[Report 1917] / Medical Officer of Health, Liverpool Port Health Authority.

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

PORT OF LIVERPOOL.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

PORT SANITARY AUTHORITY.

FOR THE YEAR

1917.

[Ordered by the Port Sanitary and Hospitals Committee to be printed, 18th April, 1918.]

LIVERPOOL:
C Tinling and Co., Ltd., Printing Contractors, 53, Victoria Street.

1918.

PORT OF LIVERPOOL.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

PORT SANITARY AUTHORITY.

FOR THE YEAR

1917.

[ORDERED BY THE PORT SANITARY AND HOSPITALS COMMITTEE TO BE PRINTED, 18TH APRIL, 1918.]

LIVERPOOL:
C. TINLING AND CO., LTD., PRINTING CONTRACTORS, 53, VICTORIA STREET.

1918.

INDEX.

PORT SANITARY AUTHORITY

OF

LIVERPOOL.

REPORT FOR THE YEAR 1917,

BY THE

MEDICAL OFFICER OF HEALTH.

In accordance with the duty imposed by the Local Government Board in their General Order dated March 23rd, 1891, the following report covering as briefly as possible the operations of the Port Sanitary Authority during the year 1917 is herewith submitted.

The references include the following :—

(*a*) Measures adopted under the Cholera, Yellow Fever, and Plague and allied orders of the Local Government Board.

(*b*) Measures taken to ascertain and deal with any infectious disease existing on board vessels entering the Port of Liverpool, or which have occurred during the voyage.

(*c*) The administration of the Order of the Local Government Board with regard to imported foodstuffs.

(*d*) Action taken with regard to the sanitation of vessels.

(*e*) The supervision of the Emigrant traffic as regards disease.

Plague.

The universal distribution of Plague remains topographically in a similar position to what it was in the previous year 1916. In India it has been both endemic and epidemic, particularly in the Madras Presidency, Bombay, Calcutta, Colombo and Rangoon. Small outbreaks have occurred both at Aden and Malta, and cases have arisen from time to time during the year at Alexandria.

One, and only one, plague-infected rat was discovered on the Liverpool Dock Estate during the year, viz., in the month of March. No cases of plague occurred in man.

Several vessels which had landed cases of plague at Ports *en route*, were specially dealt with on arrival. All vessels from the following ports have been regularly visited and examined by the boarding Medical Officers, as well as vessels from other ports at which sickness had been reported:—Bombay, Calcutta, Karachi, Colombo, Rangoon, Rio de Janeiro, Bahia (Brazil) and Alexandria.

Cholera.

Cholera prevailed during the year in epidemic form in the Philippine Islands, where it has been accountable for a large number of deaths. It has also occurred in the provinces of Indo-China and Korea; small outbreaks were reported from Japan and China.

Typhus and Yellow Fever.

Typhus fever and yellow fever have prevailed in several districts which are in communication with Liverpool, but no cases have been imported.

Smallpox.

Smallpox has been prevalent in various foreign ports, and eight cases of smallpox were reported as having occurred during the voyage on vessels arriving in Liverpool.

On the 4th February the Russian vessel "Yaroslav," which had arrived from Archangel with a number of Italian reservists and refugees, landed her passengers and they proceeded to boarding houses in the City. One of the women refugees became ill, and was seen by a doctor, who ordered her removal to Brownlow Hill Hospital, where the serious nature of the disease was suspected and promptly communicated to the Health Department. The Italian reservists had by this time left the City, and information was accordingly at once given to the Naval and Military Authorities, all remaining contacts were kept under observation, and 68 members of the crew vaccinated, and the ship disinfected. There was no extension of the

disease amongst the passengers and crew. A carpenter who had been working in the neighbourhood developed smallpox and was removed to hospital.

Destruction of Rats.

Heavy losses are annually incurred by shippers and others in their wharves and warehouses from rat depredations. The incidence of plague is largely dependent upon the rat.

The trapping, destruction and examination of rats from ships and dock quays has been carried out as usual during the past year, and every precaution is taken to deprive rats of food, harbouring and breeding places.

The annexed tables give complete returns of the rats caught on ships or quays, with the number sent to the City Bacteriologist for special examination. A complete return of the 21,767 rats caught during the year 1917 by the Health Authorities of the City and Port of Liverpool is also given in Table 2.

We are indebted to various shipping companies who employ rat-catchers, and also to the Zeba Ratcatching Company, for supplying returns of rats caught and destroyed on vessels in the docks of the Port of Liverpool.

The following table gives a combined return of all rats caught and destroyed by shipping companies employing their own rat-catchers, by rat-catching companies, and by the Public Health Authorities.

PORT.		
On quays and vessels		58,802
CITY.		
In warehouses	3,651	
In sewers and other places	7,391	
		11,042
		69,844

TABLE 1.

Table showing the number of Rats obtained on ships and quays by the Authority's rat-catchers.

Year.	NUMBER OBTAINED.			NUMBER EXAMINED.			NUMBER DESTROYED.		
	From Ships.	From Quays.	Total.	From Ships.	From Quays.	Total.	From Ships.	From Quays.	Total.
1911	3,097	934	4,031	2,007	920	2,927	1,090	14	1,104
1912	3,472	1,098	4,570	2,311	1,054	3,365	1,161	44	1,205
1913	7,943	958	8,901	3,280	938	4,218	4,663	20	4,683
1914	10,083	944	11,027	5,264	917	6,181	4,819	27	4 846
1915	9,400	1,256	10,656	6,204	1,234	7,438	3,196	22	3,218
1916	10,881	1,678	12,559	7,064	1,312	8,376	3,817	366	4,183
1917	*9,174	1,551	10,725	6,379	1,457	7,836	2,795	94	2,889
Total.....	54,050	8,419	62,469	32,509	7,832	40,341	21,541	587	22,128

* 1,417 of these were obtained after fumigation

TABLE 2.

CITY AND PORT OF LIVERPOOL.

