**[Report of the Medical Officer of Health for Port of London].**




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# PORT HEALTH AUTHORITY

OF

# THE PORT OF LONDON

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# ANNUAL REPORT

OF THE

## MEDICAL OFFICER OF HEALTH

To 31st DECEMBER, 1960.

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# 116

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# ANNUAL REPORT

OF THE

## MEDICAL OFFICER OF HEALTH

JOHN GREENWOOD WILSON, M.D., F.R.C.P., D.P.H., F.A.P.H.A. (Hon).
Fellow of King's College, London.

**To 31st DECEMBER, 1960.**

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Telegraphic Address: "PORTELTH LONDON"
Telephone Number: MONarch 3030.

## CONSTITUTION AND JURISDICTION

The governing body of the City of London, the Corporation of London, was originally constituted the Sanitary Authority of the Port of London by Section 20 of the Public Health Act, 1872. The cost of administration was met from the Corporation's private funds for close on fifty years, when it became rate (and grant) aided. By the Public Health (London) Act, 1936, the term "Port Sanitary" was changed to "Port Health".

The limits of the Port Health District of the Port of London are still as originally defined by a Treasury Minute dated 1st August, 1883. They commence at high water mark in the River Thames at Teddington Lock, in the County of Surrey, and extend down both sides of the said River Thames to an imaginary straight line drawn from the Pilot mark at the entrance of Havengore Creek in the County of Essex, to the Land's End at Warden Point, in the Isle of Sheppey, in the County of Kent, such point being the north-western limit of the Port of Faversham, and extend up and include both sides of the River Medway to an imaginary straight line drawn from the south-east point of land westward of Coalmouth Creek, thence across the said River Medway to the western-most point of the piece of land which forms the eastern side of Stangate Creek, or, in other words, the north-west point of Fleet Marsh and thence in a southerly direction to Iwade Church in the said County of Kent, and thence in a north-easterly direction to Elmley Chapel in the said Isle of Sheppey, a supposed direct line from Elmley Chapel to Iwade Church, being the western limit of the Port of Faversham, and the said Port of London includes the Islands of Havengore Creek aforesaid, called Potton and Rushley Islands, and so much of the said Creek and Watercourses as extends from it to the town of Rochford, and also includes all other Islands, Rivers, Streams, Creeks, Waters, Watercourses, Channels, Harbours, Docks and places within the before-mentioned limits contained.

The Port of London Authority with which the Port Health Authority works in close co-operation, was established as the administrative body of the Port of London including the docks and tideway of the River Thames, by Act of Parliament in 1909. The limits of its jurisdiction are about the same as, but not quite so extensive as those of the Port Health Authority.

The Port Health Authority's Ambulance Launch "Alfred Roach"

A Port Health Inspector boarding a vessel lying in the River from the launch "Alfred Robertson"

## ROYAL COMMISSION ON LOCAL GOVERNMENT IN GREATER LONDON

The Report of this Royal Commission was issued in October, 1960, and, in referring to the Port Health Authority of the Port of London in paragraphs 664, 665 and 847, states:

"The Corporation of the City of London is the port health authority. The area of its jurisdiction is the same as that of the Port of London Authority, and extends from Teddington Lock to beyond the Review Area at the mouth of the Thames.

The Ministry of Health made no proposal for any change in the present responsibility for this function. They urge that the principle to be maintained is that there should be a single port health authority for the whole of the Port of London, and said that they would regret the disappearance of this port health authority.

We are satisfied that this function is at present being carried out effectively and economically by the Corporation of the City of London and we see no reason to recommend any change."

*January, 1961.*

To
THE WORSHIPFUL
THE PORT AND CITY OF LONDON HEALTH COMMITTEE

Gentlemen,

I have the honour to submit as Medical Officer of Health for the Port of London my Annual Report for the year ending 31st December, 1960.

The Report has been prepared in accordance with the requirements of the Ministry of Health and for the quinquennial year 1960 full information has been given in Sections I to XVI.

The following is a summary of the principal items mentioned in the Report:

**Royal Commission on Local Government in Greater London**

The Ministry of Health made no proposal to the Royal Commission for any change in the present responsibility of the Corporation of London as the Port Health Authority. The Royal Commission were satisfied that this function is at present being carried out effectively and economically by the Corporation of London and saw no reason to recommend any change.

**Shipping**

The number of vessels arriving in the Port of London during 1960 was 27,563, 16,540 from foreign ports and 11,023 coastwise. The total tonnage of these arrivals was 44,187,470 net tons as compared with 43,424,111 tons for 1959. The Boarding Medical Officers visited 1,689 vessels from foreign ports and three coastwise ships. The Port Health Inspectors made 12,853 inspections of vessels, 11,165 of which were foreign-going, 1,123 coastwise and 565 inland navigation.

**Communicable Disease**

1,116 cases of notifiable and other infectious diseases were reported as having occurred on 174 vessels, 179 of these cases were dealt with in the Port. 110 cases were admitted to various hospitals, including 51 to the Port Isolation Hospital at Denton, nr. Gravesend.

No case of smallpox reached the Port but full precautionary measures were taken on three vessels following information of suspected cases of smallpox having been landed abroad.

The Port Health Authority continues to act as a general health service for the River, particularly at Gravesend, and undertakes duties not strictly limited to quarantine but which the Service with its own medical staff, ambulance launches and port health inspectors, is under a moral obligation to fulfil. Prompt assistance to medical emergencies has been greatly facilitated by the use of radio-telephony on the Port Health Authority craft and by the most excellent co-operation of the P.L.A. Thames Navigation Service.

**Rodent Control**

During the year 4,434 rats, 2,602 in ships and 1,832 in shore premises, were destroyed in the Port of London. In addition, 2,735 mice were destroyed, 610 in ships and 2,125 in shore premises. 120 rats were examined for plague with negative results. 7,207 inspections of lighters were made for evidence of rodents.

**International Deratting and Deratting Exemption Certificates**

The number of Deratting Certificates issued was 94, the method of deratting in 86 instances being '1080'. 1,002 Deratting Exemption Certificates were granted.

**Shellfish**

No cases were reported of food poisoning or other illness resulting from the consumption of shellfish taken from layings within the district of the Port Health Authority.

**Medical Inspection of Aliens**

13,045 aliens arriving by ship were medically inspected by the Port Health Authority's Medical Officers on behalf of the Immigration Department of the Home Office.

**Imported Food**

The total amount of foodstuffs seized and condemned as unfit for human consumption and either reconditioned or disposed of for animal feeding or for industrial purposes under guarantee or destroyed either by burying or burning was 3,511 tons. 11 cwts. 2 qrs. 21 lbs. as compared with 3,010 tons. 18 cwts. 1 qr. 10 lbs. in 1959.

The work of meat inspection has progressed smoothly throughout the year, the Meat Inspectors having received full co-operation from the Riparian Authorities, Shipping Companies, Meat Importers and the Port of London Authority. Apart from a great deal of routine work, the Inspectors were also concerned with the detention and examination of Swedish pigs; the control of Bechuanaland meat; re-exportation of Australian scrap meat; damage to meat resulting from the dock strike; and the implementation of the Food Hygiene (Dock Carriers etc.) Regulations, 1960.

Other items of foodstuffs which received special attention were imported marzipan, prawns, and desiccated coconut. 1,688 samples of tea were submitted to the Public Analyst: this compares with 3,571 samples in 1959, the satisfactory standard of which justified a reduction of sampling in 1960.

**Clean Air Act, 1956.**

Shipowners, masters of vessels and engine-room personnel, owners of tugs, and the Port of London Authority have all contributed appreciably to assist in reducing smoke from vessels to a minimum. Previously the Port Health Authority had concentrated mainly on infringements of the Regulations in respect of black smoke only, but during 1960 lesser shades of dark smoke received similar attention. Legal proceedings were taken in respect of five offences.

**Transport of Refuse by Lighters**

Although the sheeting of loaded lighters has improved considerably since the difficulties of the trade were discussed with the industry and the Port Health Authority bye-laws amended, there is still the need for constant supervision. Legal proceedings were taken in four instances.

**Canal Boats**

175 inspections of canal boats were made during the year, 73 defects being found on 46 boats.

**Visitors and Students**

Qualified medical men and public health inspectors from abroad and from local authorities and technical colleges in this country continue to visit the port for varying periods to obtain theoretical and practical instruction in port health work. The year 1960 was a particularly active one in this respect.

**Launches**

The four launches continue to give regular and efficient service, and credit for this must be given to the crews employed who are tireless in their efforts to maintain the condition and appearance of the vessels at a high level. The 'Howard Deighton' is now nearing the end of her career with the Authority and a new boarding cutter, designed to meet the present and envisaged requirements, is now being built. The Hulk 'Hygeia' has given entire satisfaction since the refit in 1959.

Finally, I wish to record my appreciation of the collaboration and assistance rendered by Her Majesty's Customs, the Pilots, the Port of London Authority, the Shipping Federation, the staffs of Shipping Companies and Merchants, the staffs of the Central Public Health Laboratory and the 'Dreadnought' Seamen's Hospital, the Public Analyst, the Emergency Bed Service, the South-East Metropolitan Regional Hospital Board, the Dartford Hospital Management Committee, and all those who have so generously and willingly helped me in every aspect of port health work throughout the year.

I have the honour to be, Gentlemen,
Your obedient Servant,

J. GREENWOOD WILSON.

## SECTION I—STAFF
(As at 31st December 1960)

### TABLE A

| *Name of Officer* | *Nature of Appointment* | *Date of Appointment* | *Any other Appointment held* |
|---|---|---|---|
| J. GREENWOOD WILSON, M.D., F.R.C.P., D.P.H., F.A.P.H.A.(Hon.) Fellow of King's College, London | Medical Officer of Health | July, 1954 | Medical Officer of Health, City of London. Medical Inspector of Aliens. |
| H.M. WILLOUGHBY, V.R.D. & Bar, M.R.C.S., L.R.C.P., D.P.H., D.T.M. & H., Surgeon Capt. R.N.R. (Retd.), Late Q.H.P. | Deputy Port Medical Officer of Health and Medical Officer in charge at Denton Hospital | May, 1929 | Medical Inspector of Aliens. |
| J.A. JONES, M.B., Ch.B., D.P.H., Late Lieut.Col. R.A.M.C. | First Assistant Port Medical Officer | April, 1935 | ditto |
| P.J. RODEN, L.M.S.S.A., Capt. R.A.M.C. (Retd.) | Assistant Port Medical Officer (part-time) | February, 1958 | ditto |
| D.T. JONES, B.Sc., M.B., B.Ch., Major R.A.M.C. (T.A.) | ditto | March, 1958 | ditto |
| MARION RAVELL, M.D., M.B., B.S., M.R.C.S., L.R.C.P., D.P.H. Late Surgeon, M.N. | Assistant Port Medical Officers (Locum Tenentes) | March, 1956 | – |
| C.D. MACCARTHY, M.B., B.Sc., B.A.O. Major R.A.M.C.(T.A.) | | March, 1956 | – |
| A.W. HAGGER, M.B., B.S., V.R.D. Surg.Cdr. R.N.R. | | March, 1956 | – |
| R.G. DEWHURST, M.R.C.S. L.R.C.P., D.R.C.O.G. Late Fl. Lieut. R.A.F. (M.S.) | | March, 1956 | – |
| R.G.W. MOORE, M.B., B.S., Late Surg.Lieut.R.N.V.R. | | March, 1956 | – |
| P.S. GREAVES, M.A., M.B., B. Chir., M.R.C.S., L.R.C.P. | Assistant Port Medical Officer (part-time) | October, 1960 | – |
| J.O. MURRAY, M.D., M.B., Ch.B., D.P.H. | ditto | July, 1959 | Medical Inspector of Aliens |
| J. FAIRRIE, V.R.D., M.R.C.S., L.R.C.P. | Part-time Assistant Medical Officer, Thameshaven and Shellhaven Area | July, 1960 | – |
| W.T.G. BOUL, M.B.E., M.D., M.B., CH.B., D.P.H. | Infectious Disease Consultant | March, 1957 | – |
| J.B. MAGUIRE, B.A., M.B., C.Ch., B.D.O., L.M., (Rotunda) | Part-time Medical Inspector of Aliens | December, 1958 | – |
| D.J. AVERY, M.R.C.S., L.R.C.P. | ditto | December, 1958 | – |
| | **ADMINISTRATIVE STAFF (Port and City of London)** | | |
| H.F. BLUNT | Food Administrative Officer | May, 1924 | – |
| W.L. MCLORG | General Administrative Officer | February, 1927 | – |
| R.C. RATLIFF | Finance and Establishment Officer | March, 1930 | – |
| J.E. STOUT | Senior Assistant | August, 1930 | – |
| C.W.R. BETTS | ditto | April, 1926 | – |
| E.V. SMITH | ditto | October, 1938 | – |
| R.H. LOTT | First Class Assistant | May, 1947 | – |
| F.B. OSBORN | ditto | May, 1952 | – |
| MISS M.L. GURNEY | General Grade Clerk | May, 1939 | – |
| MISS I.H. HAMBLIN | ditto | October, 1957 | – |
| MISS S. CAMPBELL | ditto | January, 1960 | – |
| A.W. BOURNE | Messenger | March, 1956 | – |
| T.A. WOODS | ditto | November, 1955 | – |
| | **PORT HEALTH INSPECTORS** | | |
| T.L. MACKIE, M.B.E., F.R.S.H., M.I.N.A. | Chief Port Health Inspector and Supervisory Engineer of Launch Service | November, 1934 | – |
| P.W. COOMBE, F.A.P.H.I. | Senior Port Health Inspector | December, 1924 | – |
| T.G. EDWARDS | ditto | June, 1929 | – |
| D.E. MADELEY | ditto | September, 1932 | – |
| G. DRING | ditto | May, 1936 | – |
| A.H. MARSHALL | ditto | March, 1953 | – |
| E.H. JOHNSON | Port Health Inspector | August, 1929 | – |

| Name of Officer | Nature of Appointment | Date of Appointment | Any other Appointment held |
|---|---|---|---|
| **PORT HEALTH INSPECTORS (Contd.)** | | | |
| C.E. Wright | Port Health Inspector | July, 1931 | – |
| L.N. Tope | ditto | August, 1946 | – |
| P.A. Traynier | ditto | October, 1950 | – |
| A.C. Good | ditto | September, 1951 | – |
| T.C.H. Rogerson | ditto | October, 1951 | – |
| W.M. Walker | ditto | October, 1954 | – |
| A.W. Buchan | ditto | July, 1955 | – |
| F. Spencer | ditto | March, 1957 | – |
| W.C.B. Gilhespy | ditto | January, 1960 | – |
| W.R. Gwyer | ditto | March, 1960 | – |
| J.T. Healy | ditto | October, 1960 | – |
| **MEAT SORTERS** | | | |
| J.W. Goods | Meat Sorter | October, 1957 | – |
| A.E. Deacon | ditto | August, 1960 | – |
| **RODENT INSPECTORS** | | | |
| W.G. Stimson | Rodent Inspector | February, 1946 | – |
| C.W. Moody | ditto | February, 1929 | – |
| E.C. Watkins | ditto | June, 1929 | – |
| S.A. Croft | ditto | June, 1929 | – |
| C. Stockton | ditto | June, 1940 | – |
| D.J. Davis | ditto | August, 1941 | – |
| F.D. Cartman | ditto | September, 1943 | – |
| G. Lamont | ditto | March, 1945 | – |
| J.J. Harvey | Rodent Operative | November, 1959 | – |
| | | | – |
| **RODENT CONTROL SCHEME** | | | |
| H.A. Baxter | Rodent Inspector | June, 1945 | – |
| G. Clark | ditto | January, 1949 | – |
| A.L. Southwood | ditto | January, 1949 | – |
| A.T. Evans | ditto | January, 1953 | – |
| C.E.W. Eastman | ditto | April, 1954 | – |
| J. Cook | Rodent Operative | July, 1956 | – |
| (Vacancy) | | | |
| **LAUNCHES AND HULKS** | | | |
| J.R. Steen | Navigator (Senior) | March, 1926 | – |
| W.S. Stimson | Navigator (i/c Woolwich Station) | March, 1944 | – |
| C.R. Simons | Navigator (Deputy Senior) | August, 1938 | – |
| W.G.A. King | ditto | September, 1939 | – |
| H.J. Mason | ditto | August, 1946 | – |
| B. Osenton | ditto | December, 1953 | – |
| S.J. Crutchley, D.S.M. | Engineer (Senior) | June, 1939 | – |
| E. Alewood | Engineer | January, 1947 | – |
| K. Gittens | ditto | January, 1955 | – |
| W. Simmons | ditto | May, 1955 | – |
| A.R.L. Potter | Deckhand | July, 1945 | – |
| M.J. East | ditto | September, 1924 | – |
| G. Cunningham | ditto | September, 1957 | – |
| B. Jacobs | ditto | April, 1956 | – |
| (Vacancy) | | | |
| F. Sandys | Deckboy | May, 1959 | – |
| J.L. Pay | ditto | September, 1959 | – |
| R.S. Shelton | ditto | February, 1960 | – |
| P.V. Kennedy | ditto | August, 1960 | – |
| P. Rayner | ditto | November, 1960 | – |
| J. Ballard | ditto | December, 1960 | – |
| F.B. Morris | Steward (part time) | October, 1957 | – |
| A.R. Burge | Shipkeeper | August, 1945 | – |
| L.C. Parish | ditto | May, 1958 | – |
| R.H. Simons | Shipkeeper/Deckhand | November, 1960 | – |

| | Date acquired |
|---|---|
| Launches – | |
| "Howard Deighton" | 1931 |
| "Frederick Whittingham" | 1934 |
| "Alfred Robertson" | 1938 |
| "Alfred Roach" | 1948 |
| Hulk – | |
| "Hygeia" | 1935 |

## SECTION II – AMOUNT OF SHIPPING ENTERING THE DISTRICT DURING THE YEAR

TABLE B

| Ships from | Number | Net Tonnage | Number Inspected | | Number of ships reported as having, or having had during the voyage infectious disease on board. |
|---|---|---|---|---|---|
| | | | By the Port Medical Officer | By the Port Health Inspector | |
| Foreign Ports | 16,540 | 34,165,447 | 1,689 | 11,165 | 173 |
| Coastwise | 11,023 | 10,022,023 | 3 | 1,123 | 1 |
| Total | 27,563 | 44,187,470 | 1,692 | 12,288 | 174 |

## SECTION III – CHARACTER OF SHIPPING AND TRADE DURING THE YEAR

TABLE C

| | | |
|---|---|---|
| Passenger Traffic | Number of Passengers – Inwards | 40,163 |
| | Number of Passengers – Outwards | 38,546 |
| Cargo Traffic | Principal Imports / Principal Exports | All types of produce and merchandise. |
| Principal Ports from which ships arrive. | The Port of London trades with all parts of the world. | |

## SECTION IV – INLAND BARGE TRAFFIC

**Numbers and tonnage using the district and places served by the traffic.**

These barges are of all types and are registered annually with the Port of London Authority. They number approximately 7,000 and their tonnage is some 500,000 tons.

The traffic of these crafts extends throughout the length of the Port while a number of them are employed carrying goods and merchandise via the canals to all parts of the country.

## SECTION V – WATER SUPPLY

1. **Source of supply for–**

(a) The district–

All the docks in the London area obtain their water supplies from the Metropolitan Water Board. Tilbury Dock is supplied by the South Essex Water Company.

The majority of the wharves are supplied by Public Water Authorities within whose area of jurisdiction they are situated though several wharves have their own deep wells. A few wharves have no water supplies available for shipping, in which case any water required can be obtained from water barges.

(b) Shipping–

Ships not able to obtain water from the shore supplies indicated above, or ships lying at buoys in the river, can obtain supplies from water barges.

2. **Report of tests for contamination**

Periodic sampling of drinking water from the quayside hydrants, from ships, and from water barges is carried out, the samples being submitted to the Central Public Health Laboratory, Colindale, for examination.

The systematic sampling practice in this Port is to sterilise the hydrant coupling and bathe it in the cascade of the supply before taking the sample at this stage. Subsequently, the supply hose is connected to the hydrant coupling and led to the filling point aboard ship where the hose terminal may be fitted with a screwed metal coupling for a closed filling system or a nozzle to insert into an open gravity-fed system. It is only after having allowed a quantity of the water to flush the hose and run to waste that a second sample is drawn to test the potability of the water actually delivered to the ship's tanks and this affords a means of checking the cleanliness of the hose and fittings. Thereafter, a third sample may be drawn from a drinking water supply point or a suitable part of the distribution circuit to check and eliminate any point of contamination within the ship.

3. **Precautions taken against contamination of hydrants and hosepipes**

Hydrants within the dock area are of the standard pattern as used by the Metropolitan Water Board. They are contained in brick-lined pits constructed at intervals along the berthing quays and consist of an upright standpipe with nozzle coupling to which the supply hose can be coupled.

The hoses of rubber lined canvas, when not in use are coiled up and hung in specially constructed boxes at convenient points within the docks. When in use particular care is taken that the hoses do not sag into the dock water and in the transference from the ship to the shore at no time do they come into contact with the dock water. If this should happen the hoses are thoroughly cleansed and flushed with fresh water before being used again.

In spite of all the precautions mentioned above, the standard of drinking water supplied to vessels in this Port did not always attain the standards of Class I and Class II of the classification of water suggested by the Ministry of Health and Ministry of Housing and Local Government in their publication "The Bacteriological Examination of Water Supplies" (No.71). Consequently a determined effort was made from the early part of the year to rectify this position.

A draft "Code of Practice" was submitted to the Port of London Authority covering details of the equipment, watering points and supply operations generally. The P.L.A. reacted very favourably to this by adopting the recommendations as far as practicable, and the routine sampling of the drinking water was accordingly increased.

The reward has justified the sustained efforts. Suspicious points of supply have been steadily eliminated and the bacteriological standard has reached the desired 'satisfactory' objective to the extent that almost all samples drawn during the latter part of the year qualified as 'excellent'.

There is ample reason to assume that the high standard now achieved will be fully maintained, especially when considering the adoption of the "Code of Practice" which is reproduced below:–

**The supply of fresh water from shore to ships**

SUGGESTED CODE OF PRACTICE

**Equipment**

All components should be kept clean and maintained exclusively for this purpose.

It should be kept in a properly appointed store and transported to and from the watering point in a suitable and covered truck.

No other equipment than that of the Port of London Authority should be used for supplying fresh water.

All hoses should be lined with rubber internally.

Every precaution should be taken to preserve the clean condition of the hose during the watering operation.

Those components taken to the watering point and not required should be left in the truck.

**Watering Points**

These should be clearly identified by a number at the site and the hydrant-pit cover given a durable and conspicuous coat of paint.

The permanent hydrant-pit covers should be watertight and, when the hydrant is being used, a closely fitted temporary cover should be available to allow for a standpipe and to shelter the hydrant-pit.

All hydrant-pits should be effectively drained, rendered with a smooth and light-coloured surface, and always kept in a clean condition.

The hydrant discharge should always be effectively capped when not in use.

**Operation**

Connections at the hydrant and on the ship should be supervised by an authorised officer of the Port of London Authority.

Standpipes should be used at the hydrant and hoses kept clear of quay and dock water.

All connections at the ship must be made in order to avoid any possibility of back-syphonage from the ship installation to the shore mains supply.

In any circumstances where a closed-connection must be made on the ship, an effective non-return device should be incorporated in the supply equipment to safeguard against back-syphonage.

The water supply equipment should always be adequately flushed through before allowing the supply to enter the ship's filling lines.

As far as practicable, the supply of fresh water should not be left unattended by an authorised person.

