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HULL & GOOLE PORT HEALTH AUTHORITY.

ANNUAL REPORT

OF THE

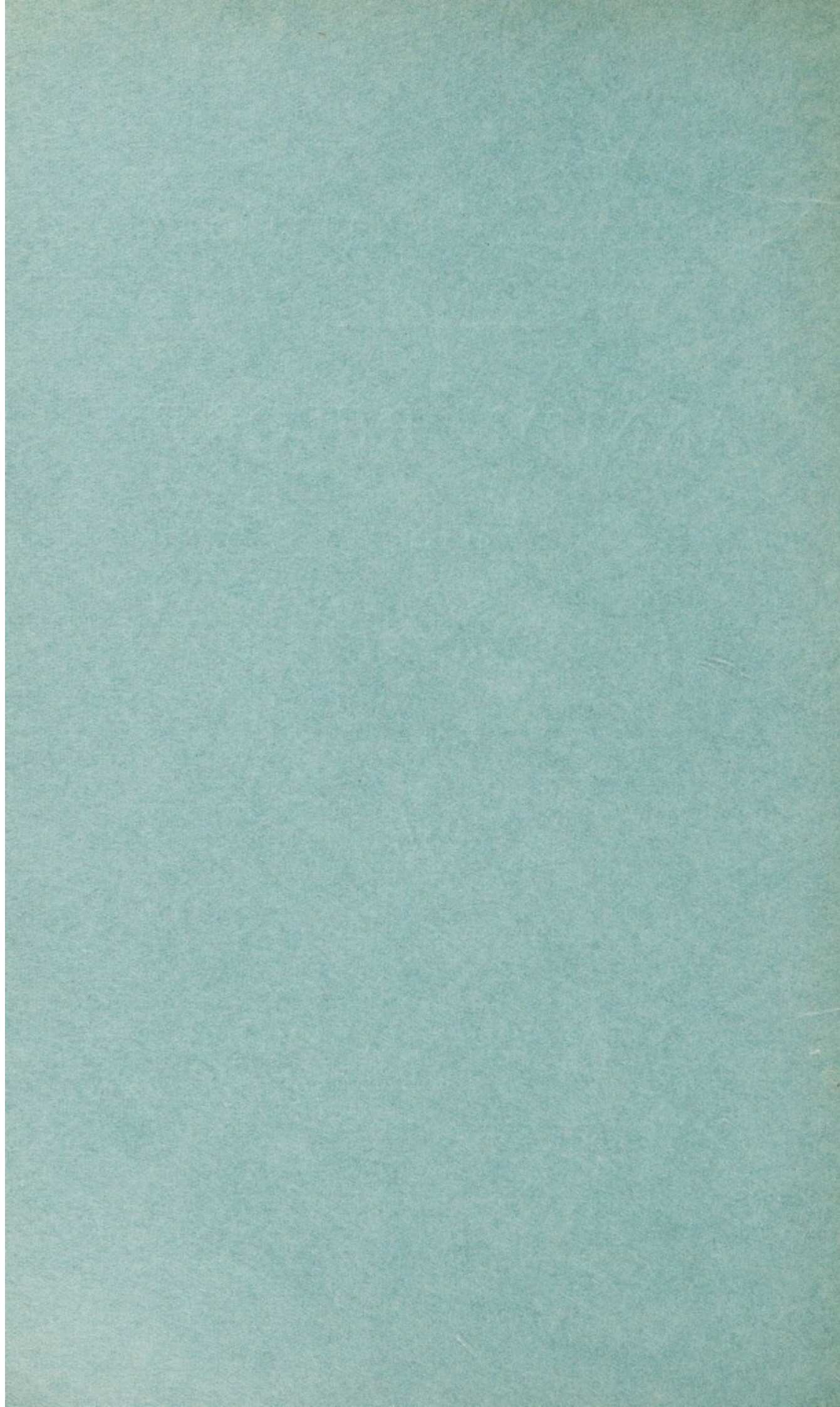
MEDICAL OFFICER OF HEALTH

FOR

1937.

NICOLAS GEBBIE, M.D., D.P.M., D.P.H.,
Medical Officer of Health.

M. HARLAND & SON, LTD., PRINTERS, MANOR STREET, HULL.



HULL & GOOLE PORT HEALTH AUTHORITY.

ANNUAL REPORT

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Medical Officer of Health.

HULL AND GOOLE PORT HEALTH AUTHORITY.

Constituted by an Order of the Local Government Board, dated 11th June, 1887.

Members Elected by the Corporation of Kingston upon Hull.

ALDERMAN W. E. COPELAND, J.P. (*Chairman*).

ALDERMAN A. STARK.

ALDERMAN G. E. FARMERY.

Members Elected by the Goole Borough Council.

ALDERMAN E. JOHNSON (*Deputy-Chairman*).

COUNCILLOR E. CREEK.

Officers of the Authority—

A. PICKARD, *Solicitor, Clerk.*

C. H. POLLARD, *Treasurer.*

NICOLAS GEBBIE, M.D., D.P.M., D.P.H., *Medical Officer of Health.*

D. A. CADMAN, M.D., D.P.H., *Senior Assistant Medical Officer of Health.*

J. F. GALPINE, M.D., D.P.H. (to 16th Oct., 1937).

Assistant Medical Officer of Health.

W. N. M. MASON, M.D., D.P.H. (from 18th Oct., 1937).

Assistant Medical Officer of Health.

A. M. ERSKINE, M.D., D.P.H., *Deputy Medical Officer of Health (Goole).*

*J. MORRISON, M.C., M.A., M.D., D.P.H.,

Senior Assistant Medical Officer of Health.

*J. G. PALEY, M.R.C.S., L.R.C.P., D.P.H., *Assistant Medical Officer of Health.*

A. R. TANKARD, F.I.C., F.C.S., *Analyst.*

H. P. LEWIS, M.R.C.V.S., *Chief Food Inspector.*

GEORGE H. DUNSTAN, Cert. Royal San. Inst., *Senior Inspector.*

A. J. W. HARDING, Cert. Royal San. Inst., *Assistant Inspector.*

J. R. Z. BOWNASS, Cert. Royal San. Inst., *Assistant Inspector.*

M. THOMAS, Cert. Royal San. Inst., *Assistant Inspector.*

S. RHODES, Cert. Royal San. Inst., *Assistant Food Inspector.*

B. E. C. COLE, Cert. Royal San. Inst., *Assistant Food Inspector.*

A. DAY, Cert. Royal San. Inst., *Assistant Food Inspector.*

G. E. FOX, *Ratcatcher.*

E. STUBLEY, *Ratcatcher.*

S. JOHNSON,

S. BROADBENT, } *Clerical Staff.*

Offices of the Authority—

ZELDA CHAMBERS, 18-19, MARKET PLACE, HULL.

* Under a scheme whereby all whole-time Medical Officers of the Hull City Council and the Hull and Goole Port Health Authority became interchangeable, these officers are available for occasional duty on port work.

ZELDA CHAMBERS,
18-19, MARKET PLACE,
HULL, *May*, 1938.

*To the Chairman and Members of the
Hull and Goole Port Health Authority.*

GENTLEMEN,

I have the honour to submit the Report of the Medical Officer of Health of the Hull and Goole Port Health Authority for the year ended 31st December, 1937.

In accordance with the terms of the Public Health Act, 1936, which came into operation on the 1st October, 1937, the designation of Port Sanitary Authorities was altered to Port Health Authorities. This change in title affords a more appropriate designation of the wider public health aspect of the activities of a modern Port Health Authority.

During the year, 934 ships were boarded by the Medical Staff and 6,664 by the Inspectorial Staff.

The Inspectors paid 9,813 visits to ships for the purposes of inspection, and on 1,676 vessels sanitary defects were discovered.

Investigations of rat infestation of ships and measures for the control of rodents were vigorously prosecuted throughout the year, and 5,441 rats were destroyed. In addition, 832 rats were destroyed on quays, wharves, docks, &c. Of the rats caught, 517 were examined bacteriologically by the Senior Assistant Medical Officer of Health, and none showed evidence of plague.

I have included as an appendix to this report a memorandum by Dr. D. A. Cadman, Senior Assistant Medical Officer of Health, on "An Enquiry into the degree of Rat Infestation on board Vessels visiting the Port of Hull." The period covered by the investigation

is from January, 1934, to August, 1937, and the circumstances affecting 817 vessels were subjected to enquiry. The information elicited from this investigation shows that rat-free ships tend to remain rat-free, and that very few vessels return to the port heavily infested with rodents.

It is again my pleasure to acknowledge, with thanks, the efficiency and loyalty of all the members of the staff of the Authority—medical, veterinary, inspectorial and clerical. Under the able guidance of Dr. Cadman, the officers of the Authority have carried out their onerous and responsible duties with tact and discretion and with a minimum of interference with shipping.

I would also express my appreciation of the expert services so willingly placed at the disposal of the Port Health Department by the Clerk, the Treasurer and the Analyst to the Authority.

My thanks are also gratefully tendered to H.M. Collector of Customs and his officers, especially the Waterguard; to H.M. District Inspector (Home Office—Aliens Branch) and his staff; to the Pilots and Dock Masters, and to the Owners, Agents, and Masters of vessels for their cordial co-operation with the officers of the Authority.

The members of the staff and myself are greatly encouraged in our work by reason of the keen personal interest taken by the Chairman and Members of the Authority in all measures for the protection of the public health and for the betterment of the conditions of life and work in the mercantile marine.

I am,

Your obedient Servant,

NICOLAS GEBBIE,
Port Medical Officer of Health.

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An enquiry into the degree of Rat Infestation on board vessels visiting the Port.

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REPORT.

Jurisdiction of Port.

There has been no alteration in the definition of the limits of jurisdiction of the Port Health Authority.

Staff.

Dr. J. F. Galpine, having been appointed Resident Medical Officer at the City Isolation Hospital, Coventry, resigned the post of Assistant Port Medical Officer of Health under the Hull and Goole Port Health Authority. He was succeeded in that position by Dr. W. N. M. Mason.

Amount of Shipping entering the Port during the year.

During 1937, 13,829 vessels entered the Ports of Hull and Goole with a total net tonnage of 7,914,090, as against 13,468 vessels with a total net tonnage of 7,594,534 in 1936.

In the year under review, 934 ships were boarded by the Medical Officers of the Authority; this shows an increase of 34 when compared with the figure for 1936.

The Sanitary Inspectors visited 6,664 vessels, on 1,670 of which sanitary defects were discovered; 423 of these were rectified. In 1936 the figures were respectively 6,469, 1,606 and 413. Details of this work will be found in Table 1, pages 51-53.

HULL.

TABLE A.

	Number	Tonnage	Number Inspected		Number reported to be defective	Number of vess'ls on which defects were remedied	Number of vess'ls rep't'd as having or having had during the voyage infectious disease on board.
			By the Medical Officer of Health	By the Sanitary Insp'ctor			
FOREIGN—							
Steamers ..	3,952	5,379,070	868	2,735	844	205	34
Motor* ..			64	421	95	25	4
Sailing ..	3,731	596,336	—	4	2	1	—
Fishing ..			1	720	235	49	—
Total Foreign	7,683	5,975,406	933	3,880	1,176	280	38
COASTWISE—							
Steamers ..	2,494	728,787	1	1,215	147	25	—
Motor* ..			—	205	32	10	—
Sailing ..	639	76,680	—	8	2	—	—
Fishing ..			—	18	9	1	—
Total Coastwise	3,133	805,467	1	1,446	190	36	—
Total Foreign and Coastwise	10,816	6,780,873	934	5,326	1,366	316	38

GOOLE.

	Number	Tonnage	Number Inspected		Number reported to be defective	Number of vess'ls on which defects were remedied	Number of vess'ls rep't'd as having or having had during the voyage infectious disease on board.
			By the Medical Officer of Health	By the Sanitary Insp'ctor			
FOREIGN—							
Steamers ..	1,349	566,294	—	629	112	43	—
Motor* ..			—	86	24	8	—
Sailing ..	—	—	—	1	1	—	—
Fishing ..			—	—	—	—	—
Total Foreign	1,349	566,294	—	716	137	51	—
COASTWISE—							
Steamers ..	1,664	566,923	—	504	121	42	—
Motor* ..			—	117	46	14	—
Sailing ..	—	—	—	1	—	—	—
Fishing ..			—	—	—	—	—
Total Coastwise	1,664	566,923	—	622	167	56	—
Total Foreign and Coastwise	3,013	1,133,217	—	1,338	304	107	—
Total Foreign & Coastwise for Hull and Goole	13,829	7,914,090	934	6,664	1,670	423	38

* Includes mechanically propelled vessels other than steamers.

NOTE.—Twenty-nine informal notices were served and verbal orders given to Masters and Officers in charge of vessels at the Ports of Hull and Goole respecting defects on board.

Figures in columns 1 and 2 supplied by H.M. Collector of Customs for the Ports of Hull and Goole.

CHARACTER OF TRADE OF PORT.

Passenger Traffic.

During 1937, 33,054 passengers entered or departed from the Ports of Hull and Goole as against 27,978 for the previous year. The increase of 5,076 passengers can be ascribed to a continued improvement in trade conditions. During the year 977 transmigrants entered the Port of Hull; in 1936 the number was 615. These passengers come chiefly from Finland, Poland, Norway and Sweden. Business men, coming for short periods only, form the majority of passengers from Holland, Belgium, Denmark, Norway, Sweden and Finland.

The number of aliens entering the district through Goole during 1937 was 98, compared with 93 in the previous year.

Vessels carrying passengers arrive regularly at Hull from Holland, Belgium, Norway, Sweden, Finland, Germany and Danzig (Free State). Passengers come to Goole principally from Holland, Belgium and Germany.