RETURN OF RATS CAUGHT, EXAMINED OR DESTROYED.

Date.	City.				Port.				City.		Port.		Total Caught
1917.	Warehouses, Stores, &c.	Sewers.	Other Sources.	Total.	Ships.	Quays.	Other Sources.	Total.	Examined.	Destroyed.	Examined.	Destroyed.	(City and Port.)
January	402	292	316	1,010	683	171	13	867	82	928	683	184	1,877
February	297	298	229	824	461	105	6	572	79	745	451	121	1,396
March	417	346	324	1,087	1,160	129	23	1,312	95	992	805	507	2,399
April	288	206	370	864	992	56	158	1,206	70	794	833	373	2,070
May	352	272	383	1,007	892	102	51	1,045	113	894	719	326	2,052
June	346	326	334	1,006	748	103	53	904	111	895	689	215	1,910
July	250	284	375	909	541	96	14	651	115	794	519	132	1,560
August	257	302	253	812	869	79	11	959	110	702	609	350	1,771
September	214	286	407	907	633	103	8	744	140	767	630	114	1,651
October	311	233	334	878	681	97	—	778	114	764	661	117	1,656
November	291	235	427	953	835	88	6	929	135	818	686	243	1,882
December	226	221	338	785	679	76	3	758	68	717	551	207	1,543
	3,651	3,301	4,090	11,042	9,174	1,205	346	10,725	1,232	9,810	7,836	2,889	*21,767

Number of rats caught (City)	11,042
Number of rats examined (City)	1,232
Number of rats caught (Port)	10,725
Number of rats examined (Port)	7,836
Total Number of rats caught (City and Port)	21,767
Total Number of rats examined (City and Port)	9,068

* These figures do not include rats caught or destroyed by various shipping firms employing their own rat-catchers or rat-catching companies.

Fumigation of Vessels.

Fumigation of vessels for the destruction of rats is effected by burning sulphur in open pots whilst the holds are empty, and if regularly carried out causes a marked reduction in the number of rats on board, the vessel often becoming entirely free of rats and remaining so for considerable periods. This method has been adopted by the United States Quarantine Service, and is not only thoroughly efficient, but is also economical in use, the cost of the sulphur being almost the only expense; it is also capable of being applied to any number of vessels simultaneously.

These fumigations are to be contrasted with the fumigations regularly effected in various Continental ports by means of expensive apparatus, using or evolving sulphur dioxide. These are designed to effect rapidly the fumigation of the holds whilst full of cargo. As the result of numerous enquiries, and the strict search of vessels carried out in Liverpool, it is found to be rare for more than two or three dead rats to be discovered after the completion of the operation or after discharge of the cargo, although the average number of rats trapped at Liverpool on vessels of a similar class that either have, or have not, been so treated on the homeward voyage is about equal. The non-discovery of dead rats on these vessels cannot, therefore, be due to any relative paucity of rats on board.

These ineffectual results depend mainly on the high absorbability of sulphur dioxide, especially by grain in bulk or sacks, but also depend, to a less extent, on insufficient time being allowed for the process to be effected. The fumigation is also confined to the holds, any rats in the upper works escaping. Further disadvantages in the use of sulphur dioxide gas for vessels with full cargoes are the liability for damage to be done to the cargo, especially foodstuffs, or to the fittings of the vessel.

These disadvantages are overcome in apparatus making use of carbon monoxide, or of flue-gases, as in the Harker method. These gases are not absorbed, and are not liable to damage cargo, plating, or saloon fittings. They would appear to be also cheaper in use, the raw materials being cheaper. The points against them, however, are various, the gases are inodourous, and therefore dangerous in use,

and whilst they destroy rats, they do not destroy fleas and other insects; these objections can be overcome to an extent by the admixture of small quantities of carbon bisulphide or carbolic acid.

To effect the complete destruction of rats on board, vessels must be fumigated throughout and not merely in the holds; otherwise sufficient rats will, in many instances, remain in the upper parts of the vessel to maintain indefinitely the rat population on board. The combination of the use of sulphur in the holds and of flue gases in the saloons, etc., would probably be the most desirable method in many cases. Such a process can only be carried out in dock, but once efficiently carried out the vessel may remain free from rats for some months.

In United States ports the use of hydrocyanic acid gas generated by chemical means has been found extremely valuable. The methods require careful application owing to the character of the gas.

Rat Guards.

Experiments made in previous years demonstrated that the rat-guards in common use could be easily traversed by rats. An improved type of rat-guard has been introduced, three feet in diameter, without a rim and with a flange that allows of a guard being maintained perpendicular to the mooring hawsers. The rats appear to be unable to cross these guards when properly adjusted. Constant attention is, however, required, or the guards become disarranged and permit of the passage of rats. Moreover, it is probable that other opportunities must frequently arise for the passage ashore of the rats, and in any case it is obvious that infected fleas can easily be carried ashore with the cargo, and be the means of infecting shore rats.

Chemical Analysis of Rats Found Dead.

The finding of dead rats upon vessels, quays, or in warehouses necessarily gives rise to the grave suspicion of rat-plague until the cause of death has been determined. In order that the actual cause of death shall be determined, sample rats found dead are sent to the Bacteriologist, and also for chemical examination for poison to the City Analyst. The subjoined table gives particulars of rats found dead during the year, and in which the Analyst detected poison, thus removing any suspicion of rat-plague:—

TABLE SHEWING RESULT OF CHEMICAL ANALYSIS OF RATS FOUND DEAD.

TABLE 3.

Date.	Vessel.	Where from.	Nature of Poison Found.
Jan. 20	Endymion	East London...	Arsenic.
,, 27	E. Prince's Dock	——	Barium.
Feb. 3	Elm Branch ...	Callao	Arsenic.
,, 12	Socrates	Rio de Janeiro	Barium.
April 10	Galicia	South American Ports .	Phosphorus.
,, 26	Austrian	Alexandria	Arsenic.
May 18	Thessaly	Buenos Aires...	Phosphorus.
June 1	Karina	Dakar	Arsenic.
Aug. 3	Tartary	Buenos Aires...	Arsenic.
Dec. 15	Tartary	Rio de Janeiro	Arsenic.

