according as her bill of health and the circumstances of the case require; the quarantine days being reckoned as of 24 hours, and commencing to be counted from the completion of the discharge of the cargo.

When sickness occurs on board a vessel in quarantine at Vigo, the doctor and the surgeon appointed to the lazaret attend on the sick person, either in the hospital of the establishment or on board, even although the vessel should have a medical officer. This attendance is paid by the patient, if a passenger, and by the captain, if one of his crew. The poor are attended gratis.

Every vessel sent to the quarantine station is visited on anchoring by the alcaide and the doctors of the establishment, to ascertain her state, and order such washing and ventilation as are deemed expedient for her purification during her quarantine, "in addition to the fumigations which the vessel receives both in number and quality according to the opinion of the medical officer, but which are never less than three, and the application of which is entrusted to the health guard put on board at Vigo, and who does not leave the vessel until she is admitted to free pratique."

Previous to admission, she is inspected by the committee of health at Vigo, to ascertain her sanitary condition, cleanliness, and other particulars; and a certificate is then granted that she has performed quarantine, which the captain takes in addition to the note entered on his bill of health.

"Formerly," says Mr. Consul Brackenbury, "sanitary cordons were adopted in such parts of the road as were deemed expedient to impede the introduction of epidemics by land; but doubtless in consequence of the impossibility of obtaining any results by such means, the employment of cordons was ultimately abandoned, as being vexatious to traffic and to the communications in the interior, without producing the desired object." In September 1855, when the cholera reappeared partially in the neighbourhood of Vigo, the spread of the disease was believed to have been arrested by "isolating the infected houses, and burning such articles as were susceptible of contagion which had been used by the cholera patients."

With respect to quarantine measures by land, Mr. Consul Mark observes: "On the outbreak of cholera in this province in 1854 and 1855, sanitary cordons were established in the outskirts of Malaga, to intercept communication with the infected places. They were discountenanced by the Government from the commencement, and they do not appear to have had the slightest effect in checking the extension of the disease."

At Carthagena, "When any pestilential disease has been declared in the district, a sanitary cordon is established against the introduction of the same. In 1854 and 1855 this plan was adopted against the cholera; but whether it was from the cordon, or from any other cause, only one case of the disease was publicly declared to have occurred in this city." Mr. Consul Turner adds, that "During the sanitary cordon the municipal authorities were known to leave the town, and return to the same without being placed under observation: such being strictly against all rules and regulations."

Mr. Consul Mark alludes to the evils, inconsistencies, and glaring absurdities of the system of Spain as practised at Malaga. "Under the specious pretext of preservation of the public health, our trade with Spain is subjected to a series of harassing restrictions and taxations from which the commerce of other nations is exempt. It is mortifying to see

Spain.

vessels from healthy British ports forced to perform quarantine in the infected parts of this country, and to find arrivals from the British isles suffering three days' observation here all the year round.*

"The evils of quarantine here are still further increased by the absence of all system or unity of action among the provincial Boards of Health; the law is interpreted according to the fancy of each junta. The provincial Boards have repeatedly acted, each of them upon their own judgment, and in contradiction of the supreme junta at Madrid. No injury to the health of the country seems to have followed, however vexatious to commerce."

In most Spanish ports the various dues and fees connected with quarantine are exacted with rigour, and vessels are not allowed to clear before they have been duly paid. On two recent occasions their amount has been enormously increased at Malaga from 2*l.* 18*s.* to 7*l.* 12*s.* on a British vessel of 300 tons. The sum of 1,526*l.* was levied on 80 British vessels during 1858 for quarantine dues, fumigation, and health grounds, to which sum must be added 52*l.* for pilot fees for removing vessels on their admission to pratique, and also the value of three days' time lost, interest of money invested in ship and cargo, wages and provisioning of crew.

TENERIFFE.

The sanitary laws of Spain, bearing date November 1855, and which are mainly based on the International Sanitary Convention of 1851-2, are in force here. In every respect they are the same as those practised in the ports of Spain.

Vessels in a bad sanitary condition on arrival are subject to quarantine, as a precautionary measure.

Consul Murray remarks, that "Even all these regulations do not satisfy the fears of the population of Santa Cruz; and that recently a steamer from Sierra Leone was refused pratique merely because small-pox prevailed at her port of departure, although not only there had been no sickness on board, but the disease was at the very time existing in the neighbourhood of their town."

There is a lazaret on the shore, a mile and a half from Santa Cruz; it is quite unfurnished, and without any accommodation. Cargoes are not landed; foul vessels must proceed to Vigo or Port Mahon.

No inspection is ever made of the sanitary state of vessels.

Sanitary cordons by land have been adopted on several occasions here, and are considered as decidedly advisable.

CUBA.

At *Havannah* quarantine is imposed on account of cholera, small-pox, or any contagious disease, and varies from seven to 20 days, according to circumstances. For the last five years, only Chinese emigrant ships have been quarantined, and that for about 48 hours only, more as a police regulation than as a sanitary measure.

"From the 1st of May to the 1st of October foul bills are issued to all vessels quitting the port and bound for Spain, without regard to the health of the town, and clean bills during the rest of the year. This is for quarantine purposes in the mother country."

The only lazaret is a floating hulk, anchored off the quarantine ground. Cargoes would be sent there if necessary.

Foul vessels are required to be inspected and fumigated, but "the authorities are very remiss on this point."

The penalties for breaches of quarantine are very severe. For trivial offences a fine of from 500 to 1,000 dollars, or imprisonment from six to 12 months, is imposed. For landing from a vessel under strict quarantine, the penalty is 10 years' imprisonment with hard labour.†

St. Jago de Cuba.—"The diseases which render all arrivals without exception, whether sick or well, from a place or country where such diseases exist, subject to quarantine, are cholera,

* This regulation has just been abolished, so that vessels from Great Britain are now admitted to pratique at once.—*Times*, 4 April 1860.

† The following memoranda respecting the quarantine in Havanna were communicated by Consul General Crawford on the spot to Dr. Milroy, in the autumn of 1851:

All vessels, without exception, leaving the port between the 1st of May and the 1st of October, and bound to any port in Spain, must proceed to Vigo, and there perform a quarantine usually of 14 days before receiving pratique, although there was no yellow fever in Havanna at the time of departure, and no sickness whatever occurred during the voyage. The bills of health issued at Havanna during the above period usually certify that the town is healthy, with the exception of a few cases of yellow fever. Mr. C. was assured by the resident medical men that occasionally for several seasons not a single case of true yellow or black-vomit fever occurs in Havanna.

The charges on persons detained in quarantine are enormous, viz., four dollars a head per diem. When Mr. C. arrived last November (1850) by the steamer from England, which had touched at Jamaica (when the cholera had just broken out), he took the precaution of doing everything in his power to prevent any direct intercommunication between the vessel and the shore, either at Port Royal or at Kingston, and applied to the Spanish consul there to certify that such had been the case. This request, however, was not granted; and the result was, that on arriving at Havanna, the steamer and all on board were put into strict quarantine, although the disease had been in the island for 12 months, and was existing in Havanna at the time. Mr. C. having made a declaration that all communication with the shore of Jamaica had been avoided, was released on the following day, after having to pay 40 dollars, the amount of fees for himself and family during one day. Had he not been British Consul, he would not have been let off so easily.

cholera, small-pox, and all other contagious or infectious diseases; such vessels being subject to from two to seven days' observation.

"There is a lazaret on a small island in the harbour; it is unsuitable, and kept in a bad state of repair."

PUERTO RICO.

"The diseases for which quarantine is imposed, are small-pox, yellow fever, cholera, plague, or any other epidemic or contagious disease.

"The quarantine for small-pox, there being no cases on board, is the number of days required to complete eight days from the port of departure.

"Vessels from ports infected with yellow fever, but having had no sickness on board, are not quarantined; in the contrary case a quarantine up to 15 days is imposed.

"For the plague and cholera, a quarantine of from 15 to 20 days, although there has been no case of sickness on board; otherwise they are not admitted at all."

There is a lazaret hulk in the harbour. Cargoes are fumigated on board the infected vessel when required.

During the cholera in 1856, sanitary cordons were established in various parts of the island, "with the most signal want of success."

"After a residence of 12 years in extreme climates," adds Consul Hunt, "the result of my experience is, that the epidemic diseases for which quarantine is usually imposed are exclusively the result of local atmospheric derangements, and that the spread of these diseases can in no case be prevented by the infliction of quarantine, small-pox alone excepted."

PORTUGAL.

LISBON.

THE existing quarantine regulations are founded on a Royal decree of January 1837.

The conclusions of the International Sanitary Conference, held in Paris in 1851-52, have subsequently been adopted, at least, for the most part. The regulations are of extreme stringency, and carried out with much rigour. In no country is so vigilant and strict a surveillance kept up, at all times, over every part of the world as in Portugal. Scarcely a fortnight passes over without some place or country being announced to be suspected of or infected with a disease declared to be infectious, and a longer or shorter detention being imposed on all arrivals therefrom.

The Government has no direct control over the Board of Health at Lisbon.

All vessels coming from the Brazils and West Indies are more or less subject to quarantine throughout the year. This quarantine is regulated by the Board, and is dependent upon the information received from the Portuguese consuls at the ports of departure.

Arrivals from a port infected with yellow fever have to perform a quarantine of eight days; from a port suspected of the same, a quarantine of five days.

Arrivals from a port infected with plague have to perform a quarantine of 12 days; from a port suspected (and this is the case throughout the year from all Ottoman and Egyptian ports) a quarantine of eight days.

Arrivals from a port infected with cholera are subject to a quarantine of five days; from a port suspected, to a quarantine of three days.

These different periods of quarantine are irrespective of the length of the voyage, whether this has been only a week or two months and upwards; and it would seem that they are very generally enforced.

A most stringent and protracted quarantine was imposed upon most of the countries of Europe in 1853-54, on account of cholera; and a like system has been continued to the present time, notwithstanding the severe visitation of the pestilence in Portugal in 1854-55 and 1856. A vigilant surveillance is kept up at all times over every part of the world, even to India, in respect of the cholera.

At the beginning of the present year, 1860, the whole coast of Brazil was declared infected with yellow fever, in consequence of its existence in one port, and a vessel which arrived from that port, Para, with sickness on board was ordered "to quit the port or be sunk, and the susceptible portion of the cargo, now in the lazaretto, to be destroyed."

The quarantine which had been imposed upon all arrivals from Turkey, Syria, and Egypt, in the autumn of 1858, was not removed till April 1860.

Besides the three diseases of cholera, yellow fever, and plague, for which strict quarantine is required, the occurrence of other diseases on board a vessel, or of a death from whatever cause it may have happened, even from an accident, subjects the vessel to a quarantine of observation usually of five days' duration.

By a recent ordinance (April 1858) of the Board of Health, the measures of purification, &c., required to be adopted by all vessels undergoing a quarantine of observation in the Tagus, are of a very rigorous description.

The quarantine station is off Belem Castle, a few miles below Lisbon.

Spain.

Portugal.

Portugal.

"When clean bills of health have been issued by the authorities of an infected port, the vessels in (foul) quarantine receive a declaration from the health officers to the effect that their cargoes have been unloaded and their hulls purified. This document enables the captain to proceed to the anchorage off the Custom House of Lisbon, where it is delivered to the deputy health officer, who inspects the vessel and pronounces her clean. The period that elapses before free pratique is granted is that taken by the captain to sail his ship up the Tagus, and that which the above formalities require."

The International Sanitary Conference resolved that even after the certified cessation of cholera, yellow fever, or the plague, in the port of departure, a specified interval must elapse before clean bills of health should be issued therefrom, viz., of 10 days for the cholera, of 20 days for the yellow fever, and of 30 days for the plague. This resolution is acted upon.