During the summer months there is a weekly passenger service between Aberdeen, Leith, Newcastle and Hull.

Occasionally liners from Australia and Vancouver bring passengers to Hull via Plymouth, Southampton and London.

TABLE B.

HULL. Passenger Traffic during 1937.

No. of Passengers.		1st Class.	2nd Class.	3rd Class.	Trans-migrants.	Total.
Inwards	Aliens ..	4,000	9	816	977	17,333
	British..	11,511	—	—	—	
Outwards	Aliens ..	4,459	—	—	477	14,699
	British..	9,763	—	—	—	

Total Passengers, Inwards and Outwards 32,032.

TABLE B.—Continued.**GOOLE.**

No. of Passengers.		1st Class.	2nd Class.	3rd Class.	Trans migrants.	Total.
Inwards	Aliens ..	98	—	—	—	362
	British..	264	—	—	—	
Outwards	Aliens ..	208	—	—	—	660
	British..	452	—	—	—	

Total Passengers, Inwards and Outwards 1,022.

Figures for Table B were supplied by H.M. District Inspector (Home Office—Aliens Branch).

Cargo Traffic, including Foreign Countries from which vessels arrive.

The trade of the Port of Hull in common with that of the other large British ports is world-wide and endless in its variety, whereas that of the Port of Goole is chiefly connected with Holland, Belgium, Germany and France.

There are regular sailings from the Humber to Baltic, Continental and Mediterranean ports. An extensive trade is also carried on with North and West African ports, India, the River Plate, Australia and Canada ; and there are arrivals from the Far East and the East and West Indies.

The chief imports of Hull are :—

Butter, Cheese, Margarine and Condensed Milk from Holland, Denmark and Finland.

Eggs from Egypt, Danzig and Denmark.

Oil producing Seeds and Beans from Egypt, West Africa, India, the Far East and the Argentine.

Mineral Oils from Mexico and U.S.A.

Wool from Australia and New Zealand.

Fruit and Vegetables from Spain, Italy, Holland, Belgium, Germany, Jaffa (Palestine), Canary Islands, U.S.A., Australia, New Zealand and South Africa.

Cotton Seed and Oil Cake from Egypt.

Wheat from the Argentine, Australia, North and South America, India and Russia.

Copra from the Far East.

Paper and Pulp from Norway, Sweden and Finland.

Straw Boards from Belgium and Holland.

Timber from the Baltic and West Africa.

Fish from the North Sea, Iceland and Norway.

Bacon from Holland and Denmark.

Tanning Materials from India.

Painters' Colours from India, France and Spain.

Dried Hides from India.

Rubber and Copal Resin from the West Coast of Africa.

Wines from Spain, Portugal, France and Italy.

Manufactured Goods from Germany and Holland.

Onions from Spain, Portugal and Egypt.

Coastwise Trade with Aberdeen, Leith, Tyne Ports, Sunderland, Tees Ports, Grimsby, Wisbech, King's Lynn and London.

Inland Waterways :—Aire and Calder Navigation Company trading with Leeds, Bradford, Halifax, Castleford, Sheffield, Thorne, Doncaster, Selby, Brighouse, Barnsley, Wakefield, Huddersfield and Goole.

Trent Navigation Company trading with Newark, Nottingham, Leicester, Nuneaton, Gainsborough and Loughborough.

The chief exports from Hull are Cotton and Woollen manufactured goods, Chemicals, Dyes and Colours, Coal, Coke, Feeding Stuffs for Animals, Grain, Flour, Machinery, Metals, Oils and Fats (edible), Seeds and Nuts for oil, Vehicles, Locomotives and Motor Cars.

A large proportion of the trade of Hull is carried on with India, West Africa, Egypt and the Argentine. In these countries Plague is endemic or epidemic from time to time, and thus the loading ports come into the category of "Infected Ports."

GOOLE.

IMPORTS :—Dairy Produce, Margarine, Timber, Woollen Rags, Sugar, Cocoa, Cotton Yarn, Hair, Leather, Machinery, Tobacco, Pipes, Toys and Games.

EXPORTS :—Cotton Yarn and Manufactured Cotton Goods, Woollens, Coal and other fuels, Machinery, Metals, Chemicals, China and Earthenware, Cured and Salted Fish.

SOURCE OF WATER SUPPLY.

For the Port.

	Source of Water.
St. Andrew's Dock	L.N.E.R. supply.
Albert and Sir Wm. Wright Docks ..	do.
Humber Dock	Hull Corporation supply.
Victoria Dock	do.
Alexandra Dock	do.
King George Dock	do.
Saltend Jetty, No. 1	do.
„ „ No. 2	do.
Goole Docks	Goole Borough Council supply.

The water, which is very pure, is derived from deep wells ; its hardness is just over twenty parts per 100,000, about six being permanent.

For Shipping.

The water supplied to ships is identical with that of the port and is delivered either by means of water boats or by hydrants situated on the dock-side.

Number of Water Boats and their Sanitary Condition.

Docks.	Number of Boats.	Capacities in Tons.
St. Andrew's	3	98, 98, 60
Albert and Sir Wm. Wright ..	2	56, 35
Humber	1	40
Victoria	1	43
Alexandra	3	45, 60, 65
Goole	2	25, 40

These boats are inspected at frequent intervals by the Authority's Inspectors who report immediately any conditions which require attention. The vessels are cleaned out periodically and the tanks cement-washed. In addition to these measures samples are taken, from time to time, for chemical and bacteriological examination. Three samples were found to be unsatisfactory. In all cases the tanks and supply pipes were thoroughly cleansed under the supervision of the Inspectors.

Inspection of Fresh Water Tanks in Ships.

During the year the fresh water tanks on 39 ships were found to contain deposits indicating the need for cleansing. In these cases

orders were given to empty, cleanse and cement-wash the tanks. These instructions, with one exception, were complied with before the vessels left the Port.

It should be noted that in many vessels no record is kept of the port of origin of the water. The information in Table 2, pages 54-55, was in all cases verbal.

Water Examinations.

Forty-six water samples obtained from vessels or water-boats were examined. The sources of the water and the chemical and bacteriological findings are shown in Table 2, pages 54-55.

Chemical Examination.

The Port Analyst reports:—"Forty-six waters (45 from Hull and 1 from Goole) were submitted, compared with a total of forty-eight waters in the previous year. The following table shows the sources of these samples and the results obtained on examination:—

Waters.	Total.	Satis- factory.	Fairly Satis- factory.	Unsatis- factory.
From ships in dock				
at Hull	40	36	3	1
From water-boats				
at Hull	4	—	1	3
From water-boats				
at Goole	1	1	—	—
From hydrants, hose-pipes, etc.,				
at Hull	1	1	—	—
	—	—	—	—
	46	38	4	4
	—	—	—	—

"The one unsatisfactory water from a ship's tanks showed the presence of nitrites and an abnormal proportion of free ammonia, characters indicating pollution of animal origin. Three of the waters from ships' tanks were reported as 'fairly satisfactory,' as although the samples contained abnormal amounts of organic impurities, these were mainly or entirely of vegetable origin. Of the four waters from a Hull water-boat, three were unsatisfactory in quality. An examination of the water issuing from the hose-pipe showed the supply to be pure, and it was obvious that some condition in the boat was responsible for the observed contamination. The supply from this water-boat was later found to be much improved in quality, and it was then passed as fairly satisfactory."

Bacteriological Examination.

All the samples were examined bacteriologically by the Senior Assistant Medical Officer of Health, who is also Bacteriologist to the Authority."

Where the water samples were considered unsatisfactory, as the result of the chemical or bacteriological findings, instructions were given for the water tanks to be cleaned out and for a fresh supply of water to be taken in at this port.

In three instances where the drinking water was found to be unsatisfactory, it was impossible to take any action owing to the short stay of the vessel in port, but assurance was given that the tanks would be attended to at the first opportunity.

PORT SANITARY REGULATIONS, 1933.

During the year 37 cases of infectious diseases were found on vessels arriving at the port ; of these one was a passenger and 36 were members of crews.

The cases were as follows :—Malaria 13 , influenza 10, tuberculosis 5, pneumonia 4, chicken pox 2, enteric fever 2, and scarlet fever 1.

Of the 23 cases of infectious disease occurring on vessels during the voyage but disposed of prior to arrival, 16 were cases of malaria.

No case or suspected case of human plague, cholera, yellow fever or small-pox occurred within the area of the Authority during 1937.

On the 11th October a case of Enteric Fever ex the s.s. " Castilian " was removed to the City Hospital, Cottingham, the illness terminating fatally on the 22nd October.

The crew " paid off " in Hull and the Medical Officers of Health of the districts to which the men were proceeding were notified of the circumstances regarding the case.

Samples of drinking water were not obtained as the vessel had left the port before the sickness was discovered.

On the 31st October a case of Enteric Fever ex the s.s. "Polycarp" was removed to the City Hospital, Cottingham.

Samples of water were obtained and submitted to chemical and bacteriological examination. The result of the chemical examination was satisfactory but the bacteriological sample showed evidence of the presence of organisms of the Coli-typhoid group. Owing to the short stay of the vessel in the port it was impossible to take any action, but the Master was advised to boil all water before use and to obtain a fresh supply at the first available opportunity.

The case recovered and was discharged from hospital on the 29th December.

Details of cases of infectious sickness landed from vessels are shown in Tables C. and 4, pages 25 and 58, and in Table D., page 26, particulars of cases of infectious sickness occurring on vessels during the voyage but disposed of prior to arrival.

Table 3 (pages 56-57) gives a monthly return of the ships boarded by Medical Officers and their ports of origin.

In Table 4 (page 58) will be found details of cases of sickness discovered on vessels boarded on arrival at the Port by the Medical Officers.

Details of cases of infectious sickness occurring on vessels during the voyage to Hull or Goole will be found in Table 6 (pages 60-63).

ARRANGEMENTS FOR DEALING WITH DECLARATIONS OF HEALTH.

The method of supplying copies of the Declaration of Health to H.M. Customs for distribution from the Long Room has been continued and will, it is anticipated, remain the most convenient way of placing the "Declaration" on outward-bound vessels for use on their return to a British port.

Supplies are still required by the Medical Officer if boarding prior to H.M. Customs Officer, as ships frequently arrive without the necessary form. These vessels are chiefly engaged in irregular trade

with far distant ports and, therefore, do not get many opportunities for obtaining supplies of the "Declaration."

It also happens that the form is mislaid during the ship's absence from the country.

A supply of these forms has been placed on the cutter used by the Humber Conservancy Board at the mouth of the Humber so that pilots may carry them when they board vessels from "foreign."

Collection of Declarations of Health.—When a foreign-going ship arrives in the district from "foreign" the necessary Declaration of Health is collected in the case of ships coming from an Infected Area by the Medical Officer when he boards the vessel. On the other hand, if the ship's port of loading should be situated in some area which is not regarded as infected by reason of Article 11, the Customs Officer who boards the vessel takes deliverance of the form and forwards it to the Offices of the Port Sanitary District by post, unless the "Declaration" is not clean by reason of Article 12, in which instance he communicates immediately with the Medical Officer and informs him of the circumstances which exist on board the vessel in question.

The arrangements have operated quite smoothly throughout the year. Much of this is due to the courtesy of the Superintendent of H.M. Customs Waterguard together with the hearty co-operation of all his officers.

BOARDING OF VESSELS ON ARRIVAL.

All vessels entering the Ports of Hull and Goole and which have come from any port situated in the list of Infected Areas prepared by the Medical Officer in accordance with Article 11 of the Port Sanitary Regulations, 1933, are boarded upon arrival by one of the Authority's Medical Officers, unless she has called at a British port and discharged cargo there or has not touched at an infected port during the previous six weeks. The vessel is generally boarded after she has moored at her berth, as this allows of a complete mustering of the crew for examination. Formerly, many vessels were boarded as they passed through the lock-pits, but this practice is much to be

deprecated, as it does not permit of a thorough examination of the crew and also limits the Medical Officer to a rather short period of time in which to carry out his work. Vessels are very rarely boarded in the river as this would cause considerable inconvenience and delay to shipping without any attendant advantage.

Ships from regions other than those included in the Infected Area List are not visited by the Medical Officer unless the Customs Officer on boarding duty reports an unclean Declaration of Health.

Occasionally, the Master of a vessel asks for the attendance of the Medical Officer when there is sickness on board, the nature of which is doubtful, and the Captain is uncertain whether or not he should enter the particulars on the Declaration of Health.

**NOTIFICATION TO THE AUTHORITY OF INWARD VESSELS
REQUIRING SPECIAL ATTENTION (WIRELESS MESSAGES,
LAND SIGNAL STATIONS, INFORMATION FROM PILOTS,
CUSTOMS OFFICERS, ETC.).**

Vessels entering the Humber usually send a signal to the land station situated at Spurn Point. This signal containing "passing-in news" together with any other matter which may warrant attention on arrival in Hull, is forwarded to the owner or agents as the case may be, and they notify the Port Health Authority in cases where the message contains reference to the presence of sickness on board. As the signal station is approximately two hours steaming from Hull Roads it would appear that no extra advantage is to be gained by making use of wireless in the transmission of messages appertaining to the conditions of health prevailing on board vessels entering the river unless satisfactory arrangements could be made so that the Master could despatch his message at least four hours before arrival.

As a rule, when Pilots board ships off Spurn Point, they ask the Master if all on board are well, and, if there are circumstances which appear to them to require the attention of the Medical Officer, they notify the Customs Officer who then telephones to the Sanitary Inspector on duty, who, in turn, makes arrangements for the vessel to be boarded by the Medical Officer.

If there has been sickness during the voyage of a particular ship the Pilot either remains on board until the Medical Officer liberates the vessel or leaves his (the Pilot's) name and address with the Master.

