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**PORT OF MANCHESTER.**

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**ANNUAL REPORT**

OF THE

**Medical Officer of Health**

TO THE


**PORT SANITARY AUTHORITY,**

**1913.**

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*ORDERED BY THE PORT SANITARY AUTHORITY TO BE PRINTED*

*27th April, 1914.*



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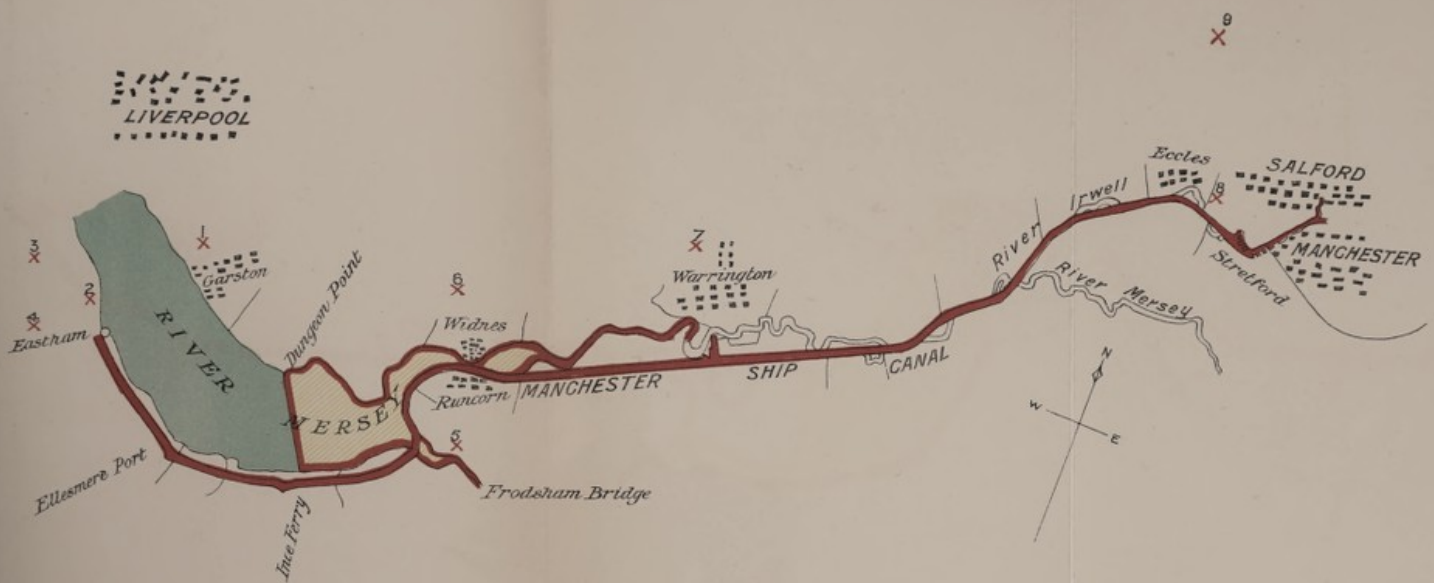
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## CONTENTS.

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Members of Port Sanitary Authority .. .. .	6
Sickness during the Year .. .. .	7
Summary of the Cases of Sickness occurring during the Year ..	10-14
Tables giving details of Sickness .. .. .	15-23
Inspection of Food Imports .. .. .	24
Table shewing Principal Food Imports at Chief Home Ports ..	32-34
Table comparing Food Imports with Total Imports at the Chief Ports, and shewing the Rate of Increase and Decrease ..	35-37
Tables shewing the Principal Producing Countries, &c. .. ..	37
Coloured Diagram Illustrating the Total Amounts of Food and other Imports at Chief Ports.. .. .	—
The Sanitary Condition of Ships .. .. .	38
Canal Boat Inspection .. .. .	52
Shipping Inwards to the Port of Manchester .. .. .	57



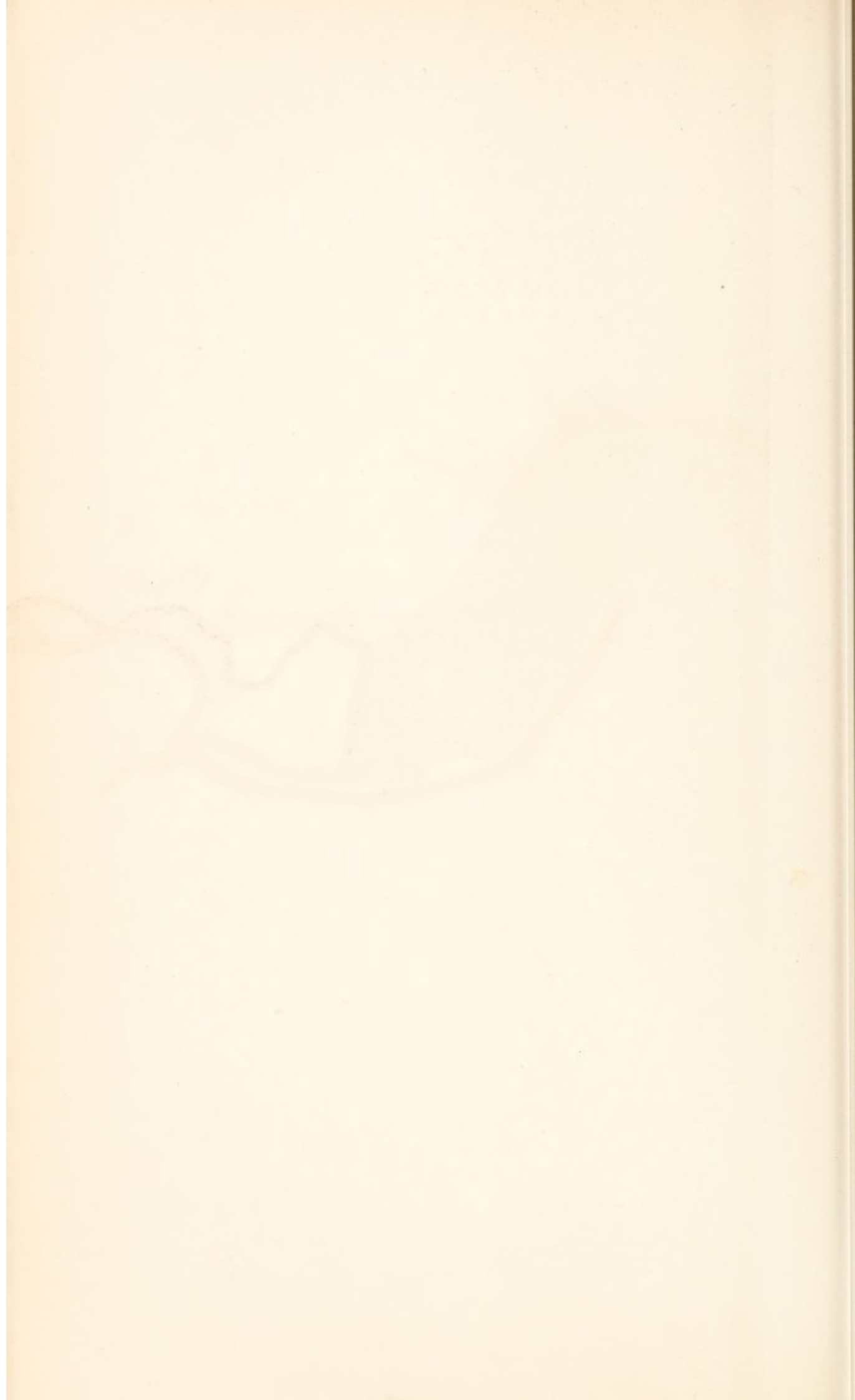


## PORT OF MANCHESTER.

Limits of Jurisdiction of the Manchester Port Sanitary Authority—**RED.**

Hospitals where Infectious cases can be removed, under certain conditions, from vessels bound for or within the Port of Manchester—**X**

- |  |   |
|--|---|
| 1. Liverpool Small-pox Hospital.                             | 6. Widnes Infectious Diseases Hospital.     |
| 2. Liverpool Cholera, Plague and Yellow Fever Hospital.      | 7. Warrington Infectious Diseases Hospital. |
| 3. Wirral Small-pox Hospital.                                | 8. Salford Infectious Diseases Hospital.    |
| 4. Wirral Infectious Diseases Hospital.                      | 9. Salford Small-pox Hospital.              |
| 5. Runcorn Infectious Diseases Hospital and Small-pox Sheds. |   |





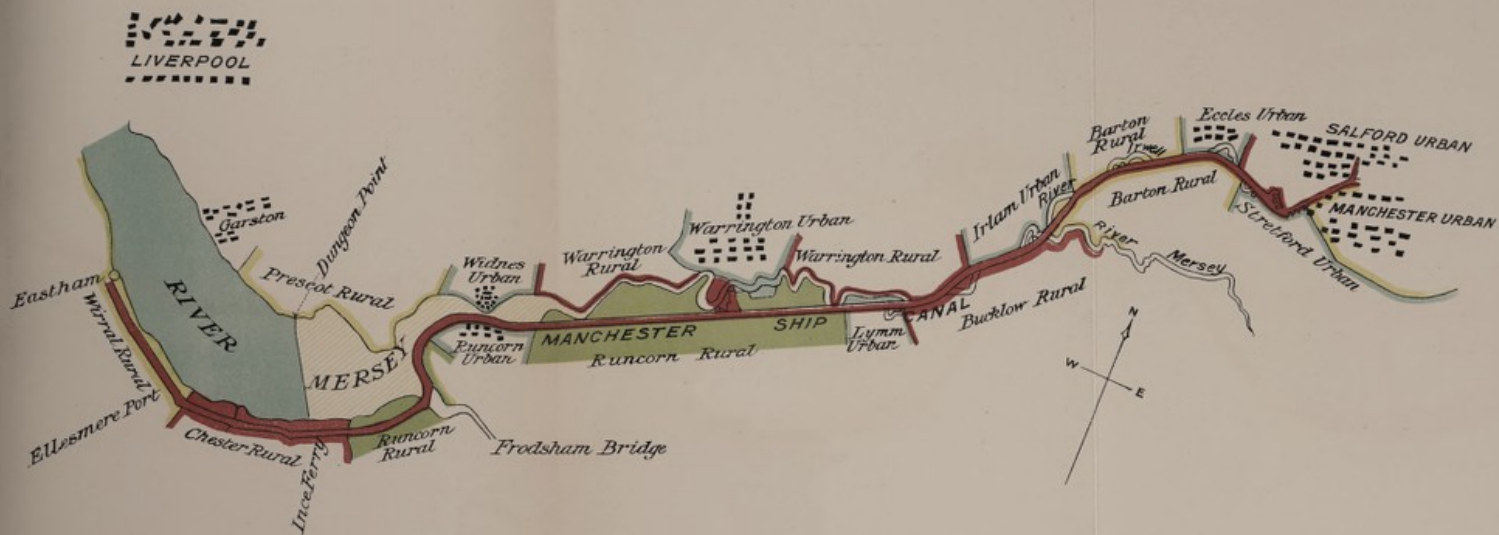


CHART SHOWING THE SANITARY DISTRICTS ABUTTING ON THE  
PORT OF MANCHESTER.





12. 1840



## Port of Manchester.

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*To the Chairman and Members of the Port Sanitary Authority.*

GENTLEMEN,

I have pleasure in laying before you my Annual Report for the year 1913, this being the eighth which it has been my privilege to present.

