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PORT OF LIVERPOOL

PORT HEALTH AUTHORITY



ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

PORT HEALTH AUTHORITY


FOR THE YEAR

1946

LIVERPOOL:

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PORT HEALTH AUTHORITY OF LIVERPOOL.

REPORT FOR THE YEAR 1946.

BY THE
MEDICAL OFFICER OF HEALTH.

This is the 74th Annual Report on the work of the Liverpool Port Health Authority.

During the years 1939-1945 the reports have been curtailed for security reasons in order to comply with the Ministry of Health's Circular No. 1937, dated 11th January, 1940. Only certain statistical tables were given and reports were not published. In the present report a short account is given of some of the more outstanding events which were dealt with by the officers of the Authority.

SOURCE OF WATER SUPPLY.

The water used in the docks on the Liverpool side of the River Mersey is supplied by the Liverpool Corporation. Vessels in dock are supplied from hydrants from the same source, and vessels in docks on the Birkenhead side of the River Mersey are supplied with water by the Birkenhead Corporation and the Wallasey Corporation.

There are no water boats in use in the Port of Liverpool, all water being drawn from hydrants on the quayside.

PORT HEALTH REGULATIONS, 1933 AND 1945.

Arrangements for Dealing with Declarations of Health.

During the year, Declarations of Health were standardized throughout all ports in the country, and the new form has been adopted by the Liverpool Port Health Authority. The local instructions to pilots and masters on page 4 have been amended and brought up to date, as follows:—

Instructions to Pilots and Masters.

The Master of a foreign-going ship approaching a port in England or Wales from a foreign port must ascertain the state of health of all persons on board and fill in and sign a Declaration of Health in the prescribed form.

1. If the answer to any of the questions on page 1 is "Yes," or if the ship has called during the previous six weeks at any of the following ports:—

SINGAPORE	TRIPOLI (LIBYA)	All Ports in:—
RANGOON	LAGOS	MADAGASCAR
COLOMBO	GUAYAQUIL	GREECE
DAR es SALAAM		ITALY
SUEZ	All Ports in:—	ALGERIA
PORT SAID	CHINA	MOROCCO
BEYROUT	JAVA	PERU
ALEXANDRIA	INDIA	RIVER PLATE

free pratique will not be granted by His Majesty's Customs until the vessel has been visited by the Port Medical Officer.

2. The Pilot should therefore instruct the Master to:—

(i) Send a wireless message to "PORTELTH, LIVERPOOL," stating the name of his vessel, expected time* of arrival in the river, whether for Liverpool (north or south), Birkenhead, Bromborough, Garston or Manchester. This message must be sent off not more than 12 hours and not less than 4 hours before the arrival of the vessel. (If wireless is not carried, the Port Health Authority must be notified of the arrival of the vessel as soon as possible).

(ii) By day, before reaching the Bar Lightship, hoist the flag signal "L.I.M." meaning Port Medical Officer required;

By night, before reaching the Bar Lightship, show a signal comprising a red light over a white light, the lights being not more than six feet apart. The signal should be shown at the peak or other conspicuous place where it can best be seen.

Day and night signals must not be taken down until the vessel has been cleared by the Port Medical Officer.

(iii) Have the crew mustered ready for inspection by the Port Medical Officer as soon as he boards the vessel.

Note.—The strict observance of the directions will greatly facilitate the clearance of vessels.

3. If the answers to all the questions on page 1 are "No," and the vessel has not called during the previous six weeks at any of the above-mentioned infected ports, the Master need not communicate with the Port Health Authority unless instructed to do so by a Customs Officer.

4. Where a foreign-going ship comes to a port in the United Kingdom from a foreign port and makes a Declaration of Health, and thereafter within six weeks calls at another port or ports in England or Wales in completion of its voyage, the Master shall report on arrival to the Customs Officer or Officer of the Port Health Authority, whichever first boards the ship, every case of illness (being a case which, if he were making a Declaration of Health, he would be required to include in the Declaration) which has occurred on the ship since the making of the Declaration and has not already been reported.

5. This Declaration of Health must be completed and ready to deliver to the Officer of H.M. Customs, or Officer of the Port Health Authority, whichever shall first board the vessel: the Officer receiving it shall forward it to the Port Health Authority.

6. Article 16 (i) of the Port Sanitary Regulations, 1933, states:—"Where a ship arrives from a foreign port no person other than a Pilot, a Customs Officer, an Immigration Officer, or a person acting in the execution of these Regulations shall, without the permission of the Medical Officer or other Authorised Officer of the Port Health Authority, board or leave the ship until it is free from control under these Regulations, and the Master shall take all steps necessary to secure compliance with this provision."

7. The maximum penalty for breach of the Port Health Regulations, 1933 and 1945, is £100, and in the case of a continued offence, a further penalty not exceeding £50 for every day during which the offence continues.

Liverpool Port Health Authority,
Prince's Pier Head, 3.
Telephone * CENTRAL 0831/2.

W. M. FRAZER,
Medical Officer of Health.
Port of Liverpool.

* Name of ship as one word.

Time on 24-hour clock.

The routine for carrying out the measures of the Port Health Regulations, 1933 and 1945, were fully detailed in the Annual Report for the year 1938; these remain the same and consequently are omitted.

Amount of Shipping Entering the Port during the Year 1946.

CLASS OF VESSELS	Number (1)	Tonnage (2)	Number Inspected		Number reported to be defective (5)	Number of vessels on which defects were remedied (6)	Number of Vessels on which defects were found and reported to Ministry of Transport Surveyors (7)	Number of Vessels reported as having, or having had, during the voyage, infectious disease on board (8)
			By the Medical Officer (3)	By the Sanitary Inspector (4)				
SAILING FOREIGN—								
Steamers ...	2,841	7,278,547	656	2,202	442	401	—	162
Motor ...								
Sailing ...								
Fishing ...								
TOTAL FOREIGN...	2,841	7,278,547	656	2,841	527	470	—	162
SAILING COASTWISE—								
Steamers ...	5,692	2,696,354	2	486	72	40	—	4
Motor ...								
Sailing ...								
Fishing ...								
TOTAL COASTWISE	5,692	2,696,354	2	642	74	41	—	4
TOTAL FOREIGN AND COASTWISE	8,533	9,974,901	658	3,483	601	511	—	166

Figures in columns 1 and 2 supplied by H.M. Collector of Customs for this Port.

PORT HEALTH HOSPITAL.

The value of the Port Health Hospital was shown during the early part of the year when an outbreak of smallpox occurred on Merseyside. In addition to 7 seaborne cases, 11 cases of smallpox were admitted from Liverpool, 10 from Birkenhead and 3 from Bebington. Of the Liverpool cases, 9 recovered and 2 died; of the Birkenhead cases 5 recovered and 5 died; the 3 Bebington cases recovered.

In addition to the smallpox cases, the following were admitted during the year:—

Chickenpox	...	...	...	6
Mumps	...	...	...	2
Leprosy	...	...	...	1
Observation	...	...	...	22

During the smallpox outbreak extra nursing staff was provided from Fazakerley and Grafton Street Hospitals.

SMALLPOX.

Fourteen cases of smallpox occurred on ships arriving at Liverpool during the year; of these, seven were landed abroad and seven at Liverpool.

On February 16th, 1946, information was received from the Ministry of War Transport that the s.s. "Empress of Australia," due at Liverpool on February 18th, had landed three cases of smallpox at Suez on February 7th and that a further case had been discovered on February 12th and was still on board. One case of chickenpox was also reported.

The vessel arrived in the river during the afternoon of February 18th and was boarded by the two Assistant Port Medical Officers, the R.N. Medical Transport Officer and the R.A.F. Embarkation Medical Officer. The vessel was anchored in mid-river.

DETAILS OF VOYAGE.

Left Bombay...	...	...	31.1.46	Arrived Suez	...	...	7.2.46
„ Suez	...	...	8.2.46	„ Port Said	...	...	9.2.46
„ Port Said	...	...	10.2.46	„ Liverpool	...	...	18.2.46

PERSONS ON BOARD

Crew	...	...	...	...	...	334
Civilian Passengers	...	...	...	...	...	332
Merchant Navy Passengers	...	...	...	...	...	125
Armed Forces	...	...	...	...	...	3,484
Permanent Staff	...	...	...	...	...	20
Total	...	...	...	...	...	<u>4,295</u>

On arrival the case of smallpox was examined and the diagnosis of mild discrete smallpox confirmed; the chickenpox diagnosis was also confirmed.