In order to obtain the fullest and most reliable information regarding rats and cases of sickness on ship board, certain questions are put in writing to the Master or Surgeon on arrival of the vessel in the river; these questions have been drawn up in the following form. Special instructions have also been issued by the Liverpool Port Sanitary Authority for the information and guidance of masters and ships officers, warehouse keepers and ratcatchers, on the subject of the danger from plague rats.

LIVERPOOL PORT SANITARY AUTHORITY.

S.S......*from* .....

via .....

arrived this.....*day of*.....191.....

1.—*Have any cases or suspected cases of Plague, Cholera, Yellow Fever or Small Pox occurred during the voyage?* ....

.....

.....

2.—*Have any deaths occurred during the voyage?*..... .....

.....

3.—*Have you had any cases of:*

Infectious Disease .....

Fever .....

Buboes .....

Diarrhœa .....

Skin Rash .....

Venereal Disease .....

4.—*Have you had any other sickness of any kind whatsoever? If so, please state its nature* ....

.....

.....

5.—*Have sick or dead rats been found on your vessel, or has there been Plague amongst the rats on board?* ....

.....

6.—*Have the holds been fumigated to destroy rats at any port during the course of the voyage or within previous six months?* .....

Port .....

Date .....

Duration of fumigation .....

Apparatus used .....

Number of Rats found .....

7.—*What are the numbers of persons on board?*

Crew — Native .....

European .....

Passengers — Native .....

European .....

All told _____

Signed.....

Surgeon or Master.

SPECIAL INSTRUCTIONS TO

Shipmasters and other Officers (including Stewards), Dockmasters, Wharfingers, Warehouse-Keepers, Rat-Catchers, &c.

Rats are largely responsible for the conveyance of Plague, and it is most important that all persons employed on shipboard, or whose business is in connection with dock quays, sheds, or in warehouses, should co-operate with the Sanitary Authority, and attention is called to the following suggestions:—

1. Any unusual prevalence in the number of rats on vessels, both at sea and in dock, on dock quays, or in warehouses, should be noted and reported.
2. *The presence of sick or dead rats* is of great importance, and *must be at once reported* to the Medical Officer at the Offices of the Port Sanitary Authority. Telephone No. Central 5666.

Danger is attached to the handling of dead or sick rats, and any found will be at once carefully removed by the Inspectors of the Port Sanitary Authority on being informed.

3. Encourage the persistent catching and destruction of rats by means of traps, poisons, sulphur fumigation (in vessels), &c.
4. Render each building as far as possible rat-proof, by concrete floors, or the use of sheet iron and other means, and render their harbourage near dwellings or rooms impossible.
5. Prevent the egress of rats from ships in dock by efficient rat guards on ropes, and one gangway only in use when the ship is not working.
6. Do not allow accumulations of waste food or garbage from ships on quays, and no dunnage, ropes, empty cases, barrels, or rubbish to accumulate which might attract and harbour rats.
7. All rats caught on shipboard must be burned in ship's furnace, and those caught on quays or warehouses must be drowned in a disinfecting fluid, such as Carbolic Acid Solution, so as to destroy the rat fleas.
8.* *No rats (alive or dead) shall be removed from ships* for sale or other purposes without the written permission of the Medical Officer.

LIVERPOOL CORPORATION ACT, 1913—

* Section 32—No live rats shall be brought into the City from any ship in the Port of Liverpool except for the purposes of the Port Sanitary Authority, and any person offending against this enactment shall on conviction be liable for each offence to a penalty not exceeding forty shillings.

TABLE 4.

INFECTIOUS DISEASE.

The actual number of cases of infectious sickness landed from vessels arriving in the Port of Liverpool during the years 1916 and 1917, and the comparison with the average of the preceding 10 years, is shown in the following Table :—

Diseases.	Number of Cases.		Average for the 10 years preceding 1916.
	1916.	1917.	
Smallpox	7	1	5·1
Scarlatina	8	3	13·8
Cerebro Spinal Meningitis	2	0	0·2
Poliomyelitis	0	0	0·0
Enteric Fever	27	23	41·1
Do. (suspected)	0	0	0·0
Diphtheria	9	4	8·4
Measles	32	9	29·6
German Measles	0	3	1·0
Whooping Cough	0	0	0·1
Erysipelas	8	7	6·0
Chicken Pox	10	2	8·7
Cholera and Choleraic Diarrhœa	0	0	0·6
Yellow Fever	0	0	0·4
Plague	0	0	0·4
Suspected Plague	0	0	4·8
Puerperal Fever	0	0	0·3
Phthisis	48	20	41·6
Leprosy	0	0	0·0
Totals	151	72	162·1

TABLE 5.

INFECTIOUS DISEASE.

The number of cases of infectious sickness reported to have occurred on Liverpool-bound ships during the years 1916 and 1917, and which were disposed of prior to the arrival of the vessel at this port, and the average of such cases for the preceding 10 years, are as follows :—

Diseases.	Number of Cases.		Average for the 10 years preceding 1916.
	1916.	1917.	
Smallpox	20	8	18·6
Scarlatina	0	0	1·6
Cerebro Spinal Meningitis	3	1	0·3
Enteric Fever	18	11	17·1
Diphtheria	2	1	3·5
Measles	19	4	5·6
German Measles	1	0	1·0
Erysipelas	2	2	0·8
Chicken Pox	2	1	5·0
Cholera and Choleraic Diarrhœa	0	0	5·8
Yellow Fever	0	0	3 8
Plague	1	2	2·0
Suspected Plague	0	0	1·3
Phthisis	0	2	3·2
Totals	68	32	59·6

Public Health (Shell Fish) Regulations, 1915

The Medical Officer of Health considered that the consumption of cockles gathered for the purpose of sale on the foreshore contiguous to the mouth of the river Alt was likely to be injurious to the public health. He accordingly made a representation to the Liverpool Port Sanitary Authority in accordance with the Public Health (Shell Fish) Regulations, 1915, with the result that the following Order was issued prohibiting the distribution for sale for human consumption of shell fish gathered from these layings:—

TO ALL PERSONS INTERESTED.