Any contaminated equipment should not be used until it has been returned to the store for suitable cleansing.

4. **Number and sanitary condition of water boats and powers of control by the Authority**

There were thirteen water boats working in the Port during the year. Water boats are registered annually by the Port of London Authority and such registration is made conditional upon the report of the Medical Officer of Health of the Port as to the fitness of the craft for the carriage of drinking water as also upon the purity of the water thus carried. To this end sampling is carried out from time to time.

## SECTION VI – PUBLIC HEALTH (SHIPS) REGULATIONS, 1952

1. **List of Infected Areas (Regulation 6) – Arrangements for the preparation and amendment of the list, the form of list, the persons to whom it is supplied and the procedure for supplying it to those persons**

Regulation 6 of the Public Health (Ships) Regulations, 1952, requires that "the medical officer of health shall from time to time prepare and keep up to date a list of ports and other areas which are infected or believed to be infected with quarantinable disease or which may serve other places or areas so infected or believed to be infected" and, further, that copies of every such list and any amendment thereof shall be supplied to the Pilots and Customs Officers employed in the district.

To attempt to supply the Pilots and Customs Officers with a weekly list of such ports and areas based on the Weekly Record of Quarantinable Diseases issued by the World Health Organisation would lead to chaos and to much more delay and inconvenience to shipping than the system of inspecting, as a routine, ships from any part of the World in which dangerous infectious diseases are endemic or, from time to time, epidemic. Consequently, for convenience of working, the infected area is taken to include any port in all Asia, Africa, South America or Central America (excluding transit through the Panama Canal). In the event of quarantinable disease occurring outside this area, the Pilots and Customs Officers would at once be notified.

Ships bound for London coming up the English Channel take on a Pilot off Dungeness, those coming across the North Sea take on a Pilot at the Sunk Lightship, near Harwich. The Elder Brethren of Trinity House have kindly agreed that Pilots should hand copies of the Declaration of Health to the Masters of ships they board and accordingly supplies of the Declaration of Health are sent as required to the Pilotage Offices at Dover and Harwich. In addition, several of the larger shipping companies using the port are supplied, on request, with blank Declarations of Health which are placed on board their vessels with other ship's papers.

The instructions on page 4 of the Declaration of Health (applying **only** to the Port of London) are as follows:–

**INSTRUCTIONS**

I. THE MASTER of a ship approaching LONDON from a Foreign Port MUST

(1) Ascertain the health of all persons on board.

(2) Complete and sign this Maritime Declaration of Health

(3) Hand this Declaration to the Customs Officer or Port Medical Officer, whoever first visits the ship.

II. If the answer to any question on page one is 'YES', or – EXCEPT IN THE CASE OF TANKERS –

If during the last FOUR WEEKS the ship has called at ANY PORT in all ASIA, AFRICA, SOUTH AMERICA OR CENTRAL AMERICA (excluding transit through the Panama Canal) –

THE MASTER MUST –

(1) Send a wireless message to 'PORTELTH' LONDON stating :–

NAME OF SHIP
EXPECTED TIME OF ARRIVAL AT GRAVESEND
NUMBERS, AGES and SEX of ALL CASES of INFECTIOUS DISEASE

This message to be sent 4 to 12 hours before the expected time of arrival at Gravesend.

(2) SIGNAL – From MUCKING No. 5 BUOY until PRATIQUE is GRANTED.

BY DAY – FLY the Flag Signal L I M
BY NIGHT – Show a RED Light over a WHITE Light

(3) If a Ship's Surgeon is not carried, have the crew mustered ready for inspection by the Port Medical Officer as soon as he boards the ship.

(4) NOT proceed beyond Gravesend Pilot Station until visited by the Port Medical Officer.

III. If the answers to all the questions on page 1 are 'NO', and the ship has not called during the previous FOUR weeks at any of the Ports mentioned above, the Master need not communicate with the Port Health Authority unless directed to do so by a Customs Officer.

NOTE—(a) When a ship calls at a port in the United Kingdom, makes a declaration of health, and then arrives in London in continuation of the voyage, the Master shall only declare cases of illness that have arisen since the making of the previous declaration, and have thus not already been declared.

(b) Article 18(1) of the regulations states :— 'On arrival of a ship from any foreign port or from an infected area which is not a foreign port, no person other than a Pilot, a Customs Officer, an Immigration Officer or an authorised officer shall, without the permission of the Medical Officer, board or leave the ship until it is free from control under these regulations, and the Master shall take all steps necessary to secure compliance with this provision.'

2. **Radio messages**

(a) Arrangements for sending permission by radio for ships to enter the district (Regulation 13)

(b) Arrangements for receiving messages by radio from ships and for acting thereon (Regulation 14(1) (a) and (2))

The Thames Navigation Service of the Port of London Authority has its Operation Room at Gravesend and keeps in contact with ships coming up the River Thames on radio frequencies allocated in accordance with international agreement. The number of ships fitted with the radio equipment necessary to use the service is limited but there is a steady increase in the number of ships being fitted, particularly ships coming to the Port of London from 'infected' areas.

The Port Health Authority's own radio-telephone link between the Hulk "Hygeia", the m.v. "Howard Deighton", the m.v. "Alfred Roach", and the Operations Room has been in service throughout the year and has proved of outstanding use. Direct communication is also possible with the Quarantine Launch of H.M. Customs which is fitted with a radio-telephone operating on the same frequency as that of the Hulk "Hygeia".

Masters of ships approaching London from a Foreign Port, whether or not fitted with radio equipment for contacting the Thames Navigation Service, are still required to send a radio message to "Portelth London" giving expected time of arrival at Gravesend and particulars of any infectious disease on board. All such messages are received by the North Foreland Radio Station and then telephoned direct by the G.P.O. to the Boarding Medical Officer on duty at the Hulk "Hygeia".

In the event of further information being required from a ship, for instance, as to clinical details of any infectious diseases or perhaps as to the necessity of removing a patient at Gravesend, or, again, about preparations to be made by the ship for disembarkation of a patient, contact with the ship by the Boarding Medical Officer can be made through the Thames Navigation Service up to as much as two hours in advance of the time of arrival at Gravesend.

At times when the Boarding Medical Officer is fully occupied, e.g. when there is a medical emergency or several ships to be visited urgently, or to avoid delay to a ship in exceptional circumstances, it is possible to check with the ship direct and with the co-operation of H.M. Customs arrange for 'free pratique' to be granted immediately and without the ship being boarded by the Medical Officer.

The value of the radio-telephone service on our own craft, combined with the active assistance of the Thames Navigation Service, is shown by the following report from Dr. J.A. Jones, First Assistant Port Medical Officer:

"The "Dominion Monarch" from New Zealand and Australia via Panama and South-"ampton sent a W/T message this evening (1.1.60) giving the Expected Time of Arrival "Gravesend at 0200 hrs. 2nd January. It was so unusual for this ship to send a W/T mess-"age that I asked the Thames Navigation Service to enquire, when the ship 'reported', if "she had any sickness to declare.

"The reply was that there had been chickenpox during the voyage, but that it was now "over. I decided to check this with the Ship's Surgeon and accordingly went to the Opera-"tions Room at 2100 hrs. There, with the ready co-operation of the staff, I was 'put through' "to the Surgeon.

"Reception was not so good as usual, the ship being outside normal range. However I "learnt that there had been two cases of chickenpox during the voyage. Onset 22nd Nov- "ember and 7th December. The Surgeon stated the cases were typical, the first having come "aboard in Sydney with the disease. Both had fully recovered, the second being released "from isolation on 22nd December. The cases had been declared and landed in Southampton.

"I advised the Surgeon that there was no need to re-declare the cases, but he replied "that he had already entered them on the London Declaration of Health. I then said that I "would not be boarding off Gravesend, but would inform H.M. Customs Quarantine Pre- "ventive Officer of the position and request him to issue "Free Pratique". The Quarantine "Preventive Officer was so informed when the Night Watch came on at 2200 hrs.

"This was not the first occasion on which I had spoken to a Ship's Surgeon through "the Thames Navigation Service, but it was the first on which, as a result of the radio- "telephone conversation, I did not have to board, and as such may be fairly claimed to be "the first ship "cleared" by radio".

Other instances of the importance of the Port Health Authority's own radio-telephone link and the Thames Navigation Service are mentioned elsewhere in this report.

Occasionally a vessel voluntarily sends a full Quarantine Message in code which is decoded by the Boarding Medical Officer from Volume II (Radio) of the International Code of Signals.

3. **Notifications otherwise than by Radio (Regulation 14(1) (b))**

Following a change in the distinguishing lights for the Tilbury-Gravesend Ferry, it was possible for the Authority in July 1960 to introduce for ships requiring the Port Medical Officer at night the statutory signal of 'a red light over a white light', the lights being not more than six feet apart, shown at the peak or where the signal can best be seen from the shore.

The present instructions as to signals for ships requiring the Boarding Medical Officer are therefore as follows:

BY DAY – Fly the Flag Signal L I M
BY NIGHT – Show a Red Light over a White Light

4. **Mooring Stations (Regulations 22 to 30)**

On arrival of an infected or suspected ship, or any other ship on which there has been during its current voyage and within the last four weeks before arrival a case of quarantinable disease (plague, cholera, yellow fever, smallpox, typhus or relapsing fever), the medical officer may direct that the master take the ship to a 'mooring station' so that the ship does not come into contact with other ships or the shore.

The mooring stations agreed with the Port of London Authority and the Waterguard Superintendent of Her Majesty's Customs and Excise are as follows:

MOORING STATIONS

Appointed by the Medical Officer of Health, Port of London, under Regulations 22 to 30 of the Public Health (Ships) Regulations, 1952.

| *Destination of Ships* | (A) *Within the Docks* | (B) *Outside the Docks* |
|---|---|---|
| London and St. Katharine Dock ... | The nearest available river moorings by arrangement with the Harbour Authority. | |
| East India Dock ... ... ... | | |
| Regent's Canal Dock ... ... | | |
| Riverside Wharves and Creeks ... | | |
| Surrey Commercial Dock ... ... | Quebec Dock Buoys ... ... | |
| West India Dock ... ... ... | Mark Lane Buoys ... ... | |
| Millwall Dock ... ... ... | Millwall Dock ... ... ... | |
| Royal Victoria Dock ... ... | Mudfield Quay, South Side ... | Gravesend Reach and Northfleet Hope |
| Royal Albert Dock ... ... | No. 1 Berth, R.A.Dk. Basin ... | |
| King George V. Dock ... ... | No. 1 Berth (lay-bye) ... ... | |
| Tilbury Docks ... ... ... | The most suitable quay berth available. | |
| River Buoys, e.g., Charlton Buoys | The buoys at which the vessel is moored. | |
| Dry Docks ... ... ... ... | The dry dock in which the vessel is lying. | |
| Thameshaven, Holehaven & Canvey — Oil Tankers ... | Place of mooring, loading or discharge. | As under (A) |
| Do. other ships ... ... | North side of river opposite Jetties | do. |
| Chapmans Anchorage ... ... | Place of mooring, loading or discharge. | do. |
| Southend and Leigh ... ... | Do. | Gravesend Reach and Northfleet Hope |
| Sheerness, Ridham, Chatham, Rochester, etc. — Oil Tankers ... | Do. | As under (A) |
| Do. other ships ... ... | Do. | Garrison Point |

**Particulars of any Standing Exemption from the provisions of Article 14**

Unless there is sickness on board, oil tankers are not required to send a radio message as to time of arrival.

In the case of oil tankers, proceeding up the River Medway and to Thames Haven, arrangements have been made for H.M. Customs and Excise to issue Pratique if the answers given to questions on the Declaration of Health form are all in the negative.

If any answers are in the affirmative H.M. Customs carry out the following procedure.

(a) Inform the Master that he is not to allow any unauthorised person to leave the ship without the Medical Officer's permission;

(b) Issue modified pratique and allow vessel to proceed to her place of mooring, loading or discharge. A full "Certificate of Pratique" is left on board addressed to the Medical Officer of Health who will issue it in due course.

(c) In the most expeditious manner notify the nearest Medical Officer of the Port Health Authority.

**(5) Arrangements for:**

(a) Hospital accommodation for infectious diseases (other than Smallpox – see Section VII)

Although Denton Hospital has been taken over by the South East Metropolitan Regional Hospital Board under the National Health Services Act, the Port Health Authority continues to exercise, through Dr. H.M. Willoughby, the Deputy Medical Officer, and the Assistant Port Medical Officers, the medical supervision of cases admitted to the hospital. The nursing and administrative control lies with the Dartford Hospital Management Committee. Consultant advice on difficult cases is available through Dr. J. Pickford Marsden, Physician-Superintendent of Joyce Green Hospital, Dartford.

Denton Hospital is always ready to receive cases of infectious disease occurring on ship. This hospital, however, has only very limited clinical facilities and cases which are likely to require specialised treatment or laboratory investigation are sent direct, or via Denton Hospital, to Joyce Green Hospital or one of the larger hospitals in the Metropolis.

If at all possible, cases of sickness are disembarked into one of the Port Health Authority's launches for conveyance to Denton Hospital, there to be admitted or else put into a waiting ambulance. Ships which are berthing at Tilbury Landing Stage can conveniently land sick cases there, either into a Port Health launch or into an ambulance.

Should weather or other conditions make it inadvisable to land a case at Gravesend, the patient may be allowed by the Boarding Medical Officer to proceed up River in the ship to the dock, in which event arrangements are made with the Emergency Bed Service for the case to be removed by ambulance to a suitable hospital immediately the ship berths.

The number of cases admitted to Denton Hospital in 1960 was as follows:

| | |
|---|---|
| Chickenpox | 13 |
| Diphtheria | 1 |
| Gastro-Enteritis | 2 |
| German Measles | 3 |
| German Measles (Contacts) | 4 |
| Infection of the arm | 1 |
| Infectious Hepatitis | 2 |
| Influenza | 4 |
| Influenza and Bronchitis | 1 |
| Malaria | 1 |
| Measles | 6 |
| Measles (Contacts) | 2 |
| Mumps | 7 |
| Pneumonia | 2 |
| Nasal Bleeding | 1 |
| Tonsillitis | 1 |
| TOTAL | 51 |

DENTON HOSPITAL

I am indebted to the "Kent Messenger, the County Paper of Kent" for permission to reproduce from their issue of 13th January, 1961, the following article, and also the photograph which appears elsewhere in this Report:–

"There is one hospital in Kent where the patients are apt to bring out and use their prayer mats several times a day and where the cook has learned to produce appetising curries into the ward fare. For often the patients are from the Far East.

"It is the Denton Isolation Hospital at Gravesend, which plays a major part in keeping Britain free from infectious diseases.

"Perched alongside the Thames river wall with its own causeway, the hospital is on the outskirts of the town from which the Port of London Health Authority 'casts it net' to catch sick passengers and seamen who arrive by sea from abroad.

"When sickness is known to be on board a ship, doctors go out by launch and examine the patient. If he has an infectious disease or is suspected of having one, he is immediately taken ashore to Denton Hospital.

"There he comes under the care of the assistant matron, Sister C. Carey and her staff of two, and is accommodated in one of the 12 cubicles in the main block.

ALWAYS READY

"The hospital also has two open wards to take a further 10 or 12 patients. Everything is kept in readiness, but it is only on rare occasions, such as when a year or two ago Asiatic 'flu was raging, that every bed is taken up.

"Usually there are only one or two people in the wards at a time and sometimes for several days on end, the hospital is without patients.

"Indians, Pakistanis and occasionally a Chinese make up the bulk of the intake into the hospital and sometimes the language problem is tricky.

"'Most of them have some knowledge of English and we get along' Sister Carey told a reporter. 'If we are in real difficulty and it is essential to communicate in detail with a patient we can call upon interpreters'.

"Chickenpox and measles are the principal ailments we have to deal with. Asiatics are apt to get it quite badly.

"Cases of diphtheria and typhoid are fortunately a thing of the past. Smallpox cases are dealt with at a special hospital for the purpose at Long Reach, Dartford.

CHEERFUL PLACE

"Although the name Isolation Hospital has a sinister kind of ring, the hospital is, in fact, a cheerful, airy place with most attractive gardens.

"The patients pass their time listening to the radio or looking at picture magazines.

"There are also toys for children for from time to time sick youngsters coming from abroad have to spend a few days there.

"When a reporter called on Monday the only patient was a Yorkshire seaman recovering from a bad attack of Influenza.

"Sister Carey, who has been at the hospital for six years, has a reminder of the gratitude of one of her patients in her office – an intricately detailed model of a sailing ship made by a Finnish seaman there in 1957.

"Catering sometimes has its perplexities, for some of the Oriental patients are strictly religious and will not eat meat.

90 YEARS OLD

"The hospital, which was established about 90 years ago, is administered by Dartford Hospital Management Committee, which would arrange for the nursing staff to be supplemented should there be a rush of cases.

"Besides the permanent nursing staff, there are orderlies, domestic staff, a stoker and a gardener.

"Although Denton Hospital has many empty beds most of the time – one of the few Hospitals in such a position – it is on the alert day and night helping to keep the country in good health."

(b) Surveillance and follow up of contacts

In the event of a vessel arriving on which there has been a case or cases of a major infectious disease, all persons on board are considered to be possible contacts.

Each contact is interrogated as to the address to which he is proceeding immediately on disembarkation and given a specially prepared three-part card on one section of which are to be given full details as to name and the proposed address in the United Kingdom. These particulars, together with an appropriate note of the circumstances, are then forwarded to the Medical Officer of Health of the district in which the address of the contact is situated. The second section of the card contains instructions to the contact. The third section of the card is for use by the contact only if he should change his address within a specified period, usually up to the end of the inoculation period of the disease in question. This part of the card is on the 'Business Reply Card' system and so does not have to be stamped.

A specimen of the card used for smallpox contacts is reproduced below :–

## LONDON PORT HEALTH AUTHORITY

**PUBLIC HEALTH (SHIPS) REGULATIONS, 1952**

In accordance with the above Regulations you are permitted to disembark **under surveillance** (Medical Supervision) on the following conditions :—

1. That you give to the Medical Officer of Health of the Port of London the precise address to which you are proceeding immediately on landing.
2. That if you change your address at any time within 14 days of disembarkation you shall notify forthwith your new address to the Medical Officer of Health of the Port of London on the attached card.

*Complete in BLOCK letters.*

I_____ and the following members of my family

_____

are proceeding to the following address forthwith.

No. or Name of House_____

Street _____

Town and Postal District_____

County_____

Date_____ Signature_____

---

**Read Carefully and Retain.**

**PUBLIC HEALTH (SHIPS) REGULATIONS, 1952.**

## SMALLPOX PRECAUTIONS

(1) Do not detach any part of this folder.

(2) Complete the top portion before medical inspection.

(3) When you leave the ship, keep the bottom portion in case you change the address given by you on the top portion within fourteen days.

(4) If you change your address or do not go to the address given on the top portion, complete the lower card and post it at once.

(5) If you feel ill within the next fourteen days, report to a doctor at once.

**PENALTY for breach of the Regulations, £100.**

---

## LONDON PORT HEALTH AUTHORITY

**PUBLIC HEALTH (SHIPS) REGULATIONS, 1952.**

### NOTIFICATION OF CHANGE OF ADDRESS WITHIN 14 DAYS OF DISEMBARKATION.

*Complete in BLOCK letters.*

Having disembarked from the S.S._____

on (date)_____ my address from (date)_____

to (date) _____ will be as under.

Name _____

No. or Name of House_____

Street _____

Town and Postal District _____

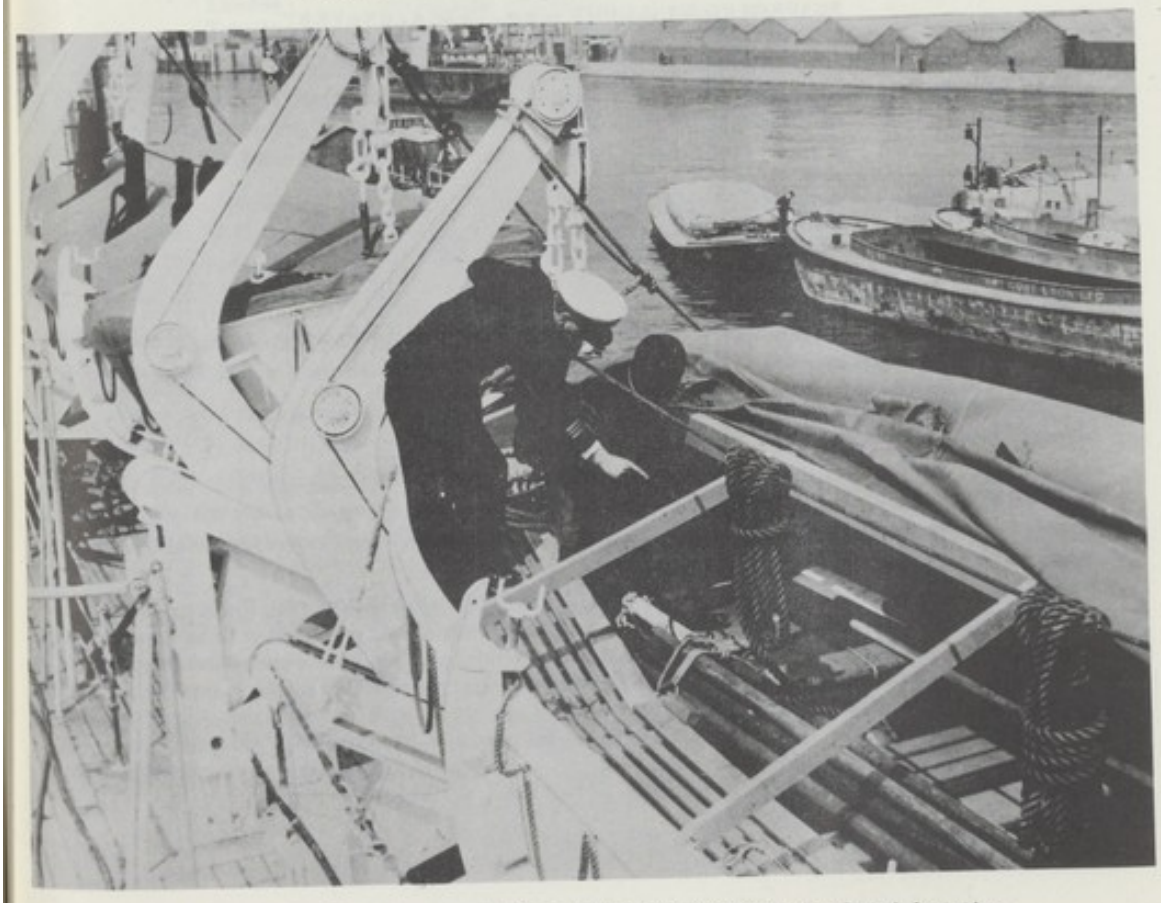
County_____

Signature _____

*This card may be sent through the post unstamped but if it is enclosed in an envelope, postage must be prepaid.*

5000-3/54-A.6543

From a Grateful Patient at Denton Isolation Hospital. Sister C. Carey (left), the assistant matron, and her deputy, Sister Margert Downes, with a model of a ship given to the hospital by a Finnish patient in 1957.



A Port Health Inspector examining a lifeboat for evidence of rodent infestation

**(c) Cleansing and disinfection of ships, persons, clothing and other articles.**

Disinfection of infected quarters is usually carried out by the Public Health Inspector in whose area the vessel berths. If, however, the space requiring disinfection is large, a private firm is employed to carry out the disinfection under the supervision of the Public Health Inspector.