HISTORY OF OUTBREAK.

- 31.1.46 Vessel left Bombay.
- 3.2.46 A Merchant Navy Passenger, age 20 years, was removed to the ship's isolation hospital; his illness was subsequently diagnosed as smallpox.
- 4.2.46 A Royal Navy A.B. was isolated and his illness subsequently diagnosed as smallpox.
- 7.2.46 A Telegraphist, Royal Navy, was isolated and his illness subsequently diagnosed as smallpox.
These three cases were landed to hospital at Suez where the diagnosis was confirmed.
- 9.2.46 A kitchen porter, member of the crew, was taken ill with pyrexia, backache and headache; he was isolated at once. Temperature 102 degrees.
- 12.2.46 A mild discrete papular rash appeared; severe headache. Temperature 102.6 degrees.
- 13.2.46 Rash becoming vesicular; patient more comfortable. Distribution of rash—wrists and arms, upper part of back, and face.
- 18.2.46 The patient was removed from the vessel by the Port Health Authority's launch "Moyles" and taken to the Port Health Hospital, New Ferry. On admission the patient had remains of a very mild discrete rash, distribution—wrists and arms, upper part of back, and face. Temperature normal, patient feeling well in himself.
- 13.3.46 Patient discharged from hospital.

VACCINATION HISTORY.

INFANCY.—Three good marks. The patient had been re-vaccinated about five times during his Merchant Navy service—all negative. He was re-vaccinated again on February 9th, 1946—negative.

PRECAUTIONARY MEASURES.

(a) IN VESSEL.

Patients isolated. All persons in vessel vaccinated on February 7th and 8th. Daily medical inspection of all contacts. Medical attendants segregated, with own washing facilities; masks and shoes provided. Segregation of close contacts.

(b) AT LIVERPOOL.

One smallpox case removed to the Port Health Hospital. Medical inspection of all persons in the vessel carried out. One chickenpox case and two contacts removed to Port Health Hospital. One diphtheria carrier—a close contact of the smallpox case—removed to the Port Health Hospital. The names and addresses of destinations of all crew and passengers (including service personnel) were obtained and forwarded

PROCEDURE AT LIVERPOOL.

The vessel was instructed to anchor on arrival. The vessel was showing the correct quarantine signal of a red light over a white light. During the time that the vessel was detained, the signal QL was flown during the day time. After the vessel had come to an anchor at 22.30 hours, the Senior Assistant Port Medical Officer obtained the history of the cases from the ship's surgeon and the S.M.O. The cases were then examined, the diagnosis of smallpox being confirmed. A conference was held to decide the course of action to be taken, at which there were present the ship's surgeon, the S.M.O., the chief steward and the Senior Assistant Port Medical Officer. The meeting ended at 04.00 hours and it was arranged that medical examination and vaccination should commence at 09.30 hours. In addition to the Assistant Port Medical Officers, the twelve service medical officers travelling in the ship offered their assistance; this help was of great value and enabled the remaining persons on board to be medically examined and vaccinated by 14.00 hours the same day.

DETAILS OF CASES.

At 11.00 hours 1.3.46, four cases of smallpox were disembarked by the m.l. "Moyles," transferred to ambulances at Prince's Landing Stage, and taken to the Port Health Hospital, New Ferry.

Case 1.

11.2.46 Reported sick on embarkation at Bombay.

15.2.46 Isolated in ship's isolation hospital; diagnosis—? smallpox.

CONDITION ON ADMISSION TO PORT HEALTH HOSPITAL.

The patient had the remains of a very mild discrete rash. Distribution—soles of feet; palms of hands; face; a very few scattered lesions on the arms and legs; chest and abdomen were free.

VACCINATION HISTORY.

Infancy	...	...	...	...	...	3 marks.
1940	...	...	...	...	...	2 very small faint marks.
1945	...	...	...	...	...	No take.

The patient recovered and was discharged from hospital on 26.3.46.

Case 2.

- 21.2.46 Headache, shivering, pyrexia.
 22.2.46 Isolation in ship's hospital.
 24.2.46 Prodromal erythematous rash over lower abdomen.
 26.2.46 Discrete papular rash—arms, legs, wrists and trunk; one lesion on each sole of foot.
 1.3.46 Papular on face and nose which rapidly became pustular.

CONDITION ON ADMISSION TO PORT HEALTH HOSPITAL.

This patient had a mild discrete rash, uniform in size and age: two or three papules appeared on the nose after admission and these became pustular in 24 hours. The distribution was atypical, the rash being distributed over the trunk, particularly over the region where the prodromal rash had appeared—the arms, wrists, legs and face.

VACCINATION HISTORY.

Infancy	...	...	...	2 marks on arm; 1 mark on leg.
May, 1941	...	...	...	No take.
September, 1941	...	...	...	No take.
September, 1944	...	...	...	No take.

The patient recovered and was discharged from hospital on 26.3.46.

Case 3.

- 25.2.46 Pyrexia of unknown origin.
 1.3.46 Isolated in ship's hospital. P.U.O. and rash.

CONDITION ON ADMISSION TO PORT HEALTH HOSPITAL.

This patient had a faint erythematous rash over the lower abdomen and a very few discrete pustules:—one on each big toe; two on the posterior surface of each thigh; a very few on the trunk and arms; and one on the nose.

VACCINATION HISTORY.

Infancy	...	...	...	...	...	...	1 mark.
July, 1945	...	...	...	...	...	...	No take.

The patient recovered and was discharged from hospital on 26.3.46.

Case 4.

- 25.2.46 Admitted to ship's military hospital with headache, shivering and pyrexia.
 28.2.46 Transferred to ship's isolation hospital.

CONDITION ON ADMISSION TO PORT HEALTH HOSPITAL.

This patient had a semi confluent rash from head to foot. Umbilication very well marked. The patient was very ill and the rash became haemorrhagic: his condition became rapidly worse.

VACCINATION HISTORY.

1.3.42	...	...	...	...	...	...	1 Vesicle.
16.4.43	...	...	...	...	...	...	Positive.
1.8.45	...	...	...	...	...	...	Positive.

This patient died shortly after 11.0 p.m. on Wednesday, March 6th, 1946.

PRECAUTIONS TAKEN AT LIVERPOOL.

1. The vessel was anchored in mid-stream.
2. The four cases of smallpox were disembarked by the m.l. "Moyles" and removed to the Port Health Hospital.
3. All persons in the vessel were examined and vaccinated.
4. Names and addresses of destinations of crew and passengers were obtained.
5. Arrangements were made with the Military authorities for all service personnel to be detained in camps for surveillance until the incubation period had expired.

At the request of Dr. Stock, of the Ministry of Health, this ban was lifted on March 7th and service personnel were allowed to proceed to their homes.

6. The medical officers of health of destinations of all persons aboard were notified, 1,110 letters being despatched.
7. The ship's hospital and all bedding, clothing, etc., was disinfected by the staff of the Port Health Authority.
8. The cabin of the m.l. "Moyles" was disinfected by the Port Health Inspectors.
9. All Port Health Staff, with the exception of two objectors, were re-vaccinated.

10. The vessel was freed from all restrictions at 14.00 hours on March 2nd.
11. Samples of blood and scabs were taken from all four cases and sent to Professor Downey, of Liverpool University, for examination, and in each case the diagnosis of smallpox was confirmed.

The R.A.F. personnel had been accommodated at the Worli Transit Camp for about three weeks prior to embarkation. The men were free to leave the camp during the daytime if they wished, but it seems likely that the camp was the origin of the first case.

The s.s. "City of Hong Kong" arrived in the Mersey on 11.3.46, from Bombay, and was boarded in the river by the Senior Assistant Port Medical Officer. The ship's surgeon reported that a native member of the crew had been landed at Beri Bunder (on the Indian Coast) on February 6th, suffering from smallpox.

DETAILS OF VOYAGE.

29.1.46	...	...	...	...	...	Bombay.
6.2.46	...	...	...	...	...	Beri Bunder.
17.2.46	...	...	...	...	...	Bombay.
27.2.46	...	...	...	...	...	Suez.
27.2.46	...	...	...	...	...	Port Said.
11.3.46	...	...	...	...	...	Liverpool.