There is very little of special note requiring your attention either as regards incidence of Infectious Disease, Sanitary Condition of Ships, or Inspection of Food Stuffs. Better work has been done in administering the Canal Boats Acts and Regulations than formerly, owing to the motor launch providing improved facilities for the visiting of the large number of craft utilising the river.

I have the honour to be,

Yours faithfully,

W. F. DEARDEN,

MEDICAL OFFICER OF HEALTH.

Medical Officer's Department,  
168, Trafford Road, Salford,

April 27th, 1914.

# MANCHESTER PORT SANITARY AUTHORITY.

The membership for the year was as follows :—

Mr. Alderman W. HUDDART, J.P., Salford, <i>Chairman</i> .	
Mr. Councillor Thos. Robinson, J.P., Stretford U.D., <i>Deputy-Chairman</i> .	
Mr. Alderman T. Hassall, J.P. ..	} Manchester.
„ Councillor W. T. Dagnall ..	
„ Alderman C. Hornby ..	
„ „ D. McCabe, J.P. ..	
Alderman Sir Wm. Stephens, Kt., J.P. ..	} Salford.
Mr. Alderman E. Desquesnes ..	
Mr. Councillor W. H. Barrett, J.P. ..	
Mr. Councillor W. Scott Forbes, J.P. ..	{ Borough of Eccles. R.D. of Barton-upon-Irwell. U.D. of Irlam.
Mr. Alderman Jas. Evans, J.P. ..	{ Borough of Warrington. R.D. of Warrington. U.D. of Lymm.
Mr. Councillor Geo. Pilling, J.P. ..	{ U.D. of Runcorn. R.D. of Runcorn. R.D. of Bucklow.
Mr. Alderman G. I. Neil, J.P. ..	{ Borough of Widnes. R.D. of Chester. R.D. of Wirral.

The officials of the Authority are as follows :—

*Medical Officer of Health*—W. F. DEARDEN, M.R.C.S., L.R.C.P., D.P.H.,  
Telephones : Office, 1114, Trafford Park ; Residence, 416,  
Trafford Park.

*Clerk*—A. HOLMES, Solicitor, Bexley Square, Salford. Tel. 5927 Central.

*Sanitary Inspectors*—H. ATKINSON, C.S.M.F.I. ; W. RICHMOND, C.S.I.

*Food Inspectors*—G. W. MASON, C.S.M.F.I. ; J. ALMOND, C.S.M.F.I.

*Medical Officer's Clerk and Assistant Inspector*—

GEO. WHALLEY, C.S.M.F.I.

„ „ *Junior Clerk*—W. V. GREEN.

*Offices* :—168, Trafford Road, Salford.

80, Picton Avenue, Runcorn.



## SICKNESS DURING THE YEAR, 1913.

The total number of cases of Sickness reported during the year was 109.

## Reported Sickness from 1897-1913 inclusive.

1897	..	..	..	..	16
1898	..	..	..	..	65
1899	..	..	..	..	46
1900	..	..	..	..	71
1901	..	..	..	..	89
1902	..	..	..	..	144
1903	..	..	..	..	124
1904	..	..	..	..	159
1905	..	..	..	..	109
1906	..	..	..	..	174
1907	..	..	..	..	162
1908	..	..	..	..	138
1909	..	..	..	..	132
1910	..	..	..	..	122
1911	..	..	..	..	143
1912	..	..	..	..	188
1913	..	..	..	..	109

Cases of sickness of all kinds have been notified, as usual, by the Liverpool Port Sanitary Authority, the Manchester Ship Canal Co., H.M. Customs, Shipowners, and Medical Practitioners, but the bulk of information respecting this has been obtained by the Inspectors during their visits to the vessels in port.

Infectious cases are dealt with separately in Table VI., non-infectious sickness, injury, and death in Table VII., a general summary is supplied in Table I., and a useful classification is given in Table II.

## INFECTIOUS DISEASES.

The diseases notifiable to the Authority under this heading are Smallpox, Diphtheria, Membranous Croup, Erysipelas, Scarlatina, Acute Poliomyelitis; Typhus, Enteric or Typhoid, Relapsing, Continued, Cerebro-Spinal and Puerperal Fevers.

### TYPHOID FEVER.

Seven cases occurred on Manchester bound vessels at sea or in other ports, and but two were removed from vessels arriving in Manchester. Of these latter, one made a good recovery, and one died. The other cases were removed to hospital at Aden, Bristol, Las Palmas (two cases), Monte Video, Rosario, and Savannah, respectively.

### SMALLPOX.

There was one case during the year on a Manchester bound vessel, but this did not require dealing with in Manchester; the man being removed at Riga.

### CHOLERA, PLAGUE AND YELLOW FEVER.

There has been no outbreak during the year under this heading, either in the Port or on Manchester bound vessels.

The great increase of knowledge respecting the spread of Cholera, Plague, and Yellow Fever, since the International Convention of 1903 was arranged, pointed so definitely to the need for amendment of the agreement then arrived at, that a conference was held in Paris during 1911-12 to consider the subject. The Convention was remodelled, and some countries have already adopted new regulations putting this into practice. One particular recommendation deals with the periodical clearance of rats by fumigation, and suggests that this should take place at least once every six months. Ships entering a port where this clearance is now insisted upon must either produce a certificate of recent disinfection or be placed under certain severe restrictions. Two vessels have been disinfected in Manchester in accordance with this recommendation of the Convention, the method adopted in one case being the burning of roll sulphur, and, in the other case, liquified sulphur dioxide gas in cylinders. In the first instance four dead rats, and in the latter fourteen dead rats were found.



Your Medical Officer is again indebted to the Zeba' Co., 66, Seel Street, Liverpool, for sending in a return of rats caught on various vessels lying in Manchester docks during the year. The gross number of rats is above the average, though a smaller number of vessels were cleared of the vermin. During the eight years respecting which one has taken note of the work of this Company, their agents have captured and destroyed on vessels in Manchester docks the grand total of 72,480 rats.

NO. OF RATS DESTROYED IN THE PORT OF MANCHESTER  
DURING THE YEAR 1913.

Month.	No. of Vessels.	No. of Rats destroyed.
January ..	17	860
February ..	13	784
March ..	9	475
April ..	14	827
May ..	16	1049
June ..	11	1025
July ..	12	779
August ..	11	704
September ..	5	489
October ..	17	1255
November ..	13	618
December ..	14	753
	<hr/> 152	<hr/> 9618

The following Table shews the Ports having communication with Manchester that have been considered as infected during the year with either Plague or Cholera, also the total number of vessels from each Port of Departure classed as infected under the particular heading.

Name of Country and Port.	Number of Vessels from Ports of Departure Infected with	
	Plague.	Cholera.
BRAZIL :		
Rio de Janeiro .. ..	1	—
CANARY ISLES :		
Teneriffe .. ..	2	—
EGYPT :		
Alexandria .. ..	27	—
INDIA :		
Bombay .. ..	13	13
Karachi .. ..	14	—
TOTAL ..	57	13

SUMMARY OF THE CASES OF SICKNESS, INJURY AND  
MISADVENTURE NOTIFIED DURING THE YEAR.

TABLE I.

Accidental Injuries .. ..	19
Venereal Disease .. ..	12



Rheumatism .. .. .	9
Typhoid Fever .. .. .	9
Cold and Influenza .. .. .	7
Pneumonia .. .. .	6
Bronchitis .. .. .	5
Drowning .. .. .	5
Malaria .. .. .	4
Diarrhœa .. .. .	3
Abdominal Tumour? .. .. .	2
Appendicitis .. .. .	2
Asthma .. .. .	2
Epilepsy .. .. .	2
Gastritis .. .. .	2
Heart Disease .. .. .	2
Hernia .. .. .	2
Testicular Enlargement .. .. .	2
Apoplexy .. .. .	1
Catarrh of Bladder .. .. .	1
Dropsy .. .. .	1
Dyspepsia .. .. .	1
Enteritis .. .. .	1
Neuralgia .. .. .	1
Phthisis .. .. .	1
Pleurisy .. .. .	1
Quinsey .. .. .	1
Septic Poisoning .. .. .	1
Smallpox .. .. .	1
Suicide .. .. .	1
Tonsilitis .. .. .	1
Tubercular Gland .. .. .	1

---

Total .. 109

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TABLE II.

The diseases, &c., thus summarised may be classified as follows :—

Constitutional Disease (including Tubercular)	..	..	..	..	..	..	12
Diseases of the Alimentary System	..	..	..	..	..	..	11
"    "    Circulatory	..	..	..	..	..	..	2
"    "    Integumentary	..	..	..	..	..	..	0
"    "    Locomotor	..	..	..	..	..	..	0
"    "    Nervous	..	..	..	..	..	..	4
"    "    Respiratory	..	..	..	..	..	..	14
"    "    Urinary	..	..	..	..	..	..	1
"    "    Lymphatic	..	..	..	..	..	..	2
"    "    Reproductive	..	..	..	..	..	..	2
Specific Fevers	..	..	..	..	..	..	10
Malarial Fevers	..	..	..	..	..	..	4
Influenza and Colds	..	..	..	..	..	..	7
Venereal Diseases	..	..	..	..	..	..	12
New Growths	..	..	..	..	..	..	2
Suicide	..	..	..	..	..	..	1
Unknown	..	..	..	..	..	..	1
Injuries—Fatal	..	..	..	..	..	7	
Non-Fatal	..	..	..	..	..	12	
						—	
						19	
Drowning	..	..	..	..	..	5	
						—	24
							—
						Total ..	109
							<u>109</u>

TABLE III.

The following Table gives the number of cases of sickness which were removed to various hospitals, other than those within the Port of Manchester, from Manchester bound ships :—

Removed to Hospital at Alexandria	..	..	2
„ „ „ Christiania ..	..	..	2
„ „ „ Las Palmas	..	..	2
„ „ „ Liverpool ..	..	..	2
„ „ „ Marseilles ..	..	..	2
„ „ „ Aden ..	..	..	1
„ „ „ Antwerp ..	..	..	1
„ „ „ Bristol ..	..	..	1
„ „ „ Copenhagen	..	..	1
„ „ „ Lisbon ..	..	..	1
„ „ „ Marseilles ..	..	..	1
„ „ „ Monte Video	..	..	1
„ „ „ New York ..	..	..	1
„ „ „ Riga ..	..	..	1
„ „ „ Rosario ..	..	..	1
„ „ „ Savannah ..	..	..	1
„ „ „ Trinidad ..	..	..	1
„ „ „ Tunis ..	..	..	1
			—
Total	..		23
			—

TABLE IV.

The number of cases removed to Hospital within the Port of Manchester, was as follows :—

Removed to Hospital at Manchester and Salford	..	9
---	----	---

TABLE V.

In this Table are included those who died at sea from Sickness, together with those who lost their lives through drowning :—

Deaths at sea from Disease	..	..	..	..	3
Deaths from Drowning	..	..	..	..	5
					—
Total				..	8
					=



TABLE VI.

## Particulars of Cases of Infectious Disease on Manchester-bound Vessels.

Date	Name of Vessel	Where from	Where Inspected	Sickness	REMARKS
1913 May 13	s.s. Withernsea	River Plate	Elevator	Typhoid Fever (four cases)	The mate reported on arrival that a sailor was removed to hospital at Rosario, on March 31st, suffering from <i>typhoid fever</i> . The fore-castles were disinfected at this port. On the homeward passage the steward was taken ill, and was removed to hospital at Monte Video, on April 4th, suffering from so-called ' <i>gastric fever</i> '. On April 29th, another sailor and the messroom boy were landed at Las Palmas, and removed to hospital, suffering from <i>typhoid fever</i> . Disinfection was carried out and the berths repainted. On arrival at Manchester the fresh water tanks were emptied and cleansed.
June 2	s.s. Inglemoor	Copenhagen	Salford	Typhoid Fever	The mate reported that whilst on passage from Bombay to Marseilles, an apprentice was taken ill. He was removed to hospital at Aden, on March 1st, suffering from <i>typhoid fever</i> . The berth was disinfected and the fresh water tanks emptied and cleansed.