Officers of H.M. Customs Waterguard supply the Inspector on duty with news of the movement of vessels from infected areas, and it is upon this information that the Inspector makes the arrangements for the vessel to be visited by the Medical Officer.

The Customs Officer only notifies the Sanitary Inspector about vessels from non-infected areas when the Declaration of Health is not clean or where there is sickness on board the nature of which is doubtful.

MOORING STATIONS DESIGNATED UNDER ARTICLE 10 :

(a) WITHIN THE DOCKS : (b) OUTSIDE THE DOCKS.

The Quarantine Station at No. 7 Buoy in the River Humber has been retained as the outside Mooring Station for both Hull and Goole, and although it is some seven miles down the river from the Hull Docks, it is the nearest convenient point at which such a station can be placed.

Inside Mooring Stations.—Four inside mooring stations have been established in the Hull Docks at which “infected” or “suspected” ships can be dealt with as occasion arises. They are as follows :—

1. King George Dock. The berth known as the “Dry Dock End Overside Berth.”
2. Alexandra Dock. The Buoys.
3. Victoria Dock. The berth between the end of the coal conveyors and the dolphins.
4. Wm. Wright Dock. The berth immediately off the Bull Nose at the entrance to the Graving Dock.

At Goole the situation of the Inside Mooring Station has been chosen on the south side of the Barge Dock and is known as the Western Berth Barge Dock.

Besides the above official stations, provision has been made for any place of mooring, loading or discharge to be regarded as a mooring station when necessary.

PARTICULARS OF ANY STANDING EXEMPTIONS FROM THE PROVISIONS OF ARTICLE 14.

For the purpose of Article 14 (1) standing exemption has been granted in respect of all infectious diseases with the exception of Cholera, Plague, Yellow Fever, Small-pox and Typhus, and also in respect of vessels from Infected Areas presenting, upon arrival, a clean Declaration of Health.

EXPERIENCE OF WORKING OF ARTICLE 16.

In order to conform to the requirements of the above article in the new Port Sanitary Regulations, instructions have been printed on page 4 of the Declaration of Health under the heading "Instructions to Masters," that no person must leave or board the vessel, with the exception of Pilots, H.M. Customs Officers, H.M. Immigration Officers and Officials of the Port Health Authority, until she has been cleared by the Medical Officer. During the past year some difficulty has been experienced in carrying out the provisions of this Article. Most shipowners or their agents have courteously co-operated with us in fulfilling the obligations of the Regulations. It has been noticed, however, that on occasions the Regulations have been disregarded and unauthorized persons have boarded the vessels before the granting of pratique.

When a ship arrives in the port with dangerous infectious disease on board or has come from an Infected Area, the Master is required to deliver to the Medical Officer a list containing the names and addresses of all persons on board. In the case of a ship where the crew is not "paying off" this requirement is not enforced. These lists are filed at the Office of the Authority for a period of six weeks and then destroyed.

Should there be dangerous infectious disease on any ship entering the port, "Business Reply Cards" are issued to passengers and crew (if paying off) so that they may notify the Authority of any change of address. So far no occasion has arisen when these cards have been required.

WHAT, IF ANY, ARRANGEMENTS HAVE BEEN MADE FOR:—

(a) Premises and waiting rooms for medical examination.—
The examination of passengers and members of ships' crews is

generally carried out on board the vessel ; should it become necessary to investigate the circumstances more closely than is possible on board, good facilities for the purpose exist at the Corporation Disinfecting Station.

(b) Cleansing and disinfection of ships, persons and clothing and other articles.—When it so happens that a case of infectious disease has been taken from a ship in the Port Health District, one of the Authority's Inspectors proceeds to the ship and thoroughly disinfects the quarters by means of formalin or by burning sulphur ; occasionally liquid sulphur dioxide is used as an alternative. Where the disease is transmissible by vermin the quarters are thoroughly dealt with by using hydrogen cyanide in double concentration, *i.e.*, 4 ozs. per 1,000 cubic feet, as a fumigant.

When the ship's water comes under suspicion, samples are chemically and bacteriologically tested, and, if these prove unsatisfactory the Master is required to empty, cleanse and cement-wash the tanks before taking in a fresh supply. In certain circumstances, the bilge and other waste water might require disinfection ; crude carbolic acid would then be employed.

When it becomes necessary to cleanse persons from ships, opportunity is taken of the excellent facilities which obtain at the Corporation Disinfection Station for giving disinfectant baths and also for delousing verminous persons. At the same station there is modern equipment for the sterilisation of clothing and other articles.

(c) Premises for the temporary accommodation of persons for whom such accommodation is required for the purposes of the Regulations.—Situated at the Corporation Disinfecting Station are two large cottages, one for females and one for males. These are always kept in readiness for the reception of infected persons or those whom it is desirable to keep under observation for a few days. Each cottage is equipped with a large sleeping room with bath-room and water-closet attached. Dining rooms are also available at the station.

(d) Hospital accommodation available for Plague, Cholera, Yellow Fever, Small-pox and other Infectious Diseases.—The Authority

maintains 25 beds at the City Isolation Hospital, Cottingham, and 6 at the Isolation Hospital, Goole, where cases of Plague, Cholera, Yellow Fever, Small-pox or any infectious disease requiring isolation can be treated.

(e) **Ambulance Transport.**—Four ambulances for the removal of patients and two vans for bedding, &c., are maintained at the Corporation Disinfecting Station. The services of these vehicles are available at any time of the day or night by telephoning to the Superintendent who is in residence at the station.

(f) **Supervision of Contacts.**—In the event of a ship arriving in the port with dangerous infectious disease on board requiring the contacts to be placed under strict observation, such contacts are removed to the cottages at the Corporation Disinfecting Station where they are medically examined daily for the requisite period. Where surveillance only is necessary, names and addresses are taken, and the Medical Officers of the districts to which the contacts are proceeding are notified of the circumstances. "Business Reply Cards" are issued when required so that any change of address may be notified to this office.

ARRANGEMENTS FOR THE BACTERIOLOGICAL OR PATHOLOGICAL EXAMINATION OF RATS FOR PLAGUE.

On the first floor of the Authority's offices a room has been equipped for carrying out bacteriological examinations. All rats trapped or found dead by the Rat Catchers are brought to the laboratory where they are carefully examined externally and a proportion, not less than 10 per cent., submitted to dissection so that any abnormality of the glands may be noted. Smears are then taken from the spleen and from any suspicious glands, for the detection of the presence of organisms.

The Rat Catchers of the London and North Eastern Railway Company bring in samples of their catches from time to time. These are all submitted to examination. This work is carried out under the supervision of the Senior Assistant Medical Officer.

ARRANGEMENTS FOR OTHER BACTERIOLOGICAL OR PATHOLOGICAL EXAMINATIONS.

The only other bacteriological work carried out at the Authority's Offices is connected with water examinations. Water samples are taken from ships' tanks by the Sanitary Inspectors several times a month. The water is examined by the Medical Officer, special attention being directed to the presence or absence of the organisms of the Coli-typhoid group. At the same time another sample is submitted to the Port Analyst for chemical examination. If the water, as a result of either or both of these examinations, is unsatisfactory, orders are issued to the Master of the Vessel concerned to pump out, cleanse and cement-wash the tanks before taking in a fresh supply.

Besides the routine examination of water samples specimens are taken for examination from ships where there is or has been on board sickness which can be transmitted by means of water.

ARRANGEMENTS FOR THE DIAGNOSIS AND TREATMENT OF VENEREAL DISEASE AMONG SAILORS UNDER INTER- NATIONAL ARRANGEMENTS.

Enquiries are made on all ships entering the port, either by the Medical Officer or an Inspector of the Authority, into the occurrence of Venereal Disease on board. Ratings suffering from this disease are strongly urged to attend the Corporation Venereal Diseases Clinic in Mill Street for proper treatment, and for advice as to where such treatment can be obtained in foreign countries. Cards setting forth the dangers of neglect of treatment, and giving the address of the Clinic in English, French, Spanish and several other languages are issued to the persons concerned.

All seamen who are suffering from a fresh infection are given a Seaman's Card, Form V., or "International Carnet" in which the medical officer at the Clinic enters pathological reports, details of treatment, &c., so that when the patient presents the card at another clinic he may have the treatment continued. When a seaman is

leaving the Clinic and treatment has not been concluded, he is told where he may obtain advice at his next port of call.

At the Bartholomew Hospital, Goole, the Deputy Medical Officer of Health conducts a clinic for these diseases.

During the routine work of the Medical Officers and Sanitary Inspectors, 283 cases of Venereal Disease were discovered ; of these 262 attended at the Clinic for treatment.

ARRANGEMENTS FOR THE INTERMENT OF DEAD.

In cases where death has occurred from any of the five major diseases, *i.e.*, Plague, Cholera, Yellow Fever, Typhus and Small-pox, the Authority is strongly in favour of cremation and would press for this method of disposal. In Hull there is a well-equipped crematorium for this purpose.

OTHER MATTERS, IF ANY, REQUIRING OR RECEIVING ATTENTION.

Pilots, Masters, Officers of H.M. Customs Waterguard, Ship-owners and Agents have all helped the Officers of the Authority in the fulfilment of their duties under the 1933 Regulations.

TABLE C.

Cases of Infectious Sickness landed from Vessels.

Disease.	No. of cases during 1937.		No. of Vessels concerned.	Average No. of cases for previous 5 years.
	Passengers.	Crew.		
Tuberculosis ..	1	4	4	2·4
Pneumonia ..	—	4	4	1·2
Chicken-pox ..	—	2	2	1·2
Influenza ..	—	10	9	11·6
Malaria ..	—	13	9	12·2
Enteric Fever ..	—	2	2	3·0
Measles	—	—	—	·8
Dysentery ..	—	—	—	1·0
Mumps	—	—	—	·4
Scarlet Fever ..	—	1	1	·2

TABLE D.

Cases of Infectious Sickness occurring on Vessels during the Voyage but disposed of prior to arrival.

Disease.	No. of cases during 1937.		No. of Vessels concerned.	Average No. of cases for previous 5 years.
	Passengers.	Crew.		
Influenza ..	—	4	1	4·4
Malaria ..	—	16	4	13·6
Pneumonia ..	—	2	2	·4
Scarlet Fever ..	—	1	1	·6
Tuberculosis ..	—	—	—	1·0
Meningitis, C. Spinal	—	—	—	·4
Diphtheria ..	—	—	—	·4
Whooping Cough	—	—	—	·4
Mumps ..	—	—	—	·4
Chicken-pox ..	—	—	—	1·8
Enteric Fever	—	—	—	1·2
Dysentery ..	—	—	—	1·0
Measles ..	—	—	—	1·8

MEASURES AGAINST RODENTS.

STEPS TAKEN FOR DETECTION OF RODENT PLAGUE.

(a) In Ships in the Port.

The Authority's Rat Catchers are constantly trapping on board vessels from Infected Areas and on all other ships where there is evidence of a large rat population. Foremen stevedores help the officials of the Authority by informing them of the presence of any dead rats discovered while cargoes are being unloaded.

All rats trapped or found dead on board are brought to the laboratory, where at least ten per cent. of those trapped and all found dead are submitted to careful examination for the presence of disease.

Table E (page 33) shows that the total number of rats destroyed by fumigation and by the Authority's Rat Catchers was 5,441. Of the total number of rats caught on ships, 517 were examined bacteriologically by the Senior Assistant Medical Officer. Details of these are set out in Table 7 (page 64). None showed evidence of Plague.

During the year the Rat Catchers laid traps on board 354 ships. On 267 of these the result was negative.

(b) On quays, wharves, warehouses, &c., in the vicinity of the Port.

Although the jurisdiction of the Authority does not extend to the neighbouring quays, wharves, warehouses, etc., the rat catchers of the London & North Eastern Railway Co., from time to time submit rats which have been caught in their warehouses for bacteriological examination. These are scrutinised and smears are taken from the spleens of all samples sent in.

Table F (page 33) gives particulars of the rats caught month by month, and shows that 832 rats were known to be destroyed on quays, wharves and warehouses on the dock estates. Of this number, 9 were submitted to bacteriological examination; none showed evidence of Plague.

**MEASURES TAKEN TO PREVENT THE PASSAGE OF RATS
BETWEEN SHIPS AND THE SHORE.**

All ships from "Infected Ports" are required to place efficient rat guards on all mooring ropes to prevent the passage of rats between ships and the shore. The Assistant Sanitary Inspectors pay daily visits to ships to see that this order is carried out.

In all cases where a Deratisation Certificate or a Deratisation Exemption Certificate is issued at this Port, Masters are strongly advised to pursue the under-mentioned rat precautionary measures during the whole time the vessel is at this Port, and also at subsequent ports of call, otherwise rats will gain easy access to the vessel and the validity of our certificates and the fumigations carried out under our supervision may be questioned.

The precautions required are :—

(a) All mooring ropes from ship to shore to be furnished with approved protective discs and to be kept in position throughout the period that the vessel is being discharged or loaded.

[Instead of the use of discs, all ropes and hawsers may be kept covered with fresh tar for a space of three feet adjoining, but not touching the quay. The tar to be kept moist and freshly applied night and morning.]

(b) The vessel to be kept at least three feet from the side of the wharf throughout the whole period that the vessel is in dock.

(c) Gangways to be limewashed top and bottom and well lighted at night.

(d) Gangways used for the discharge of cargo to be removed when the vessel is not working.

METHODS OF DERATISATION.

Ships.—The three methods of rat destruction used at this Port are (1) Fumigation by Sulphur Dioxide, (2) Fumigation by Hydrogen Cyanide and (3) Trapping. Poisoning is not used as a means of deratisation. Particulars of the work undertaken during the year are shown in Tables G and H (pages 34–35).