There is both a floating lazaret and a lazaret on shore at Lisbon. The lazaret on shore is situated at Torre Velha, on the south shore of the Tagus, opposite Belem Castle.

Dr. Donnet, staff Surgeon, Royal Naval Hospital, Lisbon, in a communication addressed to Sir John Liddell, says:

"That part of the lazaret set aside for passengers is immediately above the buildings where infected goods are received. It consists of two buildings separated from each other by a courtyard. The one to the left is fitted up as a dormitory, and is badly furnished, badly ventilated, with the beds too close to each other, without either chimney or stove, and able to accommodate about 50 persons, though frequently it receives many more. The other building to the right is larger than the dormitory, has a large dining-room, kitchen, bath-room, and two parlours.

"The grounds around the lazaret are insufficient for exercise. There is no infirmary; no resident medical man nor clergyman; no waterclosets, but in their stead small nightstools placed in the dormitory, a curtain alone shutting out the occupant. The dormitory is frequently tenanted by both males and females."

Complaints have frequently been addressed to the British authorities at Lisbon by passengers arriving by the steamers from England and from abroad, as to the wretched accommodation provided for their reception in the lazaret.*

"The floating lazaret is an old hulk at the quarantine ground, and is able to receive about 70 persons closely packed."

The cargoes from infected ships are landed at the lazaret for purification.

Susceptible articles are cotton, raw or manufactured; hair, manufactured or otherwise; hemp, raw or manufactured; letters, parcels, and other correspondence; hides, fresh, dried, or manufactured; remains or portions of animals in a fresh state; wool and linen, raw or manufactured; skin and feathers, manufactured or otherwise; silk, raw or manufactured.

Fumigation with chlorine is employed for the disinfection of goods, &c. Whitewash, chloride of lime, and peroxide of manganese with sulphuric acid, are used in the purification of infected ships.

The sick on board a vessel in quarantine, when there is no medical officer on board, are sent to the lazaret, and are attended by the quarantine medical officer.

The ship defrays all expenses.

The health officer at Belen inspects all vessels arriving from suspected ports. If found filthy, they are required to be cleansed and purified.

A record of the sanitary condition of vessels put in quarantine is kept at the health office.

Before a vessel, which has been in quarantine, can receive a fresh cargo at Lisbon, the sub-delegate inspects her condition, and, having ascertained that the necessary purifications have been performed, gives the usual certificate. A daily report of such inspections is required to be sent to the president of the Board of Health.

With

* The following remonstrance, addressed by 13 passengers on board the steamer which left Southampton in September 1854, appeared in the public journals at the time:—

"Thirty-three of us arrived on Sunday afternoon last, in four days from Southampton, and after an hour's sail in a lugger, amid heaps of luggage and packages, we reached the landing place, where, for want of a small boat, we had, with great difficulty and danger, to traverse a couple of narrow planks communicating end to end with the shore.

"On entering the Lazaretto, at 6 p. m., we were dismayed to find it already full to overflowing, and hence a struggle ensued for shelter, bedding, and provisions, which continued until midnight.

"Two gentlemen, their wives, a child, and maid servant, were stowed away in a room without window, and about nine feet square; five ladies found seclusion in a garret, while others, including three invalids, had to put up with the floor and benches of the dining room, in some instances without a particle of bedding. No luggage was brought to us until the following morning, but, now that it is here, few have the opportunity of undressing for a change of clothing.

"The lazaretto occupies three sides of a quadrangle, about 80 feet by 40, the fourth forming a terrace, which overhangs the river, at a considerable elevation. On this are the urinals, and at one end is a closet, in a most loathsome and disgusting state, while the slopes beneath emit the most offensive stenches, and teem with rats and other vermin. The dormitories are generally small, detached, and irregular; but others are larger, and contain 10 or more beds. All are crowded to excess, and many abound in filth and insects to a most alarming degree. Perhaps 50 persons could be badly accommodated within the walls, but there are now 105, exclusive of officials, and the hosts of boatmen, coal-porters, and others, equal to at least 100 more, whose occupation lies with the incoming ships and steamers. Fresh arrivals are hourly expected, and we are assured that the inmates are frequently more numerous, every available bed and mattress being doubly occupied.

"The only place for exercise is the centre quadrangle, which is the scene of such noisy irregularity that ladies, at times, cannot venture to show themselves in it.

"The charges for accommodation are nearly 8s and 4s. per day."

Portugal.

With respect to quarantine measures by land, "while the cholera, in 1855 was marching on along the course of the river Tagus towards Lisbon, a sanitary cordon was established to prevent all persons having any ailment whatever, and coming from an infected place, from entering the city. The cholera made its appearance notwithstanding."

Appended to the replies received from Mr. Smith Her Majesty's Consul is a tabulated list of all vessels subjected to quarantine in the port of Lisbon from 19th December 1857 to 6th January 1859.

The same quarantine system is in force in the other ports of Portugal.

At Oporto, in 1856, some suspicious cases of what resembled yellow fever having occurred in some vessels which had been in harbour for between one and two months, the Board of Health ordered them all, 12 in number, to leave the port immediately, and scuttled (it was said) three of them which delayed their departure.

MADEIRA.

The quarantines in Portuguese colonies are altogether under the control of the Lisbon Board of Health.

All arrivals with a foul bill from places infected with yellow fever, cholera, small-pox, and measles, are subject to quarantine, not only while the port of departure continues infected, but even after clean bills have been issued therefrom, and until orders have been received from Lisbon to grant free pratique.

Since the abolition of the lazaret establishment here in 1858, foul arrivals must go to Lisbon, or to some other place where there is an accredited lazaret, to perform their quarantine.

Quarantines of observation vary in duration with the instructions received from Lisbon from time to time.

No relaxation, or exception, is made in favour of foreign ships of war, or yachts; and no difference made, whether a medical officer is on board, or not.

Mr. Consul Erskine remarks: "Individuals and commerce are exposed to very serious inconvenience and injury by the existing state of things. It would be of the utmost importance to all the interests of the island, that the local Board should have independent action and power to deal promptly with all cases. Frequently heavy losses are sustained, and much discomfort experienced, by sending vessels with passengers and cargo to Lisbon to perform quarantine there."

In the autumn of 1857, the health authorities in Madeira refused to allow the landing of any passengers from the Royal Mail Steamers if any person had been taken on board at Lisbon, where the yellow fever then existed, although the vessel had remained quite free from sickness. The result was, that all the passengers bound for the island, chiefly invalids who intended wintering there, were obliged to go on to Brazil, and thus return to England as they could.

Previous to that period, and when passengers in quarantine were sent to the lazaret on shore, they often suffered much inconvenience and distress from the bad accommodation provided in the building, being crowded together into small ill-ventilated apartments; eight and 10 persons were obliged to sleep together in one room, and others in a loft over a cowhouse, or wherever they could find an unoccupied spot, while the thermometer stood at 80 degrees. The charges made for this accommodation were as high as in a first-rate hotel.

AZORES.

The same stringent regulations are enforced at St. Michael's as at Madeira.

"All vessels infected, on arrival, with small-pox, scarletina, or typhus, are not allowed to communicate with the island, even for the purpose of procuring water, or fresh provisions, until they have performed at Lisbon, or other accredited lazaret."

Mr. Consul Vines observes, respecting the system pursued, "Whatever may appear to be the necessity for prohibiting infected vessels from communicating with the shore, there can be no reason for refusing free pratique to vessels arriving with clean bills, *viséed* by the Portuguese consul at the port of departure, and having no contagious disease on board. Under such a regulation, vessels would not have been sent to England and to Lisbon to perform quarantine, and the serious inconvenience and heavy losses which the owners have had to sustain would have been avoided."

CAPE DE VERDE ISLANDS.

"All vessels having a foul bill of health from a port or country where either typhus, cholera, or yellow fever exists, that have had deaths during the voyage, or that have persons sick of the same disease on arrival, shall be refused entry into the ports of the province, and no communication shall be permitted with its territories until a rigorous quarantine has been performed at a regular lazaretto.

"If no case of sickness has occurred during the voyage, or exist on arrival of the vessel, a quarantine of observation of from 3 to 15 or 20 days, or longer, shall be imposed." In the event of any case of the disease occurring during the quarantine of observation, the vessel would be compelled immediately to go out of the province.

Mr. Consul Miller, writing from St. Vincent, one of this group of islands, adds—

"This port is the packet station on the route to the Brazils. During six months of the year

Portugal.

year yellow fever prevails more or less at Rio Janeiro. As about the beginning of June clean bills are given at that port, it might be supposed that when the mail for that month arrives here, the vessel would be admitted to pratique; but such is not the case; for only upon a receipt of official authority from the local Board of Health established at the distant island of St. Jago (between which island and this there is regular communication only once a month), would its delegate at this port be enabled to give pratique. The existence of a local Board here would prevent grievous disappointment to crowded ship-loads of passengers who are unnecessarily confined on board after a sea voyage of 14 or 15 days' duration."

SARDINIA.

Sardinia.

A GREAT reform has been effected of recent years in the quarantine system of this country. The practice in 1846, as appears from Sir William Pym's report to the Board of Trade in that year, was most stringent and vexatious.*

The existing regulations were instituted by a Royal decree of December 1852 in lieu of those under the Royal edict of 1819.

They are based on the recommendations of the International Conference of Paris, in 1851-52, and are nearly the same as those in force in the ports of France.

It rests however entirely with the Minister of Marine to carry the regulations into effect upon the advice of the directors of public health at Genoa and at Cagliari, the one being the superintendent of quarantine on the main land, and the other on the island of Sardinia. These officers are invested with large discretionary powers as to all precautionary measures to be adopted in each instance. Among other duties, they are required (Art. 152) to maintain a vigilant supervision over the sanitary condition of vessels both before sailing and on arrival, their attention being specially directed to the accommodation provided for the crew and steerage passengers.

Mr. Consul Brown states, that there are no countries from which arrivals in Genoa are either permanently or periodically subject to quarantine. It is only imposed when, from official or other reliable reports, it appears that there exists at the port of departure some malady of an infectious or transmissible nature.

Quarantine is chiefly directed against the plague and yellow fever.

It is abolished in respect of the cholera.†

At Cagliari, Mr. Consul Craig states, that arrivals from the Levant and from America are at all times and in all conditions of the crews subject to certain sanitary measures, which may be extended to even temporary exclusion from communication with the shore, according to the state of the vessels, or nature of the cargo.

A tabulated list of vessels quarantined at Genoa in 1858 is sent.

It may be presumed that the same quarantine regulations as have been in force for the last seven years in Sardinia will now be extended to Leghorn. Till recently, they were of the most oppressive nature in that port. Sir William Pym mentions, in his report cited above, that he witnessed the case of a vessel from Jamaica, but last from England where she had been for 10 days in free pratique, put in quarantine for three weeks, and her cargo of cotton and coffee landed in the lazaret for disinfection. As at most of the other Italian ports, the quarantine authorities at Leghorn were all but independent of the Government.

"In ordinary seasons, ships of war of all nations are not subject to the same questioning and to the same discipline as merchantmen; it suffices that the surgeon on board, or the captain, certify on his word of honour the condition of the crew and passengers, as well as of all circumstances of the voyage."

At Cagliari "ships with medical officers on board, and which have had no disease on the voyage, may have their quarantine calculated from the time of their departure."

At Genoa, 40 days must elapse after an infected place has been officially declared free from disease before arrivals from thence receive free pratique.

At Cagliari the practice is conformable with the second article of the sanitary convention of Paris.