WHEREAS the Council of the City of Liverpool is the Port Sanitary Authority of the Port of Liverpool and the "Local Authority" for the purposes of the "Public Health (Shellfish) Regulations, 1915," and is hereinafter referred to as the Liverpool Port Sanitary Authority:

AND WHEREAS under the said Regulations the Liverpool Port Sanitary Authority received a report from the Medical Officer of Health for the Port of Liverpool that the consumption of Shellfish brought from a public laying situated within the District of the Liverpool Port Sanitary Authority is likely to cause danger to public health.

AND WHEREAS the Liverpool Port Sanitary Authority gave to the persons interested in the public laying situated in the area hereinafter described notice to appear before them on the 20th day of December last to shew cause why an Order should not be made prohibiting, as the circumstances may require, the distribution for sale for human consumption of Shellfish brought from the said public laying situated in the area hereinafter described.

AND WHEREAS a person interested appeared on the 20th day of December last before the Liverpool Port Sanitary Authority, and in the opinion of the Liverpool Port Sanitary Authority sufficient cause is not shewn why an Order should not be made as the circumstances require:

NOW THEREFORE WE, the Port Sanitary Authority of the Port of Liverpool, by this our Order and in pursuance of the powers of the "Public Health (Shellfish) Regulations, 1915," Do prohibit the distribution for sale for human consumption of Shellfish brought from the public laying situated between the points known as the Crosby Beach Mark and the North Outer Mark contiguous to the mouth of the River Alt in the County of Lancaster, within the jurisdiction of the Liverpool Port Sanitary Authority, unless such Shellfish have been relaid in pure water for a period of at least 2 weeks.

PROVIDED ALWAYS that this Order shall not apply to any Cockles or Winkles which before distribution for sale have been subject to a process of sterilization by steaming under pressure in a suitable apparatus for at least six minutes, or, in the case of Winkles, by boiling in water maintained at the boiling point for at least fifteen minutes of time.

Dated this 9th day of January, 1918.

EDWD. R. PICKMERE,
Clerk to the Port Sanitary Authority of the Port of Liverpool.

Malarial Fever.

During part of the year 1917 a considerable number of vessels arrived with several members of the crew suffering from malaria. In some instances almost every member of the crew was infected. During the month of October 252 cases of malaria were reported. Under these circumstances it was considered advisable to issue instructions to the masters in order to try and prevent the crew from becoming infected. Accordingly, after conference with the Liverpool School of Tropical Medicine, the accompanying circular was distributed to all the shipping companies concerned, and to the masters of all vessels on which cases were reported.

The danger of the importation of malaria is that it may again become endemic in this county. The attention of the Local Government Board was specially called to the circumstances.

ADVICE TO SHIPMASTERS.

1. Malaria is a disease which can both be prevented and cured. Man can only be infected through being bitten by a particular kind of mosquito which has previously bitten another person suffering from malaria. In order to protect the crew from infection, every member should be given preventive doses of quinine on the Saturday and Sunday before entering a port in which malaria is known to exist, and on each subsequent Saturday and Sunday whilst in that port.

2. The most convenient method to administer the quinine is by means of five-grain tablets, and 400 five-grain tablets of quinine sulphate should be provided for every ten men on board, to be taken as follows:—

On Saturday and on Sunday.	8 a.m., 15 grains quinine (3 tablets) 2 p.m., 15 ,, ,, 8 p.m., 15 ,, ,,	10 grain doses (*i.e.*, 2 tablets) only should be given to the weaker members of the crew.

3. In ports where malaria is known to exist, select an anchorage as far off from the shore as is possible. Allow no members of the crew ashore except when absolutely necessary, and even then limit their visits to daylight (as the mosquitoes are most active after sunset).

4. All the members of the crew should be provided with full-size mosquito nets and compelled to use them while in a malaria infected port. Should any of the crew develop the disease, if possible isolate him, and make him sleep under mosquito netting. Fumigate with sulphur the quarters in which he was sleeping before isolation. This will kill any mosquitoes and so prevent the rest of the men being bitten.

TREATMENT OF A PATIENT WITH MALARIA.

If he is able to take it, give him at once 15 grains of quinine (3 tablets), and repeat the dose in about three hours, and again in another three hours if the symptoms continue. After the attack, continue the treatment as shown in paragraph 2 for at least a month.

NOTE.—The quinine treatment may cause temporary deafness and noises in the ears for a day or two, but this is more than compensated by the great benefit gained.

Anthrax.

Seven cases of this disease with one death were reported to the Department during the year. Three of the patients were workers amongst wool and hair, two were dock labourers engaged in handling imported dry hides, whilst in two cases the source of infection was not traced.

The prevention of anthrax has engaged the attention of the Health Authority for many years. The docks and other places where workmen are liable to infection are frequently visited, and instructions given to foremen and labourers as to the danger of this disease; handbills, &c., have been issued so as to make its dangers known, and the advisability of seeking immediate medical attention emphasized.

Venereal Diseases.

The subject of venereal diseases is one of immense importance to a seafaring population. For some years it has been the practice for the Boarding Medical Officers at this Port to hand sufferers information and advice regarding the nature of these complaints, so as to prevent their spread, and urging the need of medical treatment.

A list of the various treatment centres is given, with the days and hours of consultation. These centres are free to the public, and attendance is without fear of disclosure as to the nature of the complaint.

The subject of venereal disease has already been dealt with in special reports of the Medical Officer of Health.