(1) *Fumigation by Sulphur Dioxide.*—During the year 75 vessels were fumigated by this method, resulting in the destruction of 1,320 rats, equal to 17·6 rats per ship. In 1936, 70 ships were similarly dealt with; 1,043 rats or 14·9 per ship being killed. Two vessels were fumigated by means of Salfurkose, a substance containing carbon bisulphide.

The work was carried out by a Liverpool firm. The remaining fumigations were undertaken by local firms under the supervision of the Senior Asst. Medical Officer and the Inspectors. Where possible the work was done overnight.

The sulphur dioxide was generated by burning sulphur in shallow iron pans, raised on iron legs six inches above the deck. To ensure efficient combustion and the best possible diffusion of gas, the sulphur was distributed in seven pound lots to each container.

(2) *Fumigation by Hydrogen Cyanide*.—During the year 21 ships were fumigated by this method and 505 dead rats were found, or 24.04 per ship. Nine of these ships were fumigated by Discoids and twelve by liquefied hydrogen cyanide.

In 1936, 258 dead rats were recovered from 12 ships after fumigation with hydrogen cyanide, which gives an average of 21.5 rats per ship.

The work was carried out by private firms under the strictest supervision of your Medical Officers and Inspectors.

(3) *Trapping*.—The total number of rats trapped by the Authority's Rat Catchers was 3,616; the average number on the 87 ships on which rats were trapped was 41.5 rats per ship, or 10.2 per ship on the 354 ships on which traps were set.

The figures for 1936 were: traps set on 329 ships, 204 of which gave a nil result. The total number of rats trapped was 2,645. The average on the 125 ships on which rats were trapped was 21.1 rats per ship, or 8.03 rats per ship on the total number of ships on which traps were set.

The average number of rats caught on vessels on which traps were set, which include all vessels from the plague danger zones, were: 1937, 10.2; 1936, 8.03; and 1935, 8.6.

Premises in the Vicinity of Docks and Quays.—Trapping is the only method used. Eight hundred and thirty-two rats were destroyed by the rat catchers employed by the London and North Eastern Railway Co.

MEASURES TAKEN FOR THE DETECTION OF RAT PREVALENCE IN SHIPS AND ON SHORE.

The Authority's Rat Catchers board all vessels from "Infected Ports" and form an estimate of the rat prevalence from a search of

the ship for excreta, runs, gnawing, nests, damage to cargo, or any other evidence of the presence of rats. Where evidence of recent rat infestation is found traps are set to confirm the findings. Any other vessel where, from information supplied by the crew, foremen stevedores, or Assistant Inspectors, the rat population is suspected to be large, is fully examined by the Rat Catchers.

The Assistant Inspectors also pay daily visits to all ships from "Infected Ports" to inspect cargoes, and ascertain if there are any dead rats or an unduly large rat population. Where the Master is not in possession of a valid certificate and all cargo is discharged at this port and there is evidence of marked infestation, fumigation is required.

Rat Catchers are employed by the London and North Eastern Railway Co., and information as to the rat population on wharves and in warehouses is received from this source. An arrangement is now in force with this Company to supply a monthly return of the rats destroyed. In some of the docks the foreman of the warehouse is made responsible to the Dock Superintendent for rat destruction in his own particular warehouse, and is encouraged to set traps and report any undue prevalence.

The Port Sanitary Regulations, 1933, came into force on the 1st May, 1933, and fulfil the requirements of Article 28 of the International Sanitary Convention of Paris, 1926. Briefly the purpose of these regulations is to require all ships except those employed in national coastwise trade, to be in possession of a certificate showing either that fumigation, trapping or other methods of destroying rodents have been carried out under proper supervision, or that after inspection it was found that owing to the absence of or the small number of rats on board, no measures against rats were necessary. The former certificate is known as a Deratisation Certificate, the latter as a Deratisation Exemption Certificate. The certificate must be renewed every six months, but if a ship is proceeding to her home port its validity is extended to seven months.

During 1937, 551 certificates were issued as follows :—

	Deratisation Certificates.	Deratisation Exemption Certificates.
1. Hull	100	352
2. Goole	—	99

Little difficulty has been experienced during the year in carrying out the regulations, which were designed to secure uniformity of practice in all ports throughout the world. It will be observed that of 551 ships dealt with at Hull and Goole for such certificates 81 per cent. obtained exemption certificates and thus avoided the expense of fumigation.

RAT-PROOFING.

(a) To what extent are docks, wharves, warehouses, &c., rat-proof?

The Hull Docks and Warehouses are :—

Name of Dock.	Year Opened.	Area in Acres.	Number of Warehouses
Humber	1809	7½	2
Prince's	1829	6	2
Railway	1846	2½	5
Victoria (and Basins)	1850	24	7
Albert	1869	24½	10
William Wright	1880	5½	2
St. Andrew's (and Extension) ..	1883	19	—
Timber Ponds, Nos. 1 and 2 and No. 2 Extension	1883	39½	—
Alexandra (and Extension) ..	1885	53½	12
King George	1914	53	6 and grain silo.
Saltend Oil Jetty, No. 1. ..	1914	—	—
„ „ „ No. 2. ..	1928	—	—

The King George Dock, with its warehouses and grain silo, can be considered rat-proof according to modern requirements. The warehouses and silo are concrete structures, with raised concrete loading platforms and designed on most up-to-date lines to prevent ingress of rodents.

(b) Action taken to extend rat-proofing.

(1) *In ships*.—All ships are visited by an Inspector, and where there is evidence of gnawing in storerooms or food-lockers, instructions are given for their repair in order to render them as rat-proof as possible.

After fumigation, measures are taken to close any openings in the linings of the holds.

(2) *On shore*.—During the year under review there has been no occasion to complain of the scavenging of the Dock Estates, which, from almost daily observation, appears to be carried out in a fairly satisfactory manner.

The following statement gives the number of rats destroyed on ships and in docks, quays, wharves and warehouses during each of the past 10 years:—

1937	..	..	..	..	6,273
1936	..	..	..	..	5,031
1935	..	..	..	..	5,081
1934	..	..	..	..	5,979
1933	..	..	..	..	6,723
1932	..	..	..	..	6,904
1931	..	..	..	..	8,238
1930	..	..	..	..	8,515
1929	..	..	..	..	8,203
1928	..	..	..	..	8,672

TABLE E.
Rats destroyed during the year.
(1) On Vessels.

[illegible]

TABLE F.

(2) In Docks, Quays, Wharves and Warehouses.

[illegible]

TABLE G.
Measures of Rat Destruction on Plague "infected" or "suspected" Vessels or Vessels from plague infected Ports arriving in the Port of Hull during the year.

Total Number of such Vessels arriving.	Number of such Vessels fumigated by S.O.2.	Number of Rats killed.	Number of such Vessels fumigated by H.C.N.	Number of Rats killed.	Number of such Vessels on which trapping, poisoning, &c., were employed.	Number of Rats killed.	Number of such Vessels on which measures of Rat destruction were not carried out.
*518	†46†	828	10	310	319	3266	187

† Two of these vessels were fumigated with Salfurkose.

‡ In one instance the Crew's Quarters were fumigated by means of H.C.N.

* Of these, 183 had discharged cargo at a port in Great Britain prior to their arrival in Hull and, therefore, were not boarded by a Medical Officer.

TABLE H.
Deratisation Certificates and Deratisation Exemption Certificates issued during the year.

Net Tonnage.	No. of Ships.	No. of Deratisation Certificates issued.					*No. of Deratisation Exemption Certificates issued.	Total Certificates issued.
		After fumigation with		After Trapping, Poisoning, &c.	Total.			
		H.C.N.	Sulphur.					
						H.C.N. & Sulphur.		
Ships up to 300 tons	91	—	—	—	—	91	91	
" from 301 tons to 1,000 tons ..	213	2	5	—	7	206	213	
" from 1,001 tons to 3,000 tons ..	144	9	46†	4	59	85	144	
" from 3,001 tons to 10,000 tons	103	10	23	—	34	69	103	
" over 10,000 tons	—	—	—	—	—	—	—	
TOTALS	551	21	74	4	100	451	551	

† Two vessels were fumigated by means of Salfurkose.

* Included in the numbers under this heading are 99 Exemption Certificates which were issued **after** inspection of ships at Goole.

SHIP SANITATION.

During the year the Inspectorial Staff made 9,813 visits to ships for the purpose of ascertaining their condition with regard to (a) defects of original construction ; (b) structural defects through wear and tear ; and (c) dirt, vermin and other conditions prejudicial to health.

On reference to Table J, relating to the classification of nuisances, it will be seen that the number of British vessels inspected was 4,635 and of all other nationalities 2,963.

(a) Defects of Original Construction.

In Table 8 (a), pages 65-66, appear particulars under this heading from which it will be noted that the defects in 1937 numbered 1,839.

From this table it will be seen that most of the defects of original construction are in respect of privies without water supplies, insufficient lighting to crews' quarters, and ventilators over bunks.

With regard to privies without water supplies, in many instances it was impossible to ascertain whether or not a water supply had originally existed, and these cases have been included in defects of original construction.

The majority of the defects under the heading " Insufficient lighting to crews' quarters " occurred in British trawlers. The position of the quarters in the bows of the ship and the frequency with which these vessels encounter heavy seas preclude the provision of skylights of sufficient size to ensure ample natural lighting.

It is noted with regret that ventilators in an unsatisfactory position over bunks form a large proportion of the defects of original construction. Unfortunately, comparatively few are remedied.

(b) Structural Defects through Wear and Tear.

Table 8 (b), pages 67-68, gives a complete list of these defects for the year under review and the number remedied. The majority of the defects have been rectified ; this is most gratifying as prompt action is necessary if the defects are to be remedied before the vessels leave the jurisdiction of the Authority.

(c) **Dirt, Vermin and other Conditions prejudicial to health.**

As has been noted in previous years, crews, on "paying off" after long voyages, often leave their forecastles, cabins, berths, messrooms and food lockers in a filthy and foul condition. The men on these occasions are anxious to get ashore after many days at sea and give no thought to the conditions they leave behind them. Where dirty and foul conditions are found the owners or their agents are required to have the quarters thoroughly cleaned before signing on a fresh crew. Spraying with an approved insecticide or fumigation by hydrogen cyanide is insisted upon when vermin are found.

The custom of storing galley refuse on the ship's deck until it can be disposed of at sea is still practised. In hot weather these dumps frequently constitute a nuisance. The officer in charge is required to see that these heaps are adequately protected by means of a covering of ashes.

A fair number of insanitary water closets was discovered during the year. In all instances the orders of the Authority to abate such nuisances were immediately complied with by the owners.

HYGIENE OF CREWS' SPACES.

TABLE J.

Classification of Nuisances.

Nationality of Vessel.	Number inspected during 1937.	Defects of original construction.	Structural defects through wear and tear.	Dirt, vermin and other conditions prejudicial to health.
British	4,635	597	522	870
Foreign	2,963	1,242	562	270

Parrots (Prohibition of Import) Regulations, 1930.

In accordance with the above regulations, 130 parrots, 20 budgerigars, 18 love-birds, 16 macaws and 4 parrakeets were dealt with during the year.

The effect of these regulations is to prevent the importation of parrots into this country, except in certain exceptional cases.

Under official permits from the Ministry of Health, 10 budgerigars, 6 parrakeets and 3 cockatoos were imported into the country through the Port of Hull. The birds were carefully examined on arrival and were apparently in good health.

Four love-birds, the property of members of ships' crews, were destroyed on board vessels in the port.

Smoke Nuisances.

Vessels lying in the docks have been watched and, where necessary, those in charge of fires on board steamers have been cautioned and requested to be careful when firing up, so as to avoid creating a nuisance by the emission of black smoke.

Disinfection of Cargo Conveyers (Canadian Regulations).

During the year 2 lighters were disinfected at the request of the shippers, to comply with the Canadian Public Health Regulations. This compares with 6 railway vans disinfected during 1936.

These lighters were used for the transport of feeding stuffs for cattle and fertilisers, from mills to vessels, for shipment to Canada.

Disinfection was supervised by your Inspectors and certificates of disinfection, signed by the Port Medical Officer of Health, were issued in accordance with the Canadian Regulations.

The cost of the certificates was recovered from the shippers.

Four specimens of the disinfectant proposed to be used were submitted to the Port Analyst, who reported :—

“Two samples of phenolic disinfectants contained only 0·5 and 0·6 per cent. of phenolic compounds—the active agents in disinfection—and were reported as deficient in active ingredients. The two remaining samples contained 4 and 6·8 per cent. of phenolic compounds, and were satisfactory. These fluids are used mainly for the disinfection of lighters, and are required by the United States Regulations to contain not less than about 3 per cent. of phenol, or about $1\frac{1}{2}$ per cent. of mixed phenols and cresols from a saponified cresol preparation.”

Examination of Samples of Denatured Linseed Oil.

On various dates during the year Messrs. Blundell, Spence & Co., Ltd., Hull, requested the Port Medical Officer of Health to issue certificates to the effect that consignments of Raw and Boiled Denatured Linseed Oil for export to Baghdad, Kuwait (Persian Gulf), Basra and Iraq, were unfit for human consumption. The material was to be used in the manufacture of paint.

Samples of the oil were submitted to the Port Analyst for chemical examination and on receipt of his report, which is given below, the certificates were granted :—

The Port Analyst states :—“Three samples of mixtures of linseed oil with other oils were examined to determine the kind and proportion of admixture, so that they could be certified for export, if possible, as unsuitable for edible purposes. Two of the oils (‘boiled’) contained about one-third of their volume of a non-volatile mineral oil, while the remaining sample (‘raw’) contained about two-thirds of its volume of kerosene (paraffin burning oil). The presence of these foreign oils in the linseed oils precluded their being used for food.”