There is a small lazaret in the port of Genoa, at the Mole Nuovo, on the west entrance of the harbour; but all vessels which have to perform strict quarantine must proceed to the lazaret at Villa Franca, near Nice. "Its distance from Genoa is found to be very inconvenient to shipping, and therefore injurious to the commercial interests of the country, and a recommendation has been accordingly made to have the lazaret removed to Spezia." The lazaret at Mole Nuovo is quite detached from other buildings. Persons in quarantine do not pay for their lodging. A restaurant in the neighbourhood supplies food, &c., at prices not higher than in the town.

There are no fines or charges upon persons in quarantine. The dues levied are upon the tonnage of the ship, and may be estimated at rather more than 200 £. in the course of the year.

At

* Correspondence respecting the Quarantine Laws. Presented by Command to the House of Commons, in pursuance of their Address of 19 May 1846.

† The inability of quarantine to prevent the introduction of cholera was acknowledged by the Board of Health of Genoa in 1835.

At Cagliari the lazaret is situated on an isolated promontory two miles from the city, well situated, and provided with a court for exercise.

An innkeeper in the neighbourhood provides provisions, &c. at a regulated tariff.

With respect to cargoes being sent to any of the lazarets, it is stated by the Consul at Genoa that it is only in the case of vessels which have had the plague or yellow fever on board during the passage, that this is done. Wool, hides, rags, and animal substances are subjected to purification, by exposing them to free currents of air. Articles of little value, and not likely to be damaged, are immersed in sea-water.

Cargoes have been sent to the lazaret at Cagliari, but no dates are given.

When sickness occurs on board a vessel in quarantine, a medical man is, at Genoa, sent from the shore at the expense of the ship. The sanitary authorities may require him to shut himself up with the patient in the lazaret.

At Cagliari the medical officer of the health office usually attends, at the expense, however, of the vessel.

All vessels, without exception, trading beyond the Straits of Gibraltar are subject, on arrival at Genoa, to a visit by a health officer, in order to ascertain their sanitary condition as regards cleanliness, ventilation, &c.; and if this is not satisfactory, the vessel is not admitted to pratique until the regulations deemed necessary have been strictly complied with. And no vessel is released from quarantine until the officer is satisfied of her good sanitary condition.

A similar practice is pursued at Cagliari. A record is kept of such visits, and a notification is given to the captain of the ship of all that is done.

No vessel going beyond the Straits of Gibraltar can clear from a Sardinian port without having been previously inspected by a sanitary officer. The result of the inspection, which is specially strict when the vessel carries passengers, is stated in the bill of health.

With respect to quarantine measures by land, it appears that no sanitary cordons have ever been placed at the frontier of the Sardinian States, except at the beginning of the century, on account of the epidemic of yellow fever at Leghorn in 1803, and again in 1834-5, on account of the cholera, which had then appeared in the south of France, but which nevertheless penetrated soon afterwards into Liguria, and committed great ravages there.

The yellow fever in 1803 did not spread beyond Leghorn, not even so far as to Lucca; although no cordon or other means were employed to preserve it from the contagion.

At Cagliari, in 1855, the precautionary measures adopted against the extension of the cholera from the north end of the island were limited to a temporary detention outside the city, the exclusion of persons coming from infected places from free intercourse, and the fumigation of their effects. Only a few doubtful cases of the disease occurred on that occasion in Cagliari.

THE TWO SICILIES.

The quarantine code at present in force was enacted by Royal decree, dated May 1853, which superseded a similar decree of 1819.

The regulations are minutely elaborate and extremely rigorous, more so probably than in any other country.* Moreover, their execution rests entirely with the Sanitary Board of Naples, which, like that of Lisbon, is independent of the Government.

The threefold classification of ports of departure into infected, suspected, and free, and of bills of health into foul, touched, and clean, is still retained.

A place or country is considered infected not only when one of the three diseases specially deemed contagious,—the plague, yellow fever, and cholera (*malattie esotiche importabili, e con opportuni mezzi coercibili*) exists therein, but also when the disease exists in its territorial dependencies, with which it continues to maintain free intercourse.

Places are considered suspected which are in free intercourse, either by land or by sea, with infected places, or which do not employ sufficient precautions against infected places.

Places are considered free where there is no suspicion or risk whatever of the existence of the three above-named diseases.

There are two kinds of quarantine—quarantine of rigour, and quarantine of observation. The former must always be performed in a regular lazaret; the latter may be performed either on board the detained ship, or in a lazaret.

There is a maximum period and a minimum period observed in rigorous quarantines.

The

* Sir W. Pym, in his letter to the Board of Trade, in June 1845, particularly mentions the practice in Neapolitan ports as most unjust and mischievous to the shipping interest, "vessels being placed, from any the most trivial report as to sickness in any country, under a tedious and expensive quarantine." He adds the following significant statement:—"The British Consul at Naples informed me, that about three years ago, in consequence of representations against the quarantine system at Naples, the period was reduced from 14 days to three upon vessels having passed the Straits of Gibraltar, and that a few days after the people employed in the health department petitioned the king, stating that in consequence of the reduction of quarantine they were out of employment and starving, and praying his Majesty to have quarantine again established. This was immediately done." The system pursued ever since seems to have been scarcely less unreasonable in the Neapolitan and in some other continental ports.

The Two Sicilies.

The maximum period is imposed on arrivals which have had one or more cases of disease during the voyage.

The minimum period applies to vessels which have been free from disease.

For the plague, the maximum and the minimum periods are 20 days and 15 days.

For the yellow fever and cholera, the maximum and minimum periods are 15 days and 10 days.

There is likewise a maximum period and a minimum period in quarantines of observation.

The maximum period applies to those suspected places which remain in free communication with infected places.

The minimum period applies to arrivals from suspected places which do not employ sufficient precautions against infected places.

For the plague, the maximum and the minimum periods of observation are 15 days and 10 days.

For yellow fever and cholera the maximum and minimum periods are 10 days and seven days.

The duration of the voyage is never reckoned in the quarantine imposed.*

Typhus fever also subjects a vessel to a quarantine of observation.

Arrivals even with clean bills from any port in Turkey, Egypt, or Barbary are at no time admissible to free pratique, unless they are also provided with a special certificate from the resident Neapolitan consul, attesting the good health of the place and its dependencies. Otherwise, a quarantine of seven days is imposed on vessels and persons, and of 10 days on merchandise in the lazaret.

In like manner, clean bill arrivals from the West Indies and the Mississippi, unprovided with a special consular certificate, are always liable to such quarantine as the authorities deem fit.

Should one or more suspicious cases of either the plague, yellow fever, or the cholera, have occurred in a port of departure, arrivals therefrom, although provided with clean bills, shall nevertheless be subject to the minimum period of quarantine stated above.

As it is alleged that there are no foul lazarets, having all the necessary conveniences for complete disinfection in extreme cases of risk, in the kingdom, arrivals are still liable at times, under the decree of 1819, to be refused admission into Neapolitan ports, and obliged to leave at once. "Until such lazarets be established, vessels from places infected with the cholera are admissible into the lazarets of Naples, Palermo, and Messina, provided they have not had cases of the disease on board during the voyage, and are free from the disease on their arrival."

In the autumn of last year, 1859, it was notified that arrivals from Spain, Holland, Belgium, and Prussia, which had had any case of cholera during the voyage, should be refused admission, and that all other arrivals from the ports of these countries were liable to a rigorous quarantine of 10 days.†

So rigorous was the quarantine at Palermo in the summer of 1854, when cholera was raging in Naples, that any violation of the regulations was ordered to be made a capital offence, to be punished with death.

In the same season, upon the occurrence of some suspected cases of cholera at Rome, the Papal authorities ordered a gendarme to be stationed at the door of every house where a case should occur to prevent all intercommunication, and also that a quarantine of nine days should be imposed upon vessels arriving at Civita Vecchia from places known to be infected.

A tabulated list of vessels quarantined at Naples during the last three years has been sent. Such a list could not be obtained from Palermo.

Ships of war unprovided with bills of health are not treated as having foul bills, the parole of the officer in command being, since February 1857, accepted instead; nor are they subject to visitation for the inspection of the crew, and for other purposes, as merchant men are. Even when they arrive from an infected or suspected port, the usual restrictions may not be imposed, if the sanitary authorities are satisfied.

At Palermo, if the medical officer on board a vessel subject to quarantine be a servant of the Supreme Board of Health, the voyage is usually reckoned in the period assigned.

By the quarantine code it is enacted, that when the plague has been declared to have ceased in a place, a period of from 30 to 45 days is required to have elapsed after the latest ascertained case, whether of death or of recovery, before the place is considered to be non-infected, or clean bills can be received from it.

In the case of yellow fever, a clear interval of from 20 to 30 days, and in the case of the cholera, an interval of 20 days, must have elapsed.

Even after these precautionary intervals have elapsed, a quarantine of observation of from seven to ten days for the plague, and of from five to seven days for the yellow fever and the cholera, is imposed upon arrivals from the suspected countries, and before free pratique is granted.

At

* By a Royal decree of May 1854, this regulation is modified. In quarantine of observation for yellow fever and cholera, the duration of the voyage is to be reckoned, provided no sickness has occurred during the passage, and there are no articles on board which have been brought from infected places, as certified by a Neapolitan consular agent.

† In September 1853 the traffic of vessels from Newcastle to Neapolitan ports was directed to be provisionally suspended. The cholera had then broken out with great violence, it will be remembered, on the banks of the Tyne.

At Naples, as stated by Consul Bonham, "Pratique is not granted until the cessation of the disease is officially reported by the Neapolitan consul residing in the locality; no delay then takes place." A similar statement is made by Consul Goodwin, at Palermo.

There are two lazarets at Naples; a small one at Posilippo, for passengers only; the other on the island of Nisida, four miles from Naples. It is very extensive, with numerous apartments for passengers, and stores for merchandise. There is a large terrace for exercise, and a restaurant on the spot, the tariff for apartments, guards, and attendants being fixed by Government.*

The lazaret at Palermo is on shore, about half a mile from the port, and 150 yards removed from any inhabited dwelling.

The cargoes on board foul arrivals are directed by the laws to be sent to a lazaret, and to be subjected to the "*espurgo*, or series of sanitary operations which are applicable to certain articles, in order to remove all chances of risk to the public health by their introduction." The distinction of articles and goods into susceptible and insusceptible appears to be the same as in the lazaret at Lisbon, and the processes of purification employed consist in the *sciorino*, or free exposure to the air during a fixed number of days, and in fumigation, or in immersion. Minute instructions are given how each of these processes is to be carried out.

Letters and all other papers are considered to be highly susceptible of infection: they are directed to be thrown from the ship into an iron-wire basket, provided with a long handle, held by the health guard who receives them. They are then to be taken hold of with iron tongs, and after the seals have been cut, are to be spread out, so that the fumes either of the sulphur, or of sulphur and nitre combined, may reach every part of the paper. In this way the bill of health and other papers of the ship are to be treated before they can be received by the sanitary officer.

Fumigation with chlorine is used for the disinfection of the ship itself, the cabins, and their furniture, &c.

Vinegar, spirits of wine, or sea-water, are generally employed in the process of disinfection by immersion: among the articles so treated are all sorts of coins.

Such precautions being deemed necessary in the case of letters and metallic money, it is needless to add that such articles as cotton, wool, hides, &c., are treated with the utmost strictness.

At Palermo "the cargoes sent to the lazaret are flax, cotton, hemp, silk, hides, skins, and leather; candles, metals, tobacco, wax, corn, grain, and fruits, green and dry, are considered accidentally susceptible."

At the lazaret on the island of Nisida a similar system is practised.

Medical assistance is provided by the Health Office to vessels in quarantine, but not at the public cost.