HISTORY OF CASE.

The patient, an Indian fireman, embarked at Bombay on January 26th, 1946.

1.2.46 Onset, with pyrexia.

3.2.46 Rash appeared and diagnosed as smallpox.

6.2.46 Landed to hospital at Beri Bunder. All persons aboard vaccinated.

Vessel was quarantined at Bombay until 17.2.46.

On arrival at Liverpool crew and passengers were inspected and a list of names and addresses of destinations obtained. No further cases, or suspicious cases, were discovered and as the incubation period had expired no further action was considered necessary.

The s.s. "Orion" arrived at Liverpool on April 7th, 1946, from Sydney and Bombay. Messages were received from the vessel on April 2nd and 5th stating that one case of smallpox had been landed at Suez and that one further case had occurred and was still aboard. The vessel arrived in the Mersey on the morning of April 7th, and was boarded at 08.00 hours by the Assistant Port Medical Officers and two medical officers of the Military Embarkation Staff. The ship's surgeon reported that two cases of smallpox had occurred during the voyage; that one of the cases—a military passenger—had been disembarked at Suez, and that the other case—a C.P.O., R.N.—was still aboard.

DETAILS OF VOYAGE.

Left	Wellington	...	...	...	...	19.2.46
"	Sydney	...	...	...	...	26.2.46
"	Fremantle	...	...	...	...	4.3.46
"	Colombo	...	...	...	...	14.3.46
"	Bombay	...	...	...	...	21.3.46
"	Suez	...	...	...	...	28.3.46
Arrived	Liverpool	...	...	...	...	7.4.46

PERSONS ON BOARD.

Crew	...	...	...	...	...	361
Civilian Passengers	...	...	...	...	...	319
Military Passengers	...	...	...	...	...	4,320
Permanent Staff	...	...	...	...	...	21
			Total	...	...	<u>5,021</u>

HISTORY OF CASE LANDED AT SUEZ.

Prior to March 9th, 1946, patient was stationed at Meerut. A case of smallpox occurred on February 5th in the same Brigade as the patient.

- 9/10.3.46 Moved to Doolali.
- 20.3.46 Moved to Bombay.
- 23.3.46 Felt vaguely unwell, with backache, but did not report sick.
- 23/26.3.46 Moving about the ship.
- 26.3.46 Reported sick with vesicular rash, mainly on chest, back and shoulders; some lesions on the face, palms and soles. Very definite about past history of chickenpox. Diagnosis—? smallpox. Diagnosis confirmed at Suez and the patient was disembarked.

VACCINATION HISTORY.

Vaccinated in April, 1945, and on February 5th, 1946; both recorded as modified reaction. No signs of recent vaccination on his arm.

PREVENTIVE MEASURES ABOARD VESSEL.

The case was isolated, and all aboard vaccinated. The vaccination was checked after three days and re-vaccination carried out on all those who showed no reaction. The troop decks were sprayed with lysol, and bulkheads, deck and deckheads scrubbed with lysol. Infected bedding was removed and disinfected. The case was disembarked at Suez, together with all close contacts. After disembarkation of the patient, the ship's isolation hospital was disinfected by the Suez Port Health Authority.

HISTORY OF CASE LANDED AT LIVERPOOL.

The patient—a C.P.O., R.N.—embarked at Sydney, where there was no recent case of smallpox. He went ashore twice in Bombay, on March 16th and 19th. He reported sick and was isolated on April 3rd, with a history of three days' anorexia. The case was examined on arrival by the Senior Assistant Port Medical Officer, and the diagnosis of smallpox confirmed. The patient showed a papular rash with some early vesiculation. Distribution was atypical but more suggestive of smallpox than chickenpox, i.e. most marked on the face (including the scalp), then chest and back, then upper limbs, with a number of lesions on both palms; legs almost clear; nil on soles. History of chickenpox when a child. Rash predominantly vesicular on the second day, and pustular on the third day.

VACCINATION HISTORY.

Infancy	...	...	...	1 mark.
October, 1941	...	...	...	—
September, 1944	...	...	...	—
22nd March, 1946	...	...	...	Reaction but no vesiculation.

PREVENTIVE MEASURES ABOARD VESSEL.

The case was isolated. Everyone aboard had already been vaccinated in the previous two weeks but those showing no reaction were re-vaccinated. All bedding and kit was removed and disinfected. The troop deck concerned was sprayed with lysol, and the deck bulkhead and deckheads scrubbed with lysol. Only two people had been ashore with the patient in Bombay; they were isolated, their kit removed and bedding disinfected. All personnel on the troop deck concerned were isolated as far as was practicable in the circumstances, i.e. confined

to their own troop deck, roped-off stretch of deck with direct access from troop deck, and one lounge.

PREVENTIVE MEASURES AT LIVERPOOL.

1. The case was disembarked into the m.l. "Moyles," taken to Woodside luggage stage, transferred to ambulance, and taken to the Port Health Hospital.
2. Medical inspection of all persons in the ship was carried out.
3. The names and addresses of destinations of everyone aboard were obtained.
4. The medical officers of health of the destinations of all persons were notified.
5. The isolation hospital of the ship was disinfected by the Port Health Inspectors.

The patient admitted to the Port Health Hospital ultimately recovered, and he was discharged on May 7th, 1946.

The m.v. "Britannic" arrived at Liverpool on 12th April, 1946. No radio message four hours before arrival was received by the Port Health Authority, and the first news of the ship was received by the Assistant Port Medical Officer at 8-10 a.m. At the time of the arrival of the Assistant Port Medical Officer at Prince's Pier Head shortly after 8-30 a.m., the vessel was off Prince's Stage in a position unsuitable for boarding. The vessel was boarded at Princes Stage, and all persons on shore were forbidden to enter the ship.

A case diagnosed as scarlet fever with haematuria was removed from the ship as well as a child dangerously ill. On arrival at Fazakerley Hospital the scarlet fever diagnosis was questioned and the Assistant Port Medical Officer informed. At once the ship was placed in quarantine pending further medical opinions and some of the crew, who were on Prince's Stage, were forced to return to the ship. At that time none of the passengers had left. The Captain was instructed to prepare to put the vessel off into the stream, and was informed that there might be a full inspection and vaccination if the case should actually be one of smallpox. The Assistant Port Medical Officer then asked Fazakerley Hospital for the latest opinion but there was still doubt about the

diagnosis, although the Senior Assistant Port Medical Officer suspected the case to be one of haemorrhagic smallpox. Acting on instructions from the Senior Assistant Port Medical Officer, all restrictions upon crew and passengers were raised except that a complete list of names and addresses of destinations was to be taken. This was done immediately; the Senior Assistant Port Medical Officer visited the vessel, and disembarkation began. In the meanwhile the case had been transferred to the Port Health Hospital and the diagnosis of haemorrhagic smallpox confirmed. The local medical officers of health, into whose districts persons from the vessel were proceeding, were informed of the circumstances by circular letter of which the following is a copy:—

DEAR SIR,

SMALLPOX—M.V. "BRITANNIC."

The m.v. "Britannic" arrived at Liverpool at 12th April, 1946, from Bombay, and one case of haemorrhagic smallpox was removed to hospital on arrival.

Onset of disease	...	...	6th April, 1946
Rash appeared	...	...	9th April, 1946.

Due to the non-diagnosis of the case before arrival, disembarkation had commenced before the diagnosis was confirmed, and in consequence vaccination of all contacts aboard was not carried out. Although all passengers, service and civil, are required to be vaccinated within one month of embarkation ex India, I consider, in view of the seriousness of this, that all the undermentioned contacts arriving in your district should be offered immediate vaccination, and I should be obliged if you would inform me when this has been completed.

Yours faithfully,

W. M. FRAZER,
Medical Officer of Health.

On Monday, 15th April, 1946, the vaccination of all persons remaining on board was begun. The ship's hospital, and the mess deck in which the case occurred, were disinfected by the Port Health Staff, and the bedding removed for steam disinfection. All books and similar articles were destroyed.

DETAILS OF VOYAGE.

Left Bombay	25.3.46	Arrived Suez	2.4.46
„ Suez	4.4.46	„ Port Said	4.4.46
„ Port Said	4.4.46	„ Liverpool	12.4.46

PERSONS ON BOARD.

