

[Report 1899] / Medical Officer of Health, Cardiff Port Sanitary Authority.

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DC 453(2) CARDIFF

With the Medical Officer of Health's Compliments.

CARDIFF
PORT SANITARY AUTHORITY.

ANNUAL REPORT

FOR THE YEAR 1899.

BY

EDWARD WALFORD, M.D., D.P.H., CAMB.,

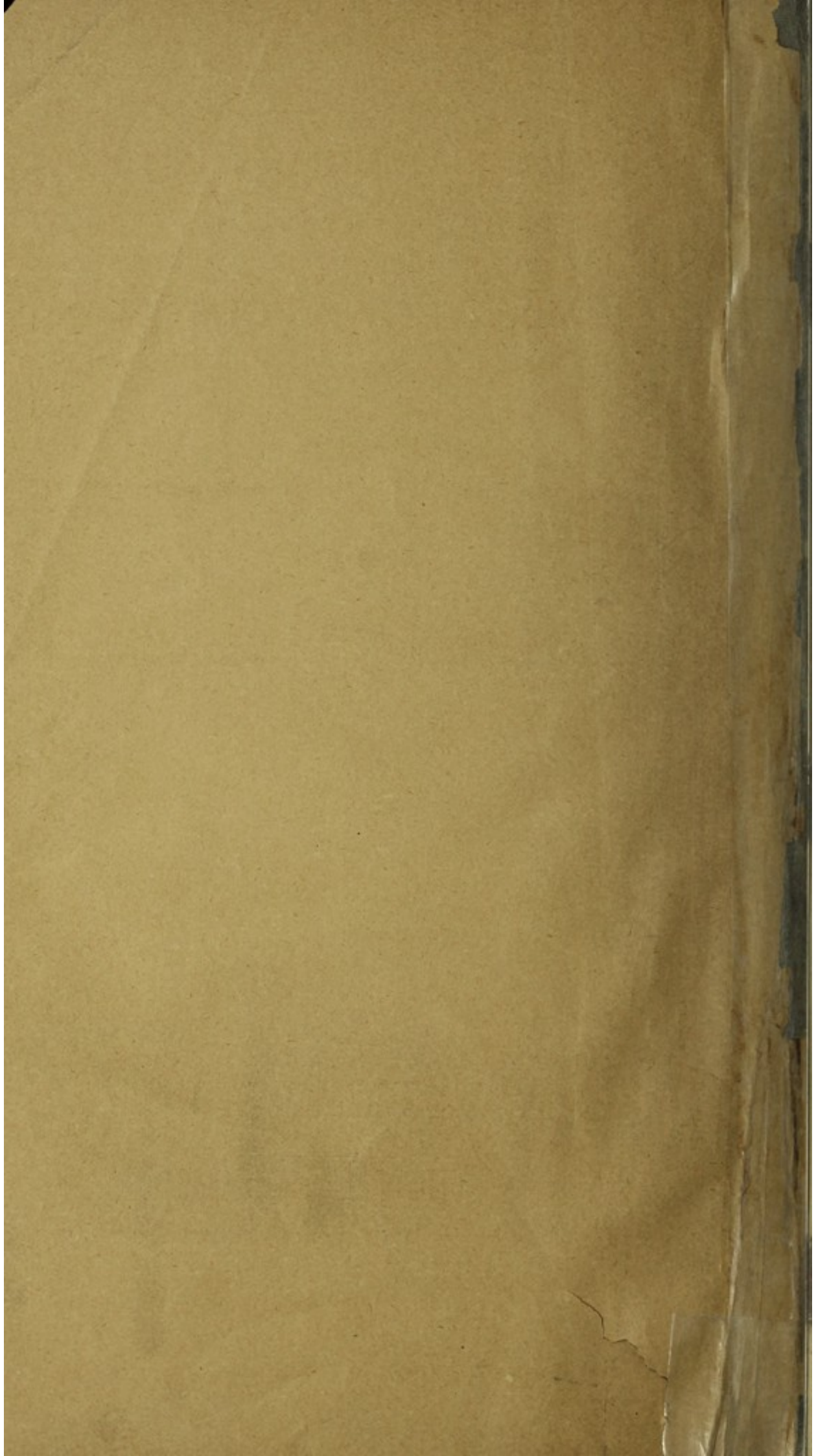
MEDICAL OFFICER OF HEALTH.



Printed by Order of the Sanitary Authority.