No inspection is made of a vessel before granting a bill of health, nor any record kept of its condition.

Besides quarantine measures by sea, providing not only for ordinary arrivals of vessels, but also for shipwrecks on the coast, and the washing ashore of portions of the wreck and cargo, special quarantine measures are set forth in the code of regulations, with the view of preventing the communication of a disease by land from an infected place, whether in or out of the territories of the kingdom. The latter case applies, of course, to the Papal States. A strict sanitary cordon is directed to be established around such extent of the coast or of the frontier as shall be deemed necessary, so that neither persons nor goods shall be allowed to enter from the infected or suspected district, except under the prescribed rules. Such precautions may be adopted, even although the Papal States may not be infected themselves with one of the three contagious diseases, but when they remain in free communication by sea with another country that is infected.

No instances where such measures have been adopted are known to the British consuls at Naples and Palermo.

The Two Sicilies.

TURKEY.

PRIOR to the promulgation in 1840 of the organic regulations for arrivals by sea, whether at Constantinople or other harbours or ports of the Ottoman Empire, the practice of quarantine was only occasional and irregular, and confined to some places in the Turkish dominions. These regulations have reference exclusively to the plague, no other disease being mentioned in any of the articles, although the cholera had already attacked almost every province of the empire, and Constantinople had suffered more than once from the scourge.

Three kinds of bills of health are enumerated—the clean, the doubtful, and the foul. A bill of health is considered clean delivered 30 days after the last case of plague in the port of

Turkey.

* The state of the lazaret establishment at Nisida in 1853-54, and of the treatment of the passengers arriving by the steamers from Marseilles, is thus described by Mr. Ewart, then resident at Naples, in a letter addressed to the "Times," of January 10 of that year: "They were all mingled in one dreary room, without compartments and without glass to the windows. In this place they were condemned to remain ten days. Among them were several English ladies. But the discomfort of their situation was converted into horror when they discovered that in the same building, and separated from their place of exercise by a low wall only, were 800 convicts of the worst description, who appealed, not without threats, for pecuniary assistance. During the stay of our countrymen in this quarantine gaol several of the convicts escaped."

Turkey.

of departure, and then the ship with her crew and cargo are to be admitted at once to pratique on arrival.

The bill is doubtful if delivered 15 days after the last case, and then the vessel is liable to a quarantine of 15 or 10 days, according as she is laden or in ballast.

The bill is considered foul if delivered in the interval of 15 days since the last case of plague, and then the vessel is liable to a quarantine of 20 days if laden, and of 15 days if in ballast.

Stringent rules are laid down for the guidance of the quarantine officers in their communications with vessels. The health officer is cautioned not to go on board a suspicious vessel in which there may be any sick person, but only to look at him at a proper distance, &c.

All susceptible merchandize is to be landed in a lazaret, and detained there for from 15 to 20 days for disinfection. The Director-general of Quarantine acknowledged to Dr. John Davy, whose instructive official report, addressed to Lord Palmerston, will be found in the Parliamentary correspondence, 1836-43, that "there is no instance on record of the plague having been introduced into any country through the medium of merchandize."

The administration of the system throughout the empire was vested in a superior council of health at Constantinople, and consisted of a president (a Turk of high rank), a Director-general, delegates from the respective embassies of the principal European powers, and of certain other individuals, chiefly medical men selected by the Government, some paid, others not.

Dr. Davy found the system to be "one very much of forms, vexatious and expensive in execution, and fallacious as regards security of the public health which it ought to insure;" and he adds, "Were reason and the results of experience followed merely in the institution of quarantine, independent of crooked political motives, it can hardly be doubted that very mild measures of quarantine would suffice merely for the protection of the public health. It is probable that no restrictions would be found requisite on the importation of merchandize from the Levant, and that no quarantine would be required on persons coming from the Turkish dominions, provided they had a certificate of health from a Board or council, similar to that now given at Constantinople, or from the consular agents of the principal towns through which they may have to pass."

The system as carried out at the present time will appear from the following statements:

At *Constantinople*, according to Consul General Drummond Hay, the quarantines vary from 4 to 40 days, according to circumstances. The diseases for which they are imposed are the plague, yellow fever, and cholera.

In 1858 and 1859 arrivals, without exception, from all the ports on the Barbary coast, and also from Egypt, at one time were subjected to a quarantine of 15 days, and those from Syria to a quarantine of 10 days, although no verified case of plague had occurred at any other place except at Bengazi in Barbary.

Vessels from the Mediterranean must exhibit their bills of health at the Dardanelles, and those from the Black Sea at the entrance of the Bosphorus; and if their bills be foul or suspected, a quarantine officer is put on board, whether they be laden or in ballast.

Energetic remonstrances have recently been addressed by British merchants and other residents at Constantinople, members of the Levant Quarantine Association, to Sir Henry Bulwer, on the oppressive and most vexatious interruptions to vessels passing up the Dardanelles, on mere fiscal grounds, quite unconnected with the public health.

From *Volo* Mr. Consul Stuart writes, "All arrivals from Tripoli at all seasons of the year, whether the bill of health be clean or foul, are subject to 15 days' quarantine. Arrivals from Egypt with clean bills are subject to five days' quarantine. The plague, yellow fever, and cholera are the diseases, the existence of which in the port of departure render all arrivals without exception liable to quarantine; 15 days for plague, 8 days for yellow fever, 5 days for cholera."

Beyrout.—"No country is at all times subject to quarantine if the bill be clean. At present Egypt is in quarantine, although arrivals therefrom have a clean bill, on account of its possible relations with Tripoli, which pachalik is also in quarantine." Before October 1858 the quarantine on arrivals from Egypt was five days; afterwards it was increased to 15 days.

Caiffa.—"All vessels which arrive here with foul bills of health are obliged to proceed to Beyrout or to Jaffa, for the purpose of examination and the performance of quarantine, if necessary. The officer here, who is of very inferior rank in the quarantine station, has no code of regulations, but receives special instructions in particular instances. There is no lazaret at Caiffa or at Saïda. The fee for the visa on the bill of health is the only quarantine due taken by the officer."

Alexandretta.—"During the recent alarm of the plague at Bengazi, all arrivals therefrom were ordered to be subjected to a quarantine of observation for five days."

Brussa.—"At the adjoining ports of Ghio or Ghemlek, Mundonia, Mitralitz, Panoorma, if a case of plague occurs in a vessel arriving, it will be subject to quarantine for such a period as, after reference to the Board of Health at Constantinople, would then be directed. A case of cholera might occasion the like treatment."

For 11 years no such cases have occurred to render necessary the imposing of quarantine. No other diseases than plague or cholera would be challenged by the quarantine officer.

Trebisond.—

Trebisond.—Arrivals from Circassia and Abassah are subject to a quarantine of 10 days, owing to small-pox being constantly prevalent at these places where there is no sanitary establishment. Vessels having small-pox on board would be subject to 10 days' quarantine, irrespective of their bills of health.

The quarantine for plague is 21 days, for cholera 15 days. "The quarantine regulations are left to the discretion of the employés, who follow them or not, as best suits them."

Rhodes.—All arrivals, without exception, from places where the plague, the cholera, or yellow fever exist, or is suspected to exist, at the time of sailing, must undergo quarantine. If the plague be actually present in the *pays de provenance*, the quarantine is for 20 days if the vessel be laden, and for 15 days if without cargo. If the existence of the disease be only suspected, the quarantine is for 15 or for 10 days, according as the vessel is or is not laden.

For the cholera a quarantine of five days is imposed if no case has occurred during the voyage; otherwise the period is for 10 days, and all the passengers must then be landed, and the sick be separated from the well.

The only exception is in favour of mail steamers, which are permitted to continue their voyage after having landed their passengers at the lazaret; but no other vessel having had a case of cholera on board, is allowed to leave before undergoing the necessary quarantine.

Arrivals from a country where yellow fever exists, but which have remained healthy during the voyage, have to undergo a quarantine of from five to eight or 10 days. If a case has occurred on board, the passengers and goods are subject to the same foul régime as arrivals from a country where the plague exists.

Vessels arriving with other diseases than the three above-named are liable to be quarantined at the discretion of the health officer.

If a death has occurred on the voyage, and the corpse has not been kept so that the cause of death may be verified, the vessel, with all on board, must undergo a 10 days' quarantine. The foul régime is enforced, if the disease is found to have been virulent.

Vessels which have been boarded by pirates must perform seven days' quarantine: ships of war, however, are exempt from this quarantine.

Arrivals without any bill of health are considered foul, and liable to 10 days' quarantine, even when they have been months on their voyage, and no sickness whatever has occurred, as sometimes happens to collier vessels from England.

The practice of quarantine at Cyprus, Scio, and other Turkish Islands in the Archipelago, is the same as above described.

At Cyprus, "since 15th August 1858, arrivals from Bengazi, Tripoli, Mandruka, and its dependencies, have been quarantined for 15 days. Lately, arrivals from Syria have also been quarantined for 10 days, in consequence of two surmised cases of plague at Beyrout on the 2d and 8th of September."

Tabulated lists of vessels put in quarantine have been received from Constantinople, Rhodes, &c.

In most Turkish ports the quarantine on men-of-war, yachts, &c. is shorter and less stringent than on merchant vessels. "Quarantine officers," remarks Mr. Consul Sandison, "would be very cautious of interfering with the pleasure or convenience of any royal personages or high Turkish functionaries; and much or all might depend on the respect voluntarily paid to the regulations by any person of conspicuous rank, and coming in a yacht."

At Rhodes, "no difference is made in favour of high personages, unless special instructions from Constantinople have been received, as recently in the expected visit of Prince Alfred."

The voyage is included in the quarantine for cholera, when a medical officer is on board, and no case of sickness has occurred.

A difference of three days is made in favour of men-of-war.

Constantinople.—"The lazaret for arrivals from the Mediterranean is situated at the Dardanelles; that for arrivals from the Black Sea is on the Asiatic side of the Bosphorus, three or four miles from Constantinople, and capable of containing 500 inmates. Its sanitary condition, and that of the neighbourhood, are reported good; but no space is allowed for exercise."

Volo.—There is a lazaret on shore, three-fourths of a mile from the town, in ruins, and uninhabitable.

Trebisond.—The lazaret is near the landing-place, and only a few yards distant from the nearest dwellings: its construction and accommodation are bad.

Rhodes.—"Properly speaking, there is no lazaret, but only three stone huts, with only shutters, and without any furniture whatever."

Cyprus.—"One of the best in the Turkish empire."

Beyrout.—The lazaret is on the beach, about half an hour's walk from the town. Its site is reported as healthy and airy. The hotels of the town provide bedding and food to the passengers, and there is a shop close to the lazaret for the less wealthy passengers. The poor receive rations at the cost of the establishment.

Deputy Inspector of Hospitals, Dr. Robertson, in 1842 has described the lazaret at Beyrout

Turkey.

as "most wretched, and in a most unhealthy position. The neighbourhood is low and swampy; the rooms are filthy and damp, being open to the weather, and it is only wonderful that all who enter do not fall victims to disease of some kind, if not to plague. To this state of the lazaret I attribute the frequent attacks which the attendants suffered during the prevalence of plague. At Damietta travellers have been obliged to perform quarantine in a miserable shed on the sea-shore."

Dr. John Davy found the lazarets in Turkey "generally of a very bad description, and most of them totally unfit for the purposes for which they were designed. A very small number may be excepted; and even these, I believe, are worse than useless, owing to the ill manner in which they are conducted. The best lazaret in the empire is understood to be that at Kouleli, on the Asiatic side of the Bosphorus; it was built for a cavalry barrack."