The Disinfection Station at Denton Hospital is by arrangement with the South East Metropolitan Regional Hospital Board and the Dartford Hospital Management Committee made available to the Port Health Authority for the disinfection of clothing, bedding, etc., and, if necessary, for the cleansing of persons.

Arrangements have also been made for disinfected bedding from ships in the docks of the London Area to be sent to the disinfection station of the East Ham Corporation.

## SECTION VII – SMALLPOX

1. Name of Isolation Hospital to which smallpox cases are sent from the District.

Long Reach Hospital is situated on the south bank of the River Thames about eight miles above Gravesend. The hospital consists of 10 ward blocks capable of accommodating 170 patients but, except in cases of emergency, only three ward blocks (2 of 20 beds and 1, a cubicle ward of 10 beds), total 50 beds, are kept available for immediate use. The hospital includes residential quarters for the staff and a laundry, although the administration and staffing is carried out from Joyce Green Hospital, Dartford.

2. Arrangements for transport of such cases to that hospital by ambulance giving the name of the Authority responsible for the ambulance and the vaccinal state of the ambulance crews.

A case or cases of smallpox would be removed from the vessel by this Authority's Ambulance launch and conveyed ashore via the pontoon at Denton and from thence conveyed by road ambulance direct to Long Reach Hospital.

The Port Health Authority would be responsible for the vaccinal state of their Ambulance Launch crews, while the vaccinal state of the Road Ambulance personnel would be the concern of the South-East Metropolitan Regional Hospital Board under whose jurisdiction both Joyce Green and Long Reach Hospitals fall.

3. Names of smallpox consultants available.

| | | |
|---|---|---|
| Dr. J.V. Armstrong | Dr. H.S. Banks | Dr. W.T.G. Boul |
| Dr. W.J. Coughlan | Dr. J.P. Marsden | |

4. Facilities for laboratory diagnosis of smallpox.

Facilities are available at the Virus Laboratory at the Central Public Health Laboratory at Colindale.

### SUSPECTED SMALLPOX – s.s. "STRATHNAVER"

**Advance Information**

On the 25th February, 1960, information was received from the Medical Superintendent of the P. & O. Steam Navigation Company, that the Surgeon of the s.s. "Strathnaver" which was due in London on the 28th February from Sydney, via Bombay, had reported a member of the Goanese crew as having an illness in which there was "a suspicion of this being a modified form of Smallpox".

On the 26th February, the P. & O. Steam Navigation Co., having had a reply to a cable to the Ship's Surgeon asking for additional information, were able to add:

(1) On the second day of the illness the patient had produced a second crop of spots;
(2) He had been vaccinated eight months previously;
(3) The Surgeon now considered the case to be probably one of Chickenpox; and
(4) Clinical specimens had been sent by air from Marseilles to the Central Public Health Laboratory at Colindale.

**Preparations to meet the ship**

In the light of the later information, it was felt that Chickenpox was the most likely diagnosis and that "Operation Brixham" was not called for.

It was, however, decided to make all other preparations for the major possibility and accordingly:

(a) A 'full team" was ordered to be at Gravesend on Sunday morning, 28th February;
(b) Dr. W.T.G. Boul, a Ministry of Health Smallpox Consultant, was invited to be present;
(c) Reserve supplies of Vaccine Lymph and Surveillance Cards were sent to Gravesend;
(d) The crew of the "Alfred Roach" were to be on duty in addition to the normal running of the "Howard Deighton";
(e) Dr. J. Pickford Marsden, Medical Superintendent of the Smallpox Hospital at Joyce Green, was informed of the possibility of a case of Smallpox arriving in the Port. He replied that he could receive a case at two hours notice.

**Action on arrival of the ship**

1. The vessel arrived in Gravesend Reach at 11.45 a.m. on Sunday, 28th February, 1960, and was boarded by your Medical Officer of Health, Dr. Boul and other members of the Port Health Authority Staff.

2. A brief conference was held in the Surgeon's cabin at which the case history was confirmed.

3. The patient was examined and it was confirmed that the case was undoubtedly one of Chickenpox.

Dr. Boul in his report to the Ministry of Health stated:

"I formed the opinion that the patient had suffered from Varicella, although in the early stages some of the papules were undoubtedly suggestive (especially one on the right ear)..."

4. In view of this diagnosis the ship was accordingly given the "all clear" and allowed to proceed to Tilbury Landing Stage. (The Ship's Captain expressed his thanks personally for the quick clearance).

5. After the disembarkation of passengers was completed, the patient, together with his bedding, was transferred by launch to Denton Hospital. The disinfection of the Ship's Hospital was carried out on the following day when the vessel berthed in Tilbury Dock.

**Confirmation of Diagnosis**

The result of the clinical examination of the patient was confirmed by the fact that the specimens sent by the Ship's Surgeon to the Central Public Health Laboratory, Colindale, proved negative to Smallpox.

**Conclusion**

Although the suspicion of Smallpox was never really present in the minds of any of the doctors concerned, (except perhaps the Ship's Surgeon in the earlier stages of the illness – he told me that he had never seen a case of Smallpox!), I considered the arrangements made for the reception of the case to be well worth while as a kind of "mobilisation" exercise.

## SUSPECTED SMALLPOX – m.v. "SUGAR PRODUCER"

**First Information**

On the 11th March, 1960, Silvertown Services telephoned the Hulk "Hygeia" and informed Dr. J.A. Jones, First Assistant Medical Officer, that the Master of the m.v. "Sugar Producer" had reported by radio that an Arab Member of the crew was suffering from "probable modified smallpox".

The movements of the ship were as follows :–

| | |
|---|---|
| London | Sailed 10th February |
| Trinidad | Arrived 25th February sailed 28th February |
| Barbados | Called 29th February to land a case of appendicitis |

The ship was due at Gravesend at noon on Sunday, 13th March, and would be anchoring there for twelve hours before proceeding to Plaistow Wharf, to discharge. The crew of 33, including 4 Arabs, would be paying off in London, but 16 were rejoining.

Dr. Jones requested Silvertown Services to try and obtain the following additional information: Date of onset: Date of last vaccination: and clinical details, the exact information required being explained in lay terms as the ship did not carry a Surgeon. Silvertown Services agreed to try and contact the Master of the Ship and instruct him to call the Hulk "Hygeia" direct by radio, although it was unlikely this could be done before the afternoon of Saturday, 12th March.

**Preparations**

On receipt of this information your Medical Officer decided, in view of the small crew and favourable time factors, to call out a minimum of staff.

Dr. Pickford Marsden, Medical Superintendent of Joyce Green Hospital, was advised of the case. He agreed to "alert" Long Reach Smallpox Hospital and also accepted your Medical Officer's invitation to act as Ministry of Health Smallpox Consultant. Colindale Laboratory were informed that specimens might be sent for examination and they agreed to receive them on Sunday afternoon if necessary. Surveillance cards, vaccination kit, lymph, gowns and overalls were checked and held in readiness on the "Hygeia".

**Second Information**

On Saturday, 12th March, the "Sugar Producer" radioed additional information, which was subsequently amplified in a radio-telephone conversation between Dr. D.T. Jones, the Duty Medical Officer on the "Hygeia", and the Master of the ship, as follows:

The man had reported sick on the 9th March but stated he had then had the rash for five days. He was working up to the time of reporting sick. Temperature and pulse were then, and at all subsequent takings, normal. The rash was on the arms and legs only. There were some 24-36 lesions on each leg and 18-24 on each arm. The 'spots' were 'dark reddish purple' about 3/8" diameter. He was also described as having a "rough red rash" on the hands which were swollen. There had been no human contact with any case of infectious disease and the man had not been ashore since leaving London. The diagnosis of "probable modified smallpox" was the result of medical advice obtained through Portishead Radio. The man was last vaccinated in October 1959.

The above information was passed by telephone to your Medical Officer. Although it now seemed most unlikely that this was a case of smallpox, it was decided not to vary the arrangements.

**Action on Arrival of Ship**

(a) The "Sugar Producer" arrived in Gravesend Reach shortly after 11.30 hours on Sunday, 13th March, and was boarded by your Medical Officer, Dr. Pickford Marsden, Dr. J.A. Jones, the Chief Port Health Inspector, the Port Health River Inspector, and the General Administrative Officer.

(b) The patient, aged 64, a Donkeyman-Greaser was isolated in the ship's hospital. He was examined by your Medical Officer and Dr. Pickford Marsden, and a decision that the case was non-infectious was quickly reached. Dr. Marsden, in his report to the Ministry of Health, stated:

"On examination I was satisfied that the man was not suffering from smallpox ... As a provisional positive diagnosis I suggested erythema multiforme of undetermined origin. I did not see any necessity for continuing to hold the patient in isolation."

(c) The Master was informed that the patient would be released from isolation and proceed home to receive out-patient treatment from his own Doctor or at a Cardiff Hospital.

(d) Pratique was issued, the "QQ" signal lowered and the boarding party left the ship at 12.15 hours. There was still time for the ship to catch the day tide and the Master hoped to do this, but unfortunately for him and his crew there was no berth available.

(e) As the man was proceeding to Cardiff, the Medical Officer of Health for that town was informed of the circumstances.

**Comment**

There was little to learn from this exercise, although again the difficulty of making a diagnosis by means of radio telegrams was demonstrated. The obvious advantage of direct conversation by radio-telephone hardly calls for comment but the Master of this ship stated his range for this was only 150 miles.

## SMALLPOX – s.s. "CITY OF CALCUTTA"

On the 7th March, 1960, the Medical Superintendent of the Ellerman Lines reported by telephone that four cases of Modified Smallpox (3 Indians and 1 Pakistani) had been landed at Suez on the 5th March from the s.s. "City of Calcutta" which was due to arrive in London on March 17th from Chittagong, Trincomalee, Colombo, Aden and Suez. The ship carried a crew of 89, including 66 natives, and 3 passengers.

In view of the very limited information available at the time, the Shipping Company were asked to signal the ship and obtain from the Master (the ship did not carry a Surgeon) full details of all sickness which had occurred during the last month, together with clinical notes on the cases which had been landed. The Ministry of Health were also requested to obtain confirmation, through the Foreign Office and the British Embassy in Cairo, of the diagnosis. Later, the Ministry of Health received news from the World Health Organisation in Geneva that the cases were modified smallpox, and this was confirmed by the British Embassy in Cairo.

The Suez Authorities had detained the ship for 24 hours to carry out disinfection and to revaccinate the crew. So far there had been no further cases of illness on board.

The Ellerman Lines were most helpful in sending signals to the ship and, although it was not easy to obtain precise information on a number of points, it was possible to build up a fairly clear picture of events and dates which tended to the view that the cases might well have been smallpox. Consequently, when your Medical Officer visited Gravesend on Sunday 13th March, to deal with the suspected case of smallpox on the m.v. "Sugar Producer", the opportunity was taken for a conference with Dr. Pickford Marsden, the Smallpox Consultant of the Ministry of Health and also Medical Superintendent of Joyce Green Hospital, to discuss the action to be taken when the "City of Calcutta" arrived in London a few days later.

Dr. Marsden held the view that this was a situation where there was a small closed and controlled community, all of whom should now be protected against smallpox. If there were no more cases the risk of any further spread of infection would be over by p.m. on the 20th March.

This, in Dr. Marsden's opinion, not only justified but called for the 'quarantine' of the ship until that date. If there were a further case, due to ineffective lymph at the re-vaccination at Suez, there would be an opportunity of reviewing the diagnosis.

The Ellerman Lines, appreciating the value of docking the ship only when entirely free from infection – an important point to prevent labour troubles – readily agreed to hold the ship at Higham Bight, below Gravesend, until the evening of Sunday, 20th March.

It was also agreed that irrespective of further cases, all on board should be re-vaccinated except individuals with physical evidence of successful vaccination at Suez; that only the Pilot (who was vaccinated by the Port Health Authority on 15th March, 1960) should be allowed to leave the ship; that no one outside the Port Health staff would be allowed on board.

Other action taken prior to the arrival of the ship was to confer with the Harbour Master and obtain his agreement to the ship anchoring in Higham Bight; to confer with the Waterguard Superintendent at Gravesend and point out the undesirability of any of his men boarding the vessel. (In spite of this a Preventive Officer boarded to put his seals on the ship's bonded stores. Dr. Willoughby intercepted this Officer and ascertained that he had been vaccinated by the Port Health Authority on 3rd March last); Denton Hospital was alerted with reference to disinfection routine and the possibility of receiving crew members for bathing etc.; the possible disposal to hospital of any urgent medical or surgical cases on board was discussed; and the draft of a Press statement to be used only if the news leaked out was prepared.

**Arrival of ship in the Port of London**

The vessel arrived in Higham Bight anchorage at 18.30 hours on Thursday, 17th March, and was boarded on arrival by Dr. H. Willoughby, Dr. MacCarthy (locum-tenens Medical Officer,) the Chief Port Health Inspector and the Port Health Inspector for the district.

**History of Cases**

The following information, much of which had already been communicated to the Port Health Authority by signal, was given by the Master:–

| Voyage Itinerary | | |
|---|---|---|
| Chittagong | 25.1.60 | (First port of loading) |
| Calcutta | 13.2.60 | |
| Trincomalee | 23.2.60 | |
| Colombo | 25.2.60 | |
| Aden | 1.3.60 | |
| Suez | 6.3.60 | |
| Port Said | 8.3.60 | |

An entirely new Asian crew of 66 joined the ship in Calcutta on 13th February, 1960. This crew was vaccinated in Calcutta before joining.

On 15th February, 1960, the Deck Serang reported that one of his seamen had a scanty rash on his face, arms, legs and more profuse lesions on his trunk. The rash was pustular and he had a temperature of 100° F. He was at once isolated in the ship's hospital.

On arrival at Trincomalee two days later the case was seen by two Medical Officers – one of whom was the Port Medical Officer – who diagnosed Chickenpox which was later confirmed by the Shipping Company's own doctor. The case was removed to hospital but rejoined the ship at Colombo on 25th February as 'cured'.

On the 28th February, 1960, a second case (an Indian seaman) occurred with a rash resembling Prickly Heat. He was at once isolated in the ship's hospital. He was seen by the Port Medical Officer at Aden on 1st March, 1960, who diagnosed Chickenpox and declined to remove the case to shore. The rash was by this time pustular.

On the same day (1st March), two hours after the visit by the Port Medical Officer at Aden, case 3 (an Indian Engineroom Foreman) presented himself.

The Port Medical Officer was sent for again and duly arrived on board. This Medical Officer was not the same doctor who diagnosed case 2. However, he also diagnosed this case as one of Chickenpox and similarly declined to remove the case to shore, so the patient remained in isolation with case 2. (N.B. Both Medical Officers at Aden were Arabian).

On 2nd March, 1960, case 4 (an Indian Engineroom Trimmer) presented himself with a rash which was pustular and he likewise was isolated at once with the other two.

On arrival at Suez on 6th March, the vessel was boarded by the Suez Canal Company's doctor who agreed that the three patients were suffering from chickenpox. Some doubt however must have been in his mind as he called in the Chief Quarantine Medical Officer of the Egyptian Government. This Officer was prepared 'to stake his reputation on it' that the cases were Modified Smallpox. Moreover, he examined case 1, who had rejoined the ship at Colombo, and declared that he had not finished scabbing and was indeed still infectious.

All four cases were removed to hospital ashore and the bedding and other fomites removed with them for steam disinfection. The ship's hospital and forecastle were 'spray disinfected' with a fluid smelling strongly of 'carbolic'.

The entire crew of 23 Europeans and 66 Asians, plus 3 British Passengers, were vaccinated.

**Action in London**

The description given of the rashes, distribution of lesions, etc., were too vague to offer much conclusive evidence but it is noteworthy that none of the four cases exhibited 'cropping', a point which was pressed in Dr. Willoughby's enquiries and was productive of a positive answer.

The fact that two of the cases occurred in deck ratings and two amongst the engineroom staff is accounted for by the fact that six spare crew were being carried for other vessels in the Shipping Company's fleet and owing to shortage of space some engineroom ratings were accommodated in the seamen's forecastle.

Close inspection of all personnel on board failed to produce any fresh case on arrival.

A conference with the Master and Heads of the Ship's Departments was held and the following measures were agreed and carried out by the Port Health Authority staff:–

(1) Quarantine

The vessel to remain in the Quarantine Anchorage in Higham Bight until the a.m. tide on Monday, 21st March. This would allow the full sixteen days to elapse since the removal of the cases at Suez. In this connection it was gratifying that the full co-operation of the Ellerman Lines was extended to us.

(2) Vaccination

The previous vaccinal state of the entire crew was ascertained and valid certificates were held by all. Without being too critical of the vaccinations carried out at Calcutta and Suez, it is of interest to note that on inspection at Gravesend only one person could produce a positive 'take'. This was one of the passengers, so all the remainder were promptly re-vaccinated by Dr. C.D. MacCarthy, 91 in all. The efficacy of this re-vaccination was subsequently shown by the high percentage of 'takes'.

(3) Medical Inspection

A daily muster of all hands to be carried out by the Duty Boarding Medical Officers on Friday, Saturday and Sunday.

(4) Disinfection of Quarters, Bedding, etc. and Bathing of Native Crew

On the morning of Friday, 18th March, the Asian Crew were landed in three batches of 22 each to Denton Hospital for bathing in the Cleansing Block, an evolution which went off without a hitch under the supervision of the recently appointed Port Health Inspector, Mr. Gwyer. During this operation the Port Health team were carrying out fumigation of the ship's hospital and forecastle. Bedding was handled into the launch by the third batch of Asians before they were taken ashore for bathing. The bedding was then disinfected. Advantage was taken of the bathing at Denton Hospital to inspect all the Asians when in a state of nudity and no rashes were found.

(5) Channel Pilot

The Channel Pilot, who was vaccinated at Guildhall previous to joining the ship at Brixham, was allowed to land under surveillance. His vaccination was inspected by Dr. Willoughby and showed signs of an early positive 'take'.

(6) Treatment of Medical Case

The 7th Engineer (European) had some sepsis of the arm due to a burn. He was seen by Dr. J.A. Jones and removed to Denton Hospital for treatment there.

**Clearance of the Vessel**

By the morning of Sunday, 20th March, no further cases of sickness had occurred on board and, as the shipping Company were anxious to dock the vessel on the p.m. tide so as to begin discharge of cargo on Monday morning, the vessel was released from all control by the Port Health Authority.

**Summary**

At the time of the Great Plague, King Charles II instructed the Lord Mayor of London, who was in administrative charge of the arrangements for plague control, to stop all ships coming up the River Thames beyond Gravesend for a period of forty days and he placed two warships at the disposal of the Lord Mayor for that purpose. The idea was to let any disease on board 'burn itself out' before releasing the ship from quarantine control.

This report shows how we were able recently to apply the same principle in relation to smallpox. Here was a ship with a history of smallpox cases on board up to March 5th (but no known cases of sickness since), which we were able to seal up and keep under observation till

the incubation period of smallpox, 7-16 days, had come to an end. The period of waiting under these special circumstances afforded an exceptional facility for applying the appropriate measure of smallpox quarantine control, namely, vaccination, disinfection and surveillance.

No Port Medical Officer could ever have recommended the granting of 'free pratique' with a clearer conscience than your Medical Officer did in this episode.

## SECTION VIII – VENEREAL DISEASE

Venereal Disease is not compulsorily notifiable to Medical Officers of Health but efforts are made both by the Boarding Medical Officers and the Port Health Inspectors to bring to the notice of seamen using the port the facilities available for free treatment and the importance of obtaining skilled treatment as early as possible.

Should there be a known case, it is usually possible to arrange for the patient concerned to be taken at once to the nearest clinic of the Seamen's Hospital or other hospital in the vicinity of the ship.

## SECTION IX – CASES OF NOTIFIABLE AND OTHER COMMUNICABLE DISEASES ON SHIPS

TABLE D (i)

Cases landed from ships

| Disease | Passengers | Crew | Number of Ships concerned |
|---|---|---|---|
| Chickenpox | 14 | 5 | 10 |
| Diphtheria | – | 1 | 1 |
| Dysentery | 1 | – | 1 |
| Gastro-Enteritis | 5 | 8 | 8 |
| German Measles | 8 | – | 2 |
| Glandular Fever | 3 | – | 3 |
| Infectious Hepatitis | 2 | 7 | 9 |
| Influenza | 1 | 8 | 7 |
| Malaria | – | 1 | 1 |
| Measles | 20 | 1 | 6 |
| Miscellaneous | 5 | 21 | 21 |
| Mumps | 6 | 8 | 10 |
| Paratyphoid | – | 2 | 2 |
| Pneumonia | 1 | 10 | 10 |
| Pulmonary Tuberculosis | 2 | 37 | 38 |
| Scarlet Fever | – | 1 | 1 |
| Typhoid Fever | – | 1 | 1 |
| TOTALS | 68 | 111 | |

TABLE D (ii)

Cases disposed of before arrival

| Disease | Passengers | Crew | Number of Ships concerned |
|---|---|---|---|
| Chickenpox | 15 | 11 | 19 |
| Dysentery | 1 | 1 | 2 |
| Gastro-Enteritis | 213 | 522 | 13 |
| Glandular Fever | – | 2 | 2 |
| Infectious Hepatitis | 1 | 2 | 3 |
| Influenza | – | 32 | 5 |
| Malaria | – | 11 | 8 |
| Measles | 82 | 6 | 18 |
| Miscellaneous | 1 | 26 | 7 |
| Mumps | 5 | 5 | 7 |
| Smallpox | – | 1 | 1 |
| TOTALS | 318 | 619 | |

### ON THE ALERT

When the s.s. "Stratheden" arrived at Gravesend on the 16th February, it was reported to Dr. D.T. Jones, the Assistant Port Medical Officer who boarded the vessel, that the Assistant Steward was suffering from a Fever of Unknown Origin with (?) Pneumonia.

In the course of his enquiries Dr. Jones learned that the patient had brought with him two parrots. In view of the indefinite diagnosis, the possibility of the man having developed psittacosis (parrot disease) could not be dismissed. The man was transferred to Denton Hospital and by arrangement with the Central Public Health Laboratory a blood specimen was taken from the patient.

Fortunately the result was negative to psittacosis, but this case is an example of the value of making detailed enquiries and the necessity for the Boarding Medical Officers to be alert.

## SECTION X – OBSERVATIONS ON THE OCCURRENCE OF MALARIA ON SHIPS

Twelve cases of malaria (all seamen) were reported on ships during the year under review. This compares with seventeen cases in 1959.

One case was admitted to Denton Hospital; two had died during the voyage; one had been landed at Freetown; and eight were well on arrival.

A Notice giving advice on the General Precautions and Treatment of Malaria is issued by the Ministry of Shipping and should be on board every British ship. The text of this notice was reproduced in my Annual Report for 1958.

### MOSQUITO CONTROL AT ISLE OF GRAIN

Mr. R.W. Gwyer, the Port Health Inspector stationed at the Isle of Grain, has reported that mosquito control was carried out at the Isle of Grain from March to October 1960.

Owing to the abnormal rainfall during the year increased breeding of larvae occurred especially around the perimeter of the refinery site, but not many adult mosquitoes were seen and there were no complaints from the employees.

An additional 213 acres of land came under the jurisdiction of the refinery and half of this area was very swampy, overgrown and much breeding observed. The possibility of spraying by aircraft was considered but before a decision had been reached the area dried up sufficiently to enable the operator of the refinery to carry out appropriate control work.

### MEDICAL ASSISTANCE AFFORDED TO SHIPPING BY THE PORT HEALTH STAFF

The Boarding Medical Officers and indeed all Port Health Staff most willingly continue to afford at all times, both day and night, medical advice and assistance to shipping. This help varies widely: it may be an accident or sudden illness in the River requiring urgent medical attention and possible admission to hospital; it may be a reply to a radio signal from a ship at sea seeking medical help; or it may be a simple enquiry from a seaman as to where he can obtain hospital treatment or even perhaps dental treatment late at night.

