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Hartlepool Port Sanitary Authority.

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No. \_\_\_\_\_

# Annual Report

OF THE

MEDICAL OFFICER  
OF HEALTH



*For the Year Ending 31st December,*  
**1932.**

By ARNOLD S. L. BIGGART,

M.B., Ch.B.

William Barlow & Son, Printers, Park Road, West Hartlepool.





Hartlepool Port Sanitary Authority.

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# Hartlepool Port Sanitary Authority.

## 1933.

CHAIRMAN ... .. A. HYDE, J.P.

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### West Hartlepool Representatives :

T. CLARKSON, J.P., Westbourne Road, West Hartlepool.  
A. HYDE, J.P. Kenmara, Park Road, West Hartlepool.  
J. W. BOANSON, J.P., 57, Church Street, West Hartlepool.  
G. E. HOPE, The Cedars, Westbourne Road, West Hartlepool.  
W. J. WATT, Clifton Avenue, West Hartlepool.  
W. G. ROPNER, Hartdale, West Hartlepool.  
J. H. FARMER, Highlands, Wooler Road, West Hartlepool.  
E. BLOOM, Elm Grove, West Hartlepool.  
F. B. MAGEE, Grovehurst, Wooler Road, West Hartlepool.  
H. L. WILSON, Westlands, West Park, West Hartlepool.

### Hartlepool Representatives :

R. H. DAVISON, J.P., Shincliffe, Hartlepool.  
F. J. CARR, J.P., 2 Gladstone Street, Hartlepool.  
T. BULMER, 10 Brougham Street, Hartlepool.  
A. LOVE, Middlegate, Hartlepool.  
C. CHAMBERS, 86 Hart Road, Hartlepool.

### Fixed Days of Meeting :

At the Municipal Buildings, West Hartlepool.

Feb. 16th, 1933 — June 15th, 1933 — Oct. 19th, 1933.  
April 20th, 1933. — Sept. 21st, 1933. — Dec. 21st, 1933.  
each day at 3-0 p.m.

### Finance, Hospital & Port Committees :

All the members of the Authority are Members of these Committees.

*The Committee meet at 2-45 p.m. on the same day as the monthly meeting is held.*

### Officers :

Clerk : C. GILBERT BUNTING, Solicitor, Exchange Building, 66 Church Street, West Hartlepool. Telephone No. 2850.  
Medical Officer : A. S. L. BIGGART, M.B., Ch.B., 116 Scarboro' Street, West Hartlepool. Telephone No. 3044.  
Deputy Medical Officer : L. J. STONE, M.B., Ch.B., 116 Scarboro' Street, West Hartlepool. Telephone No. 3044.  
Surveyor : F. DURKIN, A.M.I.C.E., Municipal Buildings, West Hartlepool.  
Inspector : O. P. MITCHELL, C.S.I., 24 Town Wall, Hartlepool. Telephone No. 6052.  
Deputy Inspector : R. S. JONES, Port Sanitary Hospital, Hartlepool.  
Rat Catcher : G. MENHENNET, 8 Brunswick Street, Hartlepool.



# Hamilton Port Sanitary Authority.

1933

1933

## West Hamilton Representatives

T. CLARKSON, J.P. Westbourne Road, West Hamilton.  
A. WYDE, J.P. Kilmory, Park Road, West Hamilton.  
J. W. BOYSSON, J.P. 25, Church Street, West Hamilton.  
G. E. HOPE, The Cedars, Westbourne Road, West Hamilton.  
W. J. WATT, Clifton Avenue, West Hamilton.  
W. G. KOPPER, Hamilton, West Hamilton.  
J. H. FARMER, Highlands, Woods Road, West Hamilton.  
E. BEGON, Elm Grove, West Hamilton.  
F. B. MACLE, Commercial, Woods Road, West Hamilton.  
H. L. WILSON, Westlands, West Park, West Hamilton.

## Hamilton Representatives

E. H. DAVISON, J.P. 2, Dundee, Hamilton.  
J. L. LARK, J.P. 2, Glasgow Street, Hamilton.  
J. MILLER, 10, Riddell Street, Hamilton.  
A. LOVE, Middlegate, Hamilton.  
C. CHAMBERS, 20, Hart Road, Hamilton.

## Fixed Date of Meeting

At the Hamilton Building, West Hamilton.

Month	Year	Day	Time
Feb	1933	10th	1933
Apr	1933	20th	1933

Meeting at 8-9 p.m.