Crew	364
Civilian Passengers	666
Military Passengers	2,201
Total	<u>3,231</u>

The patient died in the Port Health Hospital on 14.4.46.

The m.v. "Georgic" arrived at Liverpool on 1st May, 1946, from Bombay, and was boarded before berthing by the Assistant Port Medical Officers. Two cases of smallpox were reported to have been landed during the homeward voyage, one at Suez on 21st April and the second at Gibraltar on 27th April.

DETAILS OF VOYAGE.

Left Bombay	14.4.46	Arrived Suez	21.4.46
„ Suez	21.4.46	„ Port Said	22.4.46
„ Port Said	22.4.46	„ Gibraltar	27.4.46
„ Gibraltar	27.4.46	„ Liverpool	1.5.46

PERSONS ON BOARD.

Crew	369
Passengers	4,505

HISTORY OF CASES.

Case 1. (A Royal Corps of Signals C.Q.M.S., age 29 years.)

- 7.4.46 Left his Unit at Delhi.
- 8.4.46 Arrived at Doolali—had no intimate contact with native population.
- 13.4.46 Embarked on vessel; onset of illness—temperature 102 degrees, headache, backache and malaise.
- 15.4.46 Symptoms more severe; temperature 104 degrees.
- 16.4.46 Symptoms less severe.
- 18.4.46 Temperature normal; vesiculo pustular rash appeared on brow, face, arms and legs with some lesions on the body; patient isolated; case diagnosed as smallpox.
- 21.4.46 Landed at Suez.

PRECAUTIONARY MEASURES IN VESSEL.

The patient and close contacts were disembarked at Suez. All persons on board were vaccinated 18.4.46. Mess decks, hospitals and bedding disinfected.

VACCINATION HISTORY.

Infancy	...	...	...	Marks present.
March, 1943	...	...	...	Mark present.
July, 1945	...	...	...	No record of result.
6.4.1946	...	...	...	Immediate reaction recorded.

Case 2. (A Ft.-Lt., R.A.F., age 23 years.)

- 30.3.46 Arrived at transit camp, Worli.
 13.4.46 Embarked in m.v. "Georgic"; no knowledge of any smallpox contact prior to embarkation.
 21.4.46 Reported sick with headache, pains in the back and limbs.
 22.4.46 Temperature 100-101 degrees. Clinically no cause for pyrexia.
 24.4.46 Temperature normal. Papular rash which rapidly vesiculated and later became pustular; patient isolated.
 25.4.46 Deep pustules on limbs—palms and soles clear. Postules absent in axillae and other flexures.
 26.4.46 Pustules appeared on face, diagnosed as smallpox.
 27.4.46 Patient landed at Gibraltar.

PRECAUTIONARY MEASURES IN VESSEL.

Medical examination of all personnel. Re-vaccination of all non-takes carried out 27.4.46.

VACCINATION HISTORY.

Infancy	...	...	...	...	Successful reaction.
September, 1940	...	...	...	...	Small scar.
December, 1943	...	...	...	...	No reaction.
December, 1944	...	...	...	...	No reaction.
December, 1945	...	...	...	...	No reaction.
23.3.46	...	...	...	...	? Immediate reaction.
19.4.46	...	...	...	...	No reaction.

PRECAUTIONARY MEASURES AT LIVERPOOL.

All persons on board were medically examined: names and addresses of destinations were checked and the local medical officers of health notified. No further cases were discovered. Medical inspection commenced at 13.00 hours, and the vessel was released from restrictions at 16.00 hours.

Suspected Smallpox.

The m.v. "Georgic," from Bombay, arrived at Liverpool on March 2nd, 1946. All the Port Medical Officers were at the time engaged in the examination and vaccination of smallpox contacts in the s.s.

"Duchess of Richmond," which was lying at anchor in mid-stream. The Assistant Port Medical Officer left the s.s. "Duchess of Richmond" and boarded the m.v. "Georgic" at Prince's Stage. As the vessel was flying the L.I.M. flags all persons, excepting H.M. Customs personnel, were refused permission to board the vessel until the medical officer was satisfied that there was no serious infection on board.

A case of chickenpox had occurred on 23.2.46 and was seen by the Assistant Port Health Medical Officer in the ship's isolation hospital. Because of certain features of the case, and because of the serious outbreak of smallpox in Bombay, the case was regarded as a suspected smallpox. The Senior Assistant Port Medical Officer was sent for and he examined the case, agreeing that it was a suspected smallpox. The case was immediately removed to the Port Health Hospital. The landing stage was cleared of all persons and the vessel was ordered away to mid-stream. The Customs Officers who had boarded the vessel with the Assistant Port Medical Officer were vaccinated.

Inspection and vaccination of all persons on board was immediately undertaken, in all a total of 5,491. The addresses of all persons were taken, and it was agreed that the service personnel should be kept under observation in camps, while the civilians should be permitted to proceed to the destinations given by them to the Port Health Officers. The vessel was permitted to come alongside Prince's Stage at 11.55 a.m. on 3.3.46, and disembarkation was begun. All the service personnel, except the Royal Navy, were removed to camps for observation for the remainder of the period of quarantine. Owing to the fact that the Admiralty were unable to find camp accommodation for the naval personnel these were ordered by the Admiralty to remain quarantined on board the vessel for the remainder of the necessary period. While this arrangement was far from ideal, as the vessel was then in dock, it was at that time the best that the Admiralty could do in the matter. Owing to pressure from Naval Officers on board and general unrest about the conditions of quarantine, the Admiralty finally agreed to put contacts in camps. This, as later transpired, proved unnecessary as by this time serological tests had proved that the case was actually a severe chickenpox. As soon as the result of the serological tests were available all restrictions on the movements of the ship's passengers and company were raised, and the notifications to the local medical officers of health stopped.

DETAILS OF VOYAGE.

Bombay	...	...	...	...	...	...	14.2.46
Suez	...	...	...	...	...	...	21.2.46
Port Said	...	...	...	...	...	...	22.2.46
Liverpool	...	...	...	...	...	...	2.3.46

HISTORY OF CASE. (A R.A.F. L.A.C., age 23 years.)

- 22.2.46 Onset of illness—severe headache and pyrexia.
- 23.2.46 Rash appeared. Generalised rash including hand and ankles; pustules on palms and soles.
- 2.3.46 When examined the rash appeared uniform in size and age. As it resembled the cases of smallpox (atypical) in the s.s. "Duchess of Richmond," it was deemed advisable to treat the case as one of smallpox until the result of the serological test was known.

VACCINATION HISTORY.

Primary Vaccination, aged 19 years	...	...	...	...	1 small mark.
Revaccinations—October, 1944	...	...	...	...	No take.
4th March, 1946	...	...	...	...	Take.

RELEVANT TIMES COVERING ARRIVAL OF VESSEL AT LIVERPOOL.

Alongside Prince's Stage	...	...	...	...	2.50 p.m.	2.3.46
Disembarkation stopped	...	...	...	...	3.30 p.m.	
Case removed to Port Health Hospital	...	...	...	...	5.00 p.m.	
Vessel put out into mid-stream	...	...	...	...	5.45 p.m.	
Vessel returned to Prince's Stage	...	...	...	...	11.55 a.m.	3.3.46
Vessel left Stage for Dock	...	...	...	...	11.00 a.m.	4.3.46
Results of serological tests	...	...	...	...		4.3.46
All restrictions removed	...	...	...	...		4.3.46

The m.v. "Ernebank" arrived in the river on March 26th, 1946, and was boarded by the Assistant Port Medical Officer. The Master reported that a British Indian sailor had been landed at Suez on March 13th by the Quarantine Officer, suffering from smallpox. The illness started on March 10th. All persons on board were vaccinated at Suez and the crew's bedding taken ashore for disinfection and fumigation by Quarantine Officers. As the vessel sailed the same day the Master had no further report on the patient. The vessel left Townsville, Australia, on January 23rd, proceeded to Brisbane for loading and called at Cochin on March 2nd, Suez on March 13th and Port Said on March 14th.

On arrival at Liverpool four British Indians were removed to the Port Health Hospital, one of whom was subsequently diagnosed as

chickenpox, the other three having no signs of any infectious disease. Although no satisfactory history of the patient removed at Suez could be obtained, the vessel had not been to any port where smallpox was prevalent, and it seems probable that this case was also one of chickenpox. In these circumstances, except for taking the names and addresses of the crew, no further action was considered necessary. The vessel carried no passengers.