Mention must also be made of the numerous requests for advice and information which are made by shipping companies as to health and quarantine matters on board ships not only in London but throughout the world. In this respect the Port Health Service often assumes a protective role in public health far beyond the River Thames.

A few examples of assistance rendered are given below and from these it may readily be seen that the Port Health Authority does in fact act as a kind of general health service for the River, particularly so at Gravesend, and undertakes duties not strictly limited to "quarantine" but which the Port Health Service, with its own medical staff, ambulance launches and inspectors, is nevertheless, if not under a legal obligation, at least under a moral and humanitarian obligation to fulfil.

s.s. "Pinewood"

A message was received, via the Pilot Cutter, at the Hulk "Hygeia" on 17th February 1960, requesting assistance for an accident on the outward bound collier "Pinewood".

On boarding the vessel Dr. J.A. Jones was informed by the Master that there had been a 'misunderstanding' between the cook and an Arab fireman. The fireman had a cut right across the palm of the left hand. Although it was quite deep, the tendons appeared to be intact. The man was landed in the "Howard Deighton" and taken by ambulance to Tilbury Hospital.

s.s. "Corferry"

On 20th February 1960, a telephone message was received at the Hulk "Hygeia" from the North Foreland W/T Station that the s.s. "Corferry" would need medical assistance on arrival at Gravesend.

When the vessel was boarded by Dr. Roden, the Master was found to be suffering from acute cardiac failure and it was deemed advisable to remove the patient to hospital forthwith. This was arranged and the patient was transferred to Tilbury Landing Stage for transport by ambulance to Orsett Hospital.

s.s. "Colorcrete"

At 11.55 hours on 23rd February 1960, a telephone call was received at the Hulk "Hygeia" to intercept a ship coming down River as an accident had occurred on board. Dr. H. Willoughby at once left the "Hygeia" and met the vessel (s.s. "Colorcrete") in Gravesend Reach at noon.

The injured man had got "mixed up" between a running line and a block and had a badly smashed jaw and his right ear "hanging by a thread". Haemorrhage had been arrested by a towel and a bandage.

Using the radio-telephone Dr. Willoughby called the "Hygeia" and asked the shipkeeper to arrange an ambulance. At 12.15 hours the patient was landed and placed in the ambulance for Gravesend Hospital.

As an evolution the time taken was remarkably short and undoubtedly the radio-telephone saved at least half-an-hour.

m.v. "Doris"

On 27th February 1960, the Agents for this ship asked Dr. D.T. Jones to see a female passenger who had sustained injuries to her head and hip three days ago. On boarding the ship the patient was found to have sustained a concussion, had been unconscious for half-an-hour, and had bruised her left buttock extensively. Dr. Jones arranged for the patient to be seen in the Casualty Department of Poplar Hospital when the ship berthed in the Royal Albert Dock.

m.v. "Curacao"

On 27th February 1960, the m.v. "Curacao" from Rotterdam, which was lying at North Woolwich Buoys, blew an urgency signal and a waterman who went alongside the ship was told that a stowaway had been found on the ship and was seriously ill. This message was passed to the Police and the Port Health Authority.

When Mr. H.A. Marshall, the Port Health Inspector, reached the ship he found that Dr. Avery, the Police Surgeon, was already on board and had found the stowaway suffering from exhaustion through lack of fresh air, food and drink, but there was no infectious disease present. No special treatment was required and the man remained on board for repatriation.

s.s. "La Colina"

The following report by Dr. J.A. Jones is quoted at length because it illustrates so well not only the valuable medical service given in this instance by Dr. Jones himself but also the outstanding performance in an emergency of the crew of the "Howard Deighton" and the Shipkeeper of the Hulk "Hygeia":

ONE LONG CHAPTER

26th February 1960

20.30 hrs. Telephone message received from Lloyds Signal Station, Southend. The outward bound "La Colina" had an accident case and was returning to Gravesend. Requested Medical Officer to board on arrival of ship and for ambulance to be arranged. Lloyds asked to try and find out nature of injuries.

20.35 hrs. Telephoned Tilbury Hospital who, once again, immediately agreed to admit case. Agreed to inform Tilbury Hospital of nature of injuries if information received, or by radio-telephone as soon as case seen.

20.40 hrs. Telephoned Thurrock Ambulance. Agreed to have ambulance standing by to be called by radio-telephone.

20.45 hrs. Telephoned Operations Room, Thames Navigation Service. Duty Officer agreed to keep one R/T set on our wavelength and to pass messages to Hospital and Ambulance. Radio between Operations Room and "Howard Deighton" tested.

20.50 hrs. Telephone call from North Foreland Radio connecting Master of "La Colina". Man fallen down hold. May have been there up to one hour before being found. Given Morphia. Not yet removed from hold. Master advised to leave patient on cane stretcher when they got him up. To keep in warm place and to give nothing by mouth and no further drugs. Master also instructed to have derrick rigged.

21.00 hrs. Information regarding "head injuries" telephoned to Tilbury Hospital.

21.15 hrs. The Thames Navigation Service having ascertained that the "Saxonia" was "all well" and that the "Athenic" had only a case of phlebitis, H.M. Customs Quarantine Preventive Officer was requested to give these ships 'Free Pratique'. The ships were also informed by the Thames Navigation Service that the Medical Officer would not be boarding.

21.30 hrs. T.N.S. passed message that the "La Colina" was in the Lower Hope. Hulk "Hygeia's" R/T set at talk through. Deckboy left on "Hygeia" to take messages. Shipkeeper Parish and Deckhand Mackley taken to handle stretcher.

21.40 hrs. Alongside ship. Derrick was rigged but no ladder over.

21.45 hrs. Boarded ship. Patient desperately ill with multiple injuries, covered in blood and iron ore; placed (in ship's Neil Robertson stretcher) on to the "Howard Deighton" stretcher. Derrick lowered into position and slings and heaving lines prepared.

21.45 hrs. Immediately after I had boarded ship, as I was later informed by Mr. Simons, all lights and the R/T failed in the "Howard Deighton".

21.50 hrs. With the patient ready to be moved, the ship, now having a tug on the bow went astern, and washed the "Howard Deighton" away just as the crew were rigging emergency oil lamps.

21.55 hrs. Emergency lights rigged; the launch returned alongside.

22.05 hrs. Patient lowered aboard "Howard Deighton". The R/T being out of action I asked the 2nd Mate to flash "Call Ambulance" on the morse lamp. (I subsequently learned that two men had picked up this signal and acting independently and without reference to the P.L.A. had both called the Gravesend Ambulance).

22.10 hrs. Alongside Tilbury Stage. Telephoned ambulance.

22.20 hrs. Ambulance arrived. Patient transferred.

22.30 hrs. Patient's gear put in P.L.A. store as ambulance men stated they had instructions not to take large amounts of gear to hospital. This is quite understandable.

22.40 hrs. Returned to Hulk "Hygeia".

22.50 hrs. Explanation to Gravesend Ambulance about wasted journey.

23.45 hrs. Lighting fault traced. Repair impossible at time. Mr. Alewood established direct lighting. This will not supply the R/T.

27th February 1960

03.00 hrs. Telephone call from Tilbury Hospital. Mr. Lucas, Orthopaedic Surgeon, stated that apart from injuries which included fractures of pelvis and right femur, the man appeared to be under a large dose of narcotic. How much morphia had been given? Replied that to the best of knowledge only one injection of ¼ grain, but would check if possible.

03.15 hrs. Telephoned North Foreland Radio. Operator stated that "La Colina" was a one operator ship and it was unlikely he could make contact before 08.00 hrs. but he would try.

05.00 hrs. Master of "La Colina", through North Foreland Radio, confirmed dose as ¼ grain only.

05.05 hrs. This confirmation was passed to Mr. Lucas. Patient still alive but now found to have haemothorax.

Comment

1. The greatest credit is due to all members of the launch crew on duty. They completed this unhappy job in the minimum time with no thought except for the patient, and a complete absence of "flap" when the lights failed. It rained throughout.

2. If at all possible, any new launch should have an arrangement whereby all essential lights – navigation, engineroom and ambulance – plus the radio-telephone, can be immediately restored to action should the primary supply fail. (N.B. This has already been considered and the proposed new launch will have stand-by generator.)

3. There would appear to be an increase in these "human sacrifices to the Great God "Tide". Why cannot all vessels be made really "ship shape" before sailing?

4. It has often been said that these cases are not our responsibility. If we do not help, who will, or who can? What if an accident clashes with Quarantine duties? For the accident, the launch is often more important than the doctor. For infectious disease, the doctor usually more important than the launch. In most cases a solution can be found with the help of H.M. Customs, the Pilot Cutters, or the Tugs. The improving communications could also contribute to the solving of most "clashes".

Summary

One accident case to Tilbury Hospital.

Conclusion

Death.

## "UNUSUAL CAUSES"

The following account by Dr. J.A. Jones of activities at Gravesend during his morning tour on the 1st June, 1960, is another interesting example of how the Port Health Service is called upon to give medical aid:

09.30 hrs. The Thames Navigation Service passed on two requests for help from incoming ships:

1. s.s. "Clan Mactaggart". Accident Case.

2. m.v. "Deseado". Female passenger – "weakness of legs".

10.00 hrs. From the operations room of The Thames Navigation Service I spoke to the Master of each ship in turn:

1. "Clan Mactaggart". A lascar cleaning the ship's whistle had fallen some twenty feet on to the after end of the bridge. He had apparently been struck by the rotating Radar Scanner. His fall had been broken by a tubular rail (awning support). The Master reported than the man had a "mark" on the back of his neck and complained of severe pain in back and chest on the right side. The man could move all limbs and, apart from some bleeding from the gums, there was no haemorrhage. The Master requested that the case be landed off Gravesend as the ship was bound for the Royal Docks. The Master would have the derrick rigged.

2. "Deseado". A female passenger, aged 55 of Austrian nationality, had been ill most of the voyage. She had been living in La Paz (12,000 ft.) and the doctor in Las Palmas had attributed the condition to the change in altitude. The patient complained of weakness and cramp, first in the left leg and now in the right. The Master, who had heard my conversation with the "Clan Mactaggart", thought that the case could remain on board and go to hospital when the ship reached the Victoria Dock. The local agents were instructed to ask the Royal Mail Lines to make provisional arrangements for this.

10.30 hrs. From the Hulk "Hygeia" I made requests to Tilbury Hospital and Thurrock Ambulance for their assistance with the accident case and this was, as usual, immediately agreed.

10.45 hrs. The Launch proceeded to Tilbury Stage to collect Mr. Traynier and some Students who were at Gravesend that particular day.

11.05 hrs. Message from North Foreland Radio. The Norwegian ship "Sunland" anchored in Northfleet Hope requested immediate medical aid for a serious accident.

11.10 hrs. Launch recalled from Tilbury, Mr. Traynier and the Students having to forgo their river trip. I then proceeded in the launch to Northfleet Hope.

11.35 hrs. Boarded m.v. "Sunland". During a boat drill, a motorman had received a severe blow on the head from a "crank handle" used to operate the davits. After the handle had been left in position, it had suddenly "slipped" and swung round, hitting the man, who was standing nearby, on top of the head. The man had a very big irregular "split" of the scalp from which there had been extensive bleeding. As this had now stopped I made no attempt to confirm the fracture of the skull which I suspected, but after renewing the dressing, removed the patient without delay. A derrick was already rigged. The radio telephone was used, through the "Hygeia", to call the ambulance and notify Tilbury Hospital. The patient vomited after transfer to the launch, and this may confirm the skull damage or have been due to Morphia administered before I arrived. Despite this, his general condition was satisfactory when the man was landed into the ambulance which arrived "on the dot" at noon.

12.40 hrs. The "Deseado" was boarded. Although the patient had complete paralysis of the left leg, I agreed that there was no need to remove her off Gravesend.

13.00 hrs. The "Clan Mactaggart" was boarded. The sailor was lying quietly in the ship's hospital when I saw him and made a great fuss when examined. He appeared to have escaped major injury but had probably fractured a rib and possibly his right shoulder blade. He was also landed without delay, the radio telephone again producing the ambulance with perfect timing.

—

Mr. Simons and his crew are becoming the accident "specialists" and the removal of both cases was perfectly executed. It was also a great help to have Mr. Steen as "radio operator" in the "Hygeia". The Thames Navigation Service gave every assistance, not only giving me the "freedom of the air" to talk to ships' Captains but afterwards providing information about the movements and timings.

Helping with these accidents gives your Gravesend staff a great deal of satisfaction, especially when there is a probable "happy ending", and the co-operation we receive from all our neighbours and especially Tilbury Hospital and Thurrock Ambulance greatly contributes to this.

### s.s. "CARTHAGE"

A message was received at 1600 hrs. on 20th November, 1960 from the P. & O. Steam Navigation Co., stating that a Bell Boy in s.s. "Carthage" was suffering from acute appendicitis and required immediate admission to hospital on arrival off Gravesend. Accordingly Dr. H. Willoughby booked a surgical bed at the Gravesend and North Kent Hospital, warned the Surgical Registrar there, and arranged for an ambulance to be at the Royal Terrace Pier.

Contact was then made with the s.s. "Carthage" through the Thames Navigation Service in the following signal:

> Arrangements made to admit your appendicitis patient to Gravesend and North Kent Hospital and ambulance arranged for on landing case at Gravesend. If able to walk please arrange accommodation ladder to disembark patient. If a cot case suggest use of Neil Robertson stretcher. Hope to avoid anchoring "Carthage" for removal evolution if vessel can be held steady at slow speed. Please confirm per Thames Navigation R/T.

A message in reply was duly received from s.s. "Carthage" stating that case could walk down ladder and accommodation ladder was being rigged. E.T.A. at Higham Bight 0045 a.m.

The lights of s.s. "Carthage" were sighted in the Lower Hope at half past midnight and Dr. Willoughby proceeded in the "Howard Deighton" to intercept the vessel off Higham Bight and boarded the incoming ship at 0045 hrs. precisely. The accommodation ladder was already rigged, and the patient waiting at the top of the ladder. He was disembarked from the ship and landed at the Royal Terrace Pier for collection by ambulance to hospital.

Great assistance to ourselves and to the patient was rendered by the Thames Navigation Service, particularly by the Duty Officer who kept in touch with the ship and ourselves and was able to give us the exact position of the vessel all the way up the Estuary.

The time taken from s.s. "Carthage" to operating table was only 30 minutes.

## DENTAL EMERGENCIES

By courtesy of the Chief Dental Officer of the Ministry of Health (Dr. W.G. Senior, C.B.E., F.D.S.), your Medical Officer has been able to supply the Boarding Medical Officers and the Port Health Inspectors with a list of centres where emergency dental treatment is provided. The value of such information is seen by the following report from one of the Senior Port Health Inspectors:

> " I wish to report that yesterday full use of the above emergency dental service was made by the Master of the small Dutch motor coaster "Sparta" from Stettin, who reported to Dr. J.A. Jones – Boarding Medical Officer at Gravesend who boarded the ship, that his wife was suffering from acute toothache. Dr. Jones advised the Master that he should visit Guy's Hospital as soon as vessel was berthed.
>
> " The vessel berthed at Mast Pond Wharf, Woolwich at 11.00 p.m. on Wednesday, 30th November. The Master and his wife then proceeded by taxi to Guy's Hospital. An abscessed condition was diagnosed and an injection given. The patient was told to report back at hospital again at 2.0 p.m. on Thursday. This appointment was kept and the tooth was safely extracted. The patient's condition late yesterday afternoon was satisfactory and one relief.
>
> " The Master and his wife said they were delighted with the wonderful service offered by the Port of London Health Authority and Guy's Hospital and wish to convey their grateful thanks to both Authorities."

## MEDICAL INSPECTION OF SHIPS AT THAMES HAVEN, SHELLHAVEN AND CORYTON

Dr. Fairrie, who was appointed an occasional Boarding Medical Officer in July, 1960, has kindly provided the following notes (to 31st March, 1961) on shipping and environmental conditions at the oil installations below Gravesend:

1. Shipping

The following figures show the approximate number of vessels of various types using the installation named, per month:

(a) Thames Haven

| | |
|---|---|
| Super Tankers 20,000 cargo tons and over | 20 – 25 per month |
| Other Ocean-going Tankers | 50 – 60 " " |
| Coasters | 200 – 225 " " |
| Barges and small self propelled vessels | 500 – 550 " " |

(b) Shell Haven

| | |
|---|---|
| Ocean-going Tankers | 17 per month |
| Coasters | 17 " " |
| Barges and small self propelled vessels | 238 " " |

(c) Coryton

| | |
|---|---|
| Ocean-going Tankers | 12 per month |
| Coasters | 52 " " |
| Barges and small self propelled vessels | 189 " " |

2. Communicable Diseases

Three ships only were visited on behalf of the Port Health Authority. Two cases of recovering measles were seen on two ships. The third ship had landed a case of pyrexia of unknown origin in Portugal, the diagnosis has never been ascertained in spite of numerous enquiries through the agents of Royal Dutch Shell; no other cases of illness were reported on board in the forty-eight hours the ship was at Thames Haven.

3. Malaria

One case of Malaria contracted in the Freetown area was diagnosed with the help of Dr. G.D. Taylor at Shell Haven, whose laboratory is at my disposal. This case was admitted to Orsett Hospital.

4. Rats

A Pest Control operator from a private organisation visits Thames Haven regularly. The rat population is not high and lives mainly near Contractors huts which are some distance from the Jetties. As it is unusual for any ships apart from tankers to be alongside, it is thought the rats must all be shore based. Approximate number of rats destroyed in the past year is 200.

5. Mosquitoes

Very little trouble was experienced last summer owing to cold weather, only two breeding places being found in the installation. Nearly all fleets are now being filled in and nearly all other water is heavily contaminated with oil. The common variety appeared to be A. Maculipennis which were found in the contractors huts after working hours and presumably came out and fed on the workmen during the day. It is hoped this summer to catch and send specimens for expert identification.

6. Snakes

One contractors workman was bitten on the finger by an adder while having his lunch near the sea wall!

7. Preventive Medicine

A number of smallpox and cholera vaccinations were carried out on board tankers, together with a few T.A.B. and poliomyelitis innoculations, this work of course was carried out for the Shipping Companies concerned.

## "HELPING THE SEAMAN"

Folder on Social Services available to the Seafarer and his family

In 1958 the Port Health Authority produced for distribution to shipping visiting the Port of London a folder on the numerous social services available to the seafarer and his family. The matters covered included financial assistance; homelessness of wife and children; aged parents in need of care and attention; moral problems; "home helps"; legal advice, etc.

Although this publication was very favourably commented upon by shipping organisations and welfare societies, it is most difficult to assess, even in the slightest degree, how far the publication has been of value to the person for whom it was intended – the seaman. Many persons are often reluctant to mention their domestic anxieties to their colleagues and the same applies particularly to the seaman. In the quiet of a ship's library the attractive Port Health folder can be glanced at and there the seaman can find in a few words where he may go for advice, and, even though the folder does little to solve his immediate problem or difficulties, it certainly points the way to an organisation or person who can best give him the very help he needs.

## HEALTH EDUCATION – FOOD HYGIENE BOOKLET

With the help of the Food Hygiene Division of the Ministry of Health and the advice of a number of leading firms in the catering, air transport and shipping industries, a booklet of twelve pages of text and eight pages of photographic illustrations of catering hygiene was produced in 1959 for distribution, free of charge, to shipping companies, and by the Port Health Inspectors to catering personnel on ships in the docks and on the River.

The booklet has continued to receive the widespread praise which was given to it on publication by shipping companies and organisations connected with the welfare of seamen.

During 1960 the Chief Medical Officer of the Shipping Federation had printed, at the Federation's expense and with due acknowledgement, two thousand copies of the booklet which they proposed to issue to all trainees of their four Cookery Schools and to all members of the actual staff at these establishments; the booklet will also be given to the catering staff at their Boys' Sea Training Schools at Gravesend and Sharpness, Gloucestershire. It is considered that 'preaching the gospel' of food hygiene to the actual teaching staff and the candidates during training is the best way of getting this sort of propaganda across.

## SECTION XI – Measures taken against ships infected or suspected of Plague

The Fourth Schedule to the Public Health (Ships) Regulations, 1952, under the heading "Additional measures in respect to the quarantinable diseases" – Part I – Plague, reads as follows:–

"(1) The Medical Officer may–

(a) require any suspect on board to be disinsected and place him under surveillance, the period of surveillance being reckoned from the date of arrival of the ship;

(b) require the disinsecting and, if necessary, disinfection of the baggage of any infected person or suspect, and of any other article on board and any part of the ship which the medical officer considers to be contaminated.

(2) If there is rodent plague on board, the medical officer shall require the ship to be deratted in a manner to be determined by him, but without prejudice to the generality of this requirement the following special provisions shall apply to any such deratting–

(a) the deratting shall be carried out as soon as the holds have been emptied;

(b) one or more preliminary derattings of the ship with the cargo in situ, or during its unloading, may be carried out to prevent the escape of infected rodents;

(c) if the complete destruction of rodents cannot be secured because only part of the cargo is due to be unloaded, a ship shall not be prevented from unloading that part, but the medical officer may apply any measure which he considers necessary to prevent the escape of infected rodents."

Plague being primarily a disease of rats all vessels are inspected immediately on arrival at their berths in the docks and river for the presence of any mortality among the rats on board which is not attributable to any known cause, such as trapping, poisoning, etc.

Incidentally one of the "Health Questions" on page 1 of the "Maritime Declaration of Health" requires the Master to answer "Yes or No" to the question "Has plague occurred or been suspected amongst the rats or mice on board during the voyage, or has there been an abnormal mortality among them?"

Any dead rats are immediately sent to the Central Public Health Laboratory at Colindale for examination for bacillus pestis, each rat being accompanied by a label on which is given precise information as to where the rat was found in order to arrive at a focus of infection should the examination prove positive. The information is, of course, far more vital when the rat has been found ashore than when found on board a ship.

In the event of a positive result the "additional measures" referred to above would be put into operation – the discharge of the cargo would be promptly stopped and arrangements made for the vessel to be fumigated throughout with hydrogen cyanide, with the cargo in situ, the vessel being moved to an approved mooring.

Following the initial fumigation and collection of dead rats resulting therefrom, further samples of such rats would be submitted for examination and the discharge of cargo would be permitted under observation. The destination of the cargo would be forwarded to the Medical Officer of Health of the district to which it was proceeding, together with an explanatory note.

If any of the cargo had already been discharged overside into lighters before the discovery of plague infection, the lighters would be fumigated immediately.

On completion of the discharge of cargo from the vessel a second fumigation would be carried out, again using hydrogen cyanide, to destroy the residual rat population, if any.

## SECTION XII – Measures against rodents in ships from foreign ports

(1) Procedure for inspection of ships for rats.

The Port Health Authority employs sixteen Rodent Operatives working in conjunction with and under the supervision of the Port Health Inspectors.

The Rodent Operative's first duty is to visit all ships arriving in his district to search for evidence of rodents, paying particular attention to vessels which have arrived from plague infected ports and to visit such vessels during the discharge of cargo and to ascertain that reasonable measures are adopted to prevent any rodents escaping ashore.

His second duty is the examination of ships in his area which are due for inspection under Article 19 of the Public Health (Ships) Regulations, 1952, and the Prevention of Damage to Pests (Application to Shipping) Order, 1951-6, relating to the granting of Deratting and Deratting Exemption Certificates and Rodent Control Certificates respectively.