The following circular has been prepared on the **Health of Seamen,** and amongst the ailments referred to, venereal disease is one of the most important:—

Many of the ailments and illnesses which are associated with a seafaring life may be avoided by attending to a few simple rules of health.

If you would avoid these ailments attend to the following:—

1. Do not drink water from polluted or doubtful sources. Ice Cream and Uncooked Shell-fish frequently cause Typhoid Fever and Dysentery.

2. When taken at all, spirits should be consumed in the strictest moderation, care being especially taken as to the quality of the liquors obtained in bars in foreign ports.

3. Avoid exposure to the direct rays of the tropical sun and unduly prolonged exposure to high temperatures.

4. When in tropical ports, avoid sleeping uncovered on open decks or in quarters where mosquitos are likely to bite you, as malaria is frequently contracted in this way. When mosquitos are prevalent, sleep under cover of a mosquito curtain.

5. Serious lifelong illness may be contracted by sexual intercourse with loose women.

Any form of Venereal Disease, if untreated, may last a lifetime, and be transmitted to wife and children. If either of these diseases, syphilis or gonorrhœa (pox or clap) should be contracted, do not delay in consulting a properly qualified doctor at the earliest moment. Avoid all quacks and patent medicines.

It is commonly believed that when the temporary pain and discomfort are relieved, and the sore or discharge has disappeared, that the disease is cured. This is a great mistake, and neglect of treatment is a very common cause of prolonged illness, including stricture or paralysis.

Persons suffering from any form of venereal disease should, immediately they arrive in Liverpool, visit one of the following Institutions at once, where up-to-date treatment by specialists in these diseases may be had free of charge, and without any fear of disclosure.

It is especially important that attendances for treatment should be regular, until the specialist considers that the disease has been cured.

HOURS OF ATTENDANCE AT THE VENEREAL DISEASES TREATMENT CENTRES IN LIVERPOOL.

Institution.	*Day and Hours of Attendance.*
Royal Infirmary - Pembroke Place.	Monday, 12 noon. Wednesday, 6 p.m. Friday, 12 noon.
Royal Southern Hospital - Caryl St., nr. South Docks.	Friday, 2 p.m.
Liverpool Skin Hospital - 59, Pembroke Place.	Daily, 1-30 p.m. (Sundays excepted).
Skin and Cancer Hospital - Myrtle Street.	Daily, 1 to 2 p.m. (Sundays excepted).

INSPECTION OF SHIPPING.

Year 1917.

The Inspectors made 6,119 visits and re-visits to vessels during the year.

The following Table indicates the number of visits paid to vessels by the Inspectors during the year :—

TABLE 6.

Nationality.	Visits.	Re-visits.	Total.
British	3,908	1,745	5,653
Norwegian ...	110	65	175
Swedish... ...	17	12	29
Spanish... ...	22	50	72
Danish	7	3	10
American ...	49	24	73
Italian	6	4	10
Belgian	2	—	2
Russian	20	16	36
French	7	4	11
Dutch	4	1	5
Greek	7	9	16
Portuguese ...	3	2	5
Chilian	1	2	3
Japanese ...	8	9	17
Brazilian ...	2	—	2
Total ...	4,173	1,946	6,119

SUMMARY OF INSANITARY CONDITIONS.

TABLE 7.

Class of Vessels.	Number Inspected.	Number on which nuisances were found.	Per cent.
FOREIGN—			
Steamers	1,913	675	35·28
Sailing	25	3	12·00
Total	1,938	678	34·98
COASTWISE—			
Steamers	1,668	60	3·59
Sailing	567	18	3·17
Total	2,235	78	3·49

Nationality.	Number Inspected.	Number on which Nuisances were found.
British	3,908	692
Foreign	265	64
	4,173	756

TABLE 8.

STATEMENT SHOWING THE NUMBER OF LIVE CATTLE, &c., LANDED AND SLAUGHTERED AT THE FOREIGN ANIMALS WHARF (BIRKENHEAD, ALFRED AND WALLASEY LAIRAGES) DURING THE YEARS 1905 TO 1917 INCLUSIVE.

Year.	Landed.				Slaughtered.			
	Oxen.	Calves.	Pigs.	Sheep and Lambs.	Oxen.	Calves.	Pigs.	Sheep and Lambs.
1905	276,725	5	—	160,105	276,273	4	—	163,705
1906	270,853	5	—	94,948	270,245	5	—	95,250
1907	214,061	2	—	97,688	215,821	2	—	94,714
1908	180,283	—	—	76,334	179,872	—	—	79,315
1909	148,233	2	—	8,053	147,812	2	—	8,053
1910	89,613	3	—	304	90,430	—	—	304
1911	78,232	2	—	40,338	79,215	1	—	39,314
1912	19,167	—	—	14,251	19,167	—	—	14,251
	143,114	**819**	**69,016**	**335,291**	**140,854**	**810**	**67,586**	**334,880**
1913	3,482	—	—	—	3,482	—	—	—
	351,276	**930**	**104,274**	**449,344**	**90,857**	**174**	**15,498**	**131,241**
1914	—	—	—	1,707	—	—	—	1,707
	333,115	**248**	**65,242**	**357,528**	**171,716**	**121**	**16,876**	**158,562**
1915	**235,620**	—	**60,791**	**288,260**	**100,560**	—	**2,353**	**94,237**
1916	**270,117**	**2**	**84,509**	**377,753**	**137,346**	—	**2,210**	**134,794**
1917	**257,781**	**14**	**48,013**	**424,992**	**127,436**	**4**	**655**	**171,720**

Ordinary type represents Foreign. Heavy type represents Irish.

The Aliens Act, 1905.

This Act is in abeyance during the war, and all aliens landing at our Ports are dealt with by Order in Council.

TABLE 9.

RETURN OF THE NUMBERS OF CATTLE, SHEEP, AND SWINE EXPORTED FROM IRELAND TO LIVERPOOL DURING THE YEAR 1917, SHOWING THE PORTS IN IRELAND AT WHICH THE ANIMALS WERE SHIPPED.