It would appear from Dr. Davy's report, that inmates of this lazaret were liable to contract the plague during their sojourn of quarantine.* He adds, "If the lazaret at Kouleli is the best in the Turkish territories, that at Costanjee is probably the worst; for it is hard to imagine anything worse. It is a low hut, not unlike an Irish cabin, divided into three small cells, without fire-places or windows, with no intended passage for air or light, excepting by the door, and with the naked ground for a floor."

Nine years subsequently to Dr. Davy's official inspection, a medical writer stated, that "much disease is generated, and many lives have been, and are annually being, sacrificed to the system of the lazaret in the Levant. We are informed by an officer lately resident in Palestine, and holding an official position there for several years, that he and his lady suffered severely from a fever contracted in a wretched lazaret at Jaffa, where they were immersed for 21 days, the place being unfit for the reception of human beings, and rife in everything likely to generate plague or cholera."

Cargoes are sent to the lazarets at Constantinople, Rhodes, Cyprus, Beyrout, and Trebizond. The processes employed are aeration, fumigation, and immersion.

At Trebizond, "all goods arriving from the Circassian and Abussah coasts are put in quarantine without distinction; but no means of special purification exist."

When sickness occurs on board a vessel in quarantine at Constantinople, the patient is visited by the medical officer of the Board of Health at the public cost.

At Rhodes the quarantine physician affords advice gratis to the sick, when required. If a private physician attends, he must undergo the same quarantine as the sick.

At Beyrout the lazaret doctor visits the patient at a distance, without touching him, gratuitously.

At Trebizond "if sickness occurs on board a vessel in quarantine, nature is left to take its course."

When a vessel is in a foul condition on arrival at Constantinople, no inspection is made. It appears the same holds true in most other Turkish ports; nor is any inspection made of a vessel prior to granting bills of health before departure.

TARIFF OF QUARANTINE CHARGES at Constantinople and other Turkish Ports.

1. For granting bills of health, from two to twenty-four piastres, according to the tonnage: one-half the sum is charged for visaing the bill.

2. Interrogating a vessel upon arrival, from two to twenty piastres, according to tonnage.

3. On vessels while in quarantine, from eight to thirty-five piastres daily. The health guard placed on board to have 10 piastres and his food.

When passengers are landed in the lazaret, there is a daily charge for the health guards; also for fumigation, and other processes.

If merchandise has to be purified, a charge of from one to four piastres is made per bale, according to bulk. For valuable merchandise, whose disinfection is difficult, the charge varies from four to fifteen piastres per bale.

On live quadrupeds the charge is according to size: a sheep or goat has to pay 20 paras; a bullock or horse two piastres: for poultry, one para per head suffices.

The usual quarantine charges on a merchant vessel have been stated to be from 5*l.* to 6*l.*, not including the lazaret dues on merchandise: these are four piastres, or 9*d.* for each package.

PORTS IN THE BLACK SEA, &c.

Ports in the Black Sea, &c.

THE quarantines in the Black Sea, whether in Turkish or in Russian ports, appear to be in a state either of complete abeyance or of irregular execution.

Galatz.—Since the Russian war in 1854, there has been no quarantine here, or at other Moldavian and Wallachian ports in the Black Sea. Before that period the quarantines enforced

* This building seems to be the barrack which was for some time used for the British troops in 1854-55, and whose sanitary condition was found to be so bad, from the immense amount of stable and latrine filth under and around certain parts of it.

enforced by the Russian authorities were of the most stringent character. All arrivals from any Turkish port had, without exception, and without regard to the nature of their bills of health or to their condition, or that of the place from which they came, to discharge their cargoes. Then the sails, running rigging, and men's clothes, were all put in the hold, and there fumigated for 24 hours, the crew being meanwhile on deck. When the hold had been well aired, the crew had to strip naked, leaving the clothes they had worn on deck, and go down, and put on the clothes that had been fumigated, the other clothes being taken to the lazaret for fumigation. Passengers had to undergo a similar process. The quarantine of the vessel then commenced after this *spoglio* (as the above process of disinfection and purification was called), and it varied from seven to forty days.

All this while, arrivals from a Russian port in the Black Sea with clean bills received pratique at once, provided they had kept on the Russian side of the Danube on their way up.

River craft navigating between ports in the Principalities had to carry a health office guardian, or to undergo quarantine.

Prior to 1854 there was a very good lazaret at Galatz; it has since become dilapidated. At Ibraila also the lazaret is quite out of repair.

When sickness did occur on board a vessel in quarantine, the lazaret doctor, who was paid by the Government, saw the patient, but was not allowed to touch him.

No inspection was ever made of vessels, whatever was their condition, before granting bills of health.

Moldavia and Wallachia were at times surrounded by pickets of soldiers, for the triple purpose of police, customs, and health office. Their duty was to prevent intercourse with Russia when the plague was in Odessa; also to prevent the entrance of diseased cattle when murrains prevailed in the southern provinces of that empire.

Soukum Kale.—The diseases which render arrivals here subject to quarantine are plague, and all other diseases of a typhoid nature. It varies from four to fifteen days, according to the extent and malignancy of the sickness.

Last year (1858) two coal vessels with clean bills were quarantined in consequence of having communicated with Constantinople, which, like all other ports in Turkey, was suspected, owing to the plague at Bengazi.

No difference is made in favour of merely having a medical officer on board, but a distinction may be made in favour of men-of-war and yachts.

There is a lazaret of four wooden huts in a marshy unhealthy spot.

No inspection is ever made of vessels before granting bills of health.

The average annual number of vessels arriving is about 300.

Taganrog.—This is a pratique port. The nearest quarantine station is at Kertch (where there was an extensive lazaret establishment prior to the Russian war in 1854-55), about 300 miles distant.

The visitations of cholera in 1847-48 gave rise to no quarantine restrictions.

Trebizond.—The quarantine at this port on the coast of Asia Minor has been described in a previous page.

Ports in the Black
Sea, &c.

EGYPT AND BARBARY.

It was towards the end of 1841 that the organic regulations respecting quarantine in Turkey were introduced into these countries, as well as into Syria. For several years, however, previous to that date, quarantine measures had been enforced at Alexandria, Cairo, Beyrout, &c., on the recommendation of the local Board of Health, of which the consuls of the European powers were members, and often with great severity to persons, and heavy expense and interruption to commerce. Infractions of the rules were sometimes punished with death under the stern rule of Mehemet Ali. Notwithstanding the rigour of the system, the plague had continued to prevail in Alexandria and other towns. Repeated complaints and remonstrances were addressed by British and other residents against the practice pursued, as appears from the Despatches of Consuls Stoddart and Barnett, in the Parliamentary correspondence on quarantine regulations in foreign countries, 1836-43; and many intelligent travellers denounced it as worse than useless, and perfectly absurd. Persons could hire a house to perform their quarantine under the surveillance of a guardian, who for a few piastres would allow them to do as they pleased.

It appears doubtful whether the existing system is more efficient for the object professed.

In the present year (1859) quarantine has been imposed at Alexandria on all arrivals without exception from Bengazi, Tripoli, and Barbary, and the quarantine will be continued, even although the bills of health from these places should be clean, until it is ascertained that the plague has completely ceased for a certain period.

In ordinary seasons, there is no regulation requiring that all arrivals from any country should be put in quarantine without respect to their bill of health.

The quarantine against the plague is for 20 days when the disease exists in the port of departure, and the vessel is laden, and for 15 days if without cargo.

When the disease is only suspected, the quarantine is for 15 or for 10 days, according as the vessel is or is not laden.

Egypt and Barbary.

Egypt and Barbary.

The quarantine against the cholera is for five days after arrival, the days of departure and arrival being included in this period. If a medical officer is on board, the voyage is included. If any case of the disease has occurred on board, or exists on arrival, a quarantine of ten days is imposed, and the sick must be separated from the well.

The quarantine against yellow fever is from five to seven days, when no case of the disease has occurred on board. The period may be reduced to three days when the voyage has exceeded 30 days without any sickness.

In the event of typhus or small-pox being on board a vessel on arrival, a quarantine is imposed at the discretion of the health superintendent.*

Any irregularity in the bill of health may occasion a quarantine of observation, determined by circumstances as to its duration.

A tabulated list of vessels put in quarantine at Alexandria in 1858-59 is sent.

When a medical officer is on board a vessel subject to quarantine, and there is also no cargo, the voyage is generally included in the period affixed. Hence, ships of war and yachts have this advantage.

According to the organic regulations of Turkey which are in force here, a period of 30 days after the last ascertained case of sickness in an infected port of departure must elapse, before free pratique is granted to arrivals.

The lazaret is situated on the sea shore to the east of the city. It contains 49 different chambers, and has accommodation for 1,000 persons.

Cargoes are sent to the lazaret as required by the regulations, for purification and disinfection. The classification of articles into susceptible and non-susceptible, as therein appointed, is still retained.

When sickness occurs in a vessel in quarantine, the medical intendant of the port will permit, if the disease be not contagious, medical aid to be sent at the cost of the sick, or of the ship.

According to strict regulations, every vessel on arrival, and also before departure, should be inspected; but hitherto this practice has not been carried out, in consequence of the convention of the international sanitary conference of Paris having not yet been ratified by the Sublime Porte. For the same reason, no inspection is as yet made of vessels previous to bills of health being granted to them on leaving this port.

With respect to quarantine measures by land, "several cordons have been established since 1831 to prevent the spreading of the plague and the cholera; but they were unsuccessful. Last year (1858) when the plague appeared at Bengazi, the Sanitary Board here attempted to establish a military cordon from Aboukir to the Lybian desert, and around the city. Numerous infractions of the cordon took place, especially by smugglers. The pestilence did not reach to Egypt; the exemption was due more to the remoteness of the infected localities than to the operation of the cordon. The caravans from the desert preferred to return from whence they came rather than to submit to the quarantine which would have been imposed upon them."

TRIPOLI.

The quarantine system is the same as at Alexandria.

A tabulated list of vessels placed in quarantine during 1856-57 and 1858 has been sent.

For the plague, the quarantine on men-of-war is shorter by three days than on merchant vessels.

For the cholera, the days of the voyage are included when a medical officer is on board.

For 30 days after the plague has ceased in a place, all bills of health delivered at the health office are still considered to be foul; after that period they remain suspected until orders are received from the Supreme Board of Health of the empire.

There is a lazaret on the mole of the harbour 300 yards from the walls of the town. "With the exception of being in a very damp situation, it is well ventilated and airy. About 20 yards from the lazaret is the parlitorio, where captains of vessels arriving are interrogated previous to being admitted to pratique. Letters are fumigated. The apartments are quite unfurnished, and the inmates must prepare and cook their own food."

Cargoes are sent to the lazaret. The division of articles into susceptible and non-susceptible is retained.

When sickness occurs in a vessel in quarantine, the quarantine physician attends, but without communicating with the sick directly, and at the cost of the patient.

In 1858, a cordon was placed on the eastern frontier of the province of Tripoli to prevent the introduction of the plague from Bengazi. The organization of the cordon was so imperfect that no inference can be drawn from it. Happily, the province was preserved from the pestilence.

At that time, arrivals not only from Bengazi but also from Malta were put in quarantine.

* The British consul, Colonel Barnett, in a Despatch to the Earl of Aberdeen, 21 May 1846, mentions the arrival at Alexandria of the packet from Syria, with the family of the late Bishop Alexander on board. One of the children had dysentery. An English physician from the shore "was only permitted to see the child at a distance, and could not therefore give that attention to the case which it required." Upon the remonstrance of the consul, "orders were in consequence given that Mr. Farquhar should be allowed to touch the child on his adopting the same precaution, dipping his fingers in oil, as is employed in plague cases."—*Correspondence respecting the Quarantine Laws, 1846.*

UNITED STATES.