The Rodent Operative's third duty is the examination of shore premises for signs of rat infestation paying particular attention to premises adjoining the berths of vessels from plague infected ports.

Some twenty years ago the Port Health Authority instituted a Rodent Control Scheme in all docks and premises of the Port of London Authority on behalf of that Authority and in the premises of the tenants of the Authority on behalf of the occupiers.

(2) Arrangements for the bacteriological examination of rodents, with special reference to rodent plague, including the number of rodents sent for examination during the year.

As described in Section XI above, all rats for examination for plague, either by post mortem and subsequently, if necessary, by bacteriological examination, are promptly sent to the Central Public Health Laboratory at Colindale.

The bodies are placed in polythene bags which in turn are placed inside metal boxes, sealed and labelled so that there is no risk of the escape of any rat fleas during their transit to the Laboratory. The boxes are, of course, delivered by hand.

The rat population of the Port is now so small and is under such strict control that it can be said to be almost certain that the arrival of a plague infected rat, even should it manage to get ashore, would be highly unlikely to have any serious significance. In other words, an epizootic could not be introduced into the Port for the simple reason that there are insufficient rats to enable the spread of infection. Nevertheless, eighty-one rats were sent to the Laboratory and were examined for plague with negative results.

(3) Arrangements in the district for deratting ships, the methods used, and if done by a commercial contractor, the name of the contractor.

(a) The burning of sulphur at the rate of 3-lbs. per 1,000 cubic feet of space for a period of not less than six hours.

(b) The generation of hydrocyanic acid gas by various methods. For the destruction of rats a concentration of HCN at the rate of 2-ozs. per 1,000 cubic feet of space is required with a minimum of two hours contact.

(c) "1080" and "Warfarin". The employment of "1080" has been used regularly throughout the docks for some time with highly satisfactory results both on shore and in ships. A substantial number of ships have been deratted by this method in preference to the use of cyanide, resulting in a considerable saving of time and cost to the shipowner.

Although satisfactory results have been obtained from the use of "Warfarin" a suitable bait has yet to be found, particularly in granaries, with which to mix the poison, so that rats will take it continuously in preference to grain and other forms of cereal on which they are normally feeding.

(d) Trapping. Trapping is seldom employed save for the destruction of isolated rats which have escaped a major poisoning operation or which have not yet established themselves.

(e) Methyl Bromide. This is a very effective and lethal fumigant which has been used in this Port as an insecticide, particularly in the dry fruit industry. It has considerable penetrating powers and is not difficult to disperse after an operation. It is also possible to use this gas as a rodenticide and where there is an infestation of rodents and insects the combined problem can be solved with one operation.

The following are the names of the firms approved for carrying out the deratting of ships:—

| | |
|---|---|
| Messrs. Associated Fumigators Ltd. | Messrs. Disinfestation Ltd. |
| Messrs. London Fumigation Co. Ltd. | Messrs. D.P. Servicing Co. |
| The P. & O. Orient Line | Messrs. Ridpests Ltd. |

## GENERAL OBSERVATIONS OF RODENT CONTROL

The organisation and procedure in this great Port of London, which is a terminal for so much international shipping, must be maintained at a high standard of preparedness and be flexible enough to meet varying demands. Staff must be proficient and keenly interested in the work and provided with equipment appropriate to diverse circumstances and exterminating techniques.

The two important commitments, one in obedience to the specific part of the International Sanitary Regulations, 1951 emphasises the health aspect, while the other is concerned with the provisions of the Prevention of Damage by Pests Act, 1949 and the subsequent Prevention of Damage by Pests (Application to Shipping) Orders, 1951-1956; both of which direct the attention to economic losses ashore and afloat.

Although differing in specific intention, it is significant that these pieces of legislation are complementary to each other and combine to provide a complete defensive system satisfactory to both requirements, otherwise the more dramatic role of preventing the entry, spread and communication of plague would be seriously undermined if rodent infestations were allowed to develop freely within the port and become a potential reservoir of disease. In this connection, the Rodent Control Scheme for shore premises has contributed very effectively.

There remains another potential reservoir of disease with widespread communications within the Port and includes nearly eight thousand lighters or barges. Any plague infection communicated by one or more of these could become remotely established at terminals before being detected. Control of these craft has been intensified during this year, and the recorded results must surely remove any serious anxiety arising from this aspect.

In addition to the exterminating measures adopted, specimen rats are systematically recovered from shore premises and vessels, particularly those associated with rodent-attractive cargoes from plague 'suspected' ports, and these are submitted for bacteriological examination. Incidentally, this routine serves as a check on prevailing conditions among the native rodent population.

The wide range of trading interests and associated transport systems involved make a major seaport vulnerable to continuous rodent infestation, from which it can be defended only by constant vigilance and determination by the rodent control staff.

It is generally accepted that three conditions must be satisfied to promote rodent infestations, e.g.

(a) Adequate supply of food and drink.
(b) Adequate harbourage in which to shelter and breed.
(c) Adequate means of communication.

To a great extent it is not possible to deny them food and drink, but harbourage and communications can be drastically eliminated. A major feature in this Port is to discourage both in all new construction and make amends wherever practicable in existing premises and vessels. In this determined effort, the Industry as a whole has generously assisted to mutual advantage.

A variety of extermination measures are in practice and include fumigation, direct poisoning by ingested food and drink, trapping and poisoned tracking dusts. The availability of attractive cargo as food can be an impediment to a successful poisoned food technique if the rodents so choose, but rats normally succumb to the temptation of drinking any water reasonably palatable – even poisoned water – and this tendency enhances the value of '1080'.

Rodents, particularly mice sometimes pose difficult problems. One may become dismayed by a belief that the extermination of the rats encourages an infestation of mice and added difficulties. "Necessity is the spur to invention" – a truth which manifests itself in conscientious rodent control.

Alternative measures are constantly investigated by the staff, such as the poisoning of nesting materials and the habitual runs, or by providing suitably poisoned materials (dieldrin) over the habitual runs, thereby acting as a direct contact poisoning to be absorbed by the feet of the rodents.

It is quite reasonable to conclude that those engaged on this work are giving very satisfactory service and leave very little opportunity for any justifiable complaint.

## RODENT CONTROL ON LIGHTERS

Mr. W.G. Stimson, the Senior Rodent Inspector, has provided the following figures relating to rodent control work carried out on lighters :–

| | |
|---|---|
| Number of lighters inspected | 7,207 |
| Number without evidence of rodents | 6,220 |
| Number with negligible evidence of rodents | 894 |
| Number of lighters treated for rodents | 93 |
| Total number of dead rodents recovered from lighters after treatment | 552 |

## PREVENTION OF DAMAGE BY PESTS (APPLICATION TO SHIPPING) ORDERS 1951-56

Since 1951 the Port Health Authority has been issuing Rodent Control Certificates to coastwise shipping as provided for by the terms of the Prevention of Damage by Pests (Application to Shipping) Order, 1951.

During the year 1960 the Port Health Authority issued 36 such Certificates.

### TABLE E

**Rodents destroyed (bodies recovered) during the year in ships and in shore premises**

(1) On vessels

| Number of | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Black Rats ... ... | 161 | 165 | 97 | 202 | 167 | 279 | 179 | 290 | 148 | 94 | 148 | 670 | 2,600 |
| Brown Rats ... ... | – | 1 | – | – | – | – | – | – | – | 1 | – | – | 2 |
| Rats examined ... ... | 7 | 4 | 4 | 5 | 13 | 5 | 4 | 13 | 9 | 7 | 10 | 10 | 91 |
| Rats infected with plague | – | – | – | – | – | – | – | – | – | – | – | – | – |

(2) In Docks, Quays, Wharves and Warehouses

| Number of | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Black Rats ... ... | 117 | 121 | 142 | 76 | 101 | 106 | 58 | 116 | 126 | 159 | 86 | 77 | 1,285 |
| Brown Rats ... ... | 48 | 81 | 55 | 40 | 18 | 31 | 38 | 24 | 27 | 109 | 58 | 18 | 547 |
| Rats examined ... ... | 6 | 4 | 3 | – | 1 | 4 | 2 | 2 | 1 | 5 | – | 1 | 29 |
| Rats infected with plague | – | – | – | – | – | – | – | – | – | – | – | – | – |

Mice: 2,735 mice were also destroyed; 610 in ships and 2,125 in shore premises.

### TABLE F

**Deratting Certificates and Deratting Exemption Certificates Issued during the Year for Ships from Foreign Ports**

| No. of Deratting Certificates Issued | | | | | | Number of Deratting Exemption Certificates Issued | Total Certificates Issued |
|---|---|---|---|---|---|---|---|
| After Fumigation with | | After Trapping | After Poisoning | After Trapping and Poisoning | Total | | |
| HCN | Other Fumigants (state Method) | | | | | | |
| 1. | 2. | 3. | 4. | 4(a) | 5. | 6. | 7. |
| 6 | Methyl Bromide 1 | 1 | "1080" 86 | NIL | 94 | 1,002 | 1,096 |

## SECTION XIII – Inspection of Ships for nuisances

TABLE G

| *Inspections and Notices* | *No. of Vessels* |
|---|---|
| Number of vessels visited by Port Health Inspectors | 12,853 |
| Number of vessels on which sanitary defects were found, and details reported to the Master, Owners and/or Ministry of Transport | 446 |
| Number of Statutory Notices served | Nil |
| Number of vessels on which sanitary defects were remedied | 439 |

**Summary of Structural and other Defects**

| | |
|---|---|
| Inadequate ventilation | 2 |
| Defective Lighting – Natural | 1 |
| Do Do. – Artificial | 1 |
| Defective Heating | 10 |
| Condensation | 4 |
| Leaking Decks | 8 |
| Leaking Ports, Decklights, etc. | 6 |
| Water lodging on top of peak tanks | 1 |
| Deficient or Obstructed Floor Drainage | 8 |
| Defective Bulkheads | 1 |
| Do. Floors | 15 |
| Do. Doors | 2 |
| Do. Bunks | 1 |
| Do. Food Lockers | 5 |
| Do. Food Storage | 23 |
| Do. Cooking Arrangements | 35 |
| Water Closet Obsolete | 4 |
| Do. Defective | 22 |
| Do. Foul or Choked | 13 |
| Do. Inadequate Flush | 15 |
| Wash Basins Defective | 13 |
| Neglected Paintwork or Distemper | 26 |
| Misappropriation of Crew Spaces | 2 |
| Verminous Quarters | 93 |
| Dirty Quarters | 293 |
| Miscellaneous | 39 |
| TOTAL | 643 |

## SECTION XIV – PUBLIC HEALTH (SHELLFISH) REGULATIONS, 1934

The Public Health (Shellfish) Regulations, 1934, confer powers on a local authority whereby on receipt of a report of their Medical Officer of Health that the consumption of shellfish taken from a laying is likely to cause danger to public health, they may make an Order prohibiting the distribution for sale for human consumption of shellfish taken from the laying either absolutely or subject to such exceptions and conditions as they think proper, having regard to the interests of the public health.

Two such Orders have been made. The first in 1936, covering the public and private layings bordering that part of the foreshore of the Estuary of the River Thames between Canvey Island and Shoeburyness; and the second, in 1957, covering the foreshore or waters bordering on that part of the Estuary of the River Thames or any tributary thereof, between Garrison Point, Sheerness, and Warden Point in the Isle of Sheppey.

No cases were reported during the year of food poisoning or other illness resulting from the consumption of shellfish taken from layings within the district of the Port Health Authority.

## SECTION XV – MEDICAL INSPECTION OF ALIENS

1. List of Medical Inspectors of Aliens holding warrants of appointment on 31st December, 1959.
   Dr. J. Greenwood Wilson, Dr. H.M. Willoughby, Dr. J.A. Jones, Dr. D.T. Jones, Dr. P.J. Roden, Dr. D.J. Avery, Dr. J.B. Maguire, Dr. J.O. Murray

2. List of other staff engaged on the work.
   Clerical staff at the Central Office.

3. Organisation of the work.
   All vessels carrying aliens are intercepted on arrival at Gravesend and the aliens are examined by the Medical Inspector of Aliens who is, in fact, the Boarding Medical Officer on Duty. Complete liaison exists between the Port Medical Staff and the Immigration Staff at Gravesend and should any doubtful cases arrive, the Medical Inspector is immediately communicated with by telephone and an opinion given.

4. Nature and amount of alien traffic.

| | |
|---|---|
| (a) Total number of arriving vessels carrying aliens | 2,690 |
| (b) Total number of aliens (excluding transmigrants, seamen and airmen)— | |
| (i) Arriving at the port | 29,458 |
| (ii) Medically inspected | 13,017 |
| (iii) Medically examined | 388 |
| (c) Certificates issued | 2 |
| (d) Transmigrants landed and medically inspected | Nil |

5. Accommodation for medical inspection and examination is provided on Tilbury Landing Stage, though in practice, the majority of aliens are inspected in the ship on arrival and any necessary chaperonage is provided by nursing sisters or stewardesses borne in the ship.

## SECTION XVI—MISCELLANEOUS

Arrangements for the burial on shore of persons who have died on board ship from infectious disease.

The body of any person dying on board ship, or in Denton Hospital, from infectious disease would normally be removed from the ship or Denton Hospital for burial by a Private Undertaker acting on the instructions of the shipping company or the next-of-kin, the local police being kept informed.

In the event of the death being one of smallpox, special instructions as to precautions to be taken would be given to the undertaker by the Port Health Authority.

## FOOD INSPECTION

The total amount of foodstuffs seized and condemned as unfit for human consumption and either reconditioned or disposed of for animal feeding or for technical or industrial purposes under guarantee or destroyed was 3,511 tons 11 cwts. 2 qrs. 21 lbs. The following is a summary showing the method of disposal of the foodstuffs concerned:

| *Method of Disposal* | *Weight* | | | | *Comparable Weight 1959* | | | |
|---|---|---|---|---|---|---|---|---|
| | *Tons* | *Cwts.* | *Qrs.* | *Lbs.* | *Tons* | *Cwts.* | *Qrs.* | *Lbs.* |
| Burnt | 270 | 15 | 3 | 7 | 255 | 13 | 0 | 10 |
| Buried | 2,333 | 4 | 0 | 5 | 1,605 | 15 | 0 | 5 |
| Boiling down | 90 | 6 | 1 | 17 | 143 | 7 | 3 | 13 |
| Animal feeding | 129 | 9 | 0 | 11 | 336 | 13 | 1 | 8 |
| Refining | 396 | 11 | 0 | 0 | 131 | 9 | 0 | 22 |
| Released to other districts | 75 | 11 | 0 | 13 | 495 | 0 | 3 | 2 |
| Manufacturing etc. purposes | 160 | 14 | 0 | 9 | 42 | 12 | 2 | 24 |
| Re-exported | 55 | 0 | 0 | 10 | | 6 | 1 | 10 |
| Totals | 3,511 | 11 | 2 | 21 | 3,010 | 18 | 1 | 10 |

Of the 3,511 tons listed above, the principal items and methods of disposal were as follows:

| | *Tons* | *cwts.* |
|---|---|---|
| *Burnt* | | |
| 1,611 cartons and cases and 13,744 cans fruits, juices, pulps, vegetables, meats and fish (burst, blown or leaky) | 91 | 10 |
| 590 cartons, cases and trays fruit ('wasty') | 16 | 12 |
| 2,856 cartons, cases and trays vegetables ('wasty') | 63 | 15 |
| 7 barrels mackerel in brine (decomposed) | | 9 |
| 5 barrels olives ('wasty') | | 6 |
| 2 casks mango chutney (dirty) | | 2 |
| 4 casks fruit pulp and/or pickle (dirty) | 1 | 4 |
| 9 chests of tea (dock water damaged) | | 8 |
| 2 casks lemon skins (damaged and dirty) | | 18 |
| 182 half baskets tomatoes ('wasty') | 1 | 8 |
| 126 baskets carrots ('wasty') | 1 | 14 |
| 150 crates cauliflower ('wasty') | 2 | 7 |
| 253 cartons sultanas, raisins and currants (wet damaged and/or dirty) | 3 | 4 |
| 321 bags and boxes potatoes ('wasty') | 8 | 0 |
| 1,326 boxes oranges ('wasty') | 37 | 5 |
| 4 bags loose collected tea | | 1 |

| | Tons | cwts. |
|---|---|---|
| *Burnt (Ctd.)* | | |
| Quantity meat (diseased and/or rejected stores) | 2 | 15 |
| 11 boats aubergines ('wasty') | | 3 |
| 769 baskets carrots and beetroots ('wasty') | 19 | 4 |
| 163 half bags and quantity loose collected onions ('wasty') | 4 | 9 |
| 11 cases fish (ship's rejected stores) | | 2 |
| Quantity 'wasty' bananas and banana waste | 11 | 9 |
| *Buried* | | |
| 966 cartons and cases and 1,637 cans fruits, juices, pulps, vegetables, meats and fish (burst, blown or leaky) | 11 | 1 |
| 4 bags almonds (fouled on board ship) | | 2 |
| 4 cartons fruit (dock water damaged) | | 1 |
| 1 cask piping jelly (fermented and sugary) | | 3 |
| 62 crates and 347 sacks yams ('wasty') | 22 | 16 |
| 51 cartons prunes (perished and infested) | | 14 |
| 1 chest tea (dock water damaged) | | 1 |
| 22 bags desiccated coconut (dock water damaged) | | 11 |
| 1 bag and 1 case desiccated coconut (salmonella contamination) | | 1 |
| Quantity meat (dock water damaged, mouldy or decomposed) | | 5 |
| 2 bags flour (dock water damaged) | | 2 |
| 79 sacks granulated sugar (fouled by ship's W.C. emptying over loaded barge) | 7 | 15 |
| Quantity 'wasty' bananas and banana waste | 1,702 | 17 |
| 5 casks chutney (dirty) | | 8 |
| 643 bags onions ('wasty') | 8 | 17 |
| 641 crates beetroots ('wasty') | 6 | 3 |
| 9 bags carrots ('wasty') | | 2 |
| Quantity ship's rejected stores | | 1 |
| 5 bags ground melon seeds (wet damaged) | | 4 |
| *Boiling down* | | |
| 507 cartons crops, 60 cartons veal, 52 cartons ribs, 11 cartons chucks, 14 crops, 8 beef carcases, 1 flank, 2 wethers, 45 sheep, 22 cartons fats 2,610 lambs, 1 fore, 4 hinds, 2 hoggets, 48 ewes, 207 pigs' heads, 125 bags and 60 livers, quantity ships' rejected stores meat and quantity carcase meat and offal (brine stained, decomposed, dirty, dock water damaged, iced, mouldy, diseased, perished, rancid, mis-shapen, stale, out of condition, oil stained) | 90 | 6 |
| †*Released for animal feeding* | | |
| 538 bags groundnuts (sea water damaged) | 6 | 14 |
| 18 bags beans (wet damaged) | | 15 |
| 9 cases walnuts (moth infested) | | 6 |
| 40 bags chestnuts (perished) | | 19 |
| 525 bags flour (rejected stores) | 11 | 0 |
| 12 bags rice (rejected stores) | | 12 |
| 33 cartons fig paste (dirty and damaged) | | 9 |
| 3 bags sugar (rejected stores) | | 1 |
| 95 cartons currants and sultanas (dirty) | 1 | 2 |
| Quantity 'wasty' bananas | 51 | 6 |
| 224 cases dried apricots (storm water damaged) | 2 | 19 |
| Quantity ships' rejected stores | 1 | 14 |
| 76 bags potatoes ('wasty') | 1 | 17 |
| 150 bags beans (oil stained) | 6 | 11 |
| 8 cartons milk powder (dock water damaged) | | 3 |
| 800 bags dried yeast (rodent damage) | 20 | 0 |
| 83 bags horsemeat and quantity meat (rejected stores meat and old and stale horsemeat) | 3 | 1 |
| 3 bags groundnuts (sweepings) | | 1 |
| 28 bags and quantity loose collected desiccated coconut (dirty) | 2 | 4 |
| †*Refining* | | |
| 14 bags glucose | | 6 |
| 1,235 bags sugar sweepings | 104 | 1 |
| Quantity raw bulk sugar salvaged from sunken barge | 285 | 0 |
| *Re-exported* | | |
| 35 cartons smoked salmon (prohibited preservative) | | 5 |
| 40 cases Marzipan (prohibited preservative) | | 11 |
| 4 tierces sheep casings (no official certificates) | 1 | 3 |
| 135 bags boneless beef ( do. ) | 7 | 15 |
| 40 cases lard ( do. ) | 1 | 0 |

| | Tons | cwts. |
|---|---|---|
| *Re-exported (Ctd.)* | | |
| 1,055 cartons boneless beef (prohibited meat) | 33 | 19 |
| 77 cases and 163 ox livers (diseased) | 7 | 1 |
| 70 cartons canned sausages and meat balls (no official certificates) | 1 | 3 |
| 32 cartons canned fish (prohibited preservative) | | 7 |
| 13 bags loose collected tea | | 11 |
| 22 bags desiccated coconut (salmonella contamination) | 1 | 2 |
| †*Released to other districts* | | |
| 2,794 boxes moth-infested prunes (for fumigation and canning after sorting) | 39 | 6 |
| 24 bags flour (rain water damaged – for reconditioning) | 1 | 10 |
| 22 bags rejected stores rice (for cleaning) | 1 | 2 |
| 7 boxes dock water damaged butter (for reconditioning) | | 3 |
| 284 cartons lemons ('wasty' – for sorting) | 7 | 12 |
| 1,482 cases apples contaminated with lead arsenate (for cleansing) | 21 | 11 |
| 282 cartons and cases sultanas (for washing) | 3 | 18 |
| 16 cases moth-infested walnuts (for reconditioning) | | 8 |
| †*Manufacturing etc. purposes* | | |
| 100 cases, 50 chests, 251 bags desiccated coconut (salmonella contamination) | 20 | 17 |
| Quantity rejected stores meat and butter (for soap making) | 2 | 3 |
| 1 cask decomposing tallow (soap making) | | 7 |
| 14 casks strawberry pulp (excess preservative – for jam making) | 2 | 12 |
| 20 cartons damaged lard (for soap making) | | 8 |
| 71 bags perished nutmegs (oil extraction) | 5 | 0 |
| 780 bags wet damaged sugar (for jelly making) | 118 | 14 |
| 38 bags tea sweepings | | 17 |
| 63 bags dirty glucose (for processing) | 2 | 16 |

Items under headings marked † released with agreement of and under supervision of local Medical Officers of Health.

## MEAT INSPECTION

Mr. P.W. Coombe, Senior Inspector in the Royal Docks Group, submitted the following report on meat inspection during 1960:–

### TABLE No. 1.

Quantities of meats sent direct from ships to No. 6 P.L.A. Cold Store for detailed examination as to condition and disease:–

| | No. |
|---|---|
| Mutton and Lamb Carcases | 2,300 |
| Fores-Hinds and Crops Beef | 43 |
| Cartons Mutton and Lamb Cuts | 604 |
| Cartons Beef Cuts | 136 |
| Cartons Boneless Beef | 1,333 |
| Cartons and Bags Beef Offals | 2,444 |
| Cartons and Bags Sheep and Lamb Offals | 5 |
| Cartons and Bags Pork Offals | 1 |
| Cartons Veal | 40 |
| Cartons and Crates Rabbits and Rabbit Meat | 28 |
| Bags Kangaroo Meat | 30 |
| Total examination (routine) | 7,469 |

In addition 95 boxes of Cheese were examined.

This routine examination of meats is valuable as a means of checking the standard of inspection and packing in the exporting countries. Many cases of disease were found (these have been incorporated in Table 2) and by means of the "official certificate" the establishment concerned was identified, thus enabling representations to be made to the exporting countries.