TYPHOID FEVER.

Seven cases of typhoid fever were landed in the Port during the year.

The s.s. "Empire Deben" arrived at Liverpool on the 21st September, 1946, and was boarded before berthing by the Assistant Port Medical Officers. The ship's surgeon reported three cases of typhoid fever and several cases of suspected malaria among the crew. Subsequent information was obtained from the Ministry of Transport and Ministry of Health that seven cases of typhoid fever had occurred among passengers landed in West Africa during the outward voyage, which had commenced at Liverpool on August 11th. A signal was received from Sea Transport, Freetown, on September 28th stating that two passengers who had embarked at Liverpool on August 11 and landed at Lagos on August 28th subsequently developed typhoid fever, and that one of them had died.

DETAILS OF VOYAGE.

Left Liverpool	...	...	Aug. 11	Arrived Las Palmas	...	...	Aug. 17
„ Las Palmas	...	...	Aug. 18	„ Freetown	...	...	Aug. 22
„ Freetown	...	...	Aug. 23	„ Takoradi	...	...	Aug. 26
„ Takoradi	...	...	Aug. 27	„ Lagos	...	...	Aug. 29
„ Lagos	...	...	Sept. 2	„ Takoradi	...	...	Sept. 3
„ Takoradi	...	...	Sept. 4	„ Freetown	...	...	Sept. 7
„ Freetown	...	...	Sept. 7	„ Las Palmas	...	...	Sept. 12
„ Las Palmas	...	...	Sept. 13	„ Gibraltar	...	...	Sept. 15
„ Gibraltar	...	...	Sept. 15	„ Liverpool	...	...	Sept. 21

Members of the crew, and passengers, went ashore at Las Palmas but it was impossible to obtain a complete list of those who had availed themselves of this privilege.

WATER SUPPLY.

All fresh-water tanks were cleansed and filled at Newport on Thursday, 1st August, 1946. Fresh water was taken aboard at:—

Las Palmas	...	...	...	...	August 17/18
Freetown	...	...	...	...	August 22/23
Takoradi	...	...	...	...	August 26/27
Lagos	...	...	...	...	Aug. 29/Sept. 2
Freetown	...	...	...	...	September 7
Las Palmas	...	...	...	...	September 13

Fresh water taken at Freetown and Lagos was chlorinated, and certificates of purity were obtained for all other water taken in abroad.

On arrival at Liverpool samples of drinking water were taken and submitted to the City Bacteriologist who reported all samples to be first-class; no *B. coli* per 100 c.c. were found and no coliform organisms were found. All drinking water passes through one of two main filters, both of which were cleansed and refilled on arrival here.

PROVISIONS.

The vessel was originally provisioned at Newport. The following provisions were purchased abroad:—

La Palmas (Outward Voyage).

220 lbs. Bananas.	500 Lemons.
560 lbs. Tomatoes	50 Water Melons
	500 Lettuces

Lagos (Outward Voyage).

2,208 lbs. Sides Pork	800 Chickens
2,200 lbs. Bananas	60 Turkeys
300 lbs. Marrow	500 Grape Fruit
500 lbs. Onions	2,500 Oranges
75 lbs. Spring Onions	900 Lettuces
300 lbs. Tomatoes	1,000 Eggs

Sago } An unspecified
Tapioca } amount

There was also aboard about 10 lbs. garlic purchased on the previous voyage at Piraeus. All provisions purchased abroad, including canned goods, were removed from the vessel.

DETAILS OF CASES.

	Rating	Age	Onset	Disposal
Case 1	... Assistant Steward	... 20	8.9.1946	Fazakerley Hospital
Case 2	... Stewards' Boy	... 17	13.9.1946	„
Case 3	... Second Officer	... 37	14.9.1946	„

PRECAUTIONARY MEASURES AT LIVERPOOL.

1. On arrival at Liverpool all persons on board were inspected, and no further cases or suspicious cases were discovered. The names and addresses of passengers and crew were checked and forwarded to the local medical officers of health with a circular letter.

2. Samples of drinking water were taken and proved to be Class 1 water.

3. On December 11th blood and faeces samples were taken of all those members of the victualling staff who were on the previous voyage and had then returned to the vessel. These were submitted to the City Bacteriologist for investigation. With one exception all these blood samples proved negative; the report on the blood of the chief baker indicated the possibility of his being a carrier. He was, therefore, removed from the vessel and arrangements were made for him to enter hospital for further investigation.

4. On December 14th a further circular letter was sent to local medical officers of health concerning those members of the catering staff who were not returning to the vessel, requesting that samples of blood, faeces and urine should be examined immediately and the results reported to the Port Medical Officer, Liverpool. Many of these men were away at sea, but of those still ashore all examinations proved negative.

5. The possibility of contamination of the water supply by the sewage system was investigated. The vessel had a very extensive refit lasting seven months in an English shipyard, and all the pipes to the troop decks are completely new. On December 17th an extensive examination of the water and sewage systems was carried out by the deputy chief port health inspector, assisted by two other port health inspectors. This inspection revealed that the after sewage tank is situated off the engine-room tunnel on the starboard side and is on top of No. 9 starboard double bottom fresh-water tank. There was leakage of sewage from the glands of the pipes and the pump connected to this tank which seeps on to the top of No. 9 starboard fresh-water tank. The Chief Officer stated that the tank tops had been recently surveyed, tested and passed, but should there be a defect in No. 9 fresh-water tank the sewage

would enter the fresh water. This sewage tank drains the lavatories of the passenger accommodation aft. The seepage of sewage on to the top of the fresh-water tank is a ready potential source of danger, and it was arranged that No. 9 starboard tank, No. 9 port tank and No. 10 tank should be completely blanked off at the manifold in the engine-room, and that no water from these tanks should be used on the next voyage. On December 21st, fluorescene was introduced into No. 9 starboard, No. 9 port and No. 10 tanks, and on this date it was established that there was no connection between these tanks and the forward tanks.

Bacteriological report on water samples:—

23rd SEPTEMBER, 1946	Bact. at 37°C.	Bact. at 22°C.
Tap—Officers' Cabin	0	5
Filtered Water—Officers' Bathroom ...	6	3
Filtered Water—"C" Deck	2	2

No. B. col; per 100 c.c. and no coliform organisms found.

17th DECEMBER, 1946

No. 1. No. 9 tank	} No bacteria present in any of the samples. Class I Water.
No. 2. Wash Water—crew's quarters forward ...	
No. 3. Wash Water—stewards' amidships ...	
No. 4. Wash Water—Junior Engineers' Bathroom ...	
No. 5.—Saloon Pantry Wash	
No. 6. Saloon Pantry Drinking	
No. 7. Ship's Galley	

18th DECEMBER, 1946

No. 2 Tank—Port	} No bacteria present in any of the samples. Class I Water.
No. 9 Tank—Port	
No. 9 Tank—Starboard	
No. 10 Tank	

19th DECEMBER, 1946

Water from tap in Galley—vegetable washing	} No organisms of the typhoid group found in the concentrates of the Waters and Liquid.
Water from No. 9 fresh-water tank starboard	
Liquid lying on top of No. 9 fresh-water tank by sewage tank	

20th DECEMBER, 1946

Liquid lying on <u>TOP</u> of No. 9 fresh-water tank (starboard)	} No organisms of the typhoid group found.
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6. On December 20th, samples of blood were taken from the purser and the troop second officer, both of whom were reported to have been

suffering from malaria on the outward voyage. The result of this examination indicated that both these officers had comparatively recently suffered from typhoid fever but were not excreting typhoid bacilli.

The purser became ill the day after leaving Liverpool—August 12/13—but remained at his work for about three or four days before he was ultimately put off duty. The case was thought to be malaria and the patient ultimately recovered and returned to duty.

The troop second officer became ill about a week later—when the vessel was between Las Palmas and Freetown. He also was thought to be a case of malaria and was treated accordingly; he subsequently recovered and returned to duty.

Both these officers had been living in the ship at Newport for several weeks prior to the vessel sailing for Liverpool, and apart from the vessel itself the only common source of food was a hotel in Newport where they went for meals occasionally.

The vessel sailed on December 21st, 1946.

During the year, two cases of paratyphoid fever were landed here.

ANTHRAX.