Date	Name of Vessel	Where from	Where Inspected	Sickness	REMARKS
June 20	s.s. Manchester Spinner	Stettin ..	Salford ..	Typhoid Fever ..	It was reported on arrival that the mate had been removed to hospital at Savannah, on May 12th, suffering from <i>typhoid fever</i> . The water tanks were emptied and cleansed and the berth disinfected. Information was received on September 19th from the Liverpool Port Sanitary Authority to the effect that a steward was suffering from feverish symptoms. On arrival at Salford, at 9-30 a.m., on the 20th, the man, M. Parsons, was examined by the Medical Officer, and as the symptoms were suspicious of <i>typhoid fever</i> , he was removed to hospital, and the usual disinfection carried out. He was discharged on October 10th.
Sept. 19	s.s. Manchester Importer	Montreal ..	Salford ..	Typhoid Fever ..	In consequence of a communication from the Bristol Port Sanitary Authority, this vessel was boarded at Mode Wheel. It was ascertained that a sailor had been taken ill on October 16th at Avonmouth, and had been removed to hospital on the 18th, suffering from <i>typhoid fever</i> . Under the instructions of the Captain the bedding was burnt, and the fore-castle and w.c.'s cleansed and disinfected by the ship's company. Your Inspector ordered the water tanks to be emptied and cleansed.
Oct. 25	s.s. Somerset	Avonmouth ..	Mode Wheel ..	Typhoid Fever ..	

Date	Name of Vessel	Where from	Where Inspected	Sickness	REMARKS
Dec. 23	s.s. Luga ..	Libau ..	Salford ..	Smallpox ..	It was reported on arrival that whilst the vessel was in Riga, a fireman was removed to hospital, suffering from <i>smallpox</i> . The crew were medically examined, and vaccinated, with two exceptions. The vessel left Liverpool on November 11th, the man became ill on the 22nd, and was removed, as stated, on the 27th.
" 27	s.s. Stuart Prince ..	Alexandria ..	Salford ..	Typhoid Fever ..	It was reported by the Liverpool Port Sanitary Authority, at 9-30 a.m., on December 27th, that this vessel had been boarded in the Mersey, and that David McDonald, an apprentice, age 17, was suffering from <i>feverish symptoms</i> suspicious of typhoid, complicated with pneumonia. The vessel was boarded by the Medical Officer and Inspector Atkinson immediately on arrival at Salford, on the 28th, at 3-20 p.m., and arrangements made for removing the patient to hospital forthwith. The usual disinfection was carried out. The patient died on January 18th, 1914.



TABLE VII.

Particulars of Non-infectious Sickness, Injury, and Death occurring on Manchester-bound vessels during the year.

Date	Name of Vessel	Where from	Where Inspected	Sickness	Remarks.
Jan. 3 ..	s.s. Ardachy ..	Manchester ..	Runcorn ..	Accidental Injuries (fatal).	Removed to hospital.
" 6 ..	s.s. Irismere ..	Karachi ..	Salford ..	Heart Disease.	Treated on board.
" 7 ..	s.s. Rio Colorado ..	Rio de Janeiro ..	Salford ..	Venereal Disease.	Paid off.
" 11 ..	s.s. Deutsche Kaiserin ..	Riga ..	Trafford Wharf ..	Venereal Disease (two cases)	Treated on board.
" 13 ..	s.s. Elysia ..	Glasgow ..	Salford ..	Rheumatism.	Treated on board.
" 17 ..	s.s. Melford Hall ..	New Orleans ..	Salford ..	"Cold."	Treated on board.
" 24 ..	s.s. Coquet ..	Bombay ..	Salford ..	Rheumatic Fever.	Treated on board.
" 25 ..	s.s. Thespis ..	New York ..	Salford ..	Accidental Injury.	Paid off.
" 28 ..	s.s. Median ..	Boston ..	Salford ..	Pneumonia.	Died at sea.
" 29 ..	s.s. Crown of Granada ..	Antwerp ..	Salford ..	Accidental Injuries.	Removed to hospital.
" 30 ..	Ketch W. J. C. ..	London ..	Runcorn ..	Accidental Injury.	Treated on board.
" 30 ..	s.s. Carib Prince ..	Alexandria ..	Salford ..	"Cold."	Treated on board.
" 30 ..	s.s. Brynhild ..	Riga ..	Trafford Wharf ..	Accidental Injury. Simple Fever.	Treated on board.
Feb. 1 ..	s.s. Bostonian ..	Boston ..	Salford ..	Pneumonia.	Removed to hospital.
" 3 ..	s.s. Manchester Exchange	Philadelphia ..	Salford ..	Bronchitis.	Convalescent.

Date	Name of Vessel	Where from	Where Inspected	Sickness	Remarks
Feb. 4 ..	s.s. New Pioneer ..	Rouen ..	Pomona ..	Rheumatism.	Treated on board.
" 4 ..	s.s. Princess Ena ..	Glasgow ..	Pomona ..	Rheumatism.	Treated on board.
" 7 ..	Barque "Clara" ..	Paysandu ..	Eastham ..	Venereal Disease.	Died at sea.
" 10 ..	Schooner "C. & F. Nurse"	Bideford ..	Runcorn ..	Drowning.	Washed overboard.
" 15 ..	s.s. Caledonian ..	Boston ..	Salford ..	Accidental Injury.	Convalescent.
" 15 ..	Canal boat "Eunice"	Potteries ..	Weston Point ..	Bronchitis.	Removed to hospital.
" 18 ..	s.s. Vestlandet ..	Riga ..	Salford ..	Appendicitis.	Removed to hospital.
" 19 ..	s.s. Creole Prince ..	Alexandria ..	Salford ..	Tubercular Gland. Rheumatism.	Removed to hospital.
" 25 ..	s.s. Ellesmere ..	Valencia ..	Salford ..	Tumour ?	Paid off.
" 25 ..	s.s. City of Liverpool ..	Manchester ..	Runcorn ..	Accidental Injuries (fatal).	Removed to mortuary
" 26 ..	s.s. Fernandina ..	Bordeaux ..	Mode Wheel ..	Venereal Disease.	Removed to hospital.
March 1 ..	s.s. Victoria ..	Pomaron ..	Salford ..	Headache.	Treated on board.
" 3 ..	Schooner "My Lady"	Garston ..	Weston Point ..	Ulcerated Throat.	Treated on board.
" 4 ..	s.s. Como ..	Drammen ..	Ellesmere Port ..	Chronic Indigestion.	Left vessel.
" 10 ..	s.s. Pearlmoor ..	Belfast ..	Salford ..	Pneumonia.	Died at sea.
" 12 ..	Schooner "Troubadour"	Totnes ..	Runcorn ..	Asthma.	Left vessel.
" 12 ..	Canal boat "Queenie"	— ..	Salford ..	Bronchitis.	Treated on board.



Date	Name of Vessel	Where from	Where Inspected	Sickness	Remarks
March 14 ..	Barquentine "Colon"	Rio Grande ..	Runcorn ..	Drowning. Accidental Injury.	Washed overboard. Treated on board.
" 20 ..	s.s. Cento ..	Rosario ..	Elevator ..	Accidental Injuries (fatal).	Removed to mortuary
" 20 ..	s.s. Manchester Merchant..	Philadelphia ..	Salford ..	Venereal Disease.	Paid off.
" 25 ..	s.s. New Pioneer ..	Rouen ..	Pomona ..	Accidental Injury.	Convalescent.
" 26 ..	s.s. Nero ..	Christiania ..	Salford ..	Accidental Injury.	Removed to hospital.
April 8 ..	s.s. Bravalla ..	Drammen ..	Salford ..	Venereal Disease.	Treated on board.
" 19 ..	s.s. Titian ..	New York ..	Salford ..	Apoplexy (fatal).	Buried ashore.
" 24 ..	s.s. Oakmere ..	Mediterranean Ports ..	Salford ..	Malaria.	Treated on board.
" 30 ..	s.s. Falkland ..	South Orkney ..	Runcorn ..	Accidental Injury.	Treated on board.
May 7 ..	s.s. Creole Prince ..	Alexandria ..	Salford ..	Venereal Disease.	Paid off.
" 15 ..	s.s. Pavia ..	Poti ..	Salford ..	Influenza.	Died at sea.
" 20 ..	Schooner "Western Lass"	Plymouth ..	Weston Point ..	Venereal Disease.	Treated on board.
" 20 ..	Schooner "Orphan Girl"	Beaumaris ..	Runcorn ..	Drowning	Washed overboard.
" 26 ..	s.s. Maria de Larrinaga ..	Galveston ..	Salford ..	Growth on Stomach.	Removed to hospital.
" 27 ..	Schooner My Lady ..	Plymouth ..	Ellesmere Port ..	Venereal Disease.	Treated on board.
" 28 ..	Schooner Janie ..	Plymouth ..	Ellesmere Port ..	Drowning.	Fell in dock.
" 28 ..	s.s. Musician ..	Karachi ..	Salford ..	Testicular Enlargement.	Treated on board.
" 30 ..	s.s. Clan Sinclair ..	Glasgow ..	Salford ..	"Cold" (two cases).	Treated on board.
June 7 ..	Schooner Thomas Aylan ..	London ..	Runcorn ..	Drowning.	Fell in dock.

Date	Name of Vessel	Where from	Where Inspected	Sickness	Remarks.
June 14 ..	Canal boat Valiant ..	Stoke ..	Weston Point ..	Accidental Injury.	Treated on board.
" 14 ..	s.s. Buteshire ..	Avonmouth ..	Salford ..	Testicular Enlargement.	Treated on board.
" 18 ..	s.s. Sterndale ..	Rosario ..	Salford ..	Malaria.	Treated on board.
" 19 ..	s.s. Ussa ..	Geffe ..	Warrington ..	Rheumatism.	Removed to hospital.
" 20 ..	s.s. Nero ..	Fredrikstadt ..	Salford ..	Hernia.	Paid off.
" 26 ..	s.s. Hugin ..	Archangel ..	Salford ..	Venereal Disease.	Removed to hospital.
July 3 ..	s.s. Creole Prince ..	Alexandria ..	Salford ..	Asthma.	Removed to hospital.
" 5 ..	s.s. Kastalia ..	Botwood ..	Salford ..	Accidental Injury.	Recovered.
" 9 ..	s.s. Merganser ..	Rotterdam ..	Salford ..	Suicide.	Removed to mortuary.
" 16 ..	Schooner Janie ..	Pentewan ..	Ellesmere Port ..	Epileptic Seizure (fatal).	Removed to mortuary.
" 24 ..	s.s. Manchester Commerce ..	Montreal ..	Salford ..	Hernia.	Removed to hospital.
" 26 ..	s.s. Sobraon ..	Falkland Isles ..	Runcorn ..	Plithisis. Accidental Injuries (two fatal cases).	Removed to hospital.
Aug. 2 ..	s.s. Ilwen ..	Bombay ..	Salford ..	Accidental Injuries (two cases).	Removed to mortuary.
" 7 ..	s.s. Sutton Hall ..	Bombay ..	Salford ..	Bronchitis.	Treated on board.
" 7 ..	s.s. Hugin ..	Mizen ..	Salford ..	Inflammation of Bowels.	Removed to hospital.
" 20 ..	s.s. Elswick Hall ..	Bombay ..	Salford ..	Appendicitis.	Removed to hospital.