Expenditure.

The total expenditure of the Port Health Authority for the year ended 31st March, 1937, was £5,726 ; £760 of this was incurred in connection with the inspection of aliens. The expenditure was met as follows :—

	£
Government Grant	2,272
West Riding of Yorks. County Council ..	60
Borough of Goole	427
City of Hull	1,946
Other income	1,021
	<hr/>
	£5,726
	<hr/>

Canal Boats.

The report of the Inspector on the Inspection and Registration of Canal Boats is set out in full :—

Canal Boats inspected	762
Additional Inspections made to ascertain if notices served and verbal cautions given had been complied with	167
	<hr/>
Total number of Inspections ..	929
	<hr/>
Canal Boats found in order	594
Canal Boats found contravening the Act	168
	<hr/>
	762
	<hr/>

The 762 canal boats inspected during the year are registered to accommodate 4,085 adult persons, whilst only 1,491 adults (1,315 males and 176 females) and 34 children were found to be occupying them. The female adults and the children were found living on the boats chiefly during the summer. The number of children of school age was 3.

Particulars of Contraventions.

	Defects Found.	Defects Remedied.
Boats not properly marked and numbered	25	23
Absence of registration certificates ..	13	12
Requiring Repairs :—		
Decks, Stoves and Floors	9	
Cupboards and Bedberths	8	
Watercasks, Ventilators and Decklights	12	
	— 29	25
Certificates not having owner's correct address	19	18
Certificates not identifying owner with boat	11	10
Requiring renewal of paint	15	13
Cabins not in a cleanly condition ..	93	90
Bilge water not removed	4	4
Unregistered boats	17	16
Boats re-registered owing to structural alterations having been made ..	4	4
	— 230	215
	—	—

With reference to the 15 contraventions which had not been remedied at the end of the year, notices have been sent to the owners or verbal cautions have been given and the cases are being followed up.

The 14 contraventions existing when the last annual report was presented have since been remedied.

In all cases where written notices or letters have been sent to the owners of boats contravening the Act and Regulations the masters of the vessels have also been cautioned verbally.

Registration Particulars.

Total number of Canal Boats on the register on 31st December, 1936.. ..	932
Total number of Canal Boats registered during the year	23
	— 955
Registrations cancelled during the year	7
	—

Total number of Canal Boats on the register on 31st December, 1937	948
---	-----

Particulars of Boats registered during the year :—

Boats not previously registered	8
Boats previously registered with other Authorities..	2
Boats previously registered under the Merchant Shipping Act only	9
Boats previously registered at Hull and re-registered owing to structural alterations	4
	23

Copy Certificates issued in consequence of :—

Change of ownership	3
Alteration of owner's address	2
Fore-cabins deleted	3
Certificates lost or dilapidated	5
	13

Certificates endorsed in consequence of :—

Change of ownership	4
Alteration of owner's address	6
Change of boat's name	1
Fore-cabins deleted	3
	14

Number of Boats believed to be in use or available ..	948
---	-----

Including :—

Steam propelled boats	20
Motor propelled boats	36

Infectious Diseases.

No notifications were received from Medical Practitioners of any case of Infectious Disease having occurred on any boat in the district during the year.

Legal Proceedings.

It has not been found necessary during the year to take legal proceedings as in nearly every instance where contraventions have occurred the persons responsible have had the defects remedied with the least possible delay.

FOOD INSPECTION.

HULL.

Report of the Chief Food Inspector.

Public Health (Imported Food) Amendment Regulations, 1933.

Visits.—Docks, 571 ; Number of steamers of which cargoes were inspected, 1,121. Packages landed therefrom 4,002,603. Number of detention notes issued by H.M. Customs, 505.

Particulars of " Prohibited " Meat Discovered.

Nil.

Particulars of " Conditionally Admissible " Meat Landed.

Where from.			Description.			Quantity.	
Amsterdam	..	..	Edible Fat	..	..	920 packages.	
Bremen	..	..	do.	..	..	5,380 do.	
Brisbane	..	..	Pork	..	..	1,542 carcasses.	
Do.	..	..	Lamb	..	..	30,026 do.	
Do.	..	..	Mutton	..	..	12,065 do.	
Do.	..	..	Tegs	..	..	1,835 do.	
Do.	..	..	Veal	..	..	766 do.	
Do.	..	..	Beef	..	..	10,873 do.	
Do.	..	..	Beef (Hinds)	..	..	50,403 packages	
Do.	..	..	Beef (Crops)	..	..	29,344 do.	
Do.	..	..	Beef (Offal)	..	..	3,920 do.	
Do.	..	..	Pork (Offal)	..	..	22 do.	
Do.	..	..	Veal (Offal)	..	..	48 do.	
Do.	..	..	Lamb (Offal)	..	..	93 do.	
Do.	..	..	Sheep (Offal)	..	..	2 do.	
Copenhagen	..	..	Pig Feet	..	..	653 do.	
Do.	..	..	do. Maws	..	..	132 do.	
Do.	..	..	Edible Fat	..	..	2,353 do.	
Danzig	..	..	do.	..	..	41,834 do.	
Gothenburg	..	..	do.	..	..	1,800 do.	
Do.	..	..	Pig Tongues	..	..	18 do.	
Do.	..	..	do. Feet	..	..	27 do.	
Hamburg	..	..	Edible Fat	..	..	1,350 do.	

Particulars of "Conditionally Admissible" Meat Landed—Contd.

Where from.			Description.	Quantity.
Iceland	..	..	Lamb	3,000 carcasses.
Do.	..	..	Salted Mutton ..	1 package.
Do.	..	..	Testicles	22 packages.
Malmo	..	..	Pig Tongues ..	136 do.
Do.	..	..	Edible Fat ..	23,322 do.
New York	..	..	do.	96,937 do.
New Zealand	..	..	Lamb	5,938 carcasses.
Do.	..	..	Mutton	2,088 do.
Do.	..	..	Pork	255 do.
Do.	..	..	Beef (Quarters) ..	893 packages.
Do.	..	..	Beef (Offal) ..	567 do.
Rotterdam	..	..	Edible Fat ..	946 do.

Other Food Inspected.

Description.			Kind of Package.	Quantity.
Bacon	..	..	Bales and Boxes ..	314,495
Hams	..	..	Casks and Cases ..	1,043
Udders (Cooked)	..	..	Casks	15
Butter	..	..	Packages	15,936
Eggs	..	..	Cases	1,269
Milk	..	..	do.	47,754
Cheese	..	..	Packages	32,927
Shellfish	..	..	Bags	3,063
Canned Meat	..	..	Cases	10,406
Grease	..	..	do.	1,392
Casings	..	..	Casks	97
Poultry	..	..	Cases	220

Total Number of Packages of Fruit, &c., Sorted under Supervision.

Description.			Sorted.	Unsound.
Oranges	..	..	5,231 packages.	2,353 packages.
Onions	..	..	107 do.	68 do.
Apples	..	..	95 do.	69 do.
Lettuces	..	..	..	364 do.

Other Foodstuffs found to be Unfit without Sorting.

Description.						Quantity.	
Oranges	..	..	..	..	..	2,020	packages.
Onions	..	..	..	..	..	2,269	do.
Apples	..	..	..	..	..	168	do.
Spinach	..	..	..	..	..	19	do.
New Potatoes	..	..	..	..	..	2	do.
Potatoes	..	..	..	..	..	402	do.
Tomatoes	..	..	..	..	..	182	do.
Radishes	..	..	..	..	..	35	do.
Bilberries	..	..	..	..	..	42	do.
Melons	..	..	..	..	..	97	do.
Pears	..	..	..	..	..	97	do.
Cherries	..	..	..	..	..	36	do.
Plums	..	..	..	..	..	12	do.
Grapes	..	..	..	..	..	47	do.
Gherkins	..	..	..	..	..	4	do.
Mussels	..	..	..	..	..	53	do.
Fruit Pulp	..	..	..	..	..	12	do.
Game	..	..	..	..	..	24	do.
Bacon.	..	..	..	..	..	182	lbs.
Do.	..	..	..	..	..	4	bales.
Do.	..	..	..	..	..	2	sides
Do.	..	..	..	..	..	4	gammons
Prawns	..	..	..	..	..	9	packages.
Yeast	..	..	..	..	..	64	do.

Summary of Weights of Unsound Foodstuffs.

Description.				Weight.			
				Tons.	Cwts.	Qrs.	Lbs.
Fruit and Vegetables	..	..	..	227	17	0	12
Shellfish	..	..	..	2	9	0	14
Fruit Pulp	..	..	..	—	17	0	0
Bacon	..	..	..	—	11	3	27
Game	..	..	..	—	1	1	5
Currants	..	..	..	—	13	0	0
Yeast	..	..	..	—	2	1	4

Other Inspections, &c.

Three casks of Pigs' Tongues were detained owing to the absence of the "Official Certificate." The necessary certificate was later produced and the tongues were released.

One thousand and thirty-three cases of Lard were detained as no "Official Certificate" accompanied the consignment. The lard was later re-shipped to the Country of Origin.

Public Health (Imported Food) Amendment Regulations, 1933.

The above Regulations have been in operation throughout the year and are working satisfactorily.

Shellfish Beds.

There are no shellfish beds within the jurisdiction of the Authority.

Public Health (Preservatives in Food) Regulations, 1927.

Particulars of the samples taken and the results obtained are given on pages 47-48.

GOOLE.

Report of the Deputy Medical Officer of Health at Goole.

The undermentioned foodstuffs were inspected during the year :—

Butter	..	..	..	..	..	..	104,342 casks and 2,284 tons.
Eggs	..	..	..	..	..	..	47,984 cases and 35 tons.
Bacon	..	..	..	..	..	..	42,174 bales.
Margarine	..	..	..	..	..	..	11,728 boxes.
Milk	..	..	..	..	..	..	4,702 tons.
Cheese	..	..	..	..	..	..	2,325 tons.
Mussels	..	..	..	..	..	..	1,693 bags and 21 tons.
Tripe	..	..	..	..	..	..	1,339 casks.

Udders	904 casks.
Lard	249 boxes.
Peas	158 tons.
Potatoes	81 do.
Pigs' Feet	35 casks.
Maws	21 do.
Cucumbers	4 tons.
Milkpowder	4 do.

All the food inspected at Goole was sound.

REPORT OF THE PORT ANALYST.

Foodstuffs.

The fourteen food stuffs examined during the year and the results of such examinations are shown in the following table :—

Foods.	Examined for—	Total.	Satis- factory.	Unsatis- factory.
Butter	Composition ; pre- servatives.	1	1	—
Margarine	Composition ; pre- servatives.	2	2	—
Lard	Composition, water and preservatives.	5	5	—
Edible Fat	Preservatives, &c.	2	2	—
Tomato Purée (Tinned).	Preservatives and general purity.	1	1	—
Anchovies (Tinned)	Preservatives and general purity.	1	1	—
Strawberry Pulp ..	Preservatives ..	2	2	—
Brine (from Cask of Pigs' Tongues)	Preservatives ..	1	1	—
		—	—	—
		15	15	—
		—	—	—

The Butter and the two samples of Margarine were found to be free from added preservatives, and from excess of water ; one of the margarine samples contained 15·9 per cent. of water (limit, 16·0 per cent.). All the five samples marked “ Lard ” were genuine

edible lard, free from foreign fats, water and added preservatives. Two samples of Edible Fat were sound fats, free from rancidity, and from water and added preservatives. These fats were probably mainly of vegetable origin.

The Tomato Purée (American tinned) was in sound condition, and free from added preservatives and colouring matters. It contained only negligible amounts of arsenical and metallic contamination, including 8 parts of copper per million. This purée was regarded as of satisfactory purity. A sample of Swedish tinned Anchovies was sound and similarly free from preservatives.

Two samples of Strawberry Pulp (Dutch) contained 1,026 and 1,213 parts of sulphur dioxide preservative in each million parts of the pulp, and were reported as complying with the Preservatives Regulations (limit of sulphur dioxide, 2,000 parts per million).

The Brine examined (from a cask of Pigs' Tongues) contained salt as the sole preservative agent (13·8 per cent. in the liquid brine), and was regarded as satisfactory.

Dangerous Drugs Act, 1920.

Thirteen applications were received for certificates to procure drugs under the provisions of the above Act. The drugs were for use on board the following vessels:—s.s. "Maria Stathatos" (Greek), s.s. "Everolanda" (Latvian), s.s. "Avala" (Jugo-Slavian), s.s. "Trolla" (Norwegian), s.s. "Korthion" (Greek), s.s. "Fjord" (Norwegian), s.s. "Dimitrios Chandris" (Greek), s.s. "Anna Mazaraki" (Greek), m.v. "Brasil" (Swedish), s.s. "Spero" (Norwegian), s.s. "Nagu" (Finnish), s.s. "Siggy" (Finnish), s.s. "Federiko Glavic" (Jugo-Slavian).

MEDICAL INSPECTION OF ALIENS.

The number of aliens entering the Port Health District shows an increase of 770 when compared with the figure for 1936. Trans-migrant traffic showed an increase of 382 over the previous year.

Medical Inspection of Aliens.

Port Health District of Hull and Goole.

Annual Return by the Medical Inspector of Aliens for the year ended 31st December, 1937.