Two cases of Anthrax occurred during the year among dock workers in the Port, and these were treated at the Liverpool City Hospital, Fazakerley.

PLAGUE.

No case of human plague was landed at Liverpool during the year, and no plague-infected rats were discovered either in ships or on shore.

MALARIA.

During the year, 171 new cases of malarial fever were notified, which were either landed in Liverpool or had recovered abroad, in 63 vessels.

The names and addresses of the patients, with particulars of the treatment given, together with the movements of the vessels, were forwarded to the Ministry of Health.

Infectious Diseases.

The number of cases of infectious disease *landed from vessels* arriving in the Port of Liverpool and those occurring in Liverpool bound ships which were disposed of *prior to the arrival of the vessels* at the port, are shown in the following tables:—

Cases of infectious sickness landed from vessels.

Diseases.	No. of Cases during 1946.		No. of Vessels concerned.	Average No. of cases in previous 5 yrs
	Passengers.	Crew.		
Plague	—	—	—	—
Cholera	—	—	—	—
Yellow Fever	—	—	—	—
Smallpox	6	1	4	—
Typhus Fever	—	—	—	—
Scarlet Fever	1	3	4	25
Enteric Fever	9	3	12	5
Diphtheria	—	3	3	30
Measles and German Measles	9	2	10	48
Chickenpox	8	9	11	27
Tuberculosis... ..	113	16	21	317
Pneumonia	3	7	8	24
Dysentery	13	5	10	13
Malaria	14	34	26	108
Mumps	2	2	4	38
Leprosy	—	1	1	—
Poliomyelitis	1	—	1	2
	179	86	115	634

DANGEROUS DISEASE

**Cases of infectious sickness occurring on vessels during the voyage
but disposed of prior to arrival.**

Diseases.	No. of cases during 1946		No. of vessels concerned.	Average No. of cases in previous 5 yrs
	Passengers.	Crew.		
Plague	—	—	—	—
Cholera	—	—	—	—
Yellow Fever	—	—	—	—
Smallpox	6	1	4	5
Typhus Fever	—	—	—	1
Scarlet Fever	1	—	1	2
Enteric Fever	—	9	4	6
Diphtheria	—	3	3	2
Measles and German Measles	18	1	9	32
Chickenpox	10	4	5	8
Tuberculosis... ..	—	1	1	27
Pneumonia	—	4	4	14
Malaria	3	120	37	504
Mumps	1	1	2	4
Poliomyelitis	3	1	4	—
	42	145	74	605

There were 375 cases of venereal disease reported on board 103 vessels arriving in the port during the year. These were referred, where circumstances required, for treatment at the Seamen's Dispensary.

PSITTACOSIS.

The Parrots (Prohibition of Import) Regulations, 1930, are still in force, and during the year 1946 the number of orders issued was 16.

The Sanitary Authority enforce the Regulations, Sections 4 and 5 which state as follows:—

Section 4. A person shall not import any *parrot into England or Wales whether for sale or otherwise:

Provided that nothing in these regulations shall be deemed to prohibit the importation of any parrot which is proved to the satisfaction of the Medical Officer of Health to be required for purposes of medical or veterinary research, or which is consigned to the Zoological Society of London or to a person for the time being specially authorised by the Minister (Health) to import parrots otherwise than for sale.

Section 5. The master of every ship approaching any port shall, if he has reason to believe that a parrot is on board, bring these regulations to the notice of the person having the custody or control of the parrot, and shall immediately on the arrival of the ship notify the proper officer of Customs and Excise accordingly.

* "Parrot" means a bird of the order Psittaciformes, and includes any of the birds commonly called parrots, parrakeets, lovebirds, macaws, cockatoos, conures, caiques, lorries and lorikeets.

DANGEROUS DRUGS.

During the year 46 certificates authorising the purchase of scheduled dangerous drugs were issued under the Dangerous Drugs (No. 3 Regulation), 1923, amending the Dangerous Drugs Regulations, 1921, regulation 15, of which is as follows:—

“If a foreign ship in any port in Great Britain requires to obtain a supply of any of the drugs in order to complete the necessary equipment of the ship, the Master of the ship is authorised to purchase and be in possession of such quantity of any of the drugs as may be certified by the Medical Officer of Health of the Port where the ship is (or in his absence by the Assistant Medical Officer of Health of the Port) to be necessary for the purpose, the quantity not to exceed what is required for the use of the ship until it reaches its home port. The certificate given by the Medical Officer or Assistant Medical Officer of Health of the Port shall be marked by the supplier with the date of the supply and shall be retained by him and kept for inspection.”

MEASURES AGAINST RODENTS.

The measures taken against rodents have been continued during the year on the same lines as were described in the Annual Report for 1938.

INTERNATIONAL SANITARY CONVENTION OF PARIS, 1926.

ARTICLE 28.

During the year, 175 fumigations were carried out for the purpose of obtaining deratisation certificates, and in addition 377 vessels were granted deratisation exemption certificates, making a total of 552 examinations under Article 28.

Measures of Rat Destruction on Plague-“ Infected ” or “ Suspected ” Vessels or on vessels from Plague-Infected Ports during the year 1946.

Total Vessels Arriving	No. Fumigated with SO ₂	No. of Rats Killed	No. Fumigated with HCN	No. of Rats Killed	No. Fumigated with both HCN & SO ₂	No. of Rats Killed	No. of such vessels on which Trapping was employed	No. of Rats Killed	No. of such vessels on which measures of Rat Destruction were not carried out
610*	6	84 rats 13 mice	97	1,584 rats 86 mice	Nil	Nil	450	586 rats 2 mice	61

* Including 73 vessels bound for Manchester.

Deratisation Certificates and Deratisation Exemption Certificates issued during the year 1946.

Net Tonnage	No. of Ships	Number of Deratisation Certificates issued after Fumigation with		After Trapping, Poisoning, etc.	TOTAL	No. of Deratisation Exemption Certificates issued	Total Certificates issued
		H.C.N.	Sulphur				
Up to 300 Tons ...	5	—	—	—	—	5	5
From 301 to 1,000 Tons ...	48	12	—	—	12	36	48
From 1,001 to 3,000 Tons ...	93	28	2	—	30	63	93
From 3,001 to 10,000 Tons ...	377	109	5	—	115	262	377
Over 10,000 Tons ...	29	17	1	—	18	11	29
TOTALS ...	552	166	8	—	175	377	552

Number and species of rats caught, in the City and Port of Liverpool during the year 1946.

1946	Warehouses		Sewers		Other Places		Total		Ships		Quays		Other Sources		Total	
	Black	Brown	Black	Brown	Black	Brown	Black	Brown	Black	Brown	Black	Brown	Black	Brown	Black	Brown
January ...	219	406	—	644	16	152	235	1,202	265	—	76	33	14	12	355	45
February ...	183	193	—	612	1	119	184	924	185	1	100	73	7	15	292	89
March ...	249	374	—	671	—	202	249	1,247	214	—	73	24	9	18	296	42
April ...	247	321	—	628	12	69	259	1,018	363	—	75	20	5	4	443	24
May ...	288	300	—	696	11	121	299	1,117	409	—	82	21	11	22	502	43
June ...	256	498	—	600	—	117	256	1,215	349	5	65	21	5	11	419	37
July ...	263	632	—	710	1	189	264	1,531	603	—	57	13	9	1	669	14
August ...	266	446	—	560	—	157	266	1,163	279	—	61	8	9	7	349	15
September ...	732	817	—	637	—	199	732	1,653	236	1	76	12	7	2	319	15
October ...	339	451	—	682	1	74	340	1,207	232	—	96	23	17	7	345	30
November ...	321	329	—	646	4	94	325	1,069	252	—	93	56	30	7	375	63
December ...	267	230	—	561	—	84	267	875	212	—	53	31	5	10	270	41
TOTAL ...	3,630	4,997	—	7,647	46	1,577	3,676	14,221	3,599	7	907	335	128	116	4,634	458

Number and Species of Rats examined or destroyed in the City and Port of Liverpool during the year 1946.