## Minutes, Resolutions & Reports

All the members of the Authority are invited to attend.

Committee

The Committee will meet at 8-9 p.m. on the 10th and 20th of February.

## Other

At a meeting held on 10th February 1933, the following business was transacted:  
1. Minutes of the meeting held on 10th February 1932 were read and approved.  
2. Report of the Committee for the year 1932 was read and approved.  
3. Report of the Committee for the year 1933 was read and approved.  
4. Report of the Committee for the year 1934 was read and approved.  
5. Report of the Committee for the year 1935 was read and approved.  
6. Report of the Committee for the year 1936 was read and approved.  
7. Report of the Committee for the year 1937 was read and approved.  
8. Report of the Committee for the year 1938 was read and approved.  
9. Report of the Committee for the year 1939 was read and approved.  
10. Report of the Committee for the year 1940 was read and approved.

# ANNUAL REPORT.

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WEST HARTLEPOOL,  
FEBRUARY, 1933.

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

Gentlemen,

I hereby submit my Report for the year ending 31st December, 1932. The first part (A) deals with the work done at the Port Sanitary Hospital; the second part (B) details the work carried out in the port and is arranged in the sequence required by the Ministry of Health.

## A

### Hospital.

During the year ending 31st December, 1932, there were 128 cases admitted into the Hospital as compared with 188 cases in 1931. Of these 128 cases there were :—

Scarlet Fever	...	...	79 cases
Diphtheria	...	...	26 „
Scarlet Fever and			
Chicken Pox	...	...	1 case.
Typhoid Fever	...	...	4 cases
Pneumonia	...	...	3 „
Cerebro Spinal Meningitis		10	„
Septic Meningitis	...	...	1 case
Osteomyelitis of Humerus...		1	„
Erysipelas	...	...	3 cases

—  
128



Of these 128 cases there came from :—

County Borough of West Hartlepool	...	...	102 cases
Borough of Hartlepool	...	...	22 „
Rural District	...	...	4 „
			<hr/>
			128
			<hr/>

There were 61 males and 67 females, the average age of whom was 10.48 years.

The number of deaths which occurred during the year was 8, giving a percentage of 6.25 as compared with 2.6 in 1931.

The deaths were made up as follows :—

Septic Meningitis	...	...	...	1
Cerebro Spinal Meningitis	...	...	...	4
Diphtheria	...	...	...	2
Typhoid Fever	...	...	...	1
				<hr/>
				8
				<hr/>

Of these deaths, 7 were West Hartlepool patients and 1 a Hartlepool patient.

**Hospital Staff.** This consists at present of a Matron, Sister, Staff Nurse, 1 Assistant Nurse, 2 Probationer Nurses, 1 Laundress, 1 Housemaid, 1 Cook, 2 Wardmaids, 1 Porter.

**Hospital Accommodation.** With the opening in the very near future of the West Hartlepool Infectious Diseases hospital the Port Sanitary Hospital will cease to accommodate, as it has done for the past 47 years, the Infectious patients from ships and from the Boroughs of West Hartlepool and Hartlepool. Opened in 1885 during a Small Pox epidemic it has served a very useful and economic purpose in receiving and treating cases of Cholera, Small Pox, Typhoid and many other Infectious Diseases.

**B I. AMOUNT OF SHIPPING ENTERING THE PORT DURING THE YEAR 1932.**

**Table A. (Ministry of Health).**

1932	Number	Tonnage	Number inspected		Number reported to be Defective	No. of Vessels on which defects were remedied	Number of vessels reported as having or having had, during the voyage infectious disease on board
			By the Medical Officer of Health	By the Sanitary Inspector			
From Foreign	Steamers	...	...	...	...	...	...
	Motors	...	...	...	...	...	...
	Sailing	...	...	...	...	...	...
	Fishing	...	...	...	...	...	...
Total from Foreign		...	14	455	50	50	...
Coast-wise	Steamers	640,774	14	455	50	50	...
	Motors	18,311	...	21	...	...	...
	Sailing	1,528	...	3	...	...	...
	Fishing	...	...	...	...	...	...
Total Coastwise		660,613	14	479	50	50	...
Total Foreign and Coastwise	Steamers	745,786	4	609	29	29	...
	Motors	3,175	...	6	...	...	...
	Sailing	...	...	...	...	...	...
	Fishing	...	...	...	...	...	...
Total Coastwise		748,961	4	615	29	29	...
Total Foreign and Coastwise		1,409,574	18	1,094	79	79	...