	Total.	Number inspected by the Medical Inspector.	Number subjected to detailed examination by the Medical Inspector.	CERTIFICATES ISSUED.					TRANSMIGRANTS.	
				Lunatic, Idiot or M.D.	Undesirable for Medical Reasons.	Physically Incapacitated.	Suffering from acute Infectious Disease.	Landing necessary for adequate Medical Examination.	Verminous.	Trachoma, Favus, &c.
1. (a) Total number of Aliens (excluding Alien Seamen) landing at the Port	*4923	4253	432	2	1	—	—	—	—	—
(b) Aliens refused permission to land by Immigration Officer	35	—	—	—	—	—	—	—	—	—
(c) Transmigrants	997	997	997	—	—	—	—	—	—	—
2. Total Aliens arriving at the Port	5955	5250	1429	2	1	—	—	—	—	—
3. (a) Total number of vessels carrying Alien Passengers	..	923								
(b) Number of such vessels dealt with by the Medical Inspector	540									

The term "Inspection" relates to the preliminary inspection of Aliens as they pass before the Medical Inspector.

The term "Medical Examination" relates to detailed medical examination.

* Including 98 Aliens landing at Goole.

TABLE A.

						Total.
Analysis of Aliens landing [see 1 (a)].						
Residents Returning	..	..	..	..	..	137
In Transit	..	..	..	..	..	334
Visitors	..	..	..	..	..	2,667
Business	..	..	..	..	..	535
Diplomatic	..	..	..	..	..	78
Seamen	..	..	..	..	..	48
Contract Seamen	..	..	..	..	..	559
Ministry of Labour Permit (M.L.) :—						
(a) Males	..	..	..	..	139	} 402
(b) Females	..	..	..	..	255	
(c) Children	..	..	..	..	8	
Aliens coming to settle not holding M.L. Permits :—						
(a) Males	..	..	..	..	82	} 163
(b) Females	..	..	..	..	58	
(c) Children	..	..	..	..	23	
Total						4,923

TABLE B.

		Examined.	No. of certificates issued.
Classification of Aliens referred to the Medical Inspector by the Immigration Officer for detailed examination :—			
(i) Intending to take up employment and remain in the country over 3 months	.. .. .	268	None
(ii) Intending to make their homes in this country	.. .. .	24	None
(iii) Students coming for educational purposes	.. .. .	104	None
(iv) In regard to whom there is any mention of health as a reason for their visit	.. .. .	1	None
(v) Who appear to the I.O. not to be in robust health	.. .. .	—	—
(vi) Who appear to the I.O. to be mentally or physically abnormal or sub-normal	.. .. .	5	3
(vii) Who appear to the I.O. to be dirty in their person	.. .. .	—	—
(viii) Seamen travelling as passengers	..	30	None
(ix) Selected for special reasons	..	—	—

TABLE 1.

Summary of Vessels Inspected, Foreign and Coastwise.

HULL.

From						
Foreign	{	Steamships	..	..	..	3,603
		Motor Vessels	..	..	..	485
		Sailing Vessels	..	..	..	4
		Fishing Vessels	..	..	..	721
Coastwise	{	Steamships	..	..	..	1,216
		Motor Vessels	..	..	..	205
		Sailing Vessels	..	..	..	8
		Fishing Vessels	..	..	..	18
						———— 6,260

GOOLE.

Foreign	{	Steamships	..	..	..	629	
		Motor Vessels	..	..	..	86	
		Sailing Vessels	..	..	..	1	
Coastwise	{	Steamships	..	..	..	504	
		Motor Vessels	..	..	..	117	
		Sailing Vessels	..	..	..	1	
						—	1,338
							<hr/>
							7,598
		Extra Visits	..	..			2,215
							<hr/>
					Total	..	9,813

Summary of Vessels Inspected, British and Foreign Owned.

HULL.

Owners.						
British	{	Steamships	..	..	..	2,650
		Motor Vessels	..	..	..	337
		Sailing Vessels	..	..	..	8
		Fishing Vessels	..	..	..	739
						— 3,734
Foreign	{	Steamships	..	..	..	2,169
		Motor Vessels	..	..	..	353
		Sailing Vessels	..	..	..	4
		Fishing Vessels	..	..	..	—
						— 2,526

GOOLE.

British	{	Steamships	..	..	..	827
		Motor Vessels	..	..	..	73
		Sailing Vessels	..	..	..	1
						— 901
Foreign	{	Steamships	..	..	..	306
		Motor Vessels	..	..	..	130
		Sailing Vessels	..	..	..	1
						— 437
						7,598
		Extra Visits	..	..	..	2,215
						—
					Total	.. 9,813
						—

TABLE 2.
Water Samples.

Date.	Vessel.	Source of Water.	Inform- ation, verbal or written.	From whom obtained.	Chemical examination.	Bacteriological examination.
1937. Feb. 4	s.s. "Nikola Pasic"	Rosario	Verbal	Master ..	Satisfactory	Negative.
" 10	s.s. "Rushpool"	Madeira	"	"	"	"
" 17	s.s. "Angele Mabro"	Alexandria	"	"	"	"
" 24	s.s. "Flinston"	Las Palmas	"	"	Unsatisfactory	Presumptive evidence of B. Coli.
Mar. 17	No. 5 Waterboat	Hull Corporation, Hydrant on dock-side).	"	Man in Charge	"	"
" 23	Hose connected to Hydrant,	Hull Corporation	"	"	Satisfactory	"
" 23	No. 5 Waterboat	"	"	"	Unsatisfactory	"
Apl. 7	s.s. "Leonian"	Port Harcourt	"	Master ..	Satisfactory	Negative.
" 14	No. 5 Waterboat	Hull Corporation	"	Man in Charge	Unsatisfactory	Presumptive evidence of B. Coli.
" 21	s.s. "Faxfleet"	Derwent Haugh (Tyne),	"	Chief Officer	Fairly satisfactory	Negative.
" 28	No. 5 Waterboat	Hull Corporation	"	Man in Charge	Fairly satisfactory	Presumptive evidence of B. Coli.
" 30	s.s. "Rossington Court,"	Durban	"	Master ..	Satisfactory	Negative.
May 5	s.s. "Baluchistan"	Port Said	"	Master ..	Satisfactory	"
" 19	s.s. "Keila"	Tallin	"	Chief Officer	Fairly satisfactory	"
" 26	s.s. "Actor"	Port of Spain, Trinidad	"	"	Satisfactory.	"
June 2	s.s. "Ulea"	Kotka	"	"	Fairly satisfactory	Presumptive evidence of B. Coli.
" 9	s.s. "Guinean"	Port Harcourt and Lagos	"	Master ..	Satisfactory	Negative.
" 16	s.s. "Korthion"	London	"	Chief Officer	"	"
" 23	s.s. "Anastassia"	Bona	"	Master ..	"	Presumptive evidence of B. Coli.
" 30	s.s. "Ligur"	Skelleftea	"	Chief Officer	Satisfactory	"

July 7	s.s. "Lunacharski"	..	Leningrad	..	..	..	Negative.
" 14	s.s. "San Mateo"	..	Havre	..	..	..	"
" 22	s.s. "Imatra"	..	Rotterdam	..	..	..	"
" 29	s.s. "Francois Tixier"	..	Quimper (France)	..	..	..	Presumptive evidence of B. Coli.
Aug. 4	s.s. "Yvonne"	..	Bruges	..	..	..	Negative.
" 11	s.s. "Frodman"	..	Stockholm and Kovisto	..	..	..	"
" 18	s.s. "Luksfjell"	..	Tromas	..	..	..	Presumptive evidence of B. Coli.
" 27	s.s. "Harpagus"	..	Buenos Aires	..	Master	..	Negative.
Sept. 1	s.s. "Fostat"	..	Alexandria and Hull (mixed)	..	"	..	Presumptive evidence of B. Coli.
" 8	s.s. "Richard de Larrinaga"	..	Buenos Aires	..	"	..	Negative.
" 15	s.s. "Saturnus"	..	Lake Vanern (Sweden)	..	Chief Officer	..	"
" 22	s.s. "Efthalia Mari"	..	Alexandria	..	Master	..	"
" 29	s.s. "Harcalo"	..	Buenos Aires	..	"	..	"
Oct. 6	s.s. "Moscha L. Goulundris"	..	Port Said	..	"	..	"
" 13	s.s. "Anna Mazaraki"	..	Alexandria	..	"	..	"
" 21	s.s. "Essex Druid"	..	Algiers	..	"	..	"
" 27	Waterboat "John" at Goole	..	Goole Town Supply	..	Man in Charge	..	"
Nov. 1	s.s. "Polycarp"	..	Natal	..	Master	..	Presumptive evidence of B. Coli.
" 10	s.s. "Roxby"	..	Port Said	..	"	..	"
" 17	s.s. "Graciosa"	..	Cape Town	..	"	..	Negative.
" 24	s.s. "Baluchistan"	..	Theodosia	..	"	..	Presumptive evidence of B. Coli.
Dec. 2	s.s. "Warfield"	..	Bombay (Dock Hydrant) & Port Said (Waterboat)	..	"	..	"
" 6	s.s. "Warfield"	..	Hull Corporation (Hydrant on Quay)	..	"	..	"
" 9	s.s. "Kalarand"	..	Hull Corporation (No. 5 Waterboat)	..	"	..	"
" 15	s.s. "Federiko Glavic"	..	Dakar	..	"	..	"
" 22	m.v. "Borgestad"	..	Vancouver	..	Chief Officer	..	Sample not submitted for bacteriological examination.

TABLE 3.
Medical Inspection of Vessels.

From.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Abadan	1	2	3	1	2	3	3	2	1	1	3	1	23
Abo					1	2	2	2	2				9
Adelaide	1	2	2		1	1				2	3	2	14
Albany (Australia)					1								1
Alexandria	6	7	3	6	2	3	2	3	1	7	5	3	48
Antwerp			2	1	1	1	1	2					8
Aruba					1								1
Bahia												1	1
Bahia Blanca			1	1	1								3
Basra		1	1				1						3
Batavia				1									1
Bathurst		1	1			1		1		1		3	8
Bhaunagar			1										1
Bombay	1			1	1		1		1	2	1	1	9
Borgoen								1					1
Boulogne						1	1	1		1			4
Braila						1				1			2
Bremen	4	5	4	7	8	9	9	7	10	6	2	4	75
Buenos Aires	10	5	6	4	5	3	2	3	3	3	5	4	53
Burriana					1								1
Calcutta						1	1	2			1		5
Cape Town											1		1
Casablanca												1	1
Ceara										1			1
Constanza	2			1				2					5
Copenhagen	1	1	2	2	3	3	3	4	5	3	2	2	31
Dairen		1	1		1		1					1	5
Dakar			1	2						1			4
Durban											1		1
Fishing Grounds												1	1
Fredrikshavn						1							1
Freetown	2	2	1	3	2		1		1	3			15
Fremantle	7	2	2	2		1	1	2				4	21
Gandia				1									1
Gaza								1					1
Gdynia	1	1	3	1	3	1	1	4	4	2	3	1	25
Ghent								2	2				4
Gothenburg			1	2	4	5	3	5	3	3	2	2	30
Haifa	2												2
Halmstad						1		1					2
Hamburg	3	7	9	8	13	14	16	20	21	10	11	12	144
Harlingen		2	1		1					1			5
Helsingfors	5	4	4	4	6	4	4	6	4	5	4	4	54
Hobart						1							1
Jaffa	1	3	1									1	6
Karachi	1	1					3	1	1	1		1	9
Kemi										1			1
Klaipeda								1					1
Kotka						1				1	1		3
La Plata		2	1	1						1			5
Los Angeles									1				1
Madras				1	1								2
Magellanes				1									1
Malmo			1		1		2			1			5
Carried forward	48	49	52	51	60	58	58	73	60	58	45	49	661

TABLE 3.—Continued.

From.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Brought forward . . .	48	49	52	51	60	58	58	73	60	58	45	49	661
Marmagoa				1									1
Masulipatam		1											1
Melbourne		1		1	2		1	1				1	7
Mombassa								1					1
Montevideo								1					1
Montreal								1					1
Naples						1			1				2
Nicolaieff								1	1	1	1		4
Novorossisk									1	2	1		4
Odessa										1			1
Oslo				1	1				2	1			5
Portland			1										1
Port Lincoln										1			1
Port of Spain					1								1
Port Sudan				3	1	3	1						8
Rabaul			1										1
Rangoon						1		1					2
Rashin			1	1									2
Reykjavik		1	2		1	2	1	1	1	2	1	2	14
Riga										1			1
Rosario	1	1	4	4		4	2		1	1	1	3	22
Rotterdam	7	8	7	9	9	7	8	7	10	10	8	10	100
Saigon									1		1		2
San Lorenzo						1							1
Santa Fé	1							1					2
Seishin	1												1
Sfax	1	1			1				1				4
Sierra Leone												1	1
Singapore			1										1
Sourabaya				1							1		2
Stavanger							1						1
Stockholm				1	1	3	3	3	2	1		1	15
Suva		1											1
Sydney				1				1		1	2		5
Tallin	4				3	3	2	5	1	5	3	3	29
Theodosia									1		2		3
Trangsund	1												1
Tunis			1		1		1				1	1	5
Uddevalla								1					1
Vancouver	1			2		1		1	1			1	7
Warri							1						1
Williamstown								1					1
Windau					1								1
Workington						1							1
Wyndham								1					1
Extra Inspections (Medical Purposes)		1	1	1		1						1	5
Totals	65	64	71	77	82	86	79	101	84	85	67	73	934

TABLE 4.
Incidence of Sickness on Vessels boarded on
arrival by Medical Officers, 1937.