1946.	Examined (City).		Destroyed (City).		Examined (Port).		Destroyed (Port).		Total Caught	
	Black.	Brown.	Black.	Brown.	Black.	Brown.	Black.	Brown.	City and Port.	Black and Brown.
	January	21	87	214	1,115	126	45	229	—	1,837
February	15	73	169	851	189	86	103	3	1,489	
March	18	86	231	1,161	164	42	132	—	1,834	
April	10	65	249	953	149	22	294	2	1,744	
May	17	78	282	1,039	213	38	289	5	1,961	
June	15	67	241	1,148	116	31	303	6	1,927	
July	8	77	256	1,454	135	14	534	—	2,478	
August	22	61	244	1,102	78	15	271	—	1,793	
September	32	76	700	1,577	108	15	211	—	2,719	
October	13	69	327	1,138	157	30	188	—	1,922	
November	10	80	315	989	207	60	168	3	1,832	
December	13	75	254	800	115	41	155	—	1,453	
TOTAL	194	894	3,482	13,327	1,757	439	2,877	19	22,989	

Rats destroyed during 1946.

(1) In vessels:—

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black	265	185	214	363	409	349	603	279	236	232	252	212	3,599
Brown	—	1	—	—	—	5	—	—	1	—	—	—	7
Species not recorded ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Rats examined ...	44	92	90	77	130	57	75	13	28	47	91	60	804
Rats found infected with Plague	—	—	—	—	—	—	—	—	—	—	—	—	—

(2) In Docks, Quays, Wharves and Warehouses:—

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Black	90	107	82	80	93	70	66	70	83	113	123	58	1,035
Brown	45	88	42	24	43	32	14	15	14	30	63	41	451
Species not recorded ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Rats examined ...	127	183	116	94	121	90	74	80	95	140	176	96	1,392
Rats found infected with Plague	—	—	—	—	—	—	—	—	—	—	—	—	—

Number of Mice destroyed on vessels 120
 Do. do. do. on quays 145
 Do. do. examined on vessels and quays 140

The combined returns of all rats and mice caught and destroyed by shipping firms employing their own rat-catchers, by rat catching companies, and by the Public Health Authority, during the year 1946, are as follows:—

	Rats	Mice	Rats	Mice
PORT—				
In vessels	4,598	120		
On quays	1,486	145		
			6,084	265
CITY—				
In warehouses	8,627	1,391		
In sewers and from other sources ...	9,270	3,569		
			17,897	4,960
		TOTAL ...	23,981	5,225

Number of Visits to Vessels by Rat Catchers	5,695
Do. do. do. Rat Searchers... ..	3,103
Do. do. Quays, Sheds, etc. , by Inspectors ...	3,398
Do. do. do. do. Rat Searchers..	1,846
Do. do. do. do. Rat Catchers...	7,777

Inspection of Shipping.

Year 1946.

Nationality	Visits	Re-visits	Total
British	3,016	1,452	4,468
American	152	62	214
Swedish	83	14	97
Norwegian	53	16	69
Greek	32	30	62
Danish	36	6	42
Russian	18	24	42
Dutch	25	1	26
Polish	16	10	26
Spanish	10	11	21
Panama	14	3	17
Finnish	8	4	12
Belgian	4	4	8
Yugo-Slavian	7	1	8
Egyptian	1	3	4
French	3	1	4
Argentine	2	1	3
Italian	2	—	2
Chilian	1	—	1
Total	3,483	1,643	5,126

Summary of Insanitary Conditions during the year 1946.

Class of Vessels	Number Inspected	Number on which Nuisances were found	Per cent.
SAILING FOREIGN—			
Steamers	2,202	442	20.07
Motor	636	85	13.36
Sailing	3	—	—
Total	2,841	527	18.55
SAILING COASTWISE—			
Steamers	486	72	14.81
Motor	156	2	1.28
Sailing	—	—	—
Total	642	74	11.53

Nationality	Number Inspected.	Number on which Nuisances were found
British	3,016	563
Foreign	467	38
Total	3,483	601

Nuisances arising through

Defects of Original Construction (a)	Per cent. of Total Defects	Structural Defects through wear and tear (b)	Per cent. of Total Defects	Dirt, and other conditions prejudicial to health (c)	Per cent. of Total Defects
13	0.31	577	13.81	3,587	85.88

The following Table shows the number and Nationalities of the Vessels on which Defects were detected during the year 1946.

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NATIONALITY	Number of Ships	Dirty Forecables	Vermilious Quarters	Dirty Wash-houses, Store-rooms, etc.	Foul Wash-tanks and Tanks	Foul Bilges	Foul W.C.'s	Accumulations of offensive refuse	Gear stowed in Crew's Quarters	Damp Quarters	Water lodging on top of Forepeak Tank	Leaky Decks overhead	Defective Stoves	Defective Bulkheads	Defective Ports and Sky-lights	Defective Ventilators	Defective Flooring Boards	Defective Hatches and Lockers	Defective Chain Pipes	Defective Hawsa Pipes	Defective W.C. Fittings	Defective Soil Pipes	Defective Waste Pipes	Inadequate Ventilation	Inadequate Lighting	Inadequate Drainage	Bare, Iron not sheathed	W.C.'s deficient in Ventilation and situation bad	Total number of Defects	Total Remedied		
British...	563	501	2,648	49	2	—	77	8	2	90	3	177	26	4	170	8	—	—	—	7	122	8	22	2	—	8	3	—	3,937	3,186		
Greek ...	9	2	19	—	—	—	7	1	—	—	—	3	2	—	8	—	—	—	—	—	1	—	—	—	—	—	—	—	—	43	41	
Norwegian ...	7	—	60	—	—	—	—	—	—	—	—	2	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65	33	
American ...	6	8	—	—	—	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13	13	
Spanish ...	4	—	11	—	—	—	4	—	—	—	—	—	—	—	3	—	—	—	—	—	1	—	—	—	—	—	—	—	—	19	19	
Russian ...	2	—	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21	1	
Polish ...	1	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	
Argentine ...	1	—	6	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	6	
Yugo-Slav. ...	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	
Panama ...	1	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6	
Belgian ...	1	—	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	10	
Swedish ...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	1	
Dutch ...	1	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	12	12
Finnish ...	1	—	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12
Danish...	1	—	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18	18
Egyptian ...	1	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
Totals ...	601	511	2,827	49	2	—	88	15	2	90	3	182	28	4	187	8	—	—	—	13	124	9	22	2	—	8	3	—	—	4,177	3,363	

Canal Boats.

The port sanitary inspectors have been appointed inspectors under the Canal Boats Acts, 1877 and 1884. An inspector devotes one day each week to the inspection of canal boats plying in the river or docks, and during the year 196 boats were inspected, of which 20 were found to have some condition contravening the regulations.

MEDICAL INSPECTION OF ALIENS.

The following table gives the total number of aliens arriving in the Port of Liverpool during 1946, and the number of each of the categories under which alien passengers are classified by the Immigration Department of the Home Office:—

Total aliens	Transmigrants	Residents returning	In transit
5,666	Nil	67	1,392
Visitors of 6 months or less		Diplomats and persons on Foreign Govt. Missions	Seamen
On holiday, tourist, &c.	On Business		
497	198	65	222
Seamen under Contract to join ships in British Waters		Ministry of Labour Permits	Other Aliens
2,071		15	1,139

Total number of vessels carrying Alien passengers ... 924
 Number of Vessels dealt with by the Medical Inspector ... 150

Medical Inspection of Aliens. Year 1946.

	TOTAL.	Number Inspected by the Medical Inspector.	Number subjected to detailed examination by the Medical Inspector.	CERTIFICATES ISSUED					
				Lunatic Idiot or M.D.	Undesirable for medical reasons.	Physically incapacitated.	Suffering from acute infectious disease.	Landing necessary for adequate medical examination.	Transmits.
(a) Total number of Aliens landing at the Port ...	5,666	1,824	812	—	—	—	—	—	—
(b) Aliens refused permission to land by Immigration Officer	136	—	—	—	—	—	—	—	—
(c) Transmigrants ...	—	—	—	—	—	—	—	—	—
Total Aliens arriving at the Port ...	5,666	1,824	812	—	—	—	—	—	—

FOOD IMPORTATIONS.

Although 1946 has been a busy year in the Port of Liverpool the effect of certain South and East Coast ports coming back into full operation after being closed during the war years has been felt, and the quantity of food imported through this port has consequently been reduced.

Individual "importers," as distinct from the Ministry of Food, re-appeared during the year, dealing chiefly with luxury fruits, tomatoes, etc.