	Cattle.	Sheep.	Swine.
Belfast	7,716	1,264	—
Cork	28,454	24,213	7,658
Drogheda	33,849	54,012	2,339
Dublin	87,025	185,356	18,094
Dundalk	41,306	79,197	8,751
Londonderry	8,134	14,512	256
Newry	10,144	25,561	438
Sligo	593	8,717	1,307
Waterford	40,269	27,446	9,270
Total	257,490	420,278	48,113

TABLE 10.

RETURN SHOWING THE TOTAL NUMBERS OF THE SEVERAL KINDS OF CATTLE, SHEEP AND PIGS EXPORTED FROM IRELAND TO LIVERPOOL DURING THE YEAR 1917.

CATTLE.	No.
Fat	203,728
Stores (for fattening)	44,338
Milch Cows	3,996
Springers	14
Other Cattle	2,782
Calves	2,632
Total Cattle ...	257,490

SHEEP.	No.
Fat	232,995
Stores	306
Lambs	186,977
Total Sheep ...	420,278

PIGS.	
Fat	47,561
Stores	552
Total Swine ...	48,113

SUPERVISION OF FOOD IMPORTATIONS.

During 1917, in addition to the routine inspection of imported food products, large quantities of imported foods were dealt with from vessels which had been damaged through action by the enemy. The bulk of these foods was damaged by sea water, and included large consignments of cocoa beans, pimento, walnuts, hams and bacon, beef, etc., etc.; these were quickly dealt with by drying or trimming, and 60 to 90 per cent. of each consignment was saved.

A large quantity of canned beef was also saved from a torpedoed steamer, and by a quick inspection and re-enamelling it was possible to pass over 7,000 cases for human consumption.

Other consignments which have been dealt with, after being damaged by sea water, were wheat, cheese and flour. Any badly damaged, sour or mouldy wheat or flour may be utilised for cattle food.

Several consignments of fruits, such as apples, oranges, prunes, figs, currants, etc., have arrived in a similar condition to the above, but by getting speedy removal and drying before moulds develop, a large saving has resulted.

During the year the attention of master porters, stevedores and importers has constantly been drawn to the importance of preventing any waste of food by delayed or bad handling, and it is only right to say that everyone connected with the work of food handling in the Port of Liverpool has assisted in this most important national measure.

The quantities of unsound meats dealt with during the year 1917 have been much higher than any year during the war, being approximately 510 tons, 24 tons and 14 cwt. of beef, mutton and pork, respectively.

The table of offals condemned shows that the quantity unfit for food was lower than in 1916.

The chief causes for the condemnation of meats were brine-staining, mouldiness, or decomposition. Disease and conditions such as emaciation and dropsy account for only a very small proportion. Tuberculosis was entirely absent in beef, and was only found in a few consignments of pork.

Livers, tongues, hearts, etc. (offals), were rejected for such conditions as decomposition, cysts, or inflammation.

Utilisation of Unsound Meat, Fruit, Offal, etc.

As previously referred to, large quantities of unsound meats (fresh, frozen and canned), fruits, cereals, etc., are dealt with by the food inspectors under the supervision of the Medical Officer of Health.

Apart from diseased conditions, all degrees of unsoundness may be met in examining imported foods.

Where meats or other foods are slightly damaged, and are unsightly, unmarketable, or even partially unwholesome, it is the usual practice to allow these goods to be removed to a suitable store or warehouse, where they may be washed, dried or trimmed under supervision, so that dirty or mouldy portions may be removed. Where decomposition is revealed in such meats, &c., the portions are taken direct to large fat and fertilising works in the neighbourhood, where they are utilised for industrial purposes, such as tallow rendering or manure manufacture.

The same procedure is adopted in the case of goods damaged by seawater, where it is ascertained that various undesirable substances forming the cargo have contaminated the foods; e.g., the washings from salt hides, metallic or other poisonous substances which have percolated into the cases.

Where a cargo of dried fruit, grain, coffee, cocoa, rice, beans, etc., has become damp, it may quickly become mouldy, fermentation turning it sour and forming an evil-smelling mass. To avoid such results it is always our endeavour to expedite the salvage of the goods, and the first desideratum is to get the grain, coffee or other material, dried as quickly as possible, and when dry, the material can then be sorted and consideration given as to its suitability for human food or for industrial utilisation. The main point, however, in all these cases is expedition in the early stages of the work.

Damaged grain may be utilised for size-making, paste, poultry or animal food.

Dried currants, prunes, and fruit of various sorts after damp conditions are frequently found to be mouldy, and the sorting and removal of mouldy portions are necessary.

It has been the universal practice to destroy unsound canned meats, such as beef and mutton, but it has been recently demonstrated that these goods can be usefully made into a poultry food or utilised for fat extraction. Accordingly, of late, such blown tins have been forwarded to a firm in the country for pig and poultry feeding. Suitable plant has been erected to deal with the meat, and the whole plant and process has been inspected by the Medical Officer of Health and remains under his supervision.

The method has proved to be satisfactory and is a useful one for the purposes named. The owner satisfies the Medical Officer of Health that no portion of these goods is used for human food. The procedure is as follows :—

Twelve tins (72 lbs.) are opened and the meat taken out; it is placed in a boiler and cooked for one hour. The meat is then placed in a press and compressed into a firm mass (42 lbs.), the liquid jelly and fat running out into a receiver underneath.

The pressed meat is shredded and dried in ovens; after drying it is ground fine, mixed with meal and used for animal food. The fats are utilised for soap and candle-making.

It is inadvisable to allow this food to go to any place unless a suitable plant is provided to deal with it.

Tierces and tins of unsound condensed milk when fermented and blown are utilised, under a guarantee of the buyer to the Medical Officer of Health, for poultry feeding, being boiled one hour before mixing with the ordinary fowl food.