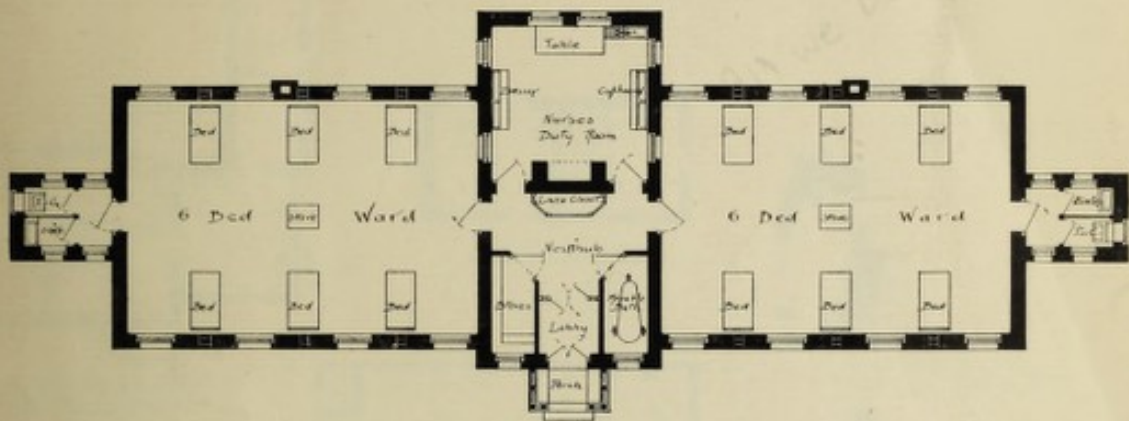
CARDIFF:
TUDOR PRINTING WORKS.

1900.

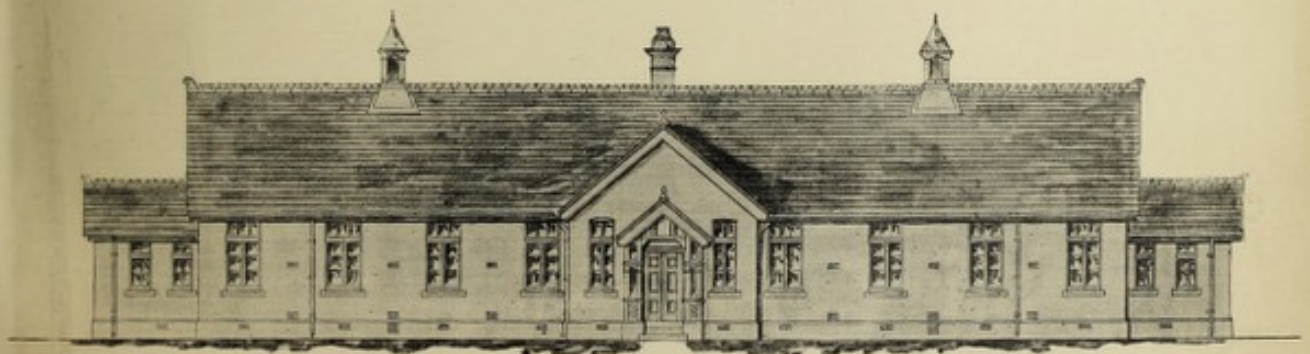


CARDIFF PORT SANITARY AUTHORITY.

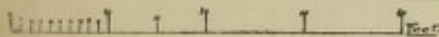
HOSPITAL AT FLAT HOLM ISLAND.