Quarters of beef arrived that were not boneless and moulded, nor pressed into blocks, as previously. A certain number of carcasses of mutton and lamb were in their normal shape instead of being "telescoped."

Fairly large quantities of a variety of fresh fruits, etc., arrived from the Mediterranean and the Canary Islands, in some instances for the first time since 1941.

Several consignments of oranges from Jaffa and Spain were landed with rather a large percentage decomposed: these consignments were sorted at their various destinations.

Tomatoes from the Channel Islands, bananas, oranges and grapefruit from Jamaica, and bananas from the British Cameroons all re-appeared in the port during the year.

A number of consignments of beef (both boneless and with the bone in) arrived during the year, which, on examination, were found to be affected with onchocerciasis (worm nodules). Consignments of briskets varied in condition from completely sound to completely unsound, one consignment being 100 per cent. affected. A complete examination of a consignment of 2,954 briskets from Western Australia revealed 84.25 per cent. affected. One consignment of hindquarters were found to be 5 per cent. affected.

On 21/9/46, 5,097 "telescoped" carcasses of mutton arrived from North America. Full examination of the consignment was carried out and 7.73 per cent. were found to be affected with caseous lymphadenitis. A further cargo of 9,207 carcasses arrived 26/10/46 and 6.71 per cent. were similarly affected.

An unusual cargo, consisting of 10 tons of frozen whale meat—blubber and livers—all packed into 50 lb. slabs, was landed from the s.s. "Empire Victory" at Antarctic Whaling Grounds on 29/5/46. The consignment was in good condition and was forwarded for experimental purposes.

The m.v. "Tarkwa" at West Africa landed 19 frozen carcasses of pork of Nigerian origin on 14/8/46. This was the first consignment to land in this country from Nigeria, and as it constituted a breach of the Public Health (Imported Food) Regulations, 1937, it was detained. After thorough general and microscopical examination, the pigs were released by the Port Medical Officer, an undertaking having been received that no further consignments would be shipped.

Two consignments of goat meat and offal arrived in good condition from New Zealand.

The s.s. "Empire Mole" arrived from Jamaica 17/10/46 with 166,427 stems of bananas, reputed to be a record consignment by 2,000 stems.

The s.s. "Saxon Star" arrived from Canada 12/12/46 with 129,550 cases of shell eggs (46,638,000 eggs) said to be the largest consignment ever to arrive in this country.

Various classes of damaged cargoes were dealt with during the year. Broadly speaking, these come under two headings—"taints" and visible damage. 53,323 packages of frozen meat and about 209,000 packages of butter, tainted with fuel oil, and one consignment of smoke-tainted frozen meat of about 50,000 packages were landed and dealt with, either locally or under the supervision of medical officers of health in other areas. Other damaged cargoes included the following:—

The s.s. "City of Leicester" at Turkish ports 22/1/46 landed 11,379 packages of sultanas damaged by sea-water. Of these, 1,173 packages (46,910 lbs.) went for animal food, and 90 packages (4,496 lbs.) were allowed to be used for wine-making.

The s.s. "Bayano" arrived here from Canada on 1/2/46, with No. 1 hold flooded with sea-water. 1,508 bales and boxes, and 1,996 pieces of bacon and hams were landed in a damaged condition. Of these, 666 bales and boxes and all the loose pieces were reconditioned in Liverpool, and

618 pieces and trimmings weighing 48,554 lbs. were rejected on account of decomposition, and were sent for industrial purposes. The balance of damaged bacon was reconditioned under supervision outside Liverpool.

The s.s. "Tordene" at Uruguay 15/5/46, arrived in port on fire, and landed 40,301 cases of various canned meats all of which were damaged by fire and water. 34,017 cases were allowed to go to depots outside Liverpool for examination, etc., under the supervision of the local medical officers of health, and 6,284 cases were dealt with by this Authority in warehouse. Of those cases dealt with here, 9,722 tins (7,341 lbs.) were rejected and sent for destruction or else used as animal food.

From the s.s. "Empire Calder" at Izmir 25/5/46, 463 packages of sultanas weighing 14,444 lbs. were landed damaged by contents from a lavatory waste-pipe on board. The sultanas went for animal food.

The s.s. "Stormont" at Belfast 25/6/46, landed 49 bags of refined sugar which had been damaged by hydrochloric acid; it was reconditioned at a local refinery.

The s.s. "Samtampa" at Argentine arrived 24/7/46, and 5,556 bags of flour (793,100 lbs.) were landed heated and sour; they were forwarded for animal feeding and industrial purposes.

The s.s. "Empire Prowess" at Australia 28/10/46, landed 2,126 cases of various canned meats all damaged by water and zinc concentrates. After being fully examined in warehouse, 608 cases were found to be unsound and were sent for destruction or else used for animal feeding purposes.

The s.s. "Stormont" at Belfast was wrecked in the Mersey on 20/11/46. She had on board 208 live cattle and some 5,000 cartons of canned milk. 20 live cattle were rescued and were fit to travel, and 10 were rescued but were subjected to immediate emergency slaughter on the river wall before being taken to the City Abattoir. The remainder of the beasts were drowned and those landed were sent forward to be used as animal food or for industrial purposes. The salvaged milk is now being examined in a local warehouse.

Table showing the quantity and description of unsound meats utilised under supervision* during the year 1946:—

DESCRIPTION.	TOTAL WEIGHT	CAUSE OF DESTRUCTION					
		Tuberculous.		Brine stained, mouldy and decomposed.		Other causes.	
	Tons cwts. qrs. lbs.	Tons cwts. qrs. lbs.	Tons cwts. qrs. lbs.	Tons cwts. qrs. lbs.	Tons cwts. qrs. lbs.	Tons cwts. qrs. lbs.	Tons cwts. qrs. lbs.
Beef	37 12 2 26	— — — —	28 4 1 19	9 8 1 7			
Mutton	10 18 0 6	— — — —	3 9 1 6	7 8 3 0			
Pork	3 4 3 14	— — — 10	3 4 3 4	— — — —			
Veal	— 1 2 15	— — — —	— 1 2 15	— — — —			
Total	51 17 1 5	— — — 10	35 0 0 16	16 17 0 7			

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

Table showing the total quantities of the different unsound foodstuffs utilised under supervision during the year 1946:—

	Tons	Cwts.	Qrs.	Lbs.
Beef, Mutton, Pork and Veal	51	17	1	5
Offal (Beef, Mutton, etc.)	3	1	2	1
Canned Goods	57	1	3	11
Fruit and Vegetables	870	10	2	15
Cereals	1,764	16	1	13
General (Fish, Poultry, Rabbits, etc.) ...	36	9	3	26
TOTAL	2,783	17	2	15

The following tables give the particulars of samples sent to the City Analyst and City Bacteriologist for examination during the year 1946:—

SAMPLES SENT TO CITY ANALYST

Nature of Samples	Country of Origin	Number of Samples
Beef	Canada ...	1

SAMPLES SENT TO CITY BACTERIOLOGIST

Nature of Sample	Number of Samples
Blood	28
Faeces	24
Throat-swab	1
Urine	1
Water	18

In addition, 258 samples of goat hair, buffalo hair, black drawn bristle hair and wool were submitted for examination.

The Port Health Authority is also engaged in the issue of certificates of disinfection for foreign governments and other purposes in connection with the exportation of hides, wool, jute sacks and cloth, tailors' cuttings, rags, second-hand bags and clothing, bales of cotton, etc.

The department also endorses under the United States, Canadian and other regulations, certificates regarding wholesomeness of food articles, and the sanitary condition of the premises in which the articles are produced or stored, comprising poultry, game, cheese, bacon, hams, potatoes, preserved fish, pickled beef, tongues, sausage skins, lime juice, etc.

The work attached to preparing and recording these certificates is considerable, and takes up a large amount of time of the department.

I desire to express my appreciation of the valuable assistance received from H.M. Collector of Customs and staff, the Mersey Docks and Harbour Board and their officers, and the various shipping companies who have co-operated with the Port Health Authority in the maintenance of Public Health and the prevention of disease in the port. The Consular Bodies have at all times given courteous assistance.

W. M. FRAZER,

*Medical Officer of Health,
Liverpool Port Health Authority.*

Number of Samples	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...
12	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...

In addition, 233 samples of goat hair, bullock hair, black dress
bristle hair and wool were submitted for examination.