Where meats, such as beef quarters, mutton or pig carcases, or animal offal (hearts, kidneys, livers, &c.), are found to be unsound or unwholesome owing to disease, putrefaction, etc., they are either surrendered to the Authority for destruction, this course being provided for by the Public Health (Unsound Food) Regulations of the Local Government Board, and the meat is utilised for industrial purposes at one or other of the large manure manufacturing and fat rendering firms in the City or neighbourhood; or, where a difference of opinion has arisen, or in the opinion of the Medical Officer of Health it is desirable, an application is made to the Magistrate for the suitable disposal of the meat or food. This is usually followed by the treatment alluded to above. It is only on rare occasions, therefore, that the meat or food is totally destroyed.

The meats, offals, etc., are usually treated in digestors with sulphuric acid, and the residue, thoroughly dried, is sold for manurial purposes.

Fish, poultry, rabbits, fruit, &c., are usually taken to the Liverpool Corporation manure wharf, where they are mixed with other organic refuse and prepared for manure, which is ultimately distributed by barge to farmers in the country generally.

TABLE 11.

SHOWING THE VALUE OF THE IMPORTS OF MEATS (EXCEPT POULTRY AND GAME) INTO THE PORT OF LIVERPOOL DURING THE YEARS 1914, 1915 and 1916.

Description.	Years.		
	1914.	1915.	1916.
	£	£	£
Bacon	4,911,657	10,719,819	15,827,493
Beef, fresh and refrigerated ..	9,018,097	11,378,711	8,880,454
Beef, salted	32,765	70,777	67,426
Hams	1,990,101	3,383,667	4,114,569
Mutton, fresh and refrigerated...	2,939,483	2,443,754	2,751,913
Pork, fresh and refrigerated ...	39,012	324,167	966,652
Pork, salted	54,939	71,083	85,791
Rabbits	304,110	159,215	168,667
Unenumerated fresh, refrigerated and salted...	570,894	801,044	1,101,843
Preserved, otherwise than by salting	975,781	1,941,040	3,663,457
Totals	£20,836,839	£31,293,277	£37,628,265

TABLE SHOWING THE QUANTITY OF UNSOUND MEATS SUPERVISED AND UTILISED DURING THE YEARS 1911 TO 1917.

TABLE 12.

Year.	Beef.				Mutton.				Pork.			
	Tons.	cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.
1911.....	659	10	2	24	18	7	0	13	6	4	2	20
1912.....	684	8	3	0	475	12	1	2	9	12	3	18
1913.....	88	0	3	12	76	16	0	13	1	4	2	15
1914.....	441	5	2	0	47	5	2	2	1	5	0	2
1915.....	221	7	0	10	23	14	0	4	2	8	3	21
1916.....	103	16	0	13	4	10	0	24	1	14	1	16
1917.....	510	9	3	14	24	11	3	20	0	14	3	16

TABLE SHOWING THE QUANTITY OF UNSOUND OFFAL SUPERVISED AND UTILISED DURING THE YEARS 1911 TO 1917.

TABLE 13

Year.	Beef.	Mutton.	Pork.	Veal.
1911.....	32,816 pieces.	56,596 pieces.	8,629 pieces.	1,070 pieces.
1912.....	68,272 ,,	57,163 ,,	8,229 ,,	196 ,,
1913.....	28,055 ,,	66,705 ,,	12,946 ,,	64 ,,
1914.....	36,561 ,,	41,298 ,,	1,919 ,,	44 ,,
1915.....	55,219 ,,	185,551 ,,	5,644 ,,	233 ,,
1916.....	63,900 ,,	126,110 ,,	2,765 ,,	15 ,,
1917.....	39,466 ,,	13,212 ,,	12,460 ,,	946 ,,

TABLE SHOWING QUANTITIES OF UNSOUND GENERAL FOODSTUFFS SUPERVISED AND UTILISED DURING THE YEAR 1917.

TABLE 14.

Description.	No. of Tins.	Weight in Pounds.	Description.	No. of Tins.	Weight in Pounds.
Canned Goods—					
Apricot Pulp ...	501	3,446	Beef	96,372	579,979
Apples... ...	11	90	Mutton ...	5,603	29,282
Peaches ...	20	40	Ox Tongues ...	2,767	4,984
Carrots ...	1	1	Pork	1	6
Pears	38	76	Fish Balls ...	1	4
Onions... ...	1	2	Sardines ...	4,002	4,002
Pineapples ...	42,928	65,326	Salmon ...	1,106	1,106
Beans	36	36	Crab	1,776	1,776
Tomatoes ...	4,262	12,766	Lobster ...	—	—
Milk	71,588	81,511	Oysters ...	4	4
Egg Pulp ...	2,103	88,044	Jam	15	105

Description.	Packages.	Weight.			
		Tons.	Cwts.	Qrs.	Lbs.
Fruit (Fresh)—					
Apples	1,210	35	2	2	16
,, loose	—	18	—	—	—
Bananas...	765	27	19	1	27
,, loose	—	25	2	—	12
Grapes	5,125	97	15	2	4

TABLE 14—*continued.*

Description.	Packages.	Weight.			
		Tons.	Cwts.	Qrs.	Lbs.
Fruit (Fresh) *continued*—					
Tomatoes	21	—	2	1	—
Lemons	641	23	11	2	25
,, loose	—	12	1	3	20
Oranges	10,253	438	4	—	—
,, loose	—	202	14	1	4
Pears	279	4	3	—	10
Cranberries	1	—	1	—	—
Damsons	1	—	—	1	—
Walnuts...	150	4	—	1	12
Chesnuts	420	19	11	—	13
,, loose...	—	3	—	—	—
Pea Nuts, loose	—	481	9	1	—
Fruit (Dried)—					
Prunes	23	—	5	—	15
Apricots	1	—	—	1	22
Raisins	377	6	—	—	21
,, loose	—	—	—	3	6
Currants	13	—	15	—	11
,, loose	—	—	3	2	14
Almonds...	9	—	6	1	11
Dates, etc.	—	35	—	—	—
Figs	267	2	19	3	—
Apples	1	—	—	—	20
Locust Beans	—	1	8	—	—
Vegetables—					
Potatoes...	153	7	14	2	—
,, loose...	—	3	—	—	—
Onions	6,222	318	6	2	2
,, loose	—	25	18	3	20
Turnips	93	5	5	2	4
,, loose	—	1	—	—	—

TABLE 14--*continued*.