Date	Name of Vessel	Where from	Where Inspected	Sickness	Remarks
Aug. 27 ..	s.s. Newton Hall ..	Miramichi ..	Salford ..	Inflammation of Lungs.	Treated on board.
Sept. 4 ..	s.s. City of Bombay ..	Bombay ..	Salford ..	Gastritis.	Removed to hospital.
" 8 ..	s.s. Elswick Hall ..	Karachi ..	Salford ..	Pneumonia	Removed to hospital.
" 8 ..	s.s. Creole Prince ..	Alexandria ..	Salford ..	Epilepsy.	Paid off.
" 10 ..	s.s. Nurtureton ..	Karachi ..	Salford ..	Venereal Disease.	Paid off.
" 10 ..	s.s. Manchester Commerce	Montreal ..	Salford ..	Diarrhœa.	Paid off.
" 16 ..	s.s. Franz Fischer ..	Uleaborg ..	Salford ..	Rheumatism.	Treated on board.
" 21 ..	s.s. Setter ..	Glasgow ..	Pomona ..	Accidental Injury.	Removed to hospital.
Oct. 3 ..	s.s. Oak ..	Newry ..	Ellesmere Port ..	Quinsey.	Treated on board.
" 8 ..	s.s. Grodno ..	St. Petersburg ..	Salford ..	Diarrhœa.	Convalescent.
" 11 ..	s.s. Cadeby ..	Pomaron ..	Salford ..	"Cold."	Treated on board.
" 13 ..	Brigantine Ruby ..	Teignmouth ..	Runcorn ..	Drowning.	Fell in dock.
" 21 ..	s.s. Manchester Miller ..	Montreal ..	Salford ..	Muscular Rheumatism.	Paid off.
" 23 ..	s.s. Balakani ..	Port Arthur, Texas ..	Eccles ..	Venereal Disease.	Paid off.
" 28 ..	s.s. Nessfield ..	La Plata ..	Salford ..	Accidental Injuries (fatal).	Buried at sea.
Nov. 1 ..	s.s. Kirklee ..	Bombay ..	Salford ..	Malaria (two cases).	Removed to hospital.
" 1 ..	s.s. Nero ..	Christiania ..	Salford ..	Pleurisy.	Removed to hospital.

Date	Name of Vessel	Where from	Where Inspected	Sickness	Remarks
Nov. 7 ..	s.s. Hatumet ..	Savannah ..	Salford ..	Heart Disease.	Removed to hospital.
" 21 ..	s.s. Memphian ..	Brunswick ..	Salford ..	Accidental Injury (fatal).	Removed to hospital.
" 22 ..	ss., Niceto de Larrinaga ..	Galveston ..	Salford ..	Septic Poisoning.	Paid off.
" 26 ..	s.s. Algerian ..	Glasgow ..	Salford ..	Dropsy. Gastritis.	Paid off.
Dec. 2 ..	s.s. Cresswell ..	Savannah ..	Salford ..	Gravel.	Treated on board.
" 10 ..	s.s. Nero ..	Fredrikstadt ..	Salford ..	Bronchitis.	Removed to hospital
" 18 ..	s.s. Nicolas..	Treport ..	Runcorn ..	Pneumonia.	Paid off.
" 27 ..	s.s. Geddington Court ..	Amsterdam ..	Ellesmere Port ..	Rheumatism.	Paid off.
" 28 ..	s.s. Stuart Prince ..	Alexandria ..	Salford ..	Diarrhoea.	Paid off.
					Convalescent.

## INSPECTION OF FOOD IMPORTS.

There has been very little out of ordinary routine in the character of the work done under this head during the year. Six magistrate's orders for dealing with unsound food were obtained, but in each instance this application was made owing to the difficulty in obtaining anyone to take the responsibility of surrendering.

## FOREIGN MEAT REGULATIONS.

Considerable numbers of pigs' maws have been imported during the year, but these being properly certified and in good condition, there has been no occasion to deal with any of them under these Regulations.

## IMPORTATION OF LIVE STOCK.

The following table shews the total number of live stock imported during the year :—

	Cattle.	Sheep and Lambs.	Pigs.
Coastwise (Irish . .	24,816	44,707	1084
Foreign . . . . .	—	—	—

## RESULTS OF INSPECTION.

The following Tables show the amounts of Food Imports which have been condemned during the year ; Table A giving particulars of seizures at the Foreign Animals Wharf, and Table B giving particulars of seizures on the various Dock Quays. It will also be noticed from Table C that a quantity of tinned goods have been voluntarily surrendered for destruction. Table D shows the articles seized in the Runcorn Section.



## (A)—(from Irish Cattle).

Articles.					Weight.			
					T.	c.	q.	lbs.
Beef (16 carcasses, 11 quarters, etc.)	..				4	9	1	5
Mutton (8 carcasses, 1 quarter, etc.)	..				0	5	2	5
Pork (2 carcasses, etc.)	..	..	..	..	0	3	2	6
9 Calves (immature)	..	..	..	..	0	2	2	5
17 Calf Beds	..	..	..	..	0	2	1	3
56 Heads	..	..	..	..	0	10	3	18
27 Tongues	..	..	..	..	0	0	3	11
27 Gullets	..	..	..	..	0	0	0	27
119 Lungs	..	..	..	..	0	7	0	4
27 Hearts	..	..	..	..	0	1	0	9
24 Skirts	..	..	..	..	0	0	1	20
302 Livers	..	..	..	..	1	4	1	6
21 Rumens (1st stomach)	..	..	..	..	0	2	3	16
21 Reticulums (2nd stomach)	..	..	..	..	0	0	3	0
20 Abomasums (4th stomach)	..	..	..	..	0	0	2	24
21 Intestines	..	..	..	..	0	1	3	14
44 Kidneys	..	..	..	..	0	0	1	16
44 Spleens	..	..	..	..	0	0	3	23
20 Rectums	..	..	..	..	0	0	2	4
32 Mesenteries	..	..	..	..	0	4	2	8
29 Omentums	..	..	..	..	0	2	2	10
12 Udders	..	..	..	..	0	0	2	16
82 Feet	..	..	..	..	0	2	0	22
19 Tails	..	..	..	..	0	0	1	10
24 Pancreas	..	..	..	..	0	0	0	24
Total					8	6	2	26

## (B)

Articles.					Weight.			
Grain, Cereals, &c.					T. c. q. lbs.			
Wheat	..	..	..	..	252	16	0	21
Maize	..	..	..	..	123	16	0	16
Corn Meal Grits	..	..	..	..	6	14	2	26
Corn Flour	..	..	..	..	4	14	0	16
Oats	..	..	..	..	3	12	1	27
Prepared Cereals (287 cases)	..	..	..	..	1	9	3	7
Barley	..	..	..	..	1	9	1	4
Flaked Maize	..	..	..	..	0	9	0	4
Oatmeal	..	..	..	..	0	0	3	11

## Fruit and Vegetables :—

Oranges (1,018½ cases)	..	..	..	..	50	18	2	0
Apples (247 cases)	..	..	..	..	12	7	0	0
Lemons (22 cases)	..	..	..	..	1	2	0	0
Melons (7 cases)	..	..	..	..	0	7	0	0
Lemon Peel	..	..	..	..	3	10	0	14
Onions (121 packages, etc.)	..	..	..	..	7	8	0	0
Potatoes	..	..	..	..	3	12	0	0
Gherkins (1 cask)	..	..	..	..	0	2	2	0

## Tinned Foods :—

Tomatoes (4,252)	..	..	..	..	5	6	3	27
Fruit Pulp, various (85 tins)	..	..	..	..	0	9	1	10
Egg Yolk (14 tins)	..	..	..	..	0	6	0	0
Tongues (32 tins)	..	..	..	..	0	1	2	24
Apples (21 tins)	..	..	..	..	0	1	2	14
Condensed Milk (55 tins)	..	..	..	..	0	1	1	8
Beef (10 tins)	..	..	..	..	0	0	2	0
Pears (28 tins)	..	..	..	..	0	0	1	19
Pines (24 tins)	..	..	..	..	0	0	1	1
Vegetables, various (4 tins)	..	..	..	..	0	0	0	17
Fish, various (16 tins)	..	..	..	..	0	0	0	16

Articles.						Weight.			
Miscellaneous :—						T.	c.	q.	lbs.
Sugar (75 bags, 95 cases)	..	..	..	..	..	12	3	0	10
Lard (51 packages, etc.)	..	..	..	..	..	3	6	3	25
Sheep's Feet (12 bags)	..	..	..	..	..	0	12	0	0
Cows' Udders (1 cask)	..	..	..	..	..	0	4	0	0
Coconut Oil (1 cask)	..	..	..	..	..	0	3	2	0
Tea (1 chest)	..	..	..	..	..	0	2	0	0
Candy (2 pails)	..	..	..	..	..	0	0	1	2
Ham	..	..	..	..	..	0	0	0	11
Total						497	10	0	22
Gross Total						505	16	3	20

## Voluntarily Surrendered.

(C)

Articles.						Weight.			
						T.	c.	q.	lbs.
Mutton (2,509 tins)	..	..	..	..	..	6	14	1	14
Beef (794 tins)	..	..	..	..	..	2	1	3	17
Tongues (233 tins)	..	..	..	..	..	0	7	0	18
Fish (314 tins)	..	..	..	..	..	0	1	0	8
Vegetables (32 tins)	..	..	..	..	..	0	0	3	4
Fruits (22 tins)	..	..	..	..	..	0	0	2	2
Dried Fish (1 box)	..	..	..	..	..	0	0	2	4
Total						9	6	1	11

## (D)

This Table shews a number of articles (included in Table B) seized at (1) Ellesmere Port and (2) Runcorn.

## (1)

Articles.					Amount.
Tomatoes	..	..	..	..	67 tins.
Fruits	..	..	..	..	49 „
Beef	..	..	..	..	6 „
Salmon	..	..	..	..	1 „
Total ..					<u>123 tins.</u>

## (2)

					T. c. q. lbs.
Wheat	..	..	..	..	<u>2 17 0 17</u>

## FRESH MEAT.

Twenty-three carcasses of beef, twenty-two carcasses of mutton, and seven carcasses of pork, have been examined owing to emergency slaughter, during the voyage from Ireland, or when landed. The condemnations consisted of five whole carcasses of beef and their offal, seven carcasses and one hind quarter of mutton, with 14 sets of offal, one carcass and 5 lbs. of pork, with one set of offal.

Up to February 1st, live cattle were slaughtered at the foreign animals wharf, but after that date the restrictions as to killing at the place of landing were removed. As there were no American cattle landed during the year, Table A refers to Irish cattle. As usual, condemnations have taken place mainly through the presence of tuberculosis, but actinomycosis, pneumonia, cirrhosis, parasites, etc., have been found in many cases.



## GRAIN, CEREALS, &c.

The condemnations under this head are practically the same as for the previous year. It was only found necessary to destroy 6 cwts. of grain, the rest being dealt with commercially for animal food or manufacture of sizing flour.

## FRUIT AND VEGETABLES.

Importations under this head have again been large during the year, and the condemnations were in excess of the previous year's record. This increase was due to the arrival of considerable quantities of Jaffa and Seville oranges in very bad condition.