Meat inspection at No. 6 Cold Store, Royal Albert Dock.
Detailed examination of ox tongues for disease

Examination of canned goods by the Port Health Inspector at West India Dock

TABLE NO. 2

Damaged meats and rejected ship stores meats sent under detention from ships to No.6 P.L.A. Cold Store for condemnation or reconditioning:–

| | No. |
|---|---|
| Mutton and Lamb Carcases | 10,117 |
| Fores-Hinds and Crops Beef | 5,080 |
| Pig Carcases | 6,071 |
| Veal Sides | 176 |
| Cartons Mutton and Lamb Cuts | 161 |
| Cartons Beef Cuts | 11,297 |
| Cartons Boneless Beef | 2,538 |
| Cartons and Bags Beef Offals | 2,907 |
| Cartons and Bags Sheep and Lamb Offals | 30 |
| Cartons Veal Offals | 38 |
| Cartons Pork Offals | 280 |
| Cartons Pork Pieces | 62 |
| Carton Rabbits | 1 |
| Bags Kangaroo Meat | 20 |
| Cases Poultry | 25 |
| Total quantity detained | 38,803 |

In addition rejected ship store meat from 20 vessels, together with 13 Cartons Cheese and 695 Cartons Butter and Margarine were detained.

The various causes of detention may be classified as follows:–

Defective refrigeration resulting in decomposition –
Black and white mould-rancidity
Defective stowage in ships' holds
Damage at the time of loading and discharge
Damage from defective brine pipes
Disease – both bacterial and parasitic

TABLE NO. 3

The number of Detentions by individual inspectors together with the weight of condemned meat sent to the Corporation contractor:–

| *Number of Detentions made by–* | |
|---|---|
| Mr. P.W. Coombe (Senior Inspector) | 201 |
| Mr. A. Good (Meat Inspector) | 153 |
| Mr. W. Walker (Meat Inspector – Cold Store) | 24 |
| Mr. D. Madeley (ex. Tilbury Dock) | 6 |
| Total detentions | 384 |

*Total weight of meat destroyed–*
137 Tons 19 cwts. 1 qr. 13 lbs. nett.

TABLE NO. 4

Samples of meats sent to the Public Health Laboratory, Colindale, for bacteriological examination:–

| *Commodity* | *Country of Origin* | *No. of Samples* | *Salmonella* | *Cl. Welchi* |
|---|---|---|---|---|
| Boneless Veal | New Zealand | 35 | 1 | Nil |
| Bobby Veal | Australia | 5 | Nil | Nil |
| Boneless Beef | Australia | 75 | 3 | Nil |
| Beef Cuts | Brazil | 10 | Nil | Nil |
| Beef Cuts | Bechuanaland | 85 | 10 | Nil |
| Beef Cuts | Argentina | 30 | Nil | Nil |
| Boneless Mutton | Australia | 30 | 6 | Nil |
| Lamb and Mutton Cuts | New Zealand | 15 | Nil | Nil |
| Mutton Cuts | Argentina | 5 | Nil | Nil |
| Sheep Livers | Australia | 5 | Nil | Nil |
| Rabbits | China | 15 | 1 | Nil |
| Rabbit Meat | Australia | 25 | Nil | Nil |
| Chicken Meat | China | 1 | Nil | Nil |
| | Total | 336 | 21 | Nil |
| Kangaroo Meat | Australia | 10 | 6 | Nil |
| Kangaroo Tails | Australia | 20 | 4 | Nil |
| | Total Samples | 366 | 31 | Nil |

During January and March 12 Pig Submaxillary lymph nodes were sent to Professor Garrod at St. Bartholomews Hospital in the course of investigating the presence of disease in Swedish Pigs, which resulted in the isolation of tubercle bacilli and Corynebacterium equi.

The work of meat inspection has progressed smoothly throughout the year, your inspectors having received full co-operation from the Riparian Authorities, Shipping Companies, Meat Importers and Port of London Authority. The facilities given by the P.L.A. Meat Department have enabled the work at the Cutting Store to progress to the limits of capacity of the present store.

Although the foregoing tables reflect a great deal of routine work, some matters of unusual interest have also been dealt with by your inspectors :–

1. Detention and examination of Swedish Pigs.
2. The control of Bechuanaland meat.
3. Re-exportation of Australian scrap-meat.
4. Damage to meat resulting from the dock strike.
5. The implementation of the Food Hygiene (Docks Carriers, etc.) Regulations, 1960.

**Swedish Pigs**

As the result of a routine inspection of Swedish Pigs, lesions of disease, subsequently proved to be tubercular, were found in the submaxillary lymph nodes with the result that all subsequent importations were placed under detention for examination. During the period January to March some 6,071 carcases were examined resulting in the condemnation of 335 heads. The examination was made by serially numbering both head and carcase, then removing the heads for thawing out for proper examination of the submaxillary lymph nodes. Those heads showing disease were condemned and the carcase split to examine carcase lymph nodes and bone structure for lesions of tuberculosis. Heads and carcases of disease-free pigs were then released. In view of the fact that Smithfield Market – Greenwich – Bermondsey also had Swedish pigs in their cold stores your inspectors worked in close liaison with the inspectors of those authorities, thus effecting co-ordination of action taken to control this importation.

It was essential to determine conclusively whether the lesions were those of tuberculosis or corynebacterium equi and specimens were taken to St. Bartholomews Hospital where Professor Garrod was able to prove by living cultures the presence of tubercle bacilli.

Dr. Blom (Director of Swedish Veterinary Services) visited the docks and personally examined a number of pigs at the cold store.

**Bechuanaland – Meat**

It has been the practice where unusual importations of meat arrive in these docks to take samples for bacteriological examination. It was in this manner that the presence of Salmonella organisms was first established in Bechuanaland meat to such an extent as to cause considerable disquiet. The meat consisted of bone-in fores and hinds and cartons of boneless meat cuts. The results of sampling showed that the bone-in beef was negative but the meat which had been boned out was infected. Of 85 samples drawn, 10 from early shipments were positive Salmonella. The meat in dock store was detained and subsequently released with the exception of 1,348 cartons still on hand.

**Re-exportation of Australian Scrap Meat**

A close watch is kept on the importation of boneless meats with the result that three importations totalling 1,156 cartons of meat described as boneless beef, which on examination proved to be scrap meat, were detained and subsequently re-exported.

The Australian Veterinary Adviser visited the docks to inspect and obtain photographic evidence of this flagrant contravention of the Imported Food Regulations.

**Damage to meat resulting from Dock Strike**

The London dock strike was protracted and resulted in very considerable dislocation of the turn round of shipping as a result; ships that had partly discharged in the docks were sent to continental ports, and ships homeward bound were diverted to various continental ports where meat was discharged and housed in cold stores and other vessels used as store ships. This meat was subsequently shipped to London and your inspectors found that the working of meat at ports not skilled in the handling of this commodity had resulted in extensive soiling of sheep and lamb carcases necessitating the detention for re-shirting and trimming of 1,422 carcases.

**The Food Hygiene (Dock Carriers, etc.) Regulations, 1960**

The implementation of the above regulations has been progressing steadily and is receiving the co-operation of both shipping and stevedoring companies.

Your inspectors have received a number of requests by the various dock interests for guidance in the interpretation and application of the broad principles of hygiene with the result that particular attention is now being paid to the cleanliness of quaysides at meat berths.

It was considered that uniformity in the application of hygiene principles in the docks was essential and with this in mind a draft code of practice was drawn up and considered as a basis for subsequent discussion with the appropriate interests. It was fortunate that your inspectors were able to utilise the period during the dock strike for preliminary contacts with those concerned in the observance of the new Regulations.

## IMPORTATION OF SWEDISH PIG CARCASES

Early in February reports were received both from the Chief Meat Inspector at Smithfield Market and the Senior Port Health Inspector that certain indications of disease were being found in imported Swedish pig carcase meat, and in many instances glands had been removed contrary to the Public Health (Imported Food) Regulations. Condemnations were necessary in approximately 7% of the carcases inspected.

Specimens submitted to Professor L.P. Garrod at St. Bartholomew's Hospital were reported upon as showing acid fast bacilli presumed to be tuberculosis, and some corynebacterium equi.

The importers were advised to contact the Swedish Veterinary Authorities regarding the unsatisfactory condition of shipments of this meat, which resulted in the Chief of the Swedish Veterinary Services and the Director and Sales Manager of the Swedish pig industry flying to London on the 5th February.

Arrangements were made for the inspection of the meat by the Swedish officers and a Veterinary representative of the Ministry of Agriculture, Fisheries and Food, both at Smithfield and at No. 6 P.L.A. Cold Store.

The diagnosis was confirmed by the Swedish officers who were extremely concerned at the conditions found, and promised vigorous action would be taken on their return to prevent a recurrence.

Shipments had been widely distributed but large quantities still remained at Smithfield Market and in the docks, and in Finsbury, Greenwich and Bermondsey.

At a meeting held in Guildhall on 12th February at which representatives of the Ministry of Agriculture, Fisheries and Food, Finsbury, Greenwich and Bermondsey were present, it was decided that all Swedish pig carcases lying in those areas and within the areas of the Port and City of London should be placed under immediate detention pending 100% examination. In those areas in which proper facilities did not exist for or were overtaxed by such examination, it would be arranged for transfer to No. 6 Cold Store for the necessary inspections to be carried out by your Port Health Inspectors.

On 19th February a cablegram was received from the Swedish Authorities that cargoes of frozen pork ex s.s. "Sibaldi", "Velox" and "Clausen" awaiting sailing orders for this country, had been fully inspected in accordance with criteria arranged at the London meeting on 5th February.

A subsequent cablegram notified that all shipments leaving Sweden after 15th February had received thorough examination.

s.s. "Sibaldi" was destined for discharge at Leith and accordingly the M.O.H. Edinburgh was informed and warned of the conditions found in recent Swedish pork shipments on arrival in London. The M.O.H. Edinburgh later informed me that the first 50 pig carcases examined showed no evidence of having been inspected, and tuberculosis had been found in one gland of the 50 examined.

s.s. "Velox" arrived at London on 22nd February and her cargo of 3,303 whole pigs was landed into Nos. 6 and 7 P.L.A. Cold Stores. Of this consignment 166 carcases were examined and 3¾ were found to be diseased. 18% of the submaxillary lymph nodes had not been examined, and an additional 10% had been removed contrary to the requirements of the Public Health (Imported Food) Regulations.

s.s. "Clausen" discharged 900 pigs at Palmers Wharf, Greenwich, on 8th March, at the inspection of which the Swedish Government representatives were again present. The Port Health Meat Inspectors were also invited to attend this examination. 10% examination resulted in 4.5% diseased carcases, and in view of the fact that although there was evidence that the lymph nodes had been examined, this had been inexpertly carried out, and it was therefore decided that the remainder of the shipment be removed to Smithfield Market for 100% examination, which resulted in 10% condemnation.

A further shipment of 193 small pig carcases was subjected to a 10% examination at No. 6 Cold Store, and although no disease was found the carcases had not been properly inspected for export in that the sub maxillary lymph nodes had not been incised.

Two later shipments showed some improvement, but the output of certain meat Establishments were found to be unduly responsible for the unsatisfactory standard of inspection. Details of these meat establishments were forwarded to the Swedish Authorities with the result that subsequent shipments evidenced attainment of a satisfactory standard generally.

## SALMONELLA CONTAMINATION OF BECHUANALAND MEAT

The incidence of salmonella contamination of boneless meat imports generally has led to routine check sampling of such shipments for bacteriological examination in order that contaminated cargoes may be diverted into the canning factory where the heat process involved would destroy the organisms.

In May the s.s. "Ice Flower" discharged a shipment of Bechuanaland boneless meat, and routine sampling was carried out. Of ten samples taken five were reported as Salmonella contaminated, in one of which heat-resistant Cl. Welchii Type 10 was also found, and in four further samples heat-resistant Cl. Welchii Type not 1-11 was isolated.

There were no grounds at time of sampling to justify detention of the shipment, and by the time the bacteriological reports were received it had been distributed.

Port Health Inspectors and the meat inspectors at Smithfield Market were instructed to detain any meat of the same origin lying within their areas for bacteriological examination.

In July s.s. "Ice Flower" discharged a cargo of Bechuanaland meat at New Fresh Wharf in the City of London. The shipment was placed under detention and removed to various Cold Stores in the City and in Finsbury.

The report on 22 samples from this shipment showed no salmonella and the shipment was released accordingly.

In September a shipment of 2,659 bone-in beef quarters ex s.s. "Ice Princess" was discharged and distributed into Cold Stores in the City of London, Bermondsey and Finsbury. Ten samples from the City Cold Stores were examined, no salmonella being found, but a report was received from the Medical Officer of Health for Southwark that Salmonella Typhimurium had been isolated from part of the shipment in his area.

A shipment of 3,526 bone-in quarters beef and 83 cartons boneless beef cuts ex s.s. "Karamia" was discharged at Southampton for examination in London. No Salmonella was isolated from samples taken from this shipment and it was accordingly released.

In October a shipment of 1,110 bone-in beef hindquarters and 5,481 cartons of boneless meat lying in No. 7 Cold Store ex s.s. "Rowallan Castle" was detained. No positive reports were received on the bone-in beef samples and this was accordingly released, but four of 17 samples of boneless meat were reported as "salmonella found" three of which were Salmonella Typhimurium.

The boneless meat consisted of specified cuts, strip loins, hindquarters, flanks, topsides, rumps, silversides, crops, briskets, fore-quarter flanks, thick flanks, shins, hindquarters, fillets and full crops and further sampling of each cut was carried out.

Salmonella organisms were isolated from samples of silversides, shins, topsides, and fore-quarter flanks, and all but these cuts were released leaving 1,630 cartons under detention.

Further sampling of the detained cuts resulted in the isolation of salmonella organisms in ten of sixty-six samples of silversides, eight of which were salmonella typhimurium, five of fifty-seven samples of topsides of which one was typhimurium and heat-resistant Cl. Welchii type 5 from two samples, and two of 27 samples of forequarter flanks one of which was typhimurium and heat-resistant Cl. Welchii type 6 in one sample. No further salmonella positive reports were received on 10 samples of shins.

It was decided that the particular cuts from which salmonella organisms or heat-resistant Cl. Welchii types 1-13 had been isolated would be released for manufacturing purposes only provided the process involved heat treatment sufficient to destroy the organisms and on condition that the Medical Officer of Health of the district in which the process would be carried out was satisfied that the danger of cross contamination was negligible and that he was prepared to undertake supervision of the handling and processing.

At a meeting of London Riparian Medical Officers of Health on 9th December, this modus operandi was accepted in principle in connection with the disposal of contaminated shipments.

These incidents emphasize the necessity for close co-operation between inspecting authorities in order that cold storage facilities are made available for cargoes under detention awaiting the results of bacteriological examination which often involves storage for upwards of a week. The Port of London, the City of London and the Metropolitan Borough of Finsbury are well served with such facilities and are thus enabled to accept the transfer of shipments into their areas for storage or sampling in order to prevent accumulation in other districts.

The Ministries of Health, and Agriculture, Fisheries and Food were kept informed of the position and Veterinary Officers of the Ministry of Agriculture, Fisheries and Food visited Bechuanaland, where following inspection of the slaughtering and handling arrangements they made certain recommendations which have been put into practice and which at the time of writing are giving evidence of being effective.

The Head of the Meat Inspection Service in Bechuanaland has also visited your Medical Officer in order to discuss with him local arrangements that have been made and will be made in future, to reduce to a minimum the possibility of bacteriological contamination of meat.

## THE MEAT (STAINING AND STERILISATION) REGULATIONS, 1960

The Meat (Staining and Sterilisation) Regulations, 1960 came into operation on 1st November, 1960, and for the first time adequate powers were provided for the control of meat unfit for human consumption.

The Regulations make it an offence for any person to have in his possession for the purpose of sale or preparation for sale any imported meat, or any butcher's meat, which is unfit for human consumption unless it is sterilised, and any knacker's meat unless it is stained or sterilised.

Ideally, provision should be made for sterilisation of imported meat within the Dock area. Where this is impracticable, the meat may be removed to an approved processor or place where sterilisation will take place in closed and locked containers or vehicles having a notice of adequate size and conspicuously visible, stating distinctly and legibly that the meat is not for human consumption. The container or vehicle is to be kept closed and locked at all times except for loading or unloading.

Imported meat unfit for human consumption, if stored, must be kept segregated from other meat.

It is no longer possible for pet food shops to sell meat unfit for human consumption that has not been sterilised, or raw knacker's meat which has not been stained.

With the co-operation of importers of unfit meat in providing advance information of expected shipments and of the Australian Authorities in forwarding by air mail information of intended shipments, the Regulations are working smoothly in the Docks and rapid clearance effected.

## IMPORTED MARZIPAN

From time to time samples of marzipan are taken at time of importation and submitted to the Public Analyst for determination of presence of preservative.

The Public Health (Preservatives etc. in Food) Regulations prohibit the presence of any added preservative in marzipan.

40 cases of marzipan of Danish origin were landed at Regent's Canal Dock in October 1960 and the Public Analyst reported the presence of benzoic acid to the extent of 1400 parts per million. The importers were informed that the importation of marzipan containing preservative was prohibited and a notice to re-export was served.

70 cases of chocolate-coated marzipan tablets of Israeli origin were landed in early November 1960 at West India Dock, samples of which were reported by the Public Analyst to contain 370–460 parts per million benzoic acid equivalent to approximately 500–600 parts per million in the actual marzipan content and on the almonds approximately 1400 parts per million, proportions which would seem far too high to be accounted for by partial oxidation of the benzaldehyde produced from the naturally occurring amygdalin in bitter almonds.

In this country, marzipan is usually made from a mixture of sweet almonds, which contain no amygdalin, with 5% to 10% of bitter almonds.

The Israeli shippers flew to this country and emphatically denied the addition of any preservative to the marzipan but were unable to account for the high benzoic acid content. A report of a Public Analyst at Tel Aviv was submitted in which he certified that samples of the marzipan taken at the factory, to which no preservative had been added, showed the presence of benzoic acid to the extent of 350 parts per million, which was not in any way unusual. The marzipan was made from 15% bitter almonds and 85% sweet almonds.

There appears to be no information available that would assist in arriving at an assessment of the possible maximum content of benzoic acid which would result naturally from the use of bitter almonds, and although it was accepted that benzoic acid could be present naturally, it was not possible to prove that the amount found could only have been present as a result of added benzoic acid and accordingly the shipment was released with the advice that sweet almonds only should be used for marzipan intended for export to this country.

In view of the foregoing, a Danish shipment showing 40 parts per million benzoic acid was released.

A further shipment of 46 cases of Danish marzipan was detained upon the Public Analyst's finding of 100 parts per million – 200 parts per million benzoic acid.

The shippers were insistent that no preservative had been added but that benzoic acid would be present naturally from the use of de-bittered almonds. Certificates of a London analyst were submitted showing 40 parts per million and 17 parts per million benzoic acid in samples from the same parcel. Samples of English marzipan as a comparison showed 10 parts per million and 7 parts per million benzoic acid without the addition of benzoic acid.

This shipment had been made from 30% de-bittered almonds and 70% sweet almonds, and in order to form an opinion as to the probable limit of naturally present benzoic acid arrangements were made for a quantity of the actual almonds used to be sent by air from the manufacturers in Copenhagen. The almonds were divided into three parts, one of which was forwarded to the importer, one sent to the Public Analyst, and the third retained in this office.

The Public Analyst certified the almonds as genuine blanched almonds, and a small quantity of marzipan was made in the laboratory by a process similar to that normally used in this country.

The report upon the laboratory-made marzipan showed a trace of benzoic acid not exceeding 10 parts per million.

In support of the manufacturers contention that no preservative had been added to their product, a Statutory Statement to that effect signed before the British Vice-Consul in Copenhagen was furnished, and in the absence of proof that benzoic acid had been added the 46 cases were released with the advice that the benzoic acid content demonstrated in this marzipan appeared to be much in excess of that found by experiment to be expected and that the techniques of manufacture should be considered before further shipments were exported to this country.

In the absence of reliable information as to the possible limits of naturally-occurring benzoic acid in marzipan made from a proportion of bitter almonds, although an indication was given by the laboratory experiment using de-bittered almonds, and the difficulty of proving that benzoic acid in excess of that amount had been deliverately added, the view expressed in the Food Standards Committee's Report on Preservatives in Food that the offence should be the sale of a food containing a non-permitted preservative irrespective of the reason for which it is present, is welcomed.

## DESICCATED COCONUT

It had become evident early in the year from the bacteriological reports already received on samples of desiccated coconut received from Ceylon submitted during December, 1959 that extensive Salmonella contamination was to be expected in shipments of this commodity, the contamination rate for December 1959 being 11.6% of the samples examined.

All shipments were automatically detained initially for 5% bacteriological examination and positive reports entailed a further 10% examination. Positive reports upon the 10% examination resulted in condemnation of the entire shipment.

In the early part of the year there were approximately 75 mills in actual production of desiccated coconut in Ceylon, many of which were primitive in construction and operation and in which scant regard was paid to hygiene. With few exceptions the output of all mills was bulked at Colombo and bagged for export.

In the absence of any batch or mill indentification marks, it was inevitable that condemnations involved the whole shipment, and from the experience gained in earlier dealings with importations of other items of food on a similar scale, it was considered that a proper system of marking should be instituted in Ceylon without delay in order that some indication of the source or sources of contamination might be given and condemnations confined to the output of particular mills or batches rather than shipments. It was, however, not until late in the year that identifying marks to some extent came into use.

The importers of this product energetically met the challenge to the trade by direct representations to the Ceylon Authorities and one wellknown firm instituted a very useful on-the-spot survey of the conditions under which the mills were operating, contacting and urging action by government departments, addressing meetings of millers and disseminating advice on the reorganisation of the industry on sound principles of hygiene.

The Ceylon Authorities were alive to the problem facing them and the urgency of the position was being stressed by the Ministry of Health.

Experiments were being carried out in this country in an endeavour to evolve a process of sterilization practical of application to bulk imports or factory processing techniques which would remove any possible hazard and in which the possibility of cross infection would be obviated.

Short and long time heat treatment, supersonic vibration, irradiation with gamma rays, steam treatment with ethylene oxide, and subjection to ultra violet ray were used experimentally, but owing to the nature of the commodity heat is limited in its successful application to toasting and to some extent steaming. Treatment with ethylene oxide was entirely successful experimentally but its use is prohibited by the Preservatives in Food Regulations.

The heat treatment applied by many of the manufacturing processes in which desiccated coconut is normally used would appear to be sufficient for destruction of the contaminating organism, but there remains the risk of salmonella cross-contamination of the plant, equipment, and finished product.

Approaching the problem of disposal realistically and bearing in mind the paucity of direct evidence incriminating coconut as a significant source of food poisoning during the many years it must have been imported in a contaminated condition, I considered it reasonable to offer release for manufacturing purposes only, provided the contaminating organisms were not Salmonella Paratyphi-B, Salmonella Thompson or Salmonella Typhimurium, and that the medical officer of health of the area in which the factory was situate satisfied himself that the danger of cross-contamination was negligible, the heat treatment applied by the process was sufficient to effect sterilization, and that it would be used under his supervision.

Only one firm accepted these conditions and having done so, they carried out continuous sampling of the finished product. Not one Salmonella-positive report was received from this sampling.

Desiccated coconut contaminated with any of the three Salmonella types mentioned was surrendered by the owners to form a stock of known contaminated material available for laboratory experimental purposes, or was destroyed.