Description.	Packages.	Weight.			
		Tons.	Cwts.	Qrs.	Lbs.
Cereals—					
Wheat	—	5,548	16	1	1
Maize	—	4,111	10	1	10
Maize Meal	—	249	6	1	19
Oats	—	1,517	2	—	9
Barley	—	210	1	1	6
Peas	—	6	12	—	15
Beans	—	84	18	2	5
Rye	—	13	6	—	8
Flour	—	2,048	4	1	4
Rice	—	48	14	—	12
Malt Meal	—	50	19	1	4
Oatmeal...	—	1	—	—	—
General—					
Bacon	13,501	402	9	—	14
,, loose	—	47	14	—	26
Cheese, loose	—	2	—	2	17
Rabbits	6,609	7	7	—	2
Eggs, single	656,543	36	11	1	7
Poultry	5,020	4	18	—	12
Fish	79	3	2	1	18
Lard	—	—	10	—	15
Coffee	—	—	13	2	—
Milk	182	15	15	—	12
Oysters	7,405	—	10	1	25
Chocolate	4	—	6	3	2
Cocoa	320	16	1	—	4
Cocotina	—	—	1	—	8
Horse Flesh	—	—	9	3	17
Currant Cake	1	—	—	2	—
Citrons (in brine)	20	9	15	2	13
Sundries	27	—	14	—	24

TABLE SHOWING THE QUANTITY AND DESCRIPTION OF UNSOUND OFFAL SUPERVISED DURING THE YEAR 1917.

TABLE 15.

Name of Organ.	Beef.		Mutton.		Pork.		Veal.	
	Number.	Weight, Pounds.	Number.	Weight, Pounds.	Number.	Weight, Pounds.	Number.	Weight, Pounds.
Heads	1	18	—	—	52	524	8	82
Cheeks	4,106	10,340	—	—	—	—	—	—
Tongues and Throats	8,270	44,723	1,056	374	—	—	117	84
Plucks...	—	—	1	3	—	—	—	—
Sweetbreads	—	—	8,593	1,077	9,072	1,296	84	28
Hearts	5,660	24,612	1,400	584	900	900	—	—
Livers...	3,593	17,656	—	—	835	2,525	1	2
Stomachs	3,737	41,988	—	—	—	—	—	—
Skirts	2,868	4,704	—	—	—	—	—	—
Kidneys	5,409	4,844	1,762	200	1,201	600	736	473
Feet	—	—	200	112	400	200	—	—
Shins	13	55	—	—	—	—	—	—
Tails	5,632	9,817	—	—	—	—	—	—
Sundries	177	1,747	200	34	—	—	—	—
Totals	39,466	160,504	13,212	2,384	12,460	6,045	946	669

The organs dealt with above were rejected for various reasons, notably, decomposition and diseased conditions, such as Cysts, Tuberculosis, Inflammation, Actinomycosis, &c.

TABLE SHOWING THE QUANTITY AND DESCRIPTION OF UNSOUND MEATS SUPERVISED* DURING THE YEAR 1917.

TABLE 16.

Description.	Total Weight.				Cause of Destruction.											
					Tubercular.				Brine Stained, Mouldy and Decomposed.				Other causes. (Emaciation, Dropsy and Pleurisy).			
	Tons	cwts.	qrs.	lbs.	Tons	cwts.	qrs.	lbs.	Tons	cwts.	qrs.	lbs.	Tons	cwts.	qrs.	lbs.
Beef	510	9	3	14		—			505	0	3	16	5	8	3	26
Mutton	24	11	3	20		—			24	11	3	20		—		
Pork	0	14	3	16	0	0	3	17	0	13	2	13	0	0	1	14
Veal	0	1	1	13		—			0	1	1	13		—		
Total	535	18	0	7	0	0	3	17	530	7	3	6	5	9	1	12

* These were destroyed or allowed to go for industrial purposes to the satisfaction of the Medical Officer.

TABLE 17.

TABLE SHOWING THE TOTAL QUANTITIES OF THE DIFFERENT UNSOUND FOOD STUFFS SUPERVISED DURING THE YEAR 1917.

	Tons.	Cwts.	Qrs.	Lbs.
Beef, Mutton, Pork and Veal...	535	18	0	7
Offal (Beef, Mutton, etc.) ...	75	14	1	6
Canned Goods	389	10	3	22
Fruit and Vegetables	1,801	4	0	9
Cereals	13,890	10	3	9
General (Fish, Poultry, Rabbits, etc.)	549	1	0	20
	17,241	19	1	17

The Bacteriologist has received 9 samples and the Analyst 17 samples of food for examination during the year.

The importation of small quantities of foreign meats of Classes I and II still continues. These, owing to their condition or preparation, have not the usual "official certificate" attached, or may contain prohibited preservatives. There were 11 export notices served in connection with these; the meats included such articles as pork loins, head meat, scrap meat, maws, pork tripe, sausage meats, and neck ribs.

The various bodies connected with the administration of the Port, viz., H.M. Collector of Customs and staff, the Mersey Docks and Harbour Board and their officers, and the various Shipping Companies, have fully co-operated with the officers of the Port Sanitary Authority in the performance of their duties. The Consular Body have also given every assistance in their power.

A very large amount of assistance has been given to the Naval and Military Authorities. This important work is continually increasing and places a heavy strain on the staff.

E. W. HOPE, M.D.

MUNICIPAL OFFICES,
LIVERPOOL, 18*th April*, 1918.