## TINNED FOODS.

There is an increase of condemnations under this head owing mainly to the bad condition of two particular consignments of tinned tomatoes. Very few tins of beef, mutton, or tongues, have been seized, this being due to the good condition in which they are packed, and the fact that the greater quantity are now surrendered voluntarily by the importers. Fruit pulp, which was formerly condemned in large quantities, is now coming over in excellent condition, owing to the almost universal adoption of the solderless tin, with a good coat of lacquer inside. A number of tins of miscellaneous fruits have been condemned owing to solder coming in contact with the contents. This contamination has invariably been found to be due to bad processing. In each instance the seam of the barrel of the tins has been formed by bringing the two edges in contact and soldering, instead of making an overlapped joint, and the flange of the ends has been placed inside the barrel instead of overlapping outside. This means that in the absence of a very close fitting joint solder can have free entry into the tin. In each instance I have recommended the importers to adopt the solderless lacquered tin, where possible, or

otherwise to insist on badly soldered and rattling tins being abstracted from the consignments before transmission to this country. Of course, a soldered tin can be so constructed that no metallic contamination can take place, but the exigencies of the trade appear to demand a good article constructed at a cheap rate, and the solderless tin appears to fulfil this requirement.

### SUGAR.

There was a decrease in damaged sugar during the past year, this being owing to better transit conditions. An inroad of sea-water of any extent means overflowing of the bilges on to the cargo, and as the weather was so exceptional during the greater part of the year, accidents of this kind were rare.

### LARD AND COCONUT OIL.

Only one cask of coconut oil was seized, and this was due to filth contamination from breakage. It was disposed of for soap making.

The seizures of Continental unrefined lard have somewhat diminished, but the general class of material imported was again far from satisfactory. There is still no guarantee available as to the purity of the source of origin. The Local Government Board has been supplied with particulars of the various consignments arriving from time to time, and of any special features noticeable, but the British consumer is still waiting for some general protective step to be taken.

A certain quantity of American refined lard has been taken possession of through dirt contamination and breakage, and disposed of for soap making.

### GENERAL.

The main seizures under this head have consisted of 12 bags of sheep's feet and one cask of cow's udders, from the Continent. They were in a state of decomposition, and were destroyed.



Samples forwarded for examination to the Manchester Public Health Laboratory during the year were :—

Article.	Object of examination.	Result.
Tinned Ox Tongues	Lead contamination .	Traces.
Tinned Lobster . . . .	Do. . . .	Free.
Tinned Pears . . . . .	Do. . . .	0·0014 grains per lb
Do. . . . .	Do. . . .	Do.
Tinned Spinach . . . .	Copper contamination	3·429 grains per lb.
Continental Unrefined Lard	Rancidity . . . . .	Soluble organic acid expressed as Acetic Acid, 0·015%.
Do. . . .	Do. . . . .	0·024%.
Do. . . .	Do. . . . .	0·015%.
Raspberry Pulp . . . .	Preservatives . . . . .	Absent.
Do. . . .	Do. . . . .	Do.
Do. . . .	Evidence of ferment- ation.	Alcohol (ethyl), 0·11% Acetic Acid 0·14%.
Do. . . .	Do. . . . .	Alcohol (ethyl) 0·75% Acetic Acid 0·21%.
Egg Yolk . . . . .	Decomposition . . . .	No evidence.
Do. . . . .	Do. . . . .	Do.



TABLE I.—SHEWING PRINCIPAL FOOD IMPORTS AT  
CHIEF HOME PORTS.

PORT.	IMPORT.	AMOUNT. 1908	AMOUNT. 1909	AMOUNT. 1910	AMOUNT. 1911	AMOUNT. 1912
		£	£	£	£	£
London ..	Grain	16,911,001	19,201,724	17,220,763	16,948,221	20,168,886
	Meat	12,358,334	13,200,463	16,350,946	15,846,013	16,361,771
	Tea	10,482,128	11,334,694	11,120,493	12,633,979	12,716,257
	Sugar	6,737,912	7,499,732	8,632,689	9,250,437	8,808,125
	Butter	6,611,257	5,802,543	8,018,308	8,936,786	8,291,774
	Fruit	5,235,432	5,341,246	5,684,311	6,105,060	6,073,722
	Cheese	3,430,004	3,432,751	3,577,100	3,763,503	3,870,261
	Eggs	2,091,163	2,115,182	2,182,464	2,399,822	2,389,589
Liverpool .	Grain	15,268,485	16,221,077	16,101,107	14,453,833	17,470,989
	Meat	15,458,262	14,108,760	14,294,251	15,003,813	15,400,739
	Sugar	3,513,145	4,015,024	4,554,492	5,262,933	6,577,983
	Fruit	4,126,319	4,037,626	4,135,791	4,514,850	5,504,878
	Lard	1,712,572	1,806,374	1,738,335	1,537,941	1,734,888
	Cheese	1,264,581	1,257,142	1,141,834	1,277,169	993,618
Hull ..	Grain	8,730,537	11,144,227	9,895,771	10,143,969	12,554,439
	Butter	3,428,559	3,051,634	3,303,743	3,175,943	3,362,187
	Eggs	1,156,032	1,274,147	1,389,998	1,517,049	1,634,873
	Meat	1,162,753	1,315,496	1,514,067	1,554,279	1,564,302
	Sugar	864,278	993,151	1,089,076	1,251,022	1,277,666
	Margarine	469,463	632,733	967,451	702,593	936,714
	Lard	473,501	532,289	537,839	521,949	716,501
	Fish	592,256	682,191	690,707	639,134	606,591
	Fruit	631,842	660,547	611,921	518,578	656,501
	Vegetables	330,551	379,904	417,235	319,616	611,921

TABLE I. (*continued*)—SHEWING PRINCIPAL FOOD IMPORTS AT CHIEF HOME PORTS.

PORT.	IMPORT.	AMOUNT. 1908	AMOUNT. 1909	AMOUNT. 1910	AMOUNT. 1911	AMOUNT. 1912
		£	£	£	£	£
Manchester	{ Grain	2,963,167	3,641,330	3,795,265	3,799,888	4,432,111
	{ Sugar	852,453	995,986	1,170,125	1,057,331	1,052,601
	{ Lard	795,035	977,257	882,991	781,660	790,219
	{ Fruit	902,541	879,148	907,378	957,839	287,187
	{ Meat	365,791	440,664	261,595	322,966	285,374
	{ Cheese	139,816	159,499	171,680	195,613	232,288
Southamp- ton	{ Meat	2,345,559	3,014,470	2,526,042	2,521,129	2,674,602
	{ Cocoa and Coffee	1,438,533	1,219,174	1,017,134	1,198,273	1,197,835
	{ Butter	2,426,184	2,357,890	2,081,609	1,008,752	1,722,423
	{ Fruit	616,822	566,759	529,611	642,069	624,885
	{ Vegetables	732,729	664,828	491,690	551,900	649,649
	{ Grain	423,611	738,719	600,772	503,151	534,397
Leith	{ Grain	2,897,977	3,108,083	2,649,403	2,902,857	3,567,107
	{ Butter	2,558,014	2,472,057	2,554,559	2,525,586	2,606,265
	{ Sugar	1,333,296	1,590,889	1,490,731	1,976,094	1,793,726
	{ Eggs	1,101,526	1,048,596	1,021,550	1,184,079	1,363,912
Glasgow	{ Grain	4,251,741	4,747,062	4,248,663	4,258,805	4,919,909
	{ Meat	1,196,240	1,196,223	1,050,639	1,195,936	1,255,444
	{ Fruit	650,855	659,964	644,524	768,432	780,704
Harwich	{ Meat	5,283,044	5,285,303	5,329,419	5,413,078	6,370,896
	{ Butter	1,646,266	1,592,306	1,455,211	1,502,380	1,516,595
	{ Eggs	1,156,318	1,126,721	1,162,790	1,291,614	1,339,423
	{ Margarine	671,253	643,418	708,931	534,394	930,479
	{ Cocoa	218,464	209,796	248,435	295,406	326,707



TABLE I. (*continued*)—SHEWING PRINCIPAL FOOD IMPORTS AT CHIEF HOME PORTS.

PORT.	IMPORT.	AMOUNT. 1908	AMOUNT. 1909	AMOUNT. 1910	AMOUNT. 1911	AMOUNT. 1912
		£	£	£	£	£
Bristol	Grain	4,304,275	5,190,961	5,117,857	4,906,489	6,145,462
	Sugar	1,108,881	1,157,993	1,360,174	1,365,626	1,535,743
	Cheese	889,748	914,175	981,394	1,006,348	1,146,037
	Fruit	707,833	659,091	722,472	937,292	1,079,283
	Meat	579,502	470,996	366,047	574,144	572,947
	Lard	285,904	268,001	269,636	310,240	364,941
Newcastle- on-Tyne	Butter	2,462,346	2,260,814	2,225,259	2,413,087	2,330,960
	Grain	1,412,595	1,506,310	1,352,991	1,293,851	1,385,374
	Meat	519,967	551,342	643,010	704,203	858,459
	Eggs	383,453	363,645	363,385	455,598	424,758
	Sugar	152,379	200,082	221,958	223,425	239,403
Grimsby	Butter	3,118,868	3,140,572	3,124,154	3,374,441	3,308,953
	Meat	374,713	379,225	465,297	589,892	632,386
	Eggs	444,836	315,960	311,878	326,436	341,399
	Margarine	210,302	231,562	324,021	294,053	411,210
	Grain	179,674	194,441	114,042	313,904	119,704
Cardiff	Grain	2,422,720	2,589,156	2,883,505	2,684,473	2,247,857
	Meat	238,896	239,441	254,108	281,133	251,592
	Vegetables	122,275	135,862	93,169	134,457	180,752

TABLE II.—COMPARING FOOD IMPORTS WITH TOTAL IMPORTS, AT THE CHIEF PORTS, AND SHEWING THE RATE OF INCREASE AND DECREASE.