United States.

EACH State of the Union has hitherto had its own separate and independent regulations respecting the practice of quarantine, and these regulations have been framed in each without regard to what were in force in any other State. The result has been a general want of uniformity, and on several points a notable discrepancy in the system pursued, or at least in the laws promulgated thereon, in different ports, not far distant, and in constant communication with each other. That such a state of things, which was at any time liable to hamper commerce and freedom of intercourse without affording any reliable protection to the public health, stood in need of reform, had long been felt by the leading medical men in the Union, as well as by others whose interests were more immediately concerned.

In 1857, an influential convention of delegates from all the principal seaport towns was formed for the examination of the subject, and their first meeting was held at Philadelphia, at which it was unanimously resolved that "The present quarantine regulations in operation in most of our States are inefficient, and often prejudicial to the interests of the community."

Two subsequent annual meetings have been held at Baltimore, and last year at New York, and the most lively interest is everywhere evinced in the preliminary inquiries which have been set on foot respecting quarantine and other departments of sanitary science, with the view of adopting a more uniform and enlightened legislation throughout the country. Valuable reports of their proceedings have been published.

Notwithstanding the diversity of local Acts in different States, and the nominal stringency of the regulations in some, the practice of quarantine in American ports has seldom or never been so vexatious and oppressive as in most countries of Europe, in consequence chiefly of the ample discretionary powers vested in the medical officer and Local Board of Health responsible to the community by their annual reports.

NEW YORK.

The regulations in force at the present time are, that "All vessels from foreign ports throughout the year, and all vessels from domestic ports south of Cape Henlopen (lat. 38° 45' N., and long. 75° W.), between the 1st of April and the 1st of November, shall upon their arrival be subject to the visitation of the Health Officer and Quarantine."

It is especially against the risk of the introduction of yellow fever from the south during the summer months that the precautions are directed.

"All vessels from any place where yellow fever existed at the time of departure, or on board of which during the voyage any case of such disease shall have occurred, and which shall have arrived between the 1st of April and the 1st of November, shall remain at quarantine at least 30 days after arrival, and 20 days after the cargo shall have been discharged, and perform such further quarantine as the Mayor and the Commissioners of Health may prescribe, unless the Health Officer with the approval of the Commissioners of Health shall grant a permit for said vessel and cargo, or both, to proceed."

When cases of cholera, small-pox, or typhus exist on board a vessel on arrival, the vessel is detained at the quarantine station, and the following measures taken:—

Cholera.—Immediate discharge of the passengers and detention of the same on the quarantine grounds until five days after the occurrence of the last case of such disease among them; the vessel being thoroughly cleansed, fumigated, and ventilated before being permitted to proceed to the city.

Variola.—Vaccination of the passengers and crew, and detention of the same for five days after the occurrence of the last case of the disease on board.

Typhus.—Discharge of the passengers, fumigation, and ventilation of the vessel.

A list of all the vessels having, or having had, cases of yellow fever on board, and arriving from infected ports during 1858 has been sent.

No distinction in the quarantine imposed is made in favour of any vessels; and the presence of a medical officer on board cannot influence or modify the decision of the Board of Health, with whom rest the measures to be taken in all cases. When the cessation of a disease in the port of departure has been officially announced, free pratique is at once granted, except the disease be yellow fever, in which case the quarantine restrictions, as already explained, remain in force between April and November.

The quarantine establishment and the Marine Hospital are situated on Staten Island, in the harbour of New York, five or six miles below the city. They were burned down in September 1858 by the residents in the neighbourhood, who had long complained of having the quarantine station so near to their dwellings, and insisted on having it removed to some place lower down the harbour. The inmates had all been taken out of the buildings before they were set fire to, and distributed about wherever temporary accommodation could be found. Many of them were yellow fever patients; all recovered with the exception of one, and without ill effects to the immediate attendants or any other persons.

There were warehouses attached to the establishment for the reception of infected cargoes; but the increasing population in the neighbourhood had made the further use of them inexpedient. Barges, moored at about 1,000 yards from the hospital, are now used instead for

United States.

the storage of infected cargoes. Rags, hides, hair, wool, and cotton are considered the articles most susceptible of infection. Rags are immersed while lightering, and freely exposed to the air.

Fumigation with chlorine is considered sufficient for the disinfection of other cargoes. Sugar and molasses, the principal and almost exclusive article of importation, are sufficiently purified by the lightering.

All the sick in vessels in quarantine are treated in the Marine Hospital, to which they are sent by orders of the Health Officer. Sailors and emigrants are gratuitously attended. Citizens are provided for at their own expense, and if unable to pay, at the expense of the vessel if passengers, or at the expense of the city if residents thereof.

Vessels arriving are inspected (boarded) by the Health Officer; and if their condition is unsatisfactory, they are thoroughly cleansed before they can proceed up to the city. Fumigation with chlorine is employed.

Records of the sanitary condition of vessels are kept only by the respective health officers (who are frequently shifted), for their own individual purposes. No records of former years are on hand.

No sanitary cordons have been adopted on land, except in the case of districts infected with yellow fever, and "then by interdicting the visitation of infected localities."

The "Laws relative to Quarantine, and to the Public Health of the City of New York," a copy of which has been sent, are of the date of 1858. Their administration is vested in the City Board of Health, which consists of the Mayor, and the Commissioners of Health. Large discretionary powers are left to the Board. Annual reports by the physician of the marine hospital at quarantine, and also by the medical inspector of the city are published.

BOSTON.

Emigrant vessels from Europe are subject to quarantine at all seasons; also, during the summer months, vessels from the West Indies and the southern ports, if sickly.

The diseases for which vessels are liable to be detained are ship fever, cholera, yellow fever, and small-pox. The sick are removed to the hospital on shore, and the ship is detained to be thoroughly cleansed and purified. Much is left to the discretion of the port physician.

No list of vessels put in quarantine is kept.

The quarantine hospital is on Deer Island, at the entrance of the harbour, seven miles from the city. The tariff is one dollar *per diem* for each patient.

Cargoes have been landed at the lazaret, but not of late years.

Medical assistance is provided for the sick on board vessels at the public expense.

Vessels on arrival are visited by the medical officer, who makes a thorough inspection, and if they are found foul or badly ventilated, the hatches are ordered off, the vessel thoroughly pumped, the hold and between decks fumigated, and repeatedly washed. A record is kept.

PHILADELPHIA.

Under the Act passed January 1818, for establishing a health office, and to secure the city and port of Philadelphia from the introduction of pestilential and contagious diseases, &c., the existing quarantine regulations appear to be framed. Their execution is vested in the Board of Health. Two physicians are appointed, one to reside at the lazaret, and the other in the city, for the superintendence of all matters relating to the health of the community whether by sea or land.

The lazaret, or marine hospital, is on an island, about nine miles from the city.

All vessels are subject to quarantine inspection from June 1st to October 1st, when there is no epidemic disease in their ports of departure; otherwise, the inspection is continued till the setting in of frost. Unless actually infected, they are not detained.

All contagious or infectious diseases, especially yellow fever and small-pox, on board, render vessels liable to be quarantined.

The duties of the lazaret physician will be seen from the following rules:—

"On boarding the vessel, he shall assemble the crew and passengers on deck, and examine personally into the state of their health; such as may be sick to be visited below."

"Such vessels as, upon a close examination (which must be minute, strict and accurate), he shall ascertain to have arrived from healthy ports, with a healthy crew, to be in a perfectly clean condition, to have a sound cargo, not liable to produce infection, and that no person has died on board during the voyage of any malignant, contagious, or otherwise suspicious disease, shall at once be permitted up, he giving to the master thereof a certificate of the facts."

"In every case, previously to permitting a vessel to pass up, he must ascertain that the bilge-water has been changed by pouring fresh water into the pumps and continuing to work them until nothing but pure water is discharged. No vessel whatever is to be permitted up, until her bilge-water is rendered perfectly pure."

"All vessels not answering to the above description he shall detain, and await till the orders of the Board of Health be ascertained. Sick persons, however, are to be landed (at the marine hospital) without delay; ventilation of the hold, cabin, and fore-castle to be at once commenced, and all articles of an offensive nature taken from on board."

Cargoes are occasionally landed at the lazaret and placed in the State storehouses, where they are purified when necessary.

Bills

Bills of health are not generally given to vessels leaving. No previous inspection is made. United States.

No sanitary cordons have been employed since 1804-5.

BALTIMORE.

The Quarantine Ordinance (1849) enacts that "it shall be the duty of the marine hospital physician or his assistant to carefully inspect the condition of all passengers, and passenger ships, or vessels, arriving at this port from foreign countries, and whenever, in their opinion, the health of the city may be endangered, whether from the actual presence of disease, or from an unclean condition of the ship or passengers, to require such ship to come to anchor at the quarantine ground, and there remain until all the passengers have been removed, and the ship thoroughly cleaned and purified; all expenses of purification and removal, and all other expenses incurred by the marine hospital physician, to prevent the introduction or propagation of contagious or infectious disease to be paid by the master, owner, or consignee of the ship.

"The marine hospital physician or his assistant may, when either of them deem it necessary to prevent the propagating of small-pox or varioloid disease among the crew and passengers of a vessel, vaccinate any of the said crew and passengers, and charge 25 cents per person for performing the said duty."

No record is kept of the vessels put in quarantine.

No distinction is ever made in favour of any arrivals.

The marine hospital (which is the lazaret) is situated on the opposite side of the river from the town, about 2½ miles distant from it.

Cargoes from greatly infected vessels are landed at the lazaret. Wool, cotton, hair, and hides are considered especially susceptible; also rags, whether loose or in bales. Silk, linen, and paper are considered susceptible in a less degree. Those portions of a cargo of an infected ship likely to retain the infection are landed and duly ventilated; the vessel and rest of the cargo are purified by ventilation, fumigation, &c., and detained in quarantine, at the discretion of the physician.

All the sick are at once removed to the marine hospital; the rest of the crew and passengers are detained on board as long as may be required for safety.

There is no regulation requiring a vessel before leaving the port to be inspected.

RICHMOND.

Vessels arriving from the West Indies, or any port on the American Continent south of latitude of Cape Henry, or from any port of the Coast of Africa, are examined by the health officer, before being allowed to proceed to the city between the 1st of May and 1st of November, whether their bill of health be clean or foul.

Vessels having had during the voyage, or having on arrival, cases of yellow fever, African fever, cholera, small-pox, or typhus, are liable to be examined by the health officer, without regard to season or port of departure.

The quarantines imposed are determined by the quarantine officer and Board of Health.

In the case of men-of-war and yachts from suspected ports, but with no sickness on board, the crew are at once allowed free pratique, while the ship may be detained in observation for from two to ten days.

There is no lazaret at or near Norfolk, but steps have been taken to have one established.

There is a marine hospital, but infectious cases are not admitted.

When sickness occurs on board a vessel the health officer will attend, but not at the public cost.

An inspection of foul ships is always made and the needful purifications employed.

Before giving a clean bill, the health officer examines the vessel, and gives a certificate, counter-signed by the consul of the nation to which she belongs.

SAVANNAH.

The existing quarantine regulations are based upon an Act of 1793; divers additions and modifications have at different periods been made, without materially affecting their nature; they are directed chiefly against yellow fever and small-pox, and their execution appears to be left to the discretion of the health officer and Board of Health.

The lazaret is situated three miles from the city; cargoes are not landed.

Medical assistance is provided for the sick at the public expense.

No sanitary inspection is made of vessels prior to granting bills of health.

CHARLESTON.