The following figures show the number of vessels of each nationality inspected :—

American	...	...	...	...	...	1
Belgian	...	...	...	...	...	2
Danish	...	...	...	...	...	64
Dutch	...	...	...	...	...	11
Esthonian	...	...	...	...	...	9
Egyptian	...	...	...	...	...	1
Finnish	...	...	...	...	...	17
French	...	...	...	...	...	13
German	...	...	...	...	...	38
Greek	...	...	...	...	...	8
Italian	...	...	...	...	...	7
Japanese	...	...	...	...	...	2
Jugo Slav	...	...	...	...	...	4
Latvian	...	...	...	...	...	28
Norwegian	...	...	...	...	...	71
Polish	...	...	...	...	...	1
Russian	...	...	...	...	...	2
Spanish	...	...	...	...	...	14
Swedish	...	...	...	...	...	101
British	...	...	...	...	...	700

1094

## II. CHARACTER OF TRADE OF PORT.

**Table B** (*Ministry of Health*).

(a) **Passenger Traffic during 1932 :—**

No. of Passengers	1st Class	2nd Class	3rd Class	Transmigrants
Inwards ... ..	...	...	...	...
Outwards ... ..	...	...	...	...

This not being an approved Alien Port there is therefore no regular passenger traffic. Occasionally alien passengers are allowed to land here subject to certain restrictions imposed by the Port Alien Immigration Officer. During 1932 7 aliens were allowed to land for hospital treatment; of this number, 2 died in hospital from natural causes.



(b) **Cargo Traffic :—**

The figures given below indicate the nature and amount of the principal trade done in the Port during the year 1932 :—

Description	Imports				Exports		
	Loads	Tons	cwts	qrs.	Tons	cwts	qrs.
Wood & Manufactures thereof							
Ash, Beech, Birch, etc. ...	6,245	...	...	...	...	...	...
Battens, Boards, Deal, etc.	90,500	...	...	...	...	...	...
Mining Timber, round and square ...	2,967	...	...	...	...	...	...
Pit Props ...	202,869	...	...	...	...	...	...
Sleepers ...	7,108	...	...	...	...	...	...
All other kinds of timber	2,050	...	...	...	...	...	...
Ore ...	...	258	...	...	...	...	...
Total Imports...	311,739	258	...	...	...	...	...
Coal, Coke, etc. (including bunker coal) ...	...	...	...	...	3,167,140	10	0
Total of Imports and Exports	311,739	258	...	...	3,167,140	10	0

The above particulars have been supplied through the courtesy of Mr. John W. Goldson, Secretary to the Hartlepool Port and Harbour Commissioners.

## (c) Foreign Ports from which vessels arrive :—

Cargo	Foreign Ports
Props ...	Leningrad, Archangel, Windau, Riga, Wasa, Libau, Raumo, Yxpila, Jacobstad, Wyborg, Manteluto, Skaftung, Nystad, Fredrikshamn, Hango, Furuogrund, Kristinestad, Mollersvik, Hudiksvall, Skelleftea, Trangsund, Ornskoldsvik.
Poles and Rickers	Oslo.
Deals ... ..	Leningrad, Murmansk, Archangel, Kemi, Oumba, Kem, Raumo, Riga, Abo, Kotka, Rafso, Mesane, Uleaborg, Gothenborg, Danzig, Oscarshamn, Pitea.
Sleepers ...	Danzig.
Timber ...	Vancouver, New Orleans.
Mining Timber	Porsgrund, Kragero, Brevig, Skien.
Bog Ore ...	Delfzyl.
Wood Pulp ...	Kotka, Hango, Konigsberg, Wyborg, Westervik, Sundsvall.
Potatoes ...	Hamburg.

Vessels arriving light for cargoes of coal and coke, etc., come from Rotterdam, Amsterdam, Zaandam, Terneuzen, Stettin, Hamburg, Bremen, Emden, Copenhagen, Esbjerg, Aabenraa, Aalborg, Sluiskil, Zeebrugge, Ghent, Antwerp, Ostend, Ymuiden, Vilvoorde, Rouen, Dunkirk, Dieppe, Bordeaux, Nantes, La Rochelle, Brest, Christiansund, Haugesund, Gothenborg, Norresundby, Skoghall, Bilbao, Naples.