	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
LONDON :—										
Total Imports .	£ 173,132,088	£ 174,475,656	£ 181,061,265	£ 199,407,311	£ 209,672,562	£ 195,329,043	£ 205,639,879	£ 228,260,188	£ 229,988,484	£ 239,344,384
Food Imports .	67,795,404	67,620,504	77,631,236	72,702,835	74,864,461	74,318,707	81,753,813	87,112,349	91,982,211	92,127,557
LIVERPOOL :—										
Total Imports .	129,000,840	137,523,276	139,295,487	146,701,650	160,405,187	140,635,000	148,596,750	170,270,246	159,914,782	179,250,136
Food Imports .	50,881,926	49,332,556	51,313,269	52,415,178	52,740,846	47,093,893	47,389,221	47,808,612	47,728,697	52,017,164
HULL :—										
Total Imports .	32,601,063	31,858,730	32,545,886	35,537,397	39,603,363	35,338,690	39,629,597	42,282,026	41,082,231	48,607,902
Food Imports .	16,653,856	16,775,080	17,139,857	17,429,305	19,236,215	18,192,495	20,544,060	20,946,627	20,968,058	24,584,491
MANCHESTER :—										
Total Imports .	20,279,255	21,468,225	23,290,796	26,536,274	30,402,229	25,647,640	28,943,444	29,944,905	32,502,954	35,111,128
Food Imports .	4,581,406	4,975,415	5,024,119	5,634,009	6,496,657	6,719,134	7,971,958	7,730,289	7,626,060	7,425,765
HARWICH :—										
Total Imports .	14,391,913	18,494,579	18,197,675	19,014,411	18,958,169	19,444,348	19,824,200	21,152,857	22,437,602	25,548,997
Food Imports .	9,285,033	9,335,304	8,490,654	8,824,483	9,616,262	9,843,289	9,822,538	9,091,399	10,047,467	11,881,961
SOUTHAMPTON :—										
Total Imports .	15,740,195	15,586,750	15,342,346	16,518,244	20,161,486	20,011,756	21,449,767	21,286,105	20,764,972	24,543,991
Food Imports .	8,165,982	7,980,715	7,437,876	7,252,985	8,406,600	8,624,665	9,618,461	8,252,323	7,446,748	8,552,420



BRISTOL :— Total Imports .	12,751,022	11,870,809	12,090,974	12,897,273	13,511,759	13,644,676	14,392,176	14,991,615	15,557,506	17,511,486
	8,288,848	7,687,092	7,890,432	8,367,260	8,610,993	8,418,226	9,432,740	9,288,803	9,715,609	11,413,773
GLASGOW :— Total Imports .	14,408,658	13,946,006	14,294,421	15,396,381	15,204,846	14,250,321	14,267,670	14,533,330	15,631,149	16,941,685
	8,133,299	6,617,711	7,275,100	7,600,258	7,908,289	7,105,912	7,636,454	7,024,801	7,345,961	7,840,368
LEITH :— Total Imports .	13,787,191	13,255,086	12,754,072	13,628,073	13,875,588	12,883,890	13,658,737	13,559,655	15,054,221	16,531,420
	7,855,201	7,694,993	7,924,342	9,501,265	8,207,456	8,556,205	8,993,122	8,535,627	9,287,551	10,257,704
GRIMSBY :— Total Imports .	10,148,431	10,155,209	10,687,421	11,122,293	11,112,568	10,913,713	11,489,149	12,615,959	13,544,125	14,786,430
	3,474,275	3,197,668	3,165,396	3,868,395	4,329,711	4,608,242	4,489,871	4,587,264	5,153,730	5,130,616
POLKESTONE :— Total Imports .	11,053,872	10,761,270	10,432,203	11,331,097	10,202,053	9,785,159	10,008,946	10,068,224	13,022,682	14,582,065
	503,921	754,398	701,889	649,262	527,818	711,782	819,564	760,218	962,088	1,232,524
NEWCASTLE :— Total Imports .	10,051,602	10,055,619	9,154,268	9,893,124	10,361,305	9,423,983	9,048,035	9,442,944	9,784,592	10,043,427
	6,079,800	6,146,113	5,183,216	5,235,078	6,869,940	5,573,463	5,502,492	5,424,098	5,746,806	6,050,212
CARDIFF :— Total Imports .	4,312,025	4,884,295	5,173,437	5,406,031	5,521,749	5,807,777	5,853,477	6,375,106	6,016,772	6,153,205
	1,825,784	2,298,346	2,541,671	2,303,355	2,502,879	2,854,177	3,074,149	3,326,144	3,218,689	2,827,732

TABLE III.—SHEWING THE PRINCIPAL PRODUCING COUNTRIES AND THE DIFFERENCES IN THE AMOUNTS OF FOOD IMPORTS PRODUCED FOR THIS COUNTRY IN THE SIX YEARS 1901, 1908, 1909, 1910, 1911 and 1912.

COUNTRY.	YEAR 1901.	YEAR 1908.	YEAR 1909.	YEAR 1910.	YEAR 1911.	YEAR 1912.
	£	£	£	£	£	£
South and Central America ..	11,381,108	34,816,805	33,880,283	34,060,384	28,101,989	44,792,839
United States of America ..	61,422,052	45,778,612	40,171,224	32,699,978	34,413,176	33,002,029
India .. ..	8,908,059	9,548,245	15,450,329	16,852,917	19,859,235	25,308,988
Australia and New Zealand ..	10,493,772	13,589,758	18,466,130	24,061,388	23,666,148	23,592,786
Denmark .. ..	13,059,917	18,962,483	18,279,560	18,871,131	19,853,423	21,515,778
Canada .. ..	13,378,656	20,306,782	19,254,540	19,192,183	14,192,916	20,694,450
Russia .. ..	10,321,914	13,301,066	21,412,390	24,821,297	23,590,160	17,464,442
Netherlands .. ..	11,443,514	12,758,310	11,434,793	12,341,979	12,364,436	14,565,378
Germany .. ..	13,307,903	12,574,651	12,493,525	10,818,954	12,672,715	10,421,938
France .. ..	12,627,009	9,361,652	10,822,406	9,968,536	8,896,694	9,434,472
Belgium .. ..	4,254,184	3,636,559	1,650,011	1,818,988	2,632,723	2,655,405
Roumania .. ..	2,732,063	2,466,997	2,614,078	2,846,684	6,064,193	2,589,228
Sweden .. ..	1,087,828	1,966,987	2,068,502	2,307,549	2,550,704	2,507,251
Spain .. ..	4,636,519	4,613,065	4,823,767	4,867,966	5,570,148	5,154,402
TOTALS ..	179,054,498	203,681,972	212,821,538	215,529,934	214,428,660	233,699,386



### THE SANITARY CONDITION OF SHIPS.

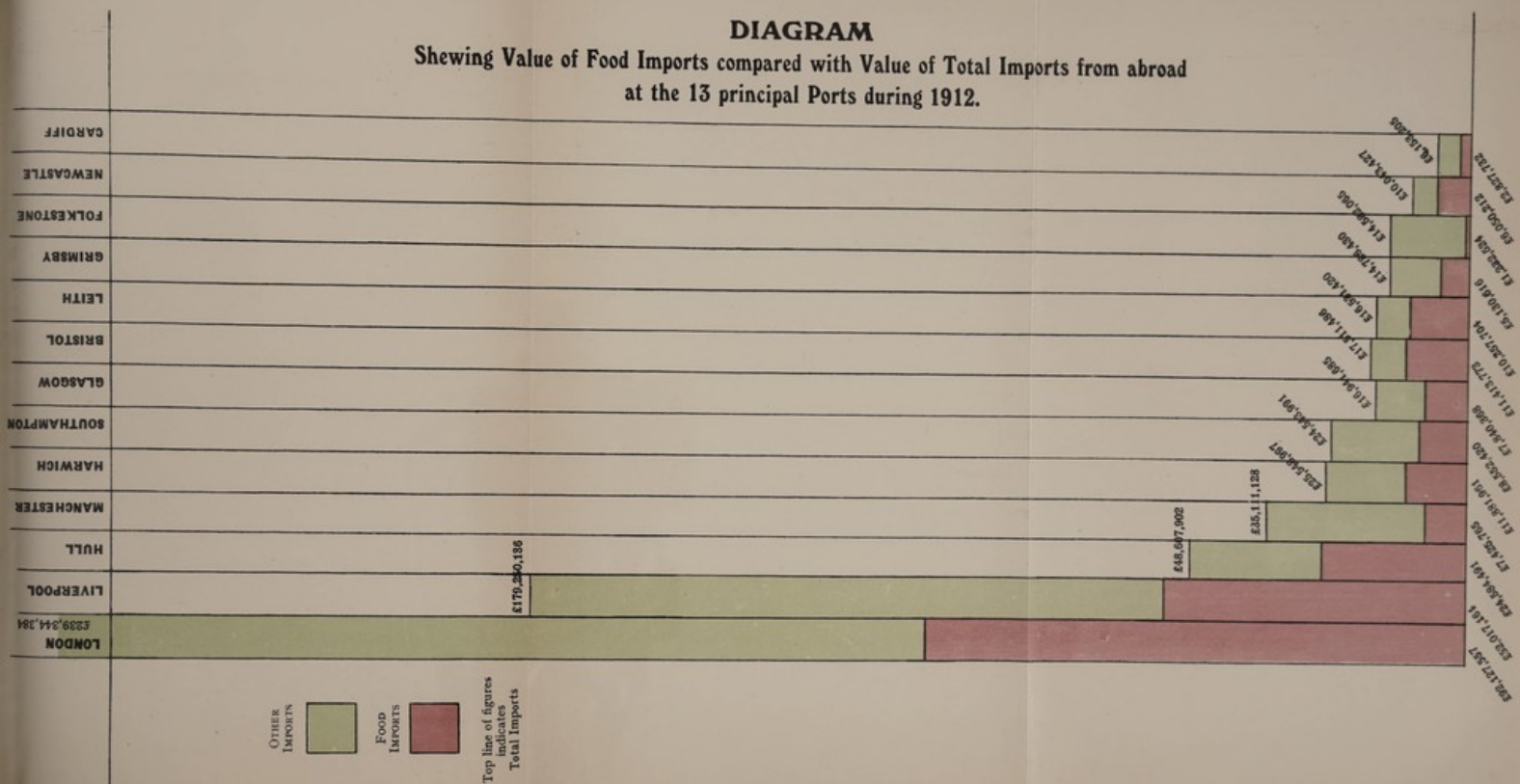
The number of vessels registered under the Merchant Shipping Act inspected during the year, totals 2,786. Of this, 904 were found with insanitary conditions of various kinds. When compared with the numbers for 1912, an increase under both headings is noted. In 1912, the inspections numbered 2,778 and the defective vessels 871. The percentage of defective vessels, is therefore, somewhat higher for 1913. In the Manchester Section there is an increase of inspections amounting to 33, and in the Runcorn Section a decrease of 25. This decrease at the Runcorn Section is due to the difficulty in the Inspector getting from point to point during the period the "Hygeia" was laid up. The following Table shews the total number of vessels inspected in the Port, together with the total numbers and percentage of defective vessels each year, from 1897 to 1913, inclusive.

Mr. Whalley has carried out the duties of inspection at each section of the Port as occasion arose.

The total number of vessels inspected within the Port, together with the total number of percentages of defective vessels, from 1897 to 1913 :

Year.	No. Inspected.		No. Defective.		Percentage.
1897	....	790	....	86	10·8
1898	....	1346	....	263	19·5
1899	....	1294	....	251	19·4*
1900	....	1610	....	231	14·4*
1901	....	1344	....	263	19·5
1902	....	2477	....	870	35·1
1903	....	2585	....	916	38·4
1904	....	2621	....	1241	47·35
1905	....	2510	....	1169	46·57
1906	..	2284	....	984	43·08
1907	....	2592	....	1014	39·12

**DIAGRAM**  
 Shewing Value of Food Imports compared with Value of Total Imports from abroad  
 at the 13 principal Ports during 1912.







Year.		No. Inspected.		No. Defective.		Percentage.
1908	....	2562	....	954	....	37·22
1909	....	2871	....	1062	....	36·99
1910	....	2879	....	1003	....	34·86
1911	....	2853	....	1033	....	36·20
1912	....	2778	....	871	....	31·35
1913	....	2786	....	904	....	32·44

The number of vessels inspected at various points within the Port during each year are shewn as follows :—

Comparison as to the number of vessels inspected at various points within the Port :—

Year.	Manchester and Salford.		Runcorn and Weston Point.		Ellesmere Port.		Widnes.		Other Places	
1897	..	543	..	158	..	39	..	28	..	22
1898	..	762	..	386	..	111	..	60	..	27
1899	..	667	..	308	..	108	..	43	..	168*
1900	..	619	..	331	..	80	..	63	..	517*
1901	..	861	..	313	..	70	..	66	..	34
1902	..	1194	..	862	..	137	..	174	..	110
1903	..	1087	..	737	..	192	..	206	..	163
1904	..	1186	..	965	..	175	..	155	..	137
1905	..	1157	..	863	..	164	..	135	..	191
1906	..	1105	..	731	..	173	..	99	..	176
1907	..	1223	..	883	..	191	..	125	..	167
1908	..	1286	..	852	..	171	..	82	..	171
1909	..	1338	..	890	..	273	..	174	..	196
1910	..	1359	..	969	..	285	..	156	..	110
1911	..	1390	..	909	..	264	..	97	..	193
1912	..	1369	..	955	..	235	..	94	..	125
1913	..	1414	..	912	..	223	..	111	..	126

\* Extra Inspector at Eastham.