The following are the existing regulations respecting quarantine:—

"All vessels, direct or indirect, from the West Indies or from any place in America, in the ordinary passage from which they pass south of Georgia, between the 1st of May and 1st of October, shall remain in quarantine for at least 30 days after their arrival, and at least 20 days after their cargoes have been discharged, and they shall perform such other quarantine as the port physician shall prescribe."

* The port physician states, that "he never allows a vessel that has had a case of yellow fever on board to come up (to the city) from quarantine after the 1st of April.

United States.

"All vessels from any place, including islands, in Asia, Africa, or the Mediterranean, are also subject to such quarantine as the port physician shall prescribe."

With respect to the crews and passengers, "persons arriving in vessels from infected ports shall remain in quarantine for 12 days after the sailing of their vessel from her port of departure, and 15 days after the last case of infectious or pestilential fever shall have occurred on board, and eight days after her arrival in quarantine, unless sooner discharged by the port physician."

"Bills of health are not regarded; they cannot be relied on."

"If vessels arrive between the 1st of October and the 1st of May with any pestilential or infectious fever on board, or if any case of such fever has occurred during the voyage, both vessel and passengers are subject to such quarantine as the port physician shall prescribe."

The same regulation applies when typhus fever, small-pox, or any other infectious disease is on board a vessel.

There is a lazaret on a small island, between six and seven miles from the city.

Cargoes are not sent to the lazaret; they are allowed to come up to the city in lighters. No means are used for their purification.

Sick persons are attended by the lazaret physician at the public cost.

All vessels are inspected on their arrival at the quarantine ground, the bilge-water is pumped out, and all needful means used for their cleansing and ventilation.

A record is kept of the sanitary condition of vessels put in quarantine.

Consul Bunch, in his letter to Lord John Russell, transmitting his replies to the queries of the National Association, alludes to the absurd and mischievous operation of quarantine upon the trade of Charleston, and expresses his hope that the results of the inquiries now being made by the National Association may be circulated in foreign countries.

MOBILE.

Yellow fever is the only disease for which quarantine is imposed. The quarantine is left to the judgment of the medical officer; generally, he visits the vessel, and if no disease is apparent among the crew and passengers, he permits her to proceed to the town. If disease has developed itself, the vessel is detained in the bay until the sick are recovered.

Small-pox patients are required by the municipal regulations at all times to be sent forthwith to the city pest-house.

There is a Bethel ship, used as a seaman's hospital, moored in the bay, and open for the reception of all cases of sickness; the charge is a dollar per diem for each patient.

When yellow fever appears in a vessel in the bay, the Board of Health sends down a physician to attend to the sick and to examine the vessel.

The disease is prevalent in the town, usually commencing in July and lasting till October. It is not known to have ever extended to the shipping in the bay.

NEW ORLEANS.

The present Act "to establish Quarantine for the protection of the State" bears date March 1855.

From on or about the 15th of April, all arrivals from Rio Janeiro, the West Indies, and the Gulf of Mexico are liable to a quarantine of not less than 10 days, whether the bill of health from these places be clean or foul. This quarantine continues usually to the end of October or beginning of November. After that date, and until the next proclamation of the Governor, all vessels are allowed to enter the port at once, unless there is actual sickness on board, without reference to their port of departure, or whether any contagious disease exist there or not.

On the 15th of April 1859, arrivals from Rio de Janeiro, Trinidad, St. Vincent, St. Thomas, Porto Rico, St. Domingo, Jamaica, and Cuba, Vera Cruz, Tampico, and Aspinwall, were declared subject to the above-mentioned quarantine of 10 days.

The quarantine station is on the Mississippi, about 70 miles from the city. Cargoes are not as yet landed at the lazaret, but warehouses are being built for the purpose, and when they are completed vessels will have to discharge their cargoes there. No record is kept of the sanitary condition of vessels put in quarantine. Quarantine was first established at New Orleans in 1821, the Board of Health having full power to enforce its regulations in the most rigid manner. During the three subsequent years, the city was visited by two epidemics, and the quarantine laws were repealed in 1825. They were not re-enacted till 1855.

MEXICO, BRAZIL, BUENOS AYRES, CHILI, PERU.

Mexico, Brazil,
Buenos Ayres,
Chili, Peru.

MR. CONSUL GIFFARD, at Vera Cruz, says:—"There is no legislation in Mexico respecting quarantine; the Board of Health of the town has unlimited authority. No register of its proceedings is kept. When a vessel arrives without a bill of health, she is usually sent off to Green Island (an uninhabited island, about two leagues off) for a week or ten days, before she can enter the harbour. If any case of serious disease has occurred during the voyage, the ship has to perform a quarantine, the duration of which is measured by the gravity of the

the case; usually from 10 to 20 days. Cases of small-pox and cholera are never overlooked. All other diseases are generally dealt with more leniently."

At Tampico "quarantine is not practised."

The same remark, as to the absence of all quarantine regulations, applies generally to the ports in Panama, Guatamala, and also to Galveston and San Francisco.

While the quarantine regulations in the province of Caraccas, as appears from the replies of Mr. Stacey, our vice-consul at Puerto Cabello, are similar in point of stringency to those of Surinam, they were formally abrogated in 1850 in the neighbouring Republic of New Grenada, whose chief port is Carthagena, by a resolution of the Legislature assembled at Bagota, abolishing "quarantine, sanitary cordons, or any other measure which, under pretext of preventing the introduction or propagation of any disease, may prevent the free transit in the interior of New Grenada, or between this and any foreign countries."

In St. Domingo, no organised regulations exist. In 1851, when the cholera raged in Jamaica, the Government ordained the visitation of vessels arriving from any of the neighbouring islands; but the order soon dropped.

Mexico, Brazil,
Buenos Ayres,
Chili, Peru.

RIO JANEIRO.

Consul Westwood writes—"There is no regular lazaret nor quarantine establishment in this port, nor any specific regulations for vessels arriving from different ports."

By the Imperial decree of January 1843, all arrivals from foreign ports must be provided with a bill of health. When any death, even from an accident or falling overboard, has occurred during the voyage, an inquiry is instituted, which in reality subjects the vessel to from one to three days' quarantine. When contagious sickness exists on board on arrival, the vessel is placed under observation, and an inquiry is made; but except in extraordinary cases, she is seldom kept in quarantine beyond three days, at least when any trouble is taken to get pratique.

In October 1854, when the cholera broke out in Europe, and before it appeared in this country, special regulations were issued from the Home Minister's Department, whereby vessels arriving from ports infected with the disease, but without having had any sickness on board, were not admitted to pratique unless they had been at least 25 days on their voyage. If any case had occurred on board, the same period of 25 days must have elapsed from the date of the last attack, the passengers be landed at some place or places designated by the Government, and other precautionary measures enjoined by the Board of Health carried out.

"It was, however, soon found that these regulations could not be carried into force; and after subjecting several vessels to considerable detention and inconvenience, they were gradually relaxed, and on the appearance of cholera here were abandoned."

Mr. Wilson, acting consul at Maranhão, says, "Very minute and complicated quarantine laws and regulations have been devised by Dr. Paulo Candido, President of the Board of Health at Rio Janeiro for the entire Brazilian Empire; but they have never been put in practice at this port. As to the regulations drawn up here in 1851 and 1856, on the occasion of the epidemics of yellow fever and cholera in the country, some were badly conceived, most badly carried out, not a few with impunity evaded or broken."

MONTÉ VIDEO.

The diseases for which quarantine may be imposed, are plague, yellow fever, Asiatic cholera, and typhus fever. "When the bill of health is suspicious, the quarantine is from three to eight days; when foul, from 12 to 18 days, counting in both cases from the arrival. But the Board of Health has the power, and generally exercises it, of modifying the quarantine. The diseases mentioned above, and any other which the Board of Health may decide to be dangerous, such as small-pox, scarlet fever, &c.; the quarantines are from 20 to 30 days."

There is a lazaret on a small island in the middle of the bay; the accommodation is small and bad, and there is no resident medical officer.

The general impression among the medical men, says Mr. Wade, Surgeon of Her Majesty's Ship "Leopard" is, "That it would be better to do away with quarantine entirely than to continue it in the present very imperfect and loose form. At the present moment (1st March 1860), a quarantine of at least 20 days has been imposed on all arrivals from Rio Janeiro, yellow fever being said to have re-appeared there."

The annual number of arrivals is about 800. No fines or charges are levied in quarantine, except for subsistence.

CHILI AND PERU.

What Mr. Ancrum of the British Naval Hospital at Valparaiso says, in a communication addressed to Sir John Liddell, of the practice there, may be taken as applicable to the West Coast of the South American Continent generally. "In practice it may be said that, although some regulations with respect to the enforcement of quarantine exist in the Port of Valparaiso, they are not very definite (no copy of regular regulations exists at the office of the captain of the port), and they are always interpreted in the most liberal manner. With the exception of cases, when numerous and aggravated, of yellow fever occurring on board ships, arriving from the ports of Manganillo in Mexico, Panama, Guayaquil, or Callao, there is a tendency to disregard all quarantine regulations as likely to interfere with the freedom of commerce."

Appendix.

"Generally speaking, all cases of yellow fever which occur in vessels from the above mentioned ports are convalescent before their arrival at Valparaiso; but I have known several instances where vessels have arrived here with cases of the fever on board, and the patients have been permitted to be landed and treated on shore; and in no instance has the disease spread from the sick to other persons."

Fifteen years ago, three vessels from Guayaquil, with yellow fever on board, were sent off to the port of Quintero, 20 miles distant, and detained there for 40 days; and 10 years ago, Her Majesty's Ship "Calypso" was for the same cause, on arriving from Mexico, prevented having communication for several days with the shore. These are the only instances of the enforcement of any quarantine regulations I have been able to hear of during the last 15 years.

APPENDIX.

The INTERNATIONAL QUARANTINE CONFERENCE OF PARIS in 1851-52, with Remarks.
By Gavin Milroy, M. D., Fellow Royal College Physicians, &c. Reprinted from the Transactions of the National Association for the Promotion of Social Science, 1859.

IN 1850, upon the invitation of the French Republican Government, it was agreed among the different States which had coast possessions in, or close to the Mediterranean, that an international conference on the subject of quarantine be held in Paris.

Delegates, medical and consular, attended from France, Great Britain, Austria, Russia, Sardinia, Tuscany, the Papal States, Naples, Turkey, Greece, Spain, and Portugal.*

The omission from such an inquiry of the United States, which could have afforded the most valuable information on some leading points, was, I think, much to be regretted.

The first meeting was held on the 23d of July, under the Presidency of M. David, a Minister Plenipotentiary of France; and the subsequent meetings, 42 in number, took place during the next six months. The Conference finally closed on the 19th January 1852, receiving the thanks of the Prince President, then just elevated to permanent supreme power.

At one of their earliest sittings it was decided that only two kinds or degrees of quarantine be henceforth recognised, viz., "quarantine of observation," and "quarantine of rigour or strictness," and that the third or intermediate kind, "suspected quarantine," should be discontinued.

Quarantine of observation involves only the enforced detention and isolation of a vessel with all persons and things on board for a specified time, due attention to ventilation and cleanliness being required to be observed. In strict quarantine, besides a longer detention and a more rigorous isolation, other special precautionary measures, including the disembarkation of persons and the cargo in a lazaret, and their presumed disinfection by fumigation, &c., are imposed.

It was also resolved, that, in future, only two forms of bills of health should be used, the clean and the foul, according to certain diseases, to be presently mentioned, are ascertained and certified by proper local authorities (and not merely rumoured or conjectured as had often been the case hitherto) to exist in the port of departure.

The intermediate form, the suspected bill of health, was declared to be unnecessary.

Moreover, it was agreed that, in all cases of quarantine, without exception, the quarantine measures shall apply equally to the vessel, to the crew and passengers, and to the cargo, whatever be their condition as to health and soundness, or otherwise, during the voyage or on arrival.