In Ceylon certain mills were selected for modernisation and operation under conditions designed to exclude as far as possible the risk of contamination arising within the mill itself during the various processes, the output being separately packed.

Examination of specially marked shipments from these mills indicated that the pilot scheme had justified itself, and extension generally of the measures taken in those mills might have no small bearing upon the solution of the problem of contamination.

Draft regulations designed to control the milling, transport, packing and export of desiccated coconut were issued by the Ceylon Government. Provision was made for registration of mills conforming to the standard required, and the registration of shippers who must agree to ship their coconut on an Export Licence obtained from the Ceylon Coconut Board, their supplies being derived only from registered mills.

A laboratory is being set up to work in close association with the Medical Research Institute in Colombo for the examination of samples drawn from the mills, adverse reports upon which will render the miller liable to refusal of an Export Licence for a definite period.

It is anticipated that the Regulations will come into force not later than 1st June, 1961.

During the year 985 samples of coconut were examined bacteriologically with the following results:—

| *No. examined on initial 5% examination* | *Salmonella organisms* | | *No. examined on 10% examination of known contaminated shipments* | *Salmonella organisms* | |
|---|---|---|---|---|---|
| | *found* | *not found* | | *found* | *not found* |
| 759 | 49 | 710 | 226 | 14 | 212 |

6.9% of samples found to be Salmonella contaminated on 5% examination.

6.6% of samples of known contaminated shipments found to be Salmonella contaminated on 10% examination.

Although percentage sampling is not an ideal method of assessment, it is interesting to record that in two instances importers requested 100% examination at their own expense with the following results:—

5% and 10% sampling of 380 bags comprising Shipment A gave a contamination rate of 8.8%, and 100% sampling of the shipment gave a rate of 8.9%.

5% and 10% sampling of 482 bags comprising Shipment B gave a contamination rate of 8.3%, and 100% sampling of the shipment gave a rate of 12.2%.

## IMPORTATION OF FROZEN PRAWNS

As a result of the unavoidable necessity for cold storage of this import pending receipt of bacteriological reports for periods upwards of a week, it has been found to be more convenient to the trade to allow all shipments destined for up-river wharves to proceed in bond and unexamined to their destination where clearance and sampling formalities are carried out.

Only those shipments cleared by H.M. Customs in the docks and usually for a destination outside the dock area, are sampled by Port Health Inspectors and allowed to go forward to their destination under detention and into the jurisdiction of the local Medical Officer of Health pending receipt of the bacteriological reports.

For this reason the bulk of sampling so far as the Port and City of London are concerned is carried out by the City of London Inspectors and for convenience a more detailed report appears in my Annual Report for the City of London.

## TEA IMPORTATION

Tea arriving in the Port of London and destined for warehouses within the City of London or into the districts of London Riparian Authorities is allowed forward unexamined and under bond for clearance by H.M. Customs and sampling in those areas.

Only when tea is of unknown destination or when clearance by H.M. Customs is effected within the dock area is it inspected and sampled by Port Health Officers.

During the year, 1688 samples of tea were examined by the Public Analyst of which 17 or 1.0% were the subject of adverse reports, 15 on account of excessive lead content, one on account of excessive lead content, one on account of rodent contamination, and one on account of insect infestation.

The Food Investigation Committee's report on Lead in Foods recommends an acceptable maximum of 10 parts per million of lead and lead compounds in tea and this figure is used in the assessment of fitness for human consumption.

The lead content varied from 12 to 70 parts per million in the 15 teas found to be contaminated. Formosa tea generally appears to be subject to lead contamination, the source of which would not seem to have been discovered, as the contamination has been present with no apparent diminution since examination for metallic content was undertaken in January 1959.

Indonesian tea is also liable to excessive lead content, as is China tea although to a much lesser degree.

Details of the lead content reported with the countries of origin are:–

| | |
|---|---|
| Formosa: | 12, 13, 13, 13, 14, 15, 15, 30, 55, 65, 70. |
| Indonesia: | 13, 17, 55. |
| China: | 22. |

Teas in which lead contamination is excessive only by a small amount are allowed to be blended with lead-free teas in such proportion that in the final blend the lead content is reduced to minimal proportions, and, after sampling of the blend if found to be satisfactory in this respect, the tea is released.

Where the contamination is of such proportion as to be unsuitable for blending the tea is released for re-export only or is destroyed.

## THE FOOD HYGIENE (DOCKS, CARRIERS ETC.) REGULATIONS, 1960

These Regulations came into operation on 1st November, 1960, to complete the chain of the hygienic handling, transport, and storage of inadequately protected foodstuffs from time of discharge of the vessel within the docks to sale to the consumer.

The necessity for such regulations has always been apparent, and the powers given are well designed to remove those sources of contamination within the dock area which have caused concern to those whose duty it is to enforce the regulations for hygienic food handling outside that area well knowing the contamination that has already taken place in the absence of powers to prevent it at the time of importation.

Meetings have been held with Officers of the Port of London Authority and stevedoring companies and a large measure of agreement has been reached as to the changes necessary to satisfy the Regulations.

A draft "Code of Practice" has been drawn up and little remains to be agreed for the acceptance of this as a guide to hygienic practice in the handling of foodstuffs within the dock area.

Further meetings have been arranged with the British Transport Commission in regard to rail transport, and with representatives of road and water transport interests.

It is felt these preliminary informal discussions have great value in securing the co-operation necessary to the smooth working of the Regulations.

## CLEAN AIR ACT 1956
## THE DARK SMOKE (PERMITTED PERIODS) (VESSELS) REGULATIONS 1958

The spirit of optimism for the future expressed in my Annual Report for 1959 has throughout 1960 proved fully justified. Ship owners, masters of vessels and engineroom personnel, the Port of London Authority and the owners of fleets of tugs operating in the Thames have, as proved by results, contributed appreciably to assist the Port Health Authority in reducing smoke from vessels to a minimum. The truth of this statement is borne out as follows:–

| *Year* | *No. of smoke emissions observed* | *No. of notices served* | *Prosecutions* |
|---|---|---|---|
| 1960 | 39 | 17 | 5 |
| 1959 | 85 | 39 | 8 |

From the 1st June, 1958, the date on which the Regulations came into operation, until the end of 1959 the Port Health Authority concentrated on infringements of the Regulations in respect of Black smoke only. Since January, 1960, lesser shades of Dark smoke have received similar attention. It is interesting to note, however, that during the year the number of these Dark smoke emissions observed was negligible, less than half a dozen, indicating that the efforts of all concerned had been successful in ensuring that the majority of vessels using the Port of London complied with the Regulations in their entirety. All prosecutions with the except of one in 1960, which was in respect of a dark smoke offence, were in connection with emissions of Black smoke.

The following table gives details of legal proceedings brought during 1960:–

| SHIP | METHOD OF FIRING | TYPE OF SHIP | NATURE OF INFRINGEMENT | OUTCOME OF PROSECUTION |
|---|---|---|---|---|
| 1. | Oil Fired Forced Draught. | Freighter Ocean Going. | 45 minutes continuously. Dark smoke. | Plea of guilty. Owner fined £20 with 10 gns. costs. |
| 2. | Oil Fired Forced Draught. | Freighter Ocean Going. | 19 minutes in ½ hour. Black smoke. | Pleas of guilty. Absolute discharge to owners and Master on payment of 5 gns. costs in each case. |
| 3. | Oil Fired Forced Draught. | Freighter Ocean Going. | 12 minutes in ½ hour. Black smoke. | Pleas of guilty. Owners and Master discharged conditionally on payment of 5 gns. costs in each case. |
| 4. | Oil Fired Forced Draught. | Freighter Ocean Going. | 16 minutes in ½ hour. Black smoke. | Pleas of guilty. Owners fined £10 with 5 gns. costs. Master fined £5. |
| 5. | Coal Fired Natural Draught. | Tug. | 12 minutes in ½ hour. Black smoke. | Pleas of not guilty. Summonses against owners and Master dismissed. Magistrate stating that he was not satisfied on the evidence that the case had been proved, but that it was a proper case to have been brought. |

It is noteworthy that with the exception of ship No. 5 all defendants pleaded guilty.

Ship No. 5 was a tug which emitted Black smoke during a towing operation in one of the docks. The difficulties to be overcome in eliminating smoke from coal-burning tugs are fully appreciated by the Port Health Authority and it was the first tug in connection with which legal proceedings have been taken. By nature of their duties, sudden and unexpected calls are frequently made on these vessels to raise a full head of steam at short notice. This fact is well known and the majority of those connected with this class of vessel are to be congratulated on the measure of success they have achieved in minimising smoke emissions.

It has, however, been realised by the Port Health Authority that a few tug operators have not been as conscientious as expected in reducing smoke emissions, a point associated with the offence by ship No. 5. During the proceedings the Master of the tug challenged the Port Health Inspector's statement that Black smoke, as opposed to Dark smoke, was emitted, but it was brought out in evidence that this particular Master had not even seen a Ringleman Chart prior to the date of the offence and did not know the technical difference between Black and Dark smoke. Furthermore, the stoker in charge of the offence admitted that when told from the bridge that smoke was being emitted he immediately threw more coal onto the fire which, as was agreed by the defendants, could only increase smoke rather than reduce it. However, the magistrate considered that the case had not been proved, although stating that it was one which was very rightly brought to the Court by the Port Health Authority.

The officers of the Port Health Authority are, nevertheless, very satisfied with the result of this case since the owners of this particular fleet of tugs have been more co-operative than before and no further major difficulty has been experienced in connection with any of their vessels.

On a lighter note, the following letter from the Master of a foreign ship indicates that the writer, although perhaps not a 'master' of the English language, is not only anxious to be co-operative in conforming to the Regulations but is also appreciative of efforts to assist him to comply with the Law.

"I beg to thank you for the consideration and co-operation that I have received from your department during my stay in the Port of London.

"May vessel has I fear, owing to reasens beyound my control, caused yourselves considerable inconvenience by smoking.

"This vice has now I hope been overcome due to the untiring efforsts of your staff.

"I now look forward to many smokeless visits to your ports, and wish to thank you once again for your kindness and consideration."

A further instance of co-operation and courtesy from an unusual visitor to the Thames occurred on the 23rd July. A flotilla of five frigates from H.M.S. Dartmouth Training Squadron, visited the Pool of London.

One of these frigates was observed to emit black smoke continuously for a period of 50 minutes whilst lying on her moorings. The vessel was boarded and it was courteously and apologetically explained by the Engineer Commander of the flotilla that the smoke was due to an "electrical" fault. The requirements of the Act and Regulations were pointed out to him although it was appreciated that the Clean Air Act could not be applied directly to Admiralty ships. Nevertheless, the following signal was sent that evening to all the ships.

"Smoke Abatement. The Port of London is in a clean zone Every precaution is to be taken to avoid making smoke when 'flashing-up' from cold."

A Senior Port Health Inspector was present to keep the flotilla under observation during its preparation and departure for sea. Although steam was raised on all vessels from semi-cold boilers, no excess of Dark Smoke was emitted.

Experience in working the Clean Air Act, 1956 (Section 20) and the Dark Smoke (Permitted Periods (Vessels) Regulations, 1958, has suggested the need for considered amendments in the Regulations as follows:–

Art. 3.(2):– For the purposes of the said Schedule, a vessel is not under way when it is at anchor or made fast to the shore or bottom and **a vessel which is aground shall be deemed to be under way.**

The interpretations of the words 'aground' and 'under way' give rise to controversy and contradict the accepted ruling among seafarers, so are liable to cause confusion. These circumstances could well be omitted from the Regulations.

Further, an intelligent but unscrupulous Master operating a ship with an inefficient boiler installation may be secured to the shore at high tide but aground on the foreshore at low tide. By casting-off his mooring ropes he would be considered by the Regulations to be under way and entitled to make Dark Smoke for twenty minutes instead of ten minutes when secured to the shore. This unfair advantage could be taken, particularly when such a ship was working winches at full effort regardless of overloading the boiler.

Finally, the occasions when vessels are accidently grounded are so rare from the viewpoint of these Regulations that they can be disregarded and it is very unlikely that an Authority would desire to prosecute the unfortunate ship for emitting some Dark Smoke in an effort to release itself.

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SCHEDULE

**Emissions from a forced draught oil-fired boiler furnace, or an oil engine:**

**Case 1. 10 minutes** in the aggregate in any period of **2 hours.**

With limited resources this period of observation is too long. Unless an Authority has specialist Inspectors for this duty, much time will be involved at the expense of normal health work, and without a fast launch it is impossible to keep a ship under observation when outward bound for two hours, particularly colliers in ballast.

It is suggested that the period of observation be reduced to one hour and preferably thirty minutes with some proportionate reduction in the permitted period of smoke emission.

It appears paradoxical that in accordance with section (1) of the Schedule to the Regulations, a ship with a forced draught oil-fired furnace is not permitted to make dark smoke for a period exceeding 10 minutes in the aggregate, whereas black smoke may be made for 3 minutes per half hour, i.e. 12 minutes in 2 hours.

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There is a need for some explanatory note in relation to lighting up a furnace from "Cold" e.g. whether "Cold" means at atmospheric temperature or from any temperature until steam pressure commences.

A boiler furnace which has been inactive for 24 hours may be considered "Cold"?

Also, while it is appreciated that incomplete combustion must be tolerated when raising steam from "Cold", there is no mention of any specific time limit in connection with this defence. However difficult this might be to assess, some conditions of restriction written into an explanatory note could be helpful.

## LOADING AND TRANSPORT OF REFUSE BY LIGHTERS. BYE-LAWS FOR THE PREVENTION OF NUISANCE ARISING FROM REFUSE IN OR UPON ANY SHIP, BOAT OR VESSEL

The administration of these bye-laws still necessitates considerable attention involving both a firm hand and a measure of toleration. The reasons for this dual approach are :—

First, although firms operating lighters on the River Thames are all co-operative in endeavouring to secure compliance with the bye-laws, the labour at their disposal is often casual and indifferent. It was necessary to take proceedings against four lighterage companies for contravening bye-law 2(b) which stipulates that where vessels are used for the transport of refuse, the refuse, except during the process of loading or unloading, shall be covered with waterproof sheeting properly and securely attached to the coamings of the vessel. All defendants were fined sums varying from £2 to £5 with costs.

Secondly, some of the Riverside wharves, at which refuse from adjacent Metropolitan Boroughs is loaded into lighters are old and structurally unsuited for the purpose in this modern age. Rebuilding, where practicable, or replacement of these wharves, is, however, a long term undertaking requiring the agreement of the Port of London Authority, Riparian Authorities and the Port Health Authority, as also of those engaged in private enterprise for whom consideration of ultimate profit or loss must carry considerable weight. Meanwhile, it is essential that the regular removal of refuse should not be delayed.

The Port Health Authority were consulted during the year about a proposed new jetty at Chelsea, the reconstruction of a wharf at Stepney, and proposed modern disposal works at Deptford Creek. Construction of the new jetty at Chelsea is almost completed and it is confidently hoped that the proposals for Stepney and Deptford, which are entirely practicable, will be put into effect at a comparatively early date.

It should not be concluded from the foregoing remarks that the transport of refuse down River is entirely unsatisfactory or causes a major problem. The sheeting of loaded lighters has improved considerably since the difficulties were discussed with the industry and the bye-laws amended. Nevertheless, constant supervision must not be relaxed and, in particular, pressure must be maintained on the loading wharves.

## HOUSEBOATS AT BENFLEET

The Essex County Council Act, 1952, provides that the mooring of any houseboat within the County shall not be lawful without the consent of the Council of the district in which the houseboat is situated, and that the Council may require the owner or occupier to remove or demolish any houseboat not authorised by them.

The Port and City of London Health Committee are, however, still responsible under the Public Health (London) Act, 1936, for the sanitary supervision of houseboats coming within the jurisdiction of the Port Health Authority, although under the Essex County Council Act, 1952, the local Council in Essex are now responsible for the licensing and drawing up of conditions under which they are prepared to grant licences to houseboats.

The duties of the Committee in regard to the sanitary supervision of houseboats are safeguarded by Section 212 of the Essex County Council Act, 1952, which provides inter alia that no consent shall be given to the mooring of any houseboat within the Port of London without the previous written consent of the Corporation of London as the Port Health Authority of the Port of London.

During the year the Benfleet Urban District Council granted temporary consents, subject to the approval of the Port Health Authority, to twenty-two houseboats. No objection to these consents was raised by the Port and City of London Health Committee.

In 1954 the Benfleet U.D.C. first applied to the Port Health Authority for the issue of "temporary consents" in respect of the mooring of 40 house boats. This application was granted. In 1955 there were 36 such applications, in 1956 22 applications. In 1957 and 1958 these applications dropped to 15 and 16 respectively. In 1959 however, 23 such applications were received. The reason for this increase is considered to be that although the number of house boats permanently used as dwellings continued to decrease, a number of cabin cruisers, mainly inhabited at weekends, began to moor off Benfleet. The Benfleet U.D.Cs.' applications for many of these consents stipulated that the "house boats" in question would not be used for permanent habitation.

In view of these figures it is suggested that the Benfleet U.D.C. have done very well in the past few years by eliminating so many unsatisfactory house boats, particularly in face of considerable expense and the opposition they have met in the Courts and from local interests.

The policy now pursued is to consider the West Creek as a haven for house boats in reasonable condition and to grant temporary "consents" to their mooring there if they are up to a reasonable standard of fitness for human habitation.

There is no doubt that the Council's long term policy is ultimately to eliminate all house boats used for permanent residence in this area but this policy has to be pursued gradually. Each year applications for "consents" are investigated most carefully with a view to refusing them if at all possible.

Lastly, it should be remembered that the Benfleet Council have to provide permanent housing accommodation for all those who are cleared permanently from house boats in either creek.

## PUBLIC HEALTH ACT, 1936, PART X – CANAL BOATS

One hundred and seventy-five inspections of canal boats were made during the year. Forty-six canal boats were found to have a total of seventy-three defects, as follows :–

| | *No. of defects* |
|---|---|
| Cabin in need of cleaning and/or painting | 27 |
| Defective condition of cabin top and/or sides | 22 |
| Defective condition of cabin hatch doors | 2 |
| Defective flooring | 4 |
| Defective bulkheads | 4 |
| Defective cupboards | 1 |
| Excessive condensation due to inadequate ventilation and/or insulation | 5 |
| Inadequate ventilation | 1 |
| Defective flue pipe to cooking range | 2 |
| Absence of, or defective, bilge pump | 3 |
| Bug infestation | 2 |
| Total | 73 |

The owners and Master of the defective craft were in each case notified and required to carry out the necessary repairs.

The following infringements of the Act were also found :–

| | |
|---|---|
| Certificate of Registration not produced | 13 |
| Registration marks on boat obliterated or illegible | 12 |
| Registration mark on boat incorrect | 1 |
| Total | 26 |

The owners and Master were informed of the requirements of the Act in this respect.

## DANGEROUS DRUGS

During the year seventeen certificates authorising the purchase of scheduled Dangerous Drugs were issued under the Dangerous Drugs Regulations, 1953, Regulation 13 (2) of which is as follows :–

(a) The master of a foreign ship which is in a port in Great Britain shall be authorised to procure such quantity of drugs and preparations as may be certified by the medical officer of health of the port health authority within whose jurisdiction the ship is or, in his absence, by the assistant medical officer of health, to be necessary for the equipment of the ship until it reaches its home port.

(b) A person who supplies a drug or preparation in accordance with a certificate given under this paragraph shall retain the certificate and mark it with the date on which the drug or preparation was supplied and keep it on his premises so as to be at all times available for inspection.

## FERTILISERS AND FEEDING STUFFS ACT, 1926
## FERTILISERS AND FEEDING STUFFS REGULATIONS, 1955

Fifteen samples of Feeding Stuffs were submitted to the Agricultural Analyst.

In each case the sample was found to be within the limits of variation permissible under the Regulations.

## VISITORS AND STUDENTS

Qualified medical men and public health inspectors from abroad continue to visit the Authority for varying periods to obtain theoretical and practical instruction in Port Health work. The year 1960 was a particularly active one in this respect and visitors were received from many areas, including Belgium, Bermuda, Chile, Ghana, Greece, Hong Kong, India, Iran, Iraq, Israel, Indonesia, Kenya, Malta, Nigeria, Poland, South Africa, Sudan, Venezuela, Western Germany and Yugoslavia.

The greater part of the instructional work inevitably falls upon the Chief Port Health Inspector and the staff of Port Health Inspectors and Rodent Officers, as well as the Boarding Medical Officers. Though this tuitional work must certainly add to the weight of their normal duties, there is no doubt that it helps to widen the outlook of our own staff and to remind them that public health work is not merely local but both national and international. We like to feel that when our visitors return home, they carry with them not only increased knowledge but an earnest desire to employ, and even to improve upon, the practices adopted in the Port of London.

Among the students who came to us for training in rodent destruction methods was the Health Superintendent of the Takoradi Port Health Authority. Here he learned the use of Sodium Fluoroacetate ('1080') which he subsequently initiated in his own port, and a photograph sent by him showing the numerous rats killed in his first '1080' operation is reproduced elsewhere in this Report.

The Port Health Authority is occasionally asked by Government Departments and Local Authorities to give additional training to public health inspectors who are about to undertake port health duties in various ports of the United Kingdom and overseas. Such requests are always acceded to and these Inspectors are given a thorough insight into our organisation. That such help is appreciated is shown by quoting just two letters received:

(1) "Now that I have returned to Ireland after my World Health Organisation Fellowship in England, I must take this early opportunity of writing to thank you for the arrangements you made for me both at the Guildhall and at the Royal Group of Docks. I need hardly say that I gathered a considerable amount of knowledge and information from the visit and that I also found your staff meeting on the 25th ultimo a very stimulating occasion. Beyond all this, however, I would like to pay tribute to the kindness with which I was received and the trouble to which you and your staff went to ensure the success of my visit. I am deeply grateful for this and hope that if at any time I can reciprocate in any way, you will not hesitate to ask."

(2) "I have now finished my course of training with your Authority, and I feel that I must write and thank you for your help and assistance during the last five weeks.

My visits were instructive and interesting and I found all your staff eager to help in every way. I am very grateful to them for so freely imparting to me their wealth of knowledge and experience.

I am sure that the ideas I have obtained will be of great assistance to me in my future work."

## UNITED KINGDOM COMMITTEE FOR THE WORLD HEALTH ORGANISATION

This Committee, which has the support of the Ministry of Health, is a national committee representing most of the leading universities and professional organisations of the country. Its main object is to publicise the work of the World Health Organisation.

In April 1960, as part of the effort to celebrate World Health Day, the Committee held an Exhibition at Charing Cross Station which was seen by many thousands of the general public. Among the exhibits provided by the Port Health Authority were copies of the London Declaration of Health and Surveillance Cards, as well as photographs of port health work.

## LAUNCH SERVICES

The four launches have continued their functions with unabated regularity and efficiency except for one incident when, during November, the "Howard Deighton" developed a propulsion defect. It was necessary to conduct an underwater survey on a slipway: this revealed that the starboard propeller locking-pin had failed and allowed the propeller to slacken precariously. The tail shaft taper having suffered accordingly, it was expedient to fit a new tail shaft and properly secure the propeller. Advantage was taken of the short service dislocation to clean and paint the hull. Meanwhile the Boarding Medical Officers were served by the "Alfred Roach".

Specialised training in the Port of London helps rat destruction in Takoradi

"I require Port Medical Officer" – The Flag Signal "L.I.M." on an incoming ship

It has been a significant advantage to have trained crews capable of interchange between any of the launches, and operating two launches from each Station has provided for emergencies and temporary dislocations.