The following Table shews the progress made during the year in obtaining remedying of defects.

## VESSELS RENDERED SANITARY.

	1906	1907	1908	1909	1910	1911	1912	1913
January .	48 ..	44 ..	38 ..	37 ..	58 ..	51 ..	61 ..	53
February	43 ..	33 ..	34 ..	41 ..	39 ..	51 ..	54 ..	37
March ..	42 ..	38 ..	45 ..	53 ..	46 ..	63 ..	58 ..	40
April .	47 ..	79 ..	42 ..	43 ..	56 ..	41 ..	53 ..	44
May ..	54 ..	35 ..	60 ..	60 ..	59 ..	49 ..	44 ..	55
June ..	36 ..	54 ..	20 ..	46 ..	83 ..	44 ..	46 ..	46
July ..	61 ..	42 ..	42 ..	53 ..	43 ..	54 ..	61 ..	56
August ..	39 ..	42 ..	32 ..	45 ..	50 ..	59 ..	31 ..	35
September	31 ..	74 ..	46 ..	35 ..	63 ..	67 ..	52 ..	38
October..	49 ..	65 ..	51 ..	44 ..	64 ..	59 ..	51 ..	47
November	55 ..	55 ..	44 ..	41 ..	55 ..	54 ..	39 ..	50
December	41 ..	65 ..	49 ..	38 ..	62 ..	45 ..	38 ..	29
Totals	<u>.546 ..</u>	<u>626 ..</u>	<u>503 ..</u>	<u>536 ..</u>	<u>678 ..</u>	<u>637 ..</u>	<u>588 ..</u>	<u>530</u>

Seventeen Public Health Notices have been served, as against twenty-one in 1912. It has been ascertained that six of these have been fully complied with and one partly, and there has been no opportunity of inspecting the remainder.

During the year your Medical Officer had some correspondence with the Marine Department of the Board of Trade on the subject of co-operation between its Surveyors and your officers when structural alterations are required in the living quarters of vessels for the purpose of abating nuisances.

The Board issues certain regulations concerning air-space, ventilation, lighting, and effluvium, and unless these are observed to the satisfaction of the Surveyors, the "certificate" can be refused or withheld. Under the Public Health Act, 1875, the Authority has power to order the necessary structural alterations to obviate an existing nuisance. It therefore appears to be only reasonable, when any important alterations of this nature are regarded as necessary,



that some consultation should take place between the representatives of the two bodies concerned. Attempts to secure this co-operation had previously been made by your present and former Medical Officers, but these efforts received anything but a cordial reception from the then local surveyor of the Board of Trade. The matter having been taken up by the Department itself there now appears to be more chance of a cordial relationship being established.

The correspondence arose through a nuisance existing on the s.s. "Asteria," a small coasting steamer coming regularly into Run-corn, and started with a request from the Surveyor in Liverpool, for certain information, without giving any reasons for his inquiry.

After the information was supplied a letter was received from the Assistant Secretary of the Board of Trade Marine Department to the following effect :—

"With reference to your letter of the 17th February, addressed to the Principal Officer of this Department, at Liverpool, respecting the s.s. 'Asteria,' I am directed by the Board of Trade to state that a complaint was made to them, on behalf of the crew, respecting the casing erected on your Inspector's suggestion to enclose the chain cables, and on an inspection of the vessel being made, it was found by the Board's Surveyor that the casing fitted on the port side prevented the crew from readily entering or leaving the space. As it thus constituted a possible cause of danger to the crew, and as it did not serve the purpose for which it was fitted (not being constructed in such a way as to prevent effluvium from the chain-lockers entering the space), the Surveyor had it removed.

"The Board feel that, in the light of this case, you will probably agree with them that co-operation between your Inspectors and the Officers of this Department is desirable when structural alterations in crew spaces are in question,



“and they would suggest that in such cases a notification  
 “might be sent to the Board of Trade Surveyors’ Office at  
 “Liverpool stating the nature of the defects found and the  
 “alterations which you consider desirable to remedy these  
 “defects.”

Your Medical Officer replied as follows :—

“I have gone carefully into the subject matter of your  
 “letter of the 25th February, and I am quite in agreement  
 “with your Board that the proper way to obviate such  
 “complications from dual control as exemplified in the case of  
 “the s.s. ‘Asteria,’ would be the establishment of some system  
 “of co-operation between the two Departments. If your  
 “Surveyor had advised me of the difficulty that had arisen  
 “in connection with this vessel, and given me the opportunity  
 “of expressing my views, I should have taken it as a courteous  
 “recognition of the position of the Port Sanitary Authority,  
 “and a very considerate action on his part. There is also  
 “no doubt, to my mind, that the difficulty would have been  
 “got over without any undignified advertisement of dis-  
 “agreement between two Authorities. I think it could have  
 “been pointed out to your representative that if the casing  
 “had not been made sufficiently tight to prevent the escape of  
 “effluvium, this would admit of a satisfactory remedy apart  
 “from removal, and that, at any rate, there was no doubt that  
 “the means adopted had prevented the objectionable mess  
 “made when raising or dropping the anchor. As to the possible  
 “danger arising from the obstruction, according to my inform-  
 “ation there does not appear to be perfect unanimity among  
 “your own Surveyors, but any doubt on the matter could easily  
 “have been settled if either your Liverpool or Bristol Sur-  
 “veyor had ordered the doorway to be moved to a corres-  
 “ponding position to that leading into the starboard fore-  
 “castle. By this course the requirements of both your

“Board and the Port Sanitary Authority would have been  
“satisfactory complied with.

“The number of structural defects giving rise to nuisance,  
“notified by my two Inspectors, averages a little over 800 per  
“annum, and I think I am right in assuming that it would  
“rather tax the resources of your staff in Liverpool to  
“co-operate in the remedy of all these, but as nearly 70 per  
“cent. are remedied at once by the owners, it would be  
“unnecessary to trouble them to this extent. I would  
“therefore suggest that the views of your Board would be  
“met by my advising your Liverpool office of any existing  
“nuisances which require actual structural alterations, as  
“apart from mere repairs, to effect a remedy. I should  
“welcome any criticisms of my requirements which your  
“Surveyors might care to make, but would point out that if  
“co-operation is to be effectual, there must be agreement  
“between the two Departments as to the final nature of the  
“alterations to be carried out. So far as I am concerned, it  
“is necessary that these should be of such a nature as to  
“prevent a nuisance recurring, or the owner will not be free  
“from his obligations under the Public Health Acts.”

This was followed by another letter from the Board of Trade to  
this effect :—

“With reference to your letter of the 5th March respect-  
“ing crew spaces on merchant ships, I am directed by the  
“Board of Trade to thank you for your response to the  
“suggestion contained in their letter of the 25th February,  
“and to state that if you will be so good as to make arrange-  
“ments for notifying the Board’s Surveyors in Liverpool of  
“cases which in your opinion require actual structural  
“alterations to crew spaces, this will meet the views of the  
“Department as suggested in your letter.



“As regards the case of the s.s. ‘Asteria,’ I am to state  
“that the Board are causing enquiries to be made with a view  
“of ascertaining what steps the owners propose to take to  
“prevent effluvium from the chain cables reaching the crew’s  
“accommodation.”

The arrangement thus entered into has proved extremely useful in certain extreme cases, although, as anticipated, there has been no need to take advantage of it in the majority of cases where structural defects have been found. There is no doubt, however, that the correspondence cleared the air, and that the action taken by the Assistant Secretary has created a better understanding among local surveyors as to the powers of a port sanitary authority under Section 110 of the Public Health Acts, 1875.

MANCHESTER PORT SANITARY AUTHORITY.

TOTALS OF MONTHLY INSPECTIONS FOR 1909-10-11-12-13.  
 1909. 1910. 1911. 1912. 1913.  
(Record Year)

	M/c.	RUN- CORN.	TOTAL.	M/c.	RUN- CORN.	TOTAL.	M/c.	RUN- CORN.	TOTAL.	M/c.	RUN- CORN.	TOTAL.	M/c.	RUN- CORN.	TOTAL.
January ..	77	79	156	90	86	176	77	93	170	70	84	154	77	68	145
February ..	85	113	198	97	110	207	108	106	214	102	112	214	104	88	192
March ..	97	108	205	111	111	222	121	111	232	111	105	216	136	134	270
April ..	147	134	281	98	107	205	111	98	209	138	119	251	110	113	223
May ..	126	114	240	133	149	282	131	135	266	98	95	193	123	100	223
June ..	125	124	249	121	112	233	122	95	217	140	114	254	150	127	277
July ..	109	117	226	114	128	242	132	137	269	139	131	270	122	114	236
August ..	135	172	307	135	129	264	109	138	247	90	80	170	121	109	230
September ..	119	121	240	107	120	227	119	116	235	137	130	267	131	129	260
October ..	99	99	198	139	157	296	154	138	292	109	132	241	87	102	189
November ..	142	130	272	104	100	204	106	106	212	111	95	206	122	93	215
December ..	144	155	299	176	145	321	159	131	290	190	146	336	185	141	326
TOTALS ..	1405	1466	2871	1425	1454	2879	1449	1404	2853	1435	1343	2778	1468	1318	2786
INCREASE (+) OR DECREASE (—) from previous year															
				+20	—12	+8	+24	—50	—26	—14	—61	—75	+33	—25	+8



1913.—TABLE A.

Shewing the number of vessels inspected and found insanitary, arriving from Foreign and Coastwise Ports :—

		Inspected.	Insanitary.	No. of Orders issued under P. H. Act.
Foreign—				
Steamships	..	1095	403	1
Sailing Vessels	..	22	3	0
		—	—	—
Totals	..	<u>1117</u>	<u>406</u>	<u>1</u>
Coastwise—				
Steamships	..	1087	320	5
Sailing Vessels	..	582	178	11
		—	—	—
Totals	..	<u>1669</u>	<u>498</u>	<u>16</u>
Gross Totals	..	2786	904	17

TABLE B.

Shewing the numbers of British and Foreign vessels inspected and numbers found insanitary :—

		Inspected.	Insanitary.
British Steamships	..	1811	626
„ Sailing Vessels	..	419	102
„ Flats and Barges	..	170	79
Foreign Steamships	..	371	97
„ Sailing Vessels	..	15	—
		—	—
Totals	..	<u>2786</u>	<u>904</u>
Revisits	..	315	
Gross Total of Visits and Re-visits		3101	

TABLE C.

Shewing the number of vessels inspected and number found insanitary at different points in the Port :—

	Inspected.	Insanitary.
Acton Grange .. .. .	17	7
Astmoor Marsh (Wigg's Works) ..	104	39
Barton .. .. .	5	3
Davyhulme .. .. .	16	4
Eastham .. .. .	2	0
Eccles (including Irwell Park Wharf)	39	22
Ellesmere Port .. .. .	223	76
Frodsham .. .. .	11	4
Manchester, Salford and Stretford	1414	458
Partington .. .. .	20	7
Runcorn .. .. .	559	161
Warrington .. .. .	16	4
Weston Point and Weston Mersey		
Lock .. .. .	249	78
Widnes .. .. .	111	41
	<hr/>	<hr/>
Totals .. .. .	2786	904

TABLE D.