## INSPECTORS' REPORTS.

Date of Report 1932	Description of Ship			Nationality		Engaged In		Total exam- ined	Sanitary Conditions		Written Notices	Verbal Notices	Total written and Verbal Notices
	Steam	Sail	Motor	British	Foreign	Coast	Foreign		Good	Bad			
February 17th ...	134	0	5	92	47	81	58	139	129	10	0	10	10
April 20th ...	183	0	6	137	52	122	67	189	178	11	0	11	11
June 15th ...	158	1	3	96	66	89	73	162	148	14	0	14	14
July 20th ...	100	1	4	63	42	45	60	105	100	5	0	5	5
September 19th...	157	1	4	91	71	82	80	162	145	17	0	17	17
October 18th ...	99	0	2	62	39	55	46	101	92	9	0	9	9
December 14th ...	188	0	3	130	61	114	77	191	181	10	0	10	10
December 31st ...	45	0	0	29	16	27	18	45	42	3	0	3	3
<b>Total for 1932 ...</b>	<b>1064</b>	<b>3</b>	<b>27</b>	<b>700</b>	<b>394</b>	<b>615</b>	<b>479</b>	<b>1094</b>	<b>1015</b>	<b>79</b>	<b>0</b>	<b>79</b>	<b>79</b>
<b>Total for 1931 ...</b>	<b>1118</b>	<b>0</b>	<b>18</b>	<b>715</b>	<b>421</b>	<b>642</b>	<b>494</b>	<b>1136</b>	<b>1044</b>	<b>92</b>	<b>0</b>	<b>92</b>	<b>92</b>



### III. SOURCE OF WATER SUPPLY.

(a) **For the Port.** (b) **For Shipping.**

The water for the Ports of Hartlepool and West Hartlepool and also for shipping in the Ports is supplied by the Hartlepool Gas and Water Company. It is obtained from springs and catchment basins, is hard, but of excellent quality.

All vessels requiring water obtain their supplies through hydrants and leather hose pipes from the several quays or wharves where the service is laid.

(c) **Number of Water Boats and their sanitary condition.**

There are no water boats in use for shipping in the Hartlepool.

### IV. INFECTIOUS DISEASE.

(1) **Arrangements for detection of Infectious Disease on inward vessels.**

The Regulations made by this Authority in 1886, revised and approved by the Ministry of Health in 1928, require the Master, or other person having charge of a ship, arriving within the jurisdiction of the Authority with any person on board, whether a passenger or a member of the ship's crew, suffering from a dangerous infectious disease, to stop on arrival in the Outer Bay, and forthwith send notice to the Port Sanitary Inspector, at the Authority's Office, Hartlepool, in order that the Inspector may cause the Medical Officer to visit the vessel. Should the weather be such as to endanger the safety of the vessel, she may be brought into Port and moored at convenient buoys. The vessel must remain in the Outer Bay or alternatively at the Buoys until medical inspection has taken place. The Medical Officer shall as soon as practicable, visit the vessel and ascertain whether infectious disease exists and if so, shall cause such person or persons to be removed for observation or treatment. The Master or other person in charge of the ship must comply with all the directions of the Medical Officer of Health.

**(2) Arrangements for notification to the Port Sanitary Authority of the arrival of inward vessels requiring special attention. (Wireless Messages, etc.)**

There are no special arrangements in force at present. In the event of a quarantinable disease on board, any information wirelessly to the agent would be communicated to the Port Medical Officer of Health and any instructions issued by him would be transmitted to the ship through the agents. Any messages received during the night can be telephoned to the Port Medical Officer of Health and the Port Sanitary Inspector at their respective residences.

All cases of sickness on board of vessels, arriving in the port are notified to Pilots or Customs Officers and reported at once to the Medical Officer of Health.

Lists of vessels from "Infected" and "Suspected" ports are periodically issued to Customs Officers, Pilots, and Dockmasters. They are amended as occasion requires.

**(3) What Vessels are boarded on arrival, by whom, where, and how.**

With the exception of British trawlers all vessels are boarded on arrival in the Outer Bay by Hartlepool Pilots who possess, for this purpose an excellent steam cutter and a motor launch. H.M. Customs Waterguard Officers board all vessels from foreign and frequently coastwise vessels. Vessels moored at buoys are visited usually by means of a Customs row boat. The Port Sanitary Inspector boards most vessels from foreign and as many coastwise as possible, on arrival, or as soon after as circumstances permit. Vessels at buoys are boarded by means of either the ship's boat or a hired foy boat. Vessels visited in the outer Bay by the Medical Officer of Health and the Port Sanitary Inspector would be boarded by means of a L. & N.E.Rly.Co.'s Tug boat, placed at their service by the Dock Master.