DISEASE.	Under 20 years.	20-30 years.	31-40 years.	41-50 years.	51-60 years.	Over 60 years.	Totals.
Abscess over left patella				1			1
Adenitis			1	1			2
Anal Fistula						1	1
Antepartum Haemor- rhage			1				1
Appendicitis	1	1				1	3
Beri-beri			2				2
Bronchial Catarrh		1	2				3
Carbuncle				1			1
Cellulitis		1	1				2
Chicken-pox		1					1
Chronic Bronchitis				1			1
Colitis	1						1
Dermatitis			1				1
Dermatitis venenata		1					1
Dyspepsia			1			2	3
Eczema			1	2			3
Enteric Fever				2			2
Erythema		1		1			2
Facial Paralysis				1			1
Febricula	1				1		2
Fibrositis		1	1				2
Furunculosis	1	3	1	1			6
Glaucoma				1			1
Hepatitis						1	1
Influenza	1	1					2
Inguinal Hernia						1	1
Injury		3	5	2			10
Insanity			2				2
Jaundice			1	1			2
Lumbago		1					1
Malaria	2	5	6	4			17
Migraine		1					1
Mitral Disease	1						1
Nasal Catarrh			1				1
Neurasthenia			1				1
Oedema of unknown origin				1			1
Otorrhoea		1					1
Pernicious Anaemia					1		1
Pleurisy	1						1
Pleurodynia		1					1
Pneumonia			1				1
Pyorrhoea			1				1
Rheumatism			2				2
Ringworm		1					1
Scabies				1			1
Scarlet Fever		1					1
Septic Abrasion			1				1
Septic Foot			1				1
Septic Toe				1			1
Tonsillitis	1						1
Toothache		1					1
Tuberculosis		1	4				5
Urticaria			1				1
Varicose Eczema					1		1
Varicose Ulcer				1	1		2
Venereal Diseases	3	13	9	3	1	1	30
Totals	13	40	48	26	5	7	139

TABLE 5.
Tabulated Statement showing the Total Number of Admissions to Hospitals during 1937.

Date of Admission.	Disease.	Rating.	Nationality.	Name of Vessel.	Where from.	Result.
1937.						
Jan. 29th	Malaria	Able Seaman	British	m.v. "Alfred Jones"	Freetown	Discharged 8th Feb.
" 29th	"	"	"	"	"	" 8th Feb.
Feb. 15th	Acute Colitis	Cadet	"	m.v. "Henry Stanley"	"	" 1st Mar.
Mar. 28th	Malaria	Deck Boy	Finnish	s.s. "Inga"	Bathurst	" 16th Apl.
" 31st	Pneumonia	Able Seaman	British	s.s. "Ramillies"	Buenos Aires	" 13th Apl.
Apl. 27th	Malaria	Sailor	Norwegian	m.v. "Maud"	Freetown	" 10th May
May 22nd	"	Fireman	Swedish	s.s. "Disa"	Hamburg	" 2nd June
" 22nd	Pneumonia	D.B.S.	British	s.s. "Vitruvia"	Aruba	" 16th June
" 31st	Pulmonary Tuberculosis	Boatswain	Chinese	m.v. "Artemis"	Curacao	" 18th June
" 31st	"	Firemen's Cook	"	"	"	" 18th June
June 14th	Malaria	Apprentice	British	s.s. "Barbara Marie"	Freetown	" 22nd June
July 19th	Chicken-pox	Stewardess	Finnish	s.s. "Aallotar"	Helsingfors	" 4th Aug.
Sept. 13th	Malaria	Able Seaman	Dutch	s.s. "Ethiopian"	Freetown	" 22nd Sept.
Oct. 11th	Chronic Bronchitis and Nephritis	Fireman	British	s.s. "Blairmore"	"	Died 23rd Oct.
" 11th	Enteric Fever	2nd Officer	"	s.s. "Castilian"	Alexandria	" 22nd Oct.
" 28th	Malaria	Ordinary Seaman	Danish	s.s. "Erik Boye"	Bathurst	Discharged 19th Nov.
" 28th	"	Able Seaman	"	"	"	" 26th Nov.
" 28th	"	Trimmer	"	"	"	" 26th Nov.
" 28th	"	Fireman	"	"	"	" 26th Nov.
" 31st	Enteric Fever	Storekeeper	British	s.s. "Polycarp"	Ceara	" 29th Dec.
Dec. 13th	Scarlet Fever	Asst. Steward	"	s.s. "Erato"	Gothenburg	" 11th Jan., 1938.

TABLE 6.
Table giving Particulars of Vessels on their Arrival as having, or having had,
Infectious Disease on Board.

Date.	Name of Vessel.	Where from.	No. of Cases.	Rating.	How dealt with.
CHICKEN-POX.					
1937. July 19th	s.s. "Aallotar"	Helsingfors ..	1	Stewardess ..	Removed to the City Hospital, Cotingham.
Dec. 24th	m.v. "Loriga"	Callao ..	1	Seaman ..	Removed to the Beverley Road Institution Hospital, Hull.
ENTERIC FEVER.					
Oct. 15th	s.s. "Castilian"	Alexandria ..	1	2nd Officer ..	Removed to the City Hospital, Cotingham.
" 31st	s.s. "Polycarp"	Ceara ..	1	Storekeeper ..	Removed to the City Hospital, Cotingham.
INFLUENZA.					
Jan. 21st	s.s. "Melrose Abbey"	Rotterdam ..	1	Pantry Boy ..	Proceeded to his home.
" 27th	s.s. "Mount Rhodope"	Rosario ..	1	Seaman ..	Removed to the Beverley Road Institution Hospital, Hull.
Feb. 8th	s.s. "Macgregor"	Sfax ..	1	Fireman ..	Treated by a private medical practitioner.

" 3rd	s.s. "Avon Cliff"	..	Alexandria ..	..	1	Officer ..	..	Treated by a private medical practitioner.
" 5th	s.s. "Kelet"	..	Bombay ..	..	2	Crew ..	..	Treated by a private medical practitioner.
Nov. 11th	s.s. "Mandasor"	..	Calcutta ..	..	5	" ..	..	One treated by a private medical practitioner; 4 disembarked during voyage.
Oct. 19th	s.s. "Guinean"	..	Dakar ..	..	1	Seaman ..	..	Proceeded to his home.
Dec. 15th	s.s. "Bridgepool"	..	Montreal ..	..	1	" ..	..	Removed to the Beverley Road Institution Hospital, Hull.
" 29th	s.s. "Invella"	..	Karachi ..	..	1	" ..	..	Removed to the Beverley Road Institution Hospital, Hull.
MALARIA.								
Jan. 29th	m.v. "Alfred Jones"	..	Freetown ..	..	2	A.B's. ..	..	Removed to the City Hospital, Cotingham.
Mar. 3rd	s.s. "Guinean"	..	Burutu ..	..	2	Crew ..	..	Suffered during voyage.
" 28th	s.s. "Inga"	..	Bathurst ..	..	1	Deck Boy ..	..	Removed to the City Hospital, Cotingham.
Apl. 27th	m.v. "Maud"	..	Freetown ..	..	4	" ..	..	One removed to the City Hospital, Cotingham; 3 suffered during voyage.
May 22nd	s.s. "Disa"	..	Hamburg ..	..	1	Fireman ..	..	Removed to the City Hospital, Cotingham.
" 23rd	s.s. "Barbara Marie"	..	Freetown ..	..	1	3rd Officer ..	..	Suffered during the voyage.

TABLE 6.—Continued.
Table giving Particulars of Vessels on their Arrival as having, or having had,
Infectious Disease on Board.

Date.	Name of Vessel.	Where from.	No. of Cases.	Rating.	How dealt with.
MALARIA.—Continued.					
June 14th	s.s. "Barbarie Marie"	"	1	Apprentice	Removed to the City Hospital, Cotingham.
July 5th	s.s. "Lanu"	Brahistad	1	Seaman	Removed to the Beverley Road Institution Hospital.
Sept. 13th	s.s. "Ethiopian"	Freetown	1	A.B.	Removed to the City Hospital, Cotingham.
" 15th	m.v. "Mary Slessor"	"	1	2nd Officer	Proceeded to his home.
Oct. 17th	s.s. "Blairmore"	Freetown	9	Crew	Suffered during voyage.
" 17th	s.s. "Liberian"	"	1	Purser	Died; buried at sea.
" 28th	s.s. "Erik Boye"	Bathurst	4	Crew	Removed to the City Hospital, Cotingham.
PNEUMONIA.					
Jan. 4th	s.s. "Ebani"	Freetown	1	Seaman	Landed at Accra.
Mar. 31st	s.s. "Ramillies"	Buenos Aires	1	A.B.	Removed to the City Hospital, Cotingham.

May 10th	s.s. "Mourino"	..	Gdynia	..	1	Officer	..	Died in hospital at Danzig.
May 22nd	s.s. "Vitruvia"	..	Aruba	..	1	D.B.S.	..	Removed to the City Hospital, Cottingham.
June 23rd	s.s. "Ladoga"	..	Leningrad	..	1	Seaman	..	Removed to the Beverley Road Institution Hospital, Hull.
Aug. 28th	s.s. "Penlover"	..	Archangel	..	1	"	..	Removed to the Beverley Road Institution Hospital, Hull.
SCARLET FEVER.								
May 28th	m.v. "Loreto"	..	Callao	..	1	Seaman	..	Landed at London.
Dec. 13th	s.s. "Erato"	..	Gothenburg	..	1	Asst. Steward	..	Removed to the City Hospital, Cottingham.
TUBERCULOSIS.								
May 31st	s.s. "Artemis"	..	Aruba	..	2	Crew	..	Removed to the City Hospital, Cottingham.
Aug. 2nd	m.v. "Margaret Johnson"	..	Vancouver	..	1	Passenger	..	Refused leave to land.
Nov. 26th	s.s. "Peterson"	..	Buenos Aires	..	1	A.B.	..	Proceeded to his home for treatment.
Dec. 16th	s.s. "Invella"	..	Karachi	..	1	Fireman	..	Proceeded to his home at Cyprus for treatment.

TABLE 7.
Bacteriological Examination of Rats.

Varieties.	Rats from Docks, Warehouses, etc.			Rats from Ships in Docks.		
	Found dead.	Found dead in traps.	Trapped and killed.	Found dead after fumigation.	Found dead	Trapped and killed.
<i>Mus Rattus</i>	—	—	—	—	—	334
<i>Mus Alexandrinus</i>	—	—	—	—	—	181
<i>Mus Norvegicus</i>	—	—	9	—	—	2
Totals ..	—	—	9	—	—	517

TABLE 8.

Total No. of Ships Inspected—7,598.

Total No. of Ships with defects, including those due to dirt, vermin, &c.—1,670.

(a) At HULL—

British owned	..	..	..	..	..	682
Foreign owned	..	..	..	..	..	684

(b) At GOOLE—

British owned	..	..	..	..	..	122
Foreign owned	..	..	..	..	..	182

(a) DEFECTS OF ORIGINAL CONSTRUCTION.

				No. of defects.	Remedied (up to 31st Dec., 1937).
British.					
VENTILATION :—					
Unventilated crews' quarters	..	..		1	—
Do. cabins	..	..	..	2	—
Do. messrooms	..	..	..	11	—
Do. water closets	..	..		44	2
Do. wash-places	..	..		34	4
Do. hospital	..	..	..	1	1
Ventilators in an unsatisfactory position over bunks	..	..	..	109	19
Insufficient ventilation to crews' quarters				1	—
LIGHTING :—					
Insufficient lighting to crews' quarters	..			254	3
Insufficient artificial lighting to crews' quarters	..	..	..	8	—
CREWS' QUARTERS :—					
No flanges for stove pipes	..	..		9	2
Unsatisfactory arrangement of bunks	..			3	2
No stove provided	..	..	..	1	—
Crews' quarters insufficiently heated	..			17	6
WATER CLOSETS :—					
W.C's. without water supply	..	..		102	4
				—	—
Total	..	..		597	43
				—	—

(a) DEFECTS OF ORIGINAL CONSTRUCTION—*Continued.*

				No. of defects	Remedied (up to 31st Dec., 1937).
Foreign.					
VENTILATION :—					
Unventilated crews' quarters	..	..		67	2
Do. cabins	..	..	..	98	—
Do. messrooms	..	..	..	49	—
Do. water closets	..	..		219	—
Do. wash-places	..	..		236	6
Do. changing rooms	..	..		3	1
Do. recreation rooms	..	..		2	—
Do. drying rooms	..	..		2	—
Ventilators in an unsatisfactory position over bunks	..	..	..	88	4
Insufficient ventilation to crews' quarters				2	—
Do. cabins	..			11	—
LIGHTING :—					
Insufficient lighting to crews' quarters	..			34	—
Insufficient artificial lighting to crews' quarters	..	..	..	18	—
CREWS' QUARTERS :—					
No flanges for stove pipes	..	..		8	2
No dead lights to side ports	..	..		11	—
No stoves provided	..	..	..	9	—
Crews' quarters insufficiently heated	..			25	—
WATER CLOSETS :—					
W.C's. without water supply	..	..		354	1
No W.C's. provided	..	..	..	2	—
W.C. removed	..	..	..	1	—
W.C. in direct communication with messroom	..	..	..	1	—
W.C.s with direct communication with crew's galley by means of two large holes in bulkhead	..	..	..	2	—
Total	..	..		1,242	16

(b) STRUCTURAL DEFECTS THROUGH
WEAR AND TEAR.