The pairs of launches stationed on Gravesend and Woolwich respectively were :–

"HOWARD DEIGHTON" and "ALFRED ROACH"
"ALFRED ROBERTSON" and "FREDERICK WHITTINGHAM"

The Gravesend Boarding Station, as represented by the hulk "Hygeia", has given entire satisfaction since the refitting.

Of the four launches, only one has an operational speed comparable with present day expectations. Of the remainder, the "Howard Deighton", which was built in 1931, has gracefully reached the sunset of her career, while the pair at Woolwich are only presently suitable for the general inspection work allocated to them.

In no respect are any of the launches less efficient in performance or less attractive in appearance than on the day they completed acceptance trials and, as far as practicable, structural deterioration has been minimised by careful and continuous maintenance – running maintenance by the crews and regular refitting every three years. Three years of continuous service is a long time for a working harbour craft and some would consider it too long in general circumstances.

The foregoing must, therefore, reflect credit on the crews employed, who are tireless in their efforts to maintain and safeguard 'their launches' as a token of their pride and loyalty to the Authority – alas ! qualities too infrequently encountered nowadays.

Service behaviour of this calibre upholds the prestige and dignity of the Authority, curtails unnecessary running and maintenance costs and inspires confidence in their future role when operating the new vessel to replace the "Howard Deighton".

A new 'boarding cutter' has been designed to meet present and anticipated future requirements of the Authority in harmony with progressive trends in facilities aboard and in conjunction with organised developments within the Port. A sturdy working vessel, to Lloyds and Ministry of Transport requirements, with an appropriate appearance and approximately 100 ft. long, capable of service in wintry conditions at the seaward limit of the Authority's jurisdiction. She will have a single screw with a turn of speed in excess of "Howard Deighton" and generally self-contained for operational emergencies involving several days.

Within reasonable limits of expenditure and crew, she ought to be a worthy successor to "Howard Deighton" on the 24 hours continuous service and should be ready for duty in Autumn 1961.

The following article on the proposed new cutter for the Port Health Authority appeared in "Lloyd's List and Shipping Gazette" for 20th April, 1960:–

> "A new boarding and medical officers' cutter is to be built for the Port of London Health Authority Department of the Corporation of London by James Pollock, Sons & Co. Ltd., Faversham, and will enter service in May, 1961. She will be a comprehensive heavy-duty vessel with an overall length of 98 ft., a moulded breadth of 21 ft. and a moulded depth of 10ft. 3 ins. A 5-cylinder Ruston & Hornsby diesel engine of 655 s.h.p. will give a speed of 12 knots.
>
> The cutter will replace the Howard Deighton, built in 1931, and whose owners are the "Mayor and Commonalty and Citizens of the City of London". She will be stationed at the medical officers' boarding station at Gravesend and will be available for 24-hour duty at every state of the tide, her maximum draught being 8 ft. 3 ins.
>
> She will be equipped with R/T and possibly radar at a future date to fit in with the general pattern of facilities offered by the Thames Navigation Service. There will be hospital and ambulance equipment on board, apparatus for receiving and embarking stretcher patients with an adequate boarding platform well above the freeboard, and seating accommodation for passengers. The crew will live on board and two heavy duty anchors will be provided in case the cutter needs to anchor for quarantine purposes. The Health Authority Department's seaward limit is The Nore and she will be capable of visiting this area in all weathers."

## LECTURES AND PAPERS

**Dr. J. Greenwood Wilson**

Numerous lectures and talks on the work of the Port Health Authority and allied subjects were given to various organisation including:–

The Royal Institute of Public Health
The London School of Hygiene and Tropical Medicine
St. Bartholomew's Hospital Medical College
Walbrook Ward Club

**Mr. T.L. Mackie, M.B.E.**
Annual Conference of the Association of Public Health Inspectors :–
Talk on "International Quarantine"

**Mr. A.C. Good**
Annual Conference of the Association of Public Health Inspectors :–
Paper on "The Control of Imported Meat"

## STAFF

**Dr. H.A. Madwar and Dr. P.S. Greaves**

Dr. H.A. Madwar, who had acted as a part-time Assistant Medical Officer at Sheerness since 1927, intimated that he wished to retire on 30th September 1960. He has always been a most helpful and loyal friend of the Port Health Authority and his services in a remote outpost of our jurisdiction have for very many years been most valued not only by my own Department but likewise by Pilots, Customs Officers and Shipping Agents. We wish him a long and happy retirement.

Dr. P.S. Greaves, who was Dr. Madwar's partner for a number of years and is fully conversant with the work, was appointed in his place.

**Dr. A.J. Fairrie**

Oil tankers arriving at Thames Haven do not usually require the attention of the Boarding Medical Officer but when such occasions do arise it is expedient to have the services available of a local medical practitioner rather than to send a Medical Officer all the way from Gravesend. For this purpose Dr. A.J. Fairrie, who is in partnership with Dr. K.C. Morris at Stanford-le-Hope, Essex, conveniently close to the Thames Haven area, was appointed as occasional Boarding Medical Officer.

**Mr. J.S. Beattie** – Port Health Inspector

Mr. J.S. Beattie retired on the 31st March 1960 after thirty years loyal service with the Port Health Authority. For much of his career Mr. Beattie was stationed at Gravesend where he took a particularly keen interest in problems of crew accommodation and the welfare of seamen on board ship. Unfortunately Mr. Beattie was not well at the time of his leaving us but he has made good progress and we hope that he will continue to improve in health and have many years of pleasant retirement.

## APPENDIX I

### MEDICAL INSPECTION – From 1st January to 31st December, 1960

GRAVESEND

| | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. medically inspected | 132 | 129 | 184 | 133 | 168 | 163 | 152 | 150 | 117 | 88 | 126 | 147 | 1,689 |
| No. of passengers | 549 | 513 | 963 | 1,024 | 1,116 | 3,851 | 3,034 | 2,346 | 2,702 | 868 | 642 | 1,034 | 18,642 |
| No. of crew | 416 | 447 | 414 | 426 | 470 | 695 | 450 | 614 | 434 | 302 | 677 | 893 | 6,238 |
| No. of Foreign Arrivals | 1,167 | 1,003 | 1,328 | 1,249 | 1,345 | 1,308 | 1,256 | 1,226 | 1,100 | 1,021 | 1,105 | 1,050 | 14,158 |

## APPENDIX II

INFECTIOUS DISEASES

| Disease | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 |
|---|---|---|---|---|---|---|---|---|---|---|
| (a) Cases reported – | | | | | | | | | | |
| Cholera (including suspected cases) | – | – | – | – | – | – | – | – | – | – |
| Plague do. | – | – | – | – | – | – | – | – | – | – |
| Yellow fever do. | – | – | – | – | – | – | – | – | – | – |
| Typhus fever do. | – | – | – | – | – | – | – | – | – | – |
| Smallpox do. | 6 | – | 1 | 1 | 1 | – | – | – | – | 1 |
| Scarlet fever | 3 | – | 2 | – | 2 | 2 | 2 | 1 | 4 | 1 |
| Enteric fever | 7 | 8 | 8 | 6 | 8 | 5 | 3 | 7 | 5 | 1 |
| Measles | 74 | 56 | 97 | 31 | 64 | 67 | 91 | 71 | 63 | 109 |
| German Measles | 67 | 13 | 6 | 7 | 5 | 3 | 7 | 25 | 2 | 8 |
| Diphtheria | – | 2 | – | – | 1 | – | – | 1 | – | 1 |
| Erysipelas | – | – | 1 | – | – | 1 | – | – | – | – |
| Pulmonary tuberculosis | 53 | 67 | 46 | 43 | 35 | 32 | 39 | 45 | 42 | 39 |
| Other diseases (including Chickenpox) | 130 | 128 | 184 | 347 | 368 | 212 | 1,328 | 659 | 313 | 956 |
| TOTALS | 340 | 274 | 345 | 435 | 484 | 322 | 1,470 | 809 | 429 | 1,116 |
| (b) Admitted to Hospital – | | | | | | | | | | |
| Cholera (including suspected cases) | – | – | – | – | – | – | – | – | – | – |
| Plague do. | – | – | – | – | – | – | – | – | – | – |
| Yellow fever do. | – | – | – | – | – | – | – | – | – | – |
| Typhus fever do. | – | – | – | – | – | – | – | – | – | – |
| Smallpox do. | – | – | – | 2 | – | – | – | – | – | – |
| Scarlet fever | 1 | – | – | – | – | – | 2 | – | – | – |
| Diphtheria | 1 | – | – | – | – | – | – | 1 | – | 1 |
| Enteric fever | – | 1 | 1 | – | 3 | – | 2 | 3 | 3 | 3 |
| Measles | 12 | 3 | 16 | 21 | 12 | 20 | 35 | 5 | 8 | 10 |
| Mumps | 13 | 4 | 2 | 1 | 10 | 5 | 3 | 7 | – | 9 |
| Dysentery | 1 | 1 | – | 6 | 6 | – | 1 | 4 | 7 | 1 |
| Other diseases (including Chickenpox) | 35 | 35 | 48 | 32 | 53 | 63 | 271 | 114 | 75 | 86 |
| TOTALS | 63 | 44 | 67 | 62 | 84 | 88 | 314 | 134 | 93 | 110 |

## APPENDIX III

### RETURN OF RATS CAUGHT AND DESTROYED DURING THE YEAR 1960.

| | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LONDON DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | 66 | 69 | 63 | 28 | 25 | 53 | 22 | 18 | 18 | 91 | 44 | 47 | 544 |
| Vessels ... ... | – | 3 | – | – | – | – | 9 | – | – | – | – | – | 12 |
| ST. KATHARINE DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | – | – | – | – | – | – | – | – | – | – | – | – | – |
| Vessels ... ... | – | – | – | – | – | – | – | – | – | – | – | – | – |
| SURREY COMMERCIAL DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | 4 | 4 | 10 | – | 4 | – | 2 | 9 | 3 | 1 | 1 | – | 38 |
| Vessels ... ... | 12 | 20 | – | – | – | – | 4 | – | – | 1 | – | 11 | 48 |
| REGENT'S CANAL DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | – | – | – | – | – | 1 | – | – | – | – | – | – | 1 |
| Vessels ... ... | – | – | – | – | – | – | – | – | – | – | – | – | – |
| EAST INDIA DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | 4 | – | – | 1 | – | 2 | – | – | – | – | 3 | – | 10 |
| Vessels ... ... | – | – | – | – | – | – | – | – | – | – | – | – | – |
| WEST INDIA DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | 13 | 19 | 28 | 6 | 4 | 8 | 24 | 25 | 30 | 20 | 16 | 10 | 203 |
| Vessels ... ... | – | 3 | 34 | 5 | – | 15 | 18 | 14 | 4 | – | – | 79 | 172 |
| MILLWALL DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | 21 | 35 | 21 | 11 | 4 | 9 | 9 | 4 | 11 | 10 | – | 11 | 146 |
| Vessels ... ... | – | – | – | 3 | – | – | – | – | – | – | – | – | 3 |
| ROYAL VICTORIA DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | 28 | 44 | 33 | 22 | 44 | 122 | 22 | 37 | 43 | 66 | 35 | 10 | 406 |
| Vessels ... ... | 9 | – | 2 | 13 | – | – | 21 | 42 | – | 13 | 6 | 10 | 116 |
| ROYAL ALBERT DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | 3 | 14 | 6 | 31 | 16 | 20 | 13 | 28 | 21 | 33 | 13 | 9 | 207 |
| Vessels ... ... | 9 | 29 | 4 | 5 | 28 | 6 | 12 | 33 | 17 | 19 | 41 | 22 | 225 |
| KING GEORGE V. DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | 5 | 2 | 8 | 7 | 3 | 2 | 1 | 7 | 4 | 2 | 5 | 6 | 52 |
| Vessels ... ... | – | – | 9 | 16 | 20 | – | 3 | – | 2 | 3 | 10 | 3 | 66 |
| TILBURY DOCK— | | | | | | | | | | | | | |
| Warehouses... ... | 21 | 15 | 28 | 10 | 19 | 20 | 3 | 12 | 23 | 45 | 27 | 2 | 225 |
| Vessels ... ... | 75 | 86 | 14 | 128 | 75 | 106 | 84 | 146 | 67 | 8 | 51 | 490 | 1,330 |
| RIVER— | | | | | | | | | | | | | |
| Vessels ... ... | 56 | 25 | 34 | 32 | 44 | 152 | 28 | 55 | 58 | 51 | 40 | 55 | 630 |
| TOTALS ... ... | 326 | 368 | 294 | 318 | 286 | 416 | 275 | 430 | 301 | 363 | 292 | 765 | 4,434 |

## APPENDIX IV

### General Summary and Analysis of the Sanitary Inspections, etc., in the Port of London for the year ended 31st December, 1960

| | |
|---|---|
| **FOREIGN GOING** | |
| *Steam –* | |
| Inspected ... ... ... ... ... | 11,165 |
| Defective ... ... ... ... ... | 136 |
| To be cleaned ... ... ... ... | 284 |
| *Sail –* | |
| Inspected ... ... ... ... ... | Nil |
| Defective ... ... ... ... ... | Nil |
| To be cleaned ... ... ... ... | Nil |
| **COASTWISE** | |
| *Steam –* | |
| Inspected ... ... ... ... ... | 1,123 |
| Defective ... ... ... ... ... | 2 |
| To be cleaned ... ... ... ... | 7 |
| *Sail –* | |
| Inspected ... ... ... ... ... | Nil |
| Defective ... ... ... ... ... | Nil |
| To be cleaned ... ... ... ... | Nil |
| **INLAND NAVIGATION** | |
| *Steam –* | |
| Inspected ... ... ... ... ... | 96 |
| Defective ... ... ... ... ... | 2 |
| To be cleaned ... ... ... ... | 2 |
| *Sail –* | |
| Inspected ... ... ... ... ... | 1 |
| Defective ... ... ... ... ... | Nil |
| To be cleaned ... ... ... ... | Nil |
| *Lighters –* | |
| Inspected ... ... ... ... ... | 468 |
| Defective ... ... ... ... ... | Nil |
| To be cleaned ... ... ... ... | 3 |
| **CANAL BOATS** | |
| Inspected ... ... ... ... ... | 175 |
| Defective ... ... ... ... ... | 34 |
| To be cleaned ... ... ... ... | 27 |
| **SHORE PREMISES** | |
| Inspected ... ... ... ... ... | 10,112 |
| Defective ... ... ... ... ... | 111 |
| To be cleaned ... ... ... ... | 127 |
| Sick Seamen referred to Hospital by Port Health Inspectors ... ... ... | 45 |

| *Inspections* | | |
|---|---|---|
| Total Inspections 1st January to 31st December 1960:– | | |
| Foreign Going ... | 11,165 | |
| Coastwise ... ... | 1,123 | |
| Inland Navigation ... | 565 | |
| Shore Premises ... | 10,112 | |
| Total ... ... | 22,965 | |
| Number of Vessels inspected in the Launches:– | | |
| "Alfred Roach" "Howard Deighton" | 580 | |
| "Frederick Whittingham" "Alfred Robertson" | 1,189 | |
| In Docks, etc. ... | 11,084 | |
| Shore Premises ... | 10,112 | |
| TOTAL ... | 22,965 | |

| *Dock and River* | *No.* |
|---|---|
| London and St. Kats. | 1,122 |
| Regent's Canal ... | 473 |
| Surrey Commercial ... | 1,416 |
| East India ... ... | 252 |
| West India ... ... | 1,248 |
| Millwall ... ... | 701 |
| Royal Albert ... | 1,147 |
| Royal Victoria ... | 840 |
| King George V. ... | 799 |
| River–Upper ... | 580 |
| River–Middle ... | 709 |
| River–Lower ... | 480 |
| River–Medway ... | 1,204 |
| Tilbury ... ... | 1,882 |
| Total Vessels... | 12,853 |
| Shore Premises | 10,112 |
| TOTAL ... | 22,965 |

| *Nationalities* | *No.* |
|---|---|
| American (U.S.A.) ... | 127 |
| Argentinian ... ... | 31 |
| Belgian ... ... ... | 77 |
| Brazilian ... ... ... | 13 |
| British ... ... ... | 7,537 |
| Bulgarian ... ... ... | 12 |
| Costa Rican ... ... | 12 |
| Danish ... ... ... | 238 |
| Dutch ... ... ... | 1,296 |
| Eire ... ... ... | 5 |
| Finnish ... ... ... | 219 |
| Formosa ... ... ... | 1 |
| French ... ... ... | 76 |
| German ... ... ... | 920 |
| Ghana ... ... ... | 8 |
| Greek ... ... ... | 123 |
| Guatamala ... ... ... | 1 |
| Icelandic ... ... ... | 9 |
| Indian ... ... ... | 43 |
| Iranian ... ... ... | 4 |
| Israeli ... ... ... | 32 |
| Italian ... ... ... | 62 |
| Japanese ... ... ... | 56 |
| Kuwait ... ... ... | 3 |
| Lebanese ... ... ... | 15 |
| Liberian ... ... ... | 112 |
| Nicaragua ... ... ... | 1 |
| Nigerian ... ... ... | 13 |
| Pakistan ... ... ... | 17 |
| Panamanian ... ... | 34 |
| Polish ... ... ... | 41 |
| Portuguese ... ... | 15 |
| Russian ... ... ... | 98 |
| Spanish ... ... ... | 94 |
| Swiss ... ... ... | 6 |
| Swedish and Norwegian ... | 1,379 |
| Turkish ... ... ... | 32 |
| Yugo Slavian ... ... | 91 |
| Total Vessels ... | 12,853 |
| Shore Premises ... | 10,112 |
| TOTAL ... | 22,965 |

## APPENDIX V

### DOCKS WITHIN THE JURISDICTION OF THE PORT HEALTH AUTHORITY

| *Dock Group* | *Docks* | *Water Area Acres* | *Lineal Quayage Miles* |
|---|---|---|---|
| I | London ... ... ... ... ... | 34 | 3 |
| | St.Katharine ... ... ... ... ... | 10 | 1 |
| | Regent's Canal ... ... ... ... | 11 | ½ |
| II | Surrey Commercial ... ... ... ... | 135 | 8 |
| III | West India ... ... ... ... ... | 97 | 4 |
| | East India ... ... ... ... ... | 23 | 1 |
| | Millwall ... ... ... ... ... | 35 | 2 |
| IV | Royal Victoria ... ... ... ... | 85 | 4 |
| | Royal Albert ... ... ... ... ... | 84 | 3 |
| | King George V ... ... ... ... | 64 | 3 |
| V | Tilbury ... ... ... ... ... | 106 | 4 |

The River distance between the Western and Eastern limits of the Port is about 68½ miles.

### POWERS

The principal Acts of Parliament and Statutory Instruments affecting the work of the Port Health Authority of the Port of London are :–

ABATEMENT OF NUISANCES AND REMOVAL OF REFUSE

Public Health (London) Act, 1936

ADMINISTRATION

Public Health (London) Act, 1936
Order of the Local Government Board dated 30th June 1898, assigning further powers to the Port Sanitary Authority of London
Sanitary Inspectors (Change of Designation) Act, 1956
Public Health Officers Regulations, 1959 S.I. No. 962

AIRCRAFT

Public Health (Aircraft) Regulations, 1952 and 1954. S.I. 1952, No. 1410; 1954, No. 674

ALIENS

Aliens Order, 1953, S.I. No. 1671
Ministry of Health Instructions to Medical Inspectors, 1955

ANIMALS

Export Cattle Protection Order, 1957, S.I. No. 170
Export Cattle Protection (Amendment) Order. 1957. S.I. No. 1254

CANAL BOATS

Public Health Act, 1936

CONSTITUTION OF THE AUTHORITY

Public Health (London) Act, 1936

CREW ACCOMMODATION

Public Health (London) Act, 1936
Merchant Shipping (Crew Accommodation) Regulations, 1953. S.I. No. 1036; 1954 S.I. No. 1660

DANGEROUS DRUGS

Dangerous Drugs Regulations, 1953

FERTILISERS AND FEEDING STUFFS

Fertilisers and Feeding Stuffs Act, 1926
Fertilisers and Feeding Stuffs Regulations, 1960. S.I. No. 1165

FOOD

Public Health (Preservatives, etc. in Food) Regulations, 1925 to 1948. S.R. & O. 1925, No. 775; 1926, 1557; 1927, No. 577; 1940, No. 633; 1948, No. 1118
Public Health (Imported Milk) Regulations 1926. S.R. & O. No. 820.
Public Health (Imported Food) Regulations, 1937 and 1948. S.R. & O. 1937, No. 329; S.I. 1948, No. 886.

FOOD *(continued)*

Food and Drugs (Whalemeat) Regulations, 1949 and 1950. S.I. 1949, No. 404; 1950, No. 189
Food and Drugs Act, 1955
Colouring Matter in Food Regulations, 1957. S.I. No. 1066
Antioxidant in Food Regulations, 1958. S.I. No. 1454.
Fluorine in Food Regulations, 1959. S.I. No. 2106
Arsenic in Food Regulations, 1959. S.I. No. 831; 1960. S.I. No. 2261.
Food Hygiene (Docks, Carriers, etc.) Regulations, 1960. S.I. No. 1602.
Food Hygiene (General) Regulations, 1960. S.I. No. 1601.
Meat (Staining and Sterilization) Regulations, 1960. S.I. No. 1268.

FUMIGATIONS

Hydrogen Cyanide (Fumigation of Ships) Regulations, 1951. S.I. No. 1760.
Hydrogen Cyanide (Fumigation of Buildings) Regulations, 1951. S.I. No. 1759

HOUSEBOATS

Public Health (London) Act, 1936
City of London (Various Powers) Act, 1933, Part III. Sections 6 and 7

INFECTIOUS DISEASE

Public Health (London) Act, 1936
Public Health (Ships) Regulations, 1952 and 1954. S.I. 1952, No. 1411; S.I. 1954, No. 675
Public Health (Infectious Disease) Regulations, 1953. S.I. No. 299

RATS AND MICE

Public Health (Ships) Regulations, 1952 and 1954. S.I. 1952, No. 1411; S.I. 1954, No. 675
Prevention of Damage by Pests Act, 1949
Prevention of Damage by Pests (Application to Shipping) Order, 1951. S.I. No. 967
Prevention of Damage by Pests (Application to Shipping) (Amendment No. 2) Order, 1956
Poison Rules, 1958

SHELLFISH

Public Health (Shellfish) Regulations, 1934, S.R. & O. No. 1342.
Order dated 23rd April 1936 made by the Port Health Authority under the Public Health (Shellfish) Regulations, 1934 in respect of a "prescribed area" in Essex
Order dated 25th July 1957 made by the Port Health Authority under the Public Health (Shellfish) Regulations, 1934 in respect of a "prescribed area" in Kent
Medway (Shellfish) Regulations, 1935, S.R. & O. No. 1221

SMOKE ABATEMENT

Public Health (London) Act, 1936
Clean Air Act, 1956
Dark Smoke (Permitted Periods) Regulations, 1958. S.I. No. 498
Dark Smoke (Permitted Periods) (Vessels) Regulations, 1958, S.I. No. 878

## BYE-LAWS

Bye-laws have been made by the Port Health Authority:

1. For preventing nuisances arising from barges or vessels carrying offensive cargoes.
2. For removing to hospital any person suffering from dangerous infectious diseases, and for the keeping therein of such persons as long as may be deemed necessary.
3. With respect to houseboats used for human habitation within the limits of the Port of London.

## PUBLICATIONS OF THE PORT HEALTH AUTHORITY

Corporation of London as the Port Health Authority of the Port of London: A Summary of Powers and Duties.

Clean Food Handling.

Social Services: Information as to National and Voluntary Organisations ready to assist the seafarer and his family.