**(4) Arrangements for disposal of cases of infectious disease and for observation or surveillance of contacts.**

Arrangements have just been completed by this Authority with the West Hartlepool Corporation whereby all future cases of infectious disease (other than Small Pox) required by the Port Medical Officer of Health to be removed from ships shall be transferred to the new infectious diseases hospital at Brierton Lane, West Hartlepool. Cases of Small Pox will be sent to the Middlesbrough Small Pox Hospital under agreement with the Middlesbrough Corporation.

Contacts are kept under observation on board the vessel and if allowed to leave, their names and destinations are taken and forwarded to the Medical Officers of Health of the areas concerned.

**(5) Arrangements for disinfection of infected quarters, bedding, clothing, etc.**

Disinfection of infected quarters is attended to by the Port Sanitary Inspector. Any infected bedding, clothing, etc., would be removed to the West Hartlepool Infectious Diseases Hospital which is provided with modern facilities.

**(6) Arrangement for cleansing of persons.**

By an arrangement with the West Hartlepool Corporation their Burn Road Cleansing Station is available for the cleansing and disinfestation of verminous seamen and their belongings.

**(7) Arrangements for ambulance transport.**

Motor ambulances are available for the transport of Small Pox cases to Middlesbrough or of cases of infectious disease to West Hartlepool.



(8) **Arrangement for the detection and treatment of Venereal Disease amongst sailors.**

Inquiries are made by the Port Sanitary Inspector as to the existence of venereal disease on ships. Cases requiring treatment are recommended to the West Hartlepool Clinic. Leaflets on the subject giving time and place of clinic are distributed on incoming vessels.

(9) **Arrangements for bacteriological examination of rats.**

Specimen rats are periodically sent from this port to the Municipal Bacteriologist, Sunderland Infirmary, for his examination and report.

(10) **Arrangements for other bacteriological examinations.**

No special arrangement exists, but when occasion arises specimens for clinical purposes are sent to the College of Medicine, Newcastle.

**Table C** (*Ministry of Health*).

**Cases of Infectious Sickness landed from Vessels.**

Disease	No. of Cases during 1932		No. of Vessels concerned	Av. No. of Cases for prev. 5 years
	Passengers	Crew		
Chicken Pox ...	...	...	...	.2
Continued Fever	...	...	...	...
Diphtheria ...	...	...	...	...
Dysentery ...	...	...	...	...
Erysipelas ...	...	...	...	...
Malaria ...	...	...	...	...
Measles ...	...	...	...	.2
Pneumonia ...	...	...	...	...
Relapsing Fever...	...	...	...	...
Scarlet Fever ...	...	...	...	...
Small Pox ...	...	...	...	...
Tuberculosis ...	...	...	...	...
Typhoid Fever ...	...	...	...	.4
Typhus Fever ...	...	...	...	...
<b>Total</b>	...	...	...	.8

### Cholera, Yellow Fever and Plague Regulations.

There was no vessel required to be dealt with at this port under these Regulations during the year 1932.

It is also interesting and satisfactory to record that no case of infectious disease was reported or found on board ships arrived in the ports of the Hartlepoons during the whole of the year.

**TABLE D.** (*Ministry of Health*).

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

Disease	No. of Cases during 1932		No. of Vessels concerned	Av. No. of Cases for prev. 5 years
	Passengers	Crew		
Chicken Pox ...	...	...	...	...
Continued Fever	...	...	...	...
Diphtheria ...	...	...	...	...
Dysentery ...	...	...	...	...
Erysipelas ...	...	...	...	...
Malaria ...	...	...	...	...
Measles ...	...	...	...	...
Pneumonia ...	...	...	...	...
Relapsing Fever...	...	...	...	...
Scarlet Fever ...	...	...	...	.2
Small Pox ...	...	...	...	.2
Tuberculosis ...	...	...	...	...
Typhoid Fever ...	...	...	...	.8
Typhus Fever ...	...	...	...	...
<b>Tota!</b>	...	...	...	<b>1.2</b>



## V. MEASURES AGAINST RODENTS.

### 1. Steps taken for the Detection of Rodent Plague.

(a) **In ships in the Port.** Every ship in the foreign trade is boarded by the Port Sanitary Inspector who makes careful enquiries as to rat prevalence on board, and as to rat mortality or sickness during the voyage. The ship is searched by the Rat Catcher and the last certificate of deratisation or exemption is examined and noted by the Inspector. Periodically rats are forwarded to Sunderland Infirmary for bacteriological examination and report.