— Ground Plan —

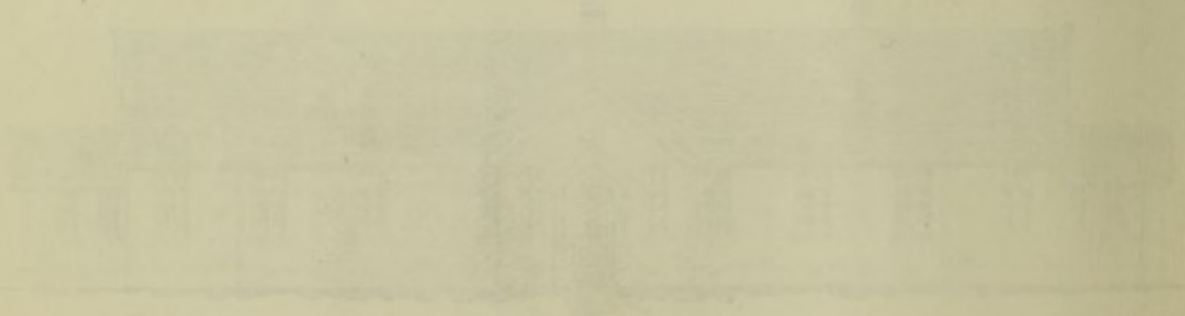
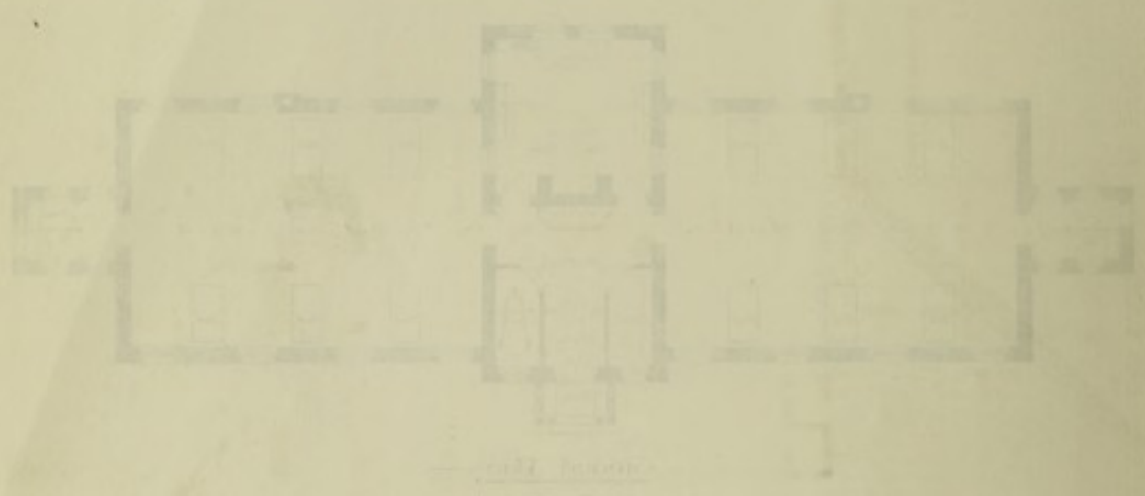


— Front Elevation —

Scale  Feet

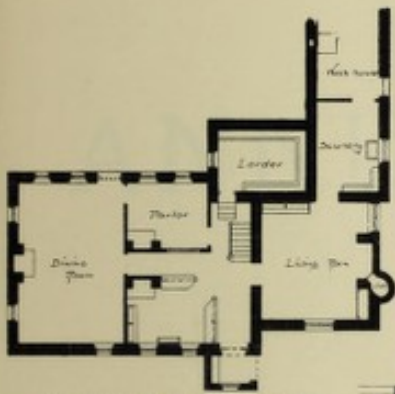
CARDIFF PORT SANITARY AUTHORITY

HOSPITAL AT FLAT HOLM ISLAND.

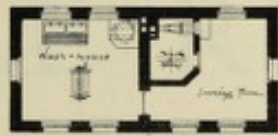


Scale 1/4" = 10' - 0"

— CARDIFF PORT SANITARY AUTHORITY. —
 — HOSPITAL on FLAT HOLM ISLAND. —



— Ground Plan of Messes
 — for Caretaker & Staff. —



— Plan of Larder. —



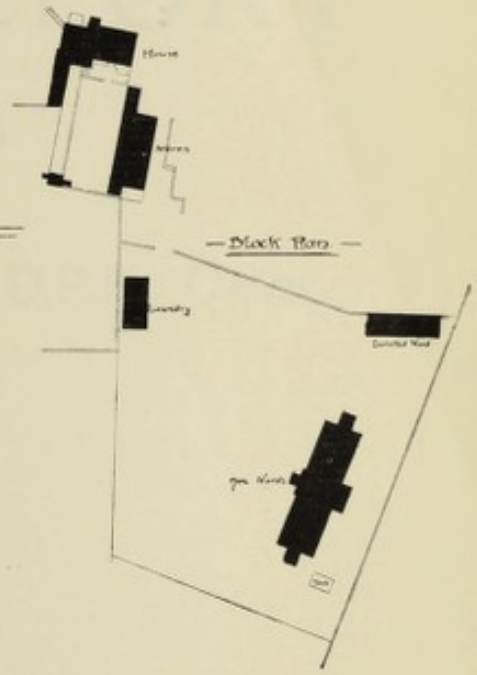
— Plan of Isolated Ward. —



— Chamber Plan. —