Shewing the Nationalities of the vessels inspected and number found insanitary :—

	Inspected.	Insanitary.
British .. .. .	2400	807
Norwegian .. .. .	205	62
Swedish .. .. .	59	10
German .. .. .	46	9
Danish .. .. .	37	6
Dutch .. .. .	8	4
Spanish .. .. .	7	1
Russian .. .. .	7	
Italian .. .. .	5	1

					Inspected.	Insanitary.
Belgian	..	..	..	..	3	—
French	..	..	..	..	3	—
Austrian	..	..	..	..	2	2
Greek	..	..	..	..	2	1
Argentine	..	..	..	..	1	—
Portuguese	..	..	..	..	1	—
Totals	..	..	..	..	<u>2786</u>	<u>904</u>

TABLE E.

Shewing the number of crews of various Nationalities on vessels inspected during the year :—

## British—

Europeans	..	..	..	..	37,064
Lascars	..	..	..	..	2,047
Chinese	..	..	..	..	172
Arabs	..	..	..	..	39
					<u>39,322</u>
Norwegian	..	..	..	..	3,493
Swedish	..	..	..	..	1,087
German..	..	..	..	..	806
Danish ..	..	..	..	..	673
Dutch ..	..	..	..	..	218
Spanish	..	..	..	..	167
Russian..	..	..	..	..	134
Italian ..	..	..	..	..	109
Belgian	..	..	..	..	91
French ..	..	..	..	..	54
Austrian	..	..	..	..	54
Greek ..	..	..	..	..	46
Argentine	..	..	..	..	8
Total	..	..	..	..	<u>46,262</u>



TABLE F.

Giving particulars of insanitary conditions found in the different vessels inspected :—

	Steam-Ships.	Sailing Vessels.	Flats & Barges.
CREW'S QUARTERS.			
Accumulations of dirt and refuse in quarters ..	19	—	—
Accumulation of stagnant water „ ..	30	—	6
Bilges requiring or inaccessible for cleansing ..	—	—	4
Bulkheads defective allowing communication between W.C.'s, &c., and quarters .. ..	15	4	5
Chain lockers open to forecastles, casing defective, &c. .. ..	22	3	—
Decklights, portlights, &c., broken & defective	152	16	17
Drainage of quarters defective, allowing communication with w.c.'s, &c. .. ..	13	—	—
Forecastles, &c., requiring cleansing, painting, limewashing, &c. .. ..	185	11	14
Forecastles, &c., infested with vermin .. ..	2	—	—
Forecastles, &c., deficient in lighting .. ..	9	—	9
„ lights being „ „ owing to „ lights being covered by deck cargo, &c..	9	—	—
Flooring, fittings, &c., defective .. ..	12	5	12
Iron over bunks unsheathed .. ..	4	—	1
Miscellaneous leakages into quarters .. ..	59	21	28

	Steam Ships.	Sailing Vessels.	Flats & Barges.
Paint, Oil, &c., lockers open to quarters ..	2	1	—
Ship's gear, stores, &c., kept openly in, or in communication with quarters .. ..	15	8	—
Ventilation inefficient or ventilators defective.	59	17	1
CONDITION OF DECKS.			
Accumulations of dirt and refuse about decks..	17	—	—
HEATING.			
No stove or stove pipe provided .. ..	9	1	—
Stoves and stove pipes defective .. ..	35	3	2
OVERCROWDING			
and uncertified accommodation occupied ..	5	2	—
STORAGE OF FOOD.			
Lockers without doors .. .. .	27	—	1
Lockers requiring cleansing, limewashing, painting, &c. .. .. .	3	—	1
Food kept open in quarters .. .. .	1	—	—
STORAGE OF WATER.			
Water tanks, &c., requiring cleansing .. ..	29	1	—
Water tanks, casks, &c., in a defective condition	5	2	6
No water receptacle .. . . .	—	—	3

## WATER CLOSETS.

	Steam Ships.	Sailing Vessels.	Flats & Barges.
Flushing apparatus defective .. ..	94	—	—
Flush and soil pipes defective .. ..	13	—	—
Pans in a foul or defective condition .. ..	14	3	—
Closets and urinals in foul condition .. ..	29	—	—
„ deficient in light or ventilation, or both ..	10	—	—
„ doors and seats absent or requiring repairs .. ..	6	—	—
No sanitary convenience .. ..	1	1	—
<b>Totals .. ..</b>	<b>905</b>	<b>99</b>	<b>104</b>



REPORT ON THE ADMINISTRATION OF THE CANAL  
BOATS ACTS, 1877-84.

For the Year ended 31st December, 1913.

(1) Two Inspectors and an Assistant Inspector have been appointed by the Authority to carry out the provisions of the Canal Boats Acts, viz. :—

HENRY ATKINSON, for Section A (Manchester to Latchford) ;  
WALTER RICHMOND, for Section B (Latchford to Eastham) ;  
and  
GEORGE WHALLEY, who assists in either Section when convenient.

All three Inspectors have the Certificate of the Royal Sanitary Institute.

No Inspector is required to devote his whole time to the duties of inspections under the Canal Boats Acts. Their primary duty is the supervision of shipping registered under the Merchant Shipping Acts, and they are only required to inspect canal boats at such times as they can spare from their other duties.

For purposes of administration, the Port is divided into two sections, viz. :—from Eastham to Latchford, including Widnes and Warrington, with headquarters at Runcorn, and from Latchford to Manchester, with headquarters at Manchester. Each section is under the control of an Inspector, who is directly and solely responsible to the Medical Officer of Health for the proper supervision of his district.

A motor boat is in daily use on the lower reaches of the canal, and this enables the Inspector to keep under constant supervision canal boats using the Port at various points.

(2) During the year there has been an increase of 178 inspections compared with those of the previous year. On the Runcorn section of the canal 177 inspections were made, showing an increase of 67

from the previous year's number. On the Manchester section 255 inspections were made, against 144 during the previous year, an increase of 111.

The increased number of visits to canal boats and barges at the Manchester end has been brought about through utilising the motor boat on sundry occasions during the year. As previously reported, it is very difficult to get at this class of craft lying alongside the warehouses on the River Irwell, except from the water, and the extreme usefulness of a special boat for the purpose is amply proved by the results of this occasional employment. These Manchester inspections by water have been undertaken by Mr. Whalley.

The number of boats inspected, together with those discovered infringing the terms of the Canal Boats Acts, since the Authority undertook this duty, are as follows :—

Year.		Number Inspected.	Number Defective.	Percentage.
1902	..	73	31	42·46
1903	..	191	77	40·30
1904	..	230	105	45·65
1905	..	209	132	63·15
1906	..	115	73	63·47
1907	..	84	55	65·47
1908	..	150	67	44·66
1909	..	257	101	39·29
1910	..	230	87	37·82
1911	..	307	127	41·36
1912	..	254	89	35·03
1913	..	432	159	37·03

The proportion of defective boats to the total number inspected during the year amounted to 37·03, being slightly higher than in 1912.

(3) The following is a summary of the insanitary conditions and contraventions of the Acts found during the year :—

(a) REGISTRATION.

Not registered .. .. .	3
Registration incorrect .. .. .	11

(b) CERTIFICATES.

Registration certificate absent .. .. .	17
„ „ dilapidated .. .. .	6

(c) MARKING.

No marks.. .. .	4
Marking indistinct, or absent .. .. .	4

(d) OVERCROWDING .. .. . 5

(e) SEPARATION OF SEXES (want of) .. .. . 2

(f) CLEANSING AND REPAIRS.

Cleansing of cabins required .. .. .	3
Cabins, etc., dilapidated and repairs required..	16
Miscellaneous leakages into cabins .. .. .	42
Bulkheads defective, allowing communication with holds .. .. .	15
Decklights broken and leaking .. .. .	6

(g) VENTILATION.

Ventilation inefficient and ventilators defective	11
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(h) PAINTING.

Cabins, lockers, berths, etc., requiring painting.	50
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## (i) WATER SUPPLY.

No water vessel .. .. .	1
Water casks decayed and water vessel requiring repairs .. .. .	28

## (j) REMOVAL OF BILGE WATER.

Bilge pumps absent .. .. .	6
„ defective .. .. .	4

## (k) OTHER CONDITIONS.

Lighting deficient .. .. .	27
Stoves and stove pipes absent or defective ..	7
Non-provision of double bulkheads (manure boat) .. .. .	1
Paints stored in cabin .. .. .	1
Cabin infested with vermin .. .. .	1

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Total .. 271

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The proportion of infringements per boat works out at 1·70.

(4) No prosecutions were undertaken during the year. The improved inspection of wide boats on the River Irwell has shown very clearly the need for expert supervision over lighting and water supply. The system of water casks on deck does not appear to be popular with the men working these craft. They complain of the contents being purposely fouled, and of the inconvenience caused by freezing in cold weather. In a number of cases the owners have substituted small galvanized iron tanks, placed in a suitable position under the ladder of the cabin; these being designed for easy lifting in or out of position, and with a sufficiently large opening to allow of efficient cleansing. Each one is fitted with a tap.

The only method of lighting in most cases is by means of the open scuttle hatchway, or by removal of the covers over the ventilation openings in the deck. There appears to be a great prejudice

against decklights, it being stated that these are not watertight, that they cause slipping, and are easily broken. It is my experience that if the owners will go to the expense of fitting a decklight in a properly designed metal frame, these objections do not obtain, and I have succeeded in getting them fixed in many instances. In a number of cases the owner has thought it sufficient to have a hole cut in the deck planking, and to fit a glass by means of a lead and putty mixture, with a couple of protecting iron bars driven into the deck on each side, and generally in a 'thwartship direction. So far as this type is concerned, there is no doubt that the class of complaint mentioned is justifiable, and the direction of the protecting bars appears to increase the risk of slipping. In some cases I have had strong glass with protecting bars let into the ventilating covers.

The subject of ventilation of these canal boats is also receiving my attention.

(5) The usual steps have been taken to secure compliance with the Acts. In most cases complaint notes have been promptly served upon the owners, and if not attended to at the end of the prescribed number of days, a postcard asking for return of the certificate has been duly forwarded. In other instances a letter explaining the nature of the complaint, and the required remedy, has been sent in place of the stereotype form of notice, and these have invariably received proper attention.

(6) No cases of infectious disease have occurred on any canal boat during the year.

(7), (8), and (9) The Authority is not a Registration Authority.



RETURN SHEWING THE NUMBER AND TONNAGE OF VESSELS ARRIVING  
IN THE PORT OF MANCHESTER IN 1913.

	MANCHESTER.		RUNCORN.		WARRINGTON.		ELLESMERE PORT.		TOTALS.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Foreign { STEAMERS .. SAILING .....	1136	1,512,497	104	51,933	62	53,562	131	94,440	1433	1,712,432
	3	2,058	19	8,618	..	..	6	3,612	28	14,288
	Total ..	1,514,555	123	60,551	62	53,562	137	98,052	1461	1,726,720
Coastwise { STEAMERS .. SAILING .....	1934	525,746	1503	170,275	12	5,218	553	59,202	4002	760,441
	21	1,706	476	42,195	..	..	51	4,198	548	48,099
	Total ..	527,452	1979	212,470	12	5,218	604	63,400	4550	808,540

The above has been kindly provided by H.M. Collector of Customs for the Port.