British.					No. of defects	Remedied (up to 31st Dec., 1937).
Defective	W.C's. and fittings	..	..		149	78
Do.	stoves and fittings	..	..		58	48
Do.	side ports and glasses	..	..		134	114
Do.	ventilators	.	.	..	38	31
Do.	shower baths	..	..	..	21	4
Do.	radiators	..	..	..	12	6
Do.	dead lights	..	..	..	9	4
Do.	skylights	..	..	..	7	4
Do.	deck lights	..	..	..	7	4
Do.	doors	..	..	..	7	4
Do.	bulkheads	..	..	..	6	2
Do.	fresh water tanks..	..	..		5	2
Do.	cement decks in wash-places	..			3	1
Do.	water service to wash-places	..			3	1
Do.	hawse pipes	..	..	..	3	—
Do.	bunks	..	..	..	3	—
Do.	bunk stanchions	..	..	..	2	—
Do.	electric light fittings	..	..		2	—
Do.	food lockers	..	..	..	2	—
Do.	fresh water pumps	..	..		2	2
Do.	steam valves to hot water service				2	—
Do.	forepeak tanks	..	..	..	2	2
Do.	mosquito netting..	..	..		2	—
Do.	bath	..	..	..	1	1
Do.	wash-hand basin	..	..	..	1	1
Do.	scupper pipe in wash-place	..			1	1
Do.	shell plate..	..	..	..	1	—
Do.	messroom seat	..	..	..	1	—
Do.	steering gear joint	..	..		1	—
Chutes removed from ventilators over bunks					11	—
Leaky overhead decks causing dampness ..					26	18
Total					522	328

**(b) STRUCTURAL DEFECTS THROUGH
WEAR AND TEAR—Continued.**

				No. of defects.	Remedied (up to 31st Dec., 1937).
Foreign.					
Defective W.C's. and fittings	..	..		291	69
Do. stoves and fittings	..	..		34	27
Do. side ports and glasses	..	..		125	89
Do. ventilators	..	..	..	48	26
Do. shower baths	..	..	..	19	6
Do. hawse pipes	..	..	..	5	4
Do. bulkheads	..	..	..	4	1
Do. urinals	..	..	..	3	2
Do. deck lights	..	..	..	3	2
Do. doors	..	..	..	3	1
Do. steam valves to hot water service				3	—
Do. dead lights	..	..	..	2	—
Do. bunks	..	..	..	2	2
Do. flooring	..	..	..	2	2
Do. meat safe	..	..	..	1	1
Do. electric light fittings	..	..		1	1
Do. food locker	..	..	..	1	—
Do. fresh water pump	..	..		1	1
Do. radiator	..	..	..	1	—
Do. chain pipe	..	..	..	1	1
Do. steering gear joint	..	..		1	1
Chute removed from ventilator over a bunk				1	1
Leaky overhead decks causing dampness	..			10	8
Total				562	245

**(c) DIRT, VERMIN AND OTHER CONDITIONS
PREJUDICIAL TO HEALTH.**

			No. of defects.	Remedied (up to 31st Dec., 1937).
British.				
Dirty condition of crews' quarters	..	..	243	221
Do. cabins	..	..	130	130
Do. messrooms	..	..	36	32
Do. berths	..	..	2	2
Do. bunks	..	..	4	4
Do. food lockers	..	..	69	67
Do. wash-places	..	..	24	21
Do. clothes lockers	..	..	12	12
Do. provision storerooms	..	..	3	3
Do. galleys	..	..	2	1
Vermineous condition of crews' quarters	..	..	127	86
Do. cabins	..	..	77	67
Do. berths	..	..	11	11
Do. messrooms	..	..	3	2
Do. pantries	..	..	3	1
Do. galley	..	..	1	1
Do. storeroom	..	..	1	1
Do. ice chest	..	..	1	1
Do. carpenter's shop	..	..	1	1
Do. butcher's shop	..	..	1	—
Deposits in fresh water tanks (40 ships)	..	..	54	53
Insanitary condition of galley refuse	..	..	7	5
Do. water closets	..	..	50	50
Choked scupper pipes	..	..	2	2
Accumulation of water on forecastle floor	..	..	1	1
Deck gear in crew's quarters	..	..	1	1
Oilskin locker used for deck stores	..	..	1	1
Cabin used as a storeroom	..	..	1	—
Rat infested condition of officers' quarters	..	..	1	1
Total	..	..	869	778

(c) **DIRT, VERMIN AND OTHER CONDITIONS
PREJUDICIAL TO HEALTH**—*Continued.*

		No. of defects.	Remedied (up to 31st Dec., 1937).
Foreign.			
Dirty condition of crews' quarters ..	..	38	32
Do. cabins .. ..	..	44	44
Do. messrooms .. ..	..	8	8
Do. bunks .. ..	..	9	9
Do. food lockers .. ..	..	6	6
Do. wash-places .. ..	..	13	11
Verminous condition of crews' quarters ..	..	48	36
Do. cabins .. ..	..	13	5
Do. berths .. ..	..	2	2
Do. bunks .. ..	..	14	6
Do. messrooms .. ..	..	2	—
Do. galley .. ..	..	1	1
Do. pantry .. ..	..	1	1
Deposits in fresh water tanks (1 ship) ..	..	1	1
Insanitary condition of galley refuse ..	..	9	9
Do. water closets .. ..	..	51	46
Do. poop space .. ..	..	1	1
Do. meat safes .. ..	..	2	2
Wash-places used as deck stores .. ..	..	4	2
Bow locker used as paint store .. ..	..	1	1
W.C. used as deck store .. ..	..	1	1
Deck gear in crew's quarters .. ..	..	1	—
Total		270	224

X During the year 1,534 dirty and old beds were burned on board vessels in the port.

It was unnecessary to serve any statutory notices during the year; all the repairs, etc., referred to above were done as the result of informal action.

The 455 crews' quarters reported to be in a dirty condition at the time of inspection were of the following nationalities :—

Dirty Condition of Crews' Quarters.

Nationality.	No. of Ships inspected.	No. of Ships concerned.		No. of crews' quarters in dirty condition.	
		Found.	Re-medied.	Found.	Re-medied.
British	4,635	163	156	373	351
German	457	3	3	6	6
Dutch	416	4	3	5	3
Norwegian	415	9	9	20	20
Danish	334	2	2	4	4
Swedish	325	1	—	2	—
Finnish	299	3	3	10	10
Greek	126	4	4	6	6
Esthonian	97	—	—	—	—
Polish	70	—	—	—	—
Russian	70	—	—	—	—
Belgian	59	2	2	2	2
Icelandic	57	—	—	—	—
Latvian	57	2	2	4	4
American	36	—	—	—	—
Lithuanian	32	—	—	—	—
French	22	—	—	—	—
Egyptian	19	2	2	3	3
Spanish	18	3	3	8	8
Italian	14	—	—	—	—
Danzig (Free State)	12	—	—	—	—
Jugo-Slav	9	—	—	—	—
Panamanian	7	2	1	10	8
Rumanian	4	—	—	—	—
Japanese	3	—	—	—	—
Bulgarian	2	—	—	—	—
Hungarian	2	2	2	2	2
Brazilian	1	—	—	—	—
Totals ..	7,598	202	192	455	427

APPENDIX.

An enquiry into the degree of Rat Infestation on board vessels visiting the Port of Hull.

During the year an enquiry was made into the degree of rat infestation on board vessels visiting the Port. The ships concerned are only those vessels in which rat-traps have actually been set for a period of some days. It was felt that vessels remaining in the port only a few hours could not be included, as the short duration of their stay precluded a thorough investigation of the numbers of rodents which might be present.

The period covered in the tables is from January, 1934, to August, 1937. During this time 489 British and 328 Foreign-owned ships were completely examined, making a total of 817 vessels of all nationalities.

As a working basis it was decided to divide the degree of rat infestation into three classes as follows :—

Class 1 includes those ships where no rats were trapped during the stay in port.

Class 2 includes those ships where one to nine rodents were caught while the ships were in port.

Class 3 includes those vessels returning ten to forty-nine rats.

Class 4 includes those ships where more than fifty rats were trapped.

According to the class they are placed in, as determined by trapping, ships can be said to be free from rats, or to be slightly, moderately or heavily infested.

From the information available, it will be seen that 20·5% of British ships and 37·5% of Foreign ships present some degree of rat infestation. It cannot be said that these percentages are chiefly composed of the same vessels returning regularly to the port, as the majority of vessels bringing cargoes to Hull are of the tramp class, paying comparatively rare calls. To obtain information on this point a much longer period would have to be considered. It will

be seen, however, from the table relating to return visits, that ships when rat-free tend to remain in this condition. Very few vessels are found to be rat-free during one visit and heavily infested during another. An interesting example is to be seen in connection with one foreign vessel. This ship was rat-free on five occasions, slightly infested on two and heavily infested on one.

The experience in Hull is that very few vessels return to the port time after time heavily infested with rodents. Unfortunately, this cannot be said to apply to all ships of all nationalities.

Prior to the Report of the Quarantine Commission of the Permanent Committee of the Office International d'Hygiene Publique, presented in October, 1935, measures were taken under the provisions of the Rats and Mice Destruction Act of 1919 in dealing with these vessels. A ship was considered excessively infested with rodents when over 100 animals had been trapped, and the Master was required to fumigate the vessel, even if he were in possession of a valid certificate. After the Report of the Permanent Committee of the Office International d'Hygiene Publique had been received, these heavily infested ships with certificates in date were not interfered with, unless exceptional circumstances existed, but were allowed to proceed on their voyages carrying their rodents with them until finally some other country imposed fumigation, or the certificates became invalid, when fumigation became essential before a new certificate could be issued. In general, Masters of ships apparently know little about rat-proofing and, unfortunately, they do not display much interest in the subject. All they want is a certificate and, if possible, one for exemption from deratisation, in order to avoid a somewhat costly fumigation.

In dealing with heavily infested ships, it is considered that they should be fumigated, whether the certificate is valid or invalid, and that the fumigant should be used in double concentration for a period of twice the normal. It should also be essential for the vessels concerned to remain in port after fumigation for a sufficient length of time to enable them to be efficiently examined and re-fumigated if necessary. It is admitted that these measures are

drastic, but if responsible bodies realised that their vessels would be severely dealt with, interest in rat-proofing and other methods for rat repression would soon be stimulated. In connection with rat-proofing of ships, the experience at this port indicates that the subject is not thoroughly understood in this country, except by Port Health Authorities.

By the adoption of sound rat-proofing methods much unnecessary expense could be avoided, not only in respect of fumigations but also as regards damage to cargoes.

RAT INFESTATION.

Enquiry into Rat Infestation of Vessels visiting the Port of Hull during the period extending from January, 1934, to August, 1937.

No. of ships trapped for rats between January, 1934, and August, 1937 :—

British	..	..	..	..	489
Foreign	..	..	..	..	328
					—
Total	..	..	..	..	817
					—

					British.	Foreign.
No. of ships making more than one visit to the Port	..	..	..	..	128	53
No. of ships making one visit to the Port	..				361	275

Degree of Infestation in Ships making one visit to the Port :—

	No. of Ships.	Class 1.	Class 2.	Class 3.	Class 4.
British	.. 361	287	38	31	5
Foreign	.. 275	172	31	55	17

20·5% British and

37·5% Foreign presented some degree of infestation.

No. of ships making visits to the Port as under :—

					British.	Foreign.
No. of ships making 2 visits	..	..			108	46
Do.	do. 3	do.	..	..	18	3
Do.	do. 4	do.	..	..	1	3
Do.	do. 5	do.	..	..	1	—
Do.	do. 8	do.	..	..	—	1
					—	—
Totals	..	..	..		128	53
					—	—

British.

Degree of Rat Infestation in those ships visiting the Port on two occasions during the period extending from January, 1934, to August, 1937 :—

No. Ships.				Rats Trapped.	
				1st Visit.	2nd Visit.
58	..	..	..	0	0
19	..	..	..	0	1-9
10	..	..	..	0	10-49
2	..	..	..	0	50 and over.
5	..	..	..	1-9	1-9
8	..	..	..	1-9	10-49
3	..	..	..	1-9	50 and over.
1	..	..	..	10-49	10-49
1	..	..	..	10-49	50 and over.
1	..	..	..	50 and over.	50 and over.
Total				108	

Degree of Rat Infestation in those ships visiting the Port on three occasions during the period extending from January, 1934, to August, 1937 :—

No. of Ships.			Rats Trapped.		3rd Visit.
	1st Visit.		2nd Visit.		
11	..	0	0		0
1	..	0	0		1-9
2	..	0	1-9		10-49
2	..	1-9	1-9		10-49
1	..	0	10-49		50 and over.
1	..	10-49	10-49		50 and over.
Total				18	

Degree of Rat Infestation in two ships visiting the Port on four and five occasions respectively during the period extending from January, 1934, to August, 1937 :—

			Rats Trapped.		
	1st Visit.	2nd Visit.	3rd Visit.	4th Visit.	5th Visit.
Ship No. 1	..	0	0	0	—
Ship No. 2	..	0	0	0	0

Foreign.

Degree of Rat Infestation in those ships visiting the Port on two occasions during the period extending from January, 1934, to August, 1937 :—

No. Ships.				Rats Trapped.	
				1st Visit.	2nd Visit.
16	..	..	..	0	0
9	..	..	..	0	1-9
5	..	..	..	0	10-49
1	..	..	..	0	50 and over.
2	..	..	..	1-9	1-9
6	..	..	..	1-9	10-49
2	..	..	..	1-9	50 and over.
1	..	..	..	10-49	10-49
3	..	..	..	10-49	50 and over.
1	..	..	..	50 and over.	50 and over.
Total				46	

Degree of Rat Infestation in those ships visiting the Port on three occasions during the period extending from January, 1934, to August, 1937 :—

No. of Ships.			Rats Trapped.		3rd Visit.
			1st Visit.	2nd Visit.	
1	..	0		0	0
1	..	0		1-9	1-9
1	..	10-49		50 and over.	50 and over.
Total		3			

Degree of Rat Infestation in those ships visiting the Port on more than three occasions during the period extending from January, 1934, to August, 1937 :—

No. of Ships.	1st Visit.	2nd Visit.	3rd Visit.	4th Visit.	5th Visit.	6th Visit.	7th Visit.	8th Visit.
2	0	0	0	0	—	—	—	—
1	1-9	1-9	10-49	10-49	—	—	—	—
1	0	0	0	0	0	1-9	1-9	10-49
Total		4						