It must always be borne in mind that the imposition of quarantine by no means implies that there has ever been any, even the slightest trace or suspicion of, sickness on board the ship which is detained. In the large majority of instances, the vessel and all on board have been and are quite healthy and sound; but the port from which she sailed being declared to be infected, all arrivals therefrom are presumed to be liable to convey and transmit some portion of the local infection. The quarantine is directed against the "*pays de provenance*" generally, and it therefore involves all persons and things coming therefrom, without reference to their actual and ascertainable condition. The first question of real importance which the delegates had to settle was, to agree among themselves what are the diseases against which this general quarantine should be declared to be necessary. After much learned discussion, it was resolved that the three diseases of the plague, yellow fever, and malignant cholera shall be held as, in an especial manner, demanding the use of quarantine measures for the protection of a country against their introduction from abroad.

This

* The consular delegates were M. David, Sir A. Perrier, MM. Lavison, Ebeling, Magnetto, Cecconi, Escalon, Falcon, Halphen, Vitalis, Segovia, and Silveira; and the medical delegates were Drs. Melier, Sutherland, Menis, Rosenberger, Bo, Betti, Capello, Carbonaro, Bartoletti, Costi, Monlau, and Grande.

This decision of the Conference was not adopted without much opposition, more particularly as regards the cholera. Austria protested against the necessity for general quarantine against this disease. She had given a fair trial to it in 1831, and had found it not only useless but disastrously mischievous; and the subsequent experience of other countries had confirmed the opinion she had formed on the subject.

Besides England, France and also Sardinia expressed their opposition to the measure. They had, indeed, continued a modified and mitigated use of it in some of their ports, but only out of deference to other states in the Mediterranean, and until some general agreement on the subject could be come to.

On the other hand, Naples and the Papal States resolutely maintained the necessity for as strict quarantine against the cholera as against the plague, and expressed their determination to resist any attempt to do away with it. The island of Elba, and many places in Italy, they said, had been preserved from the pestilence by the adoption of strict segregation and the exclusion of all suspected arrivals; and other places might enjoy the same immunity by like measures, if promptly and energetically used.

The delegates from Spain and Portugal, while admitting that it is mainly by carrying out sanitary measures on board merchant vessels, and also in all sea and river ports, which are very generally noted for their extreme unhealthiness, that the spread of cholera can be checked, contended that, until such measures have been universally and efficiently carried out, quarantine must be continued.

The Russian delegates stated that, in consequence of the unsuccess of the practice throughout Russia during the first epidemic in 1830-31, no regular quarantine measures were anywhere adopted on the second visitation in 1847. The epidemic of that and the following year proved, however, to be more widely spread and more fatal than on the former occasion; and as their Government had been informed that the conterminous countries of Sweden and Silesia had recently (1850-51), been preserved from the pestilence by the adoption of energetic restrictive precautions, Russia had not come to a definite decision on the question, but awaited the results of further trial and observation.

On two points, however, experience, they said, appeared to be conclusive, viz., that the disease, when occurring only in sporadic and occasional cases, is certainly not importable by intercourse; and, secondly, that the only *fomites* or articles capable of transmitting the cholera poison are bed or body clothes fouled with the excreta of the sick.

The final decision of the Conference, as carried by a majority of votes, was that all arrivals whatever from a place where cholera exists should be liable to a quarantine of observation of five complete days, the voyage being included in this period, before free pratique is granted.

If a case of the disease occurred during the voyage, the quarantine to date from the arrival of the vessel; and, if during the performance of quarantine, a fresh detention to be imposed from the date of each such occurrence.

With respect to cargoes generally, it was decided that they shall never be required to be disembarked into a lazaret, or be subjected to any other measures of purification, except free ventilation on board, and due attention to the cleanliness of the vessel itself.

These remarks apply to arrivals from countries actually infected with the cholera. A shorter quarantine of observation, namely, for three days only, including the voyage, might be imposed on arrivals from countries which a local board of health should consider to be compromised, either by proximity to an infected place or otherwise, although the disease may not yet have manifested itself.

Yellow Fever.—The quarantines against this disease are made much more severe than for the cholera. A "minimum" and a "maximum" period of detention are appointed, according to the length of the voyage, the occurrence or not of suspicious sickness during the voyage, and other circumstances to be determined by the authorities in the port of arrival.

The minimum period shall be from five to seven days, the maximum from seven to fifteen days.

Should the voyage have exceeded 30 days, and have been quite free from sickness, and should the vessel be found to be in a good sanitary condition on arrival, the detention may be reduced to three days.

With respect to the treatment of the cargo, simple aeration on board may suffice if the voyage has exceeded 10 days, and no sickness whatever has occurred since leaving the port of departure. But when any case of the disease has occurred on board, or if the voyage had been shorter than 10 days, a local board of health may require, if it sees fit, the same strict precautionary measures, viz., disembarkation and disinfection in a lazaret, to be adopted as in the case of the plague.

As numerous instances had come to the knowledge of the conference where long and expensive detentions had been imposed on the score of the yellow fever, and where it was afterwards discovered that no disease of the sort existed in the place at the time of the vessel's leaving it, it was decided by a majority of votes that the actual and ascertained existence of the fever in the port of departure should, in future, be duly certified by the local authorities, to warrant the issuing of foul bills of health. The delegates from Spain, Naples, and the Roman States, nevertheless, strongly resisted this decision; on what reasonable grounds it is not easy to imagine.

With the exception of M. David, who had resided for many years as French consul in the West Indies and America, none of the delegates seem to have had any practical acquaintance with the yellow fever in its native localities. As usual in such circumstances, their

Appendix.

views were derived rather from individual and detached statements of others, than from the sifted results of comprehensive observation. Several of the assertions made by the Spanish and Portuguese delegates were obviously incorrect.

The Plague.—Against this, the most dreaded because the least known, of pestilential diseases, quarantine has hitherto been directed with especial rigour, and in this spirit the decisions of the conference were framed.

As in the case of the yellow fever, a minimum and a maximum period of detention was imposed on all vessels, whether sick or well, coming from an infected or suspected port; the former to be of 10 days, and the latter of 15 days' duration.

An extra and special precaution was to apply to vessels arriving from any port in the Ottoman dominions, viz., of requiring that even when they brought clean bills of health, or, in other words, a certificate that the port of departure was quite free from any disease, a period of from eight to ten days (according as there shall or shall not be a medical officer on board) must elapse after sailing before free pratique shall be granted.

This precaution was to continue in force until the Turkish Government had completed the promised sanitary organization throughout their dominions, and also until European medical officers had been appointed by the different States represented at the Conference, to reside as official superintendents of health in the principal towns and seaports of Turkey, after the example set by France 10 or 12 years ago.*

It was decided that quarantine for the plague can only be duly performed in a port which is provided with a properly appointed lazaret, where cargoes and persons may be landed for fumigation and the other customary appliances of disinfection. Mere detention on board ship and exposure to the air should not be deemed sufficient.

Moreover, the old and obsolete (it had been thought) threefold classification of cargoes and articles of merchandise is virtually retained, viz., into the highly susceptible, or such as are deemed especially liable to receive and retain the poison germs of the plague, the moderately susceptible, and the non-susceptible. Woollen and silken goods still belong to the first class; cotton and linen goods to the second. Disembarkation into a lazaret, and fumigation, &c., are to be obligatory for the former; but these measures are optional, or at the discretion of the health authorities, for the latter.

Letters, books, and newspapers, also all live animals, shall continue to be treated as hitherto.

It is satisfactory, notwithstanding the retention of such rigorous practices, to know that all the delegates, with the exception only of the Papal and Neapolitan, confirmed the important result of Sir W. Pym's observations in 1844, that not a single authenticated instance of the plague has occurred in any lazaret throughout the Mediterranean among all the men engaged in handling the cargoes of infected or suspected vessels, or of a case of the disease having ever been known to be introduced into a country by cotton bales or other similar goods.

So much for the quarantines recommended by the Conference against the cholera, yellow fever, and the plague. In order to make, it would seem, assurance doubly sure on the side of presumed safety by such measures, it was resolved that, even after the certified cessation of any one of these diseases in a place, a specified period must elapse before clean bills of health should be issued therefrom, viz., of 10 days for the cholera, 20 days for yellow fever, and 30 days for the plague.

But in addition to these three diseases, the occurrence of other transmissible diseases, as typhus, small-pox, &c., on board a vessel, shall warrant the imposal of such quarantine as the local authorities may determine upon the infected vessel itself, but not upon the country whence she came, nor upon other vessels arriving therefrom. In other words, the quarantine shall be individual, not general; on the sick ship, but not on her port of departure. It is most necessary to attend to this distinction in all considerations of the subject.

Besides the various points already noticed, there were several other incidental and connected topics learnedly discussed by the delegates. One of the most important of these was the existing sanitary and hygienic condition of Turkey and Egypt, and the results of the system of health police which had been established in these countries 10 or 12 years previously. The remarkable cessation—may it prove permanent!—of the plague in the very countries which had for ages been regarded as the chief birth-place and nursery of the pestilence, and the fact of this cessation being nearly contemporaneous and concurrent with the establishment of comprehensive sanitary measures, were set forth, with numerous interesting details which cannot, however, be given here.

The defective sanitary state of most merchant ships, and the much-required improvement of the accommodation for the crews, as well as of their victuals and of the quality of the water supply, attracted much attention from the Conference. All the members concurred in the necessity of a more minute and vigilant inspection of vessels, and of all on board, both

* Among the recommendations of the Conference was that of advising the appointment of resident official physicians in different places in the West Indies, &c., for the accurate study, on the spot, of yellow fever. But abundant evidence, of the most instructive description, has since then been obtained, during the long and wide-spread prevalence of the pestilence in various countries of the New World since 1851. It is not more evidence that is wanted, but more of impartial discrimination and the simple love of truth in dealing with what is already before us.

both before departure and upon arrival. A large amount of sickness and many deaths during the voyage would thus be prevented, and the working efficiency of the crew materially increased.

The unwholesome condition of most sea and river port towns, and of docks and harbours, notoriously favouring the development and spread of all epidemic diseases, was also universally admitted; and great praise was awarded to the first General Board of Health in this country for the views promulgated by it on this head.

To mark their sense of the risk to the public health by the neglect of sanitary measures on board merchant vessels, the Conference resolved that ships arriving in a foul and unwholesome condition, even although they had clean bills of health, and no sickness had occurred during the voyage, should be treated as if they had foul bills, and be subjected to quarantine detention and purification.

In the converse case, however, no abatement of the usual restrictions was proposed.

Such is, I believe, an exact epitome of the six months' labours of the International Conference, drawn from the minutes of their proceedings, which were printed at the time by the French Government, but have not been made public. The convention, based upon and embodying the results of their deliberations, has hitherto been adopted by only a few of the represented powers, viz., by France and Sardinia, in the first instance, and at a later period by Portugal, Tuscany, and Turkey. This country, among others, has, most wisely I think, declined to follow the example; for there is certainly much in the proposed restrictions upon freedom of intercourse, on account of the apprehended risk of imported disease, that appears to me to be unnecessary, and therefore objectionable. And it is a fact not undeserving of notice, that in more than one of the countries which took part in the Conference, the quarantine system pursued since 1851 seems to be now actually more vexatious and oppressive than it was before.

Appendix.

Q U A R A N T I N E.

ABSTRACT of Regulations in force in Foreign
Countries respecting QUARANTINE, communicated
to the Board of Trade.

(Mr. Cooper.)

Ordered, by The House of Commons, to be Printed,
25 August 1860.

568.

Under 8. oz.