(b) **On Quays, Wharves, Warehouses, and in the vicinity of the Port.** Arrangements are made with the L. & N.E.R. Co., whereby any rats found dead on their premises, from no apparent cause would be sent by the Port Sanitary Inspector for bacteriological examination and report.

### 2. Measures taken to prevent the passage of rats between ships and shore.

Vessels found to be rat infested are required to fix rat guards on mooring ropes or alternatively to tar ropes and gangways.

### 3. Methods of Deratisation.

(a) **Ships.** (i) Fumigation by Sulphur Dioxide Gas generated by burning rock sulphur in buckets ; 3 lbs. of sulphur being used for every 1,000 cubic feet of space fumigated. Minimum time of exposure is 8 hours. Before fumigation takes place all limbers must be lifted, pipe casings opened out, where necessary, dunnage raised and stacked, and all steps taken to ensure the gas penetrating all rat harbourage. After fumigation all holds and spaces battened down and made as gas tight as practicable.

(ii) Hydrogen Cyanide generated by the vaporisation of Liquid Hydrogen Cyanide. Quantities used are 2 ozs. per 1,000 cubic feet for cargo spaces and storerooms ; 1 oz. per 1,000 cubic



feet for living quarters, etc. Minimum time of exposure 2 hours. When vessels are fumigated by this method the Port Sanitary Inspector and the Rat Catcher wear Gas Masks provided by the Port Sanitary Authority. Cyanide fumigations are very rare on account of the consequent danger to life.

(iii) Trapping and laying of poison baits.

(b) **Premises in the vicinity of Docks and Quays.** Trapping poisoning and gassing are the methods employed by the L. & N.E.Rly. Co. rat catcher. Cats are also kept in the Company's warehouses for ratting purposes.

#### **4. Measures taken for the detection of rat prevalence on ships and on shore.**

(a) **On Ships.** Enquiries are made from stevedores, workmen discharging cargoes, and members of ships' crews. The official Rat Catcher under the supervision of the Port Sanitary Inspector systematically searches ships where necessary, for rat evidence, i.e., excreta, nests, gnawings, runs, or damage to cargo, etc.

(b) **On Shore.** The L. & N.E.Rly. Co.'s Rat Catcher frequently visits the various warehouses and premises owned by the Company in search of evidence of rat infestation.

#### **5. Rat-proofing.**

(a) **To what extent are docks, wharves, warehouses, etc., rat proof?**

Dock quays are mostly built of stone but there are several wooden quays and jetties. Three large warehouses are substantially built of stone, iron, bricks and cement. The doors are rat proofed with sheet iron and the windows with expanded metal. A wooden warehouse, stacked timber and props, wood cabins and stone breakwaters afford much harbourage for rats.

(b) **Action taken to extend rat proofing.**

(i) **In Ships.** When during the examination of ships for the purpose of issuing certificates of deratisation or exemption, harbourage, runs, gnawings etc., are found, directions are given

to the owner or master concerned requiring the places to be made rat proof.

(ii) **On Shore.** The Hartlepool Port Sanitary Authority has no jurisdiction over land premises, etc.

### **THE PUBLIC HEALTH (Deratisation of Ships) REGULATIONS, 1929.**

These regulations by reason of the uniformity of action taken by Port Sanitary Authorities at all principal ports have served a very useful purpose in carrying out the measures of rat destruction on ships and in port areas.

Similar measures are in operation in most countries and the combined international action has resulted in greatly reducing the rat population on ships and minimising the risk of the introduction of plague. When it is considered necessary to fumigate a vessel the operation is carried out under skilled supervision and efforts are made to cut out as far as practicable all rat harbourage.

The carrying out of these Regulations has greatly added to the work of port sanitary administration. It is done at all hours and at all times to suit the convenience of owners or agents and thus prevent delay to shipping.

It is pleasing to note that your officials have met with no difficulties in carrying out the Regulations, every facility being given by Owners, Agents and Masters.

The number of certificates issued during 1932 is:—  
“Deratisation” 12, Exemption 95, Total 107. There were 828 rats destroyed and 3 rats were submitted for bacteriological examination.

The fee charged for “Deratisation” and “Deratisation Exemption” Certificates is still £2 2s. 0d., the amount originally fixed by the Ministry of Health for the issue of certificates in Great Britain.









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#### Measures of rat destruction on vessels from Plague infected ports

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

**TABLE I.** (*Ministry of Health.*)

Measures of Rat Destruction on Vessels (other than those included in Tables G and H) and Number of Certificates in respect of such Vessels during 1932.

Number of Vessels. Fumigated by S.O.2.	Number of Dead Rats recovered	Number of Vessels Fumigated by H.C.N.	Number of dead Rats recovered.	Number of Vessels on which Trapping, Poisoning, &c., were employed.	Number of dead Rats recovered.	Number of Fumigation Certificates issued on Form "Port II"*		Number of other Certificates issued.
						Deratisation	Exemption	
1	2	3	4	5	6	7	8	9
12	407	Nil	Nil	13	421	12	95	Nil

## VI. HYGIENE OF CREWS' SPACES.

**TABLE J** (*Ministry of Health.*)

### Classification of Nuisances.

Nationality of Vessel.	Number Inspected during 1932.	Defects of Original Construction	Structural Defects through wear and tear.	Dirt, Vermin and other conditions prejudicial to Health
British	700	—	35	56
Other Nations	394	1	29	20

The above table classifies the nuisances found to exist on board the 1,094 vessels inspected during the year 1932. Of this number 79 or 7.4% were found to have one or more nuisances which were composed generally of dirty or verminous quarters



and bedding, defective w.c.'s and fittings, defective port lights, defective stoves and fittings, defective ventilation, defective drainage pipes, leaky decks, etc. In all cases the remedial work is known to have been satisfactorily carried out.

## VII. FOOD INSPECTION.

### 1. Action taken under :—

The Public Health (Imported Food) Regulations, 1925.

The Public Health (Imported Milk) Regulations, 1926.

The Public Health (Preservatives, etc. in Food) Regulations 1927.

There has been no necessity to take any action under the above Regulations at this port during 1932. Several small cargoes of foreign potatoes were imported and found on inspection to be in good condition.

### 2. Shell Fish.

There are no shell fish beds or layings within the jurisdiction of this authority, but it is possible for the public to collect mussels and periwinkles from rocks, dock gates and quay walls. Notices have been posted about the docks warning the public of the danger of eating such shellfish owing to the liability of sewage pollution.

Fresh fish is landed daily at the Hartlepool Fish Quay where it is inspected by the Hartlepool Sanitary Inspector. Unsold fish and offal are removed to a fish meal factory within the Borough of Hartlepool.

### 3. Number of Samples of Food examined by :—

#### (a) Bacteriologist.

Nature of Sample.	Result of examination.
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#### (b) Analyst.

Nature of Sample.	Result of examination.
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There has been no necessity to submit any samples of food for examination during 1932.

In conclusion, I have to express my thanks to the officers of H.M. Customs at the Port, to the various officials of the L. & N.E. Docks & Rly. Co., and to the Pilot Master and Pilots for their co-operation with the officers of this Authority in carrying out the various administrative duties.

ARNOLD S. L. BIGGART, M.B., Ch.B.,

*Medical Officer of Health.*



# SECTION 1

The first section of the report deals with the general situation of the country. It is a very interesting and informative study of the country's development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's development.

The second section of the report deals with the economic situation of the country. It is a very interesting and informative study of the country's economic development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's economic development.

The third section of the report deals with the social situation of the country. It is a very interesting and informative study of the country's social development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's social development.

The fourth section of the report deals with the political situation of the country. It is a very interesting and informative study of the country's political development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's political development.

The fifth section of the report deals with the cultural situation of the country. It is a very interesting and informative study of the country's cultural development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's cultural development.

The sixth section of the report deals with the environmental situation of the country. It is a very interesting and informative study of the country's environmental development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's environmental development.

The seventh section of the report deals with the international situation of the country. It is a very interesting and informative study of the country's international development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's international development.

The eighth section of the report deals with the future of the country. It is a very interesting and informative study of the country's future development. The author has done a great deal of research and has gathered a wealth of material. The report is well written and is a valuable contribution to the study of the country's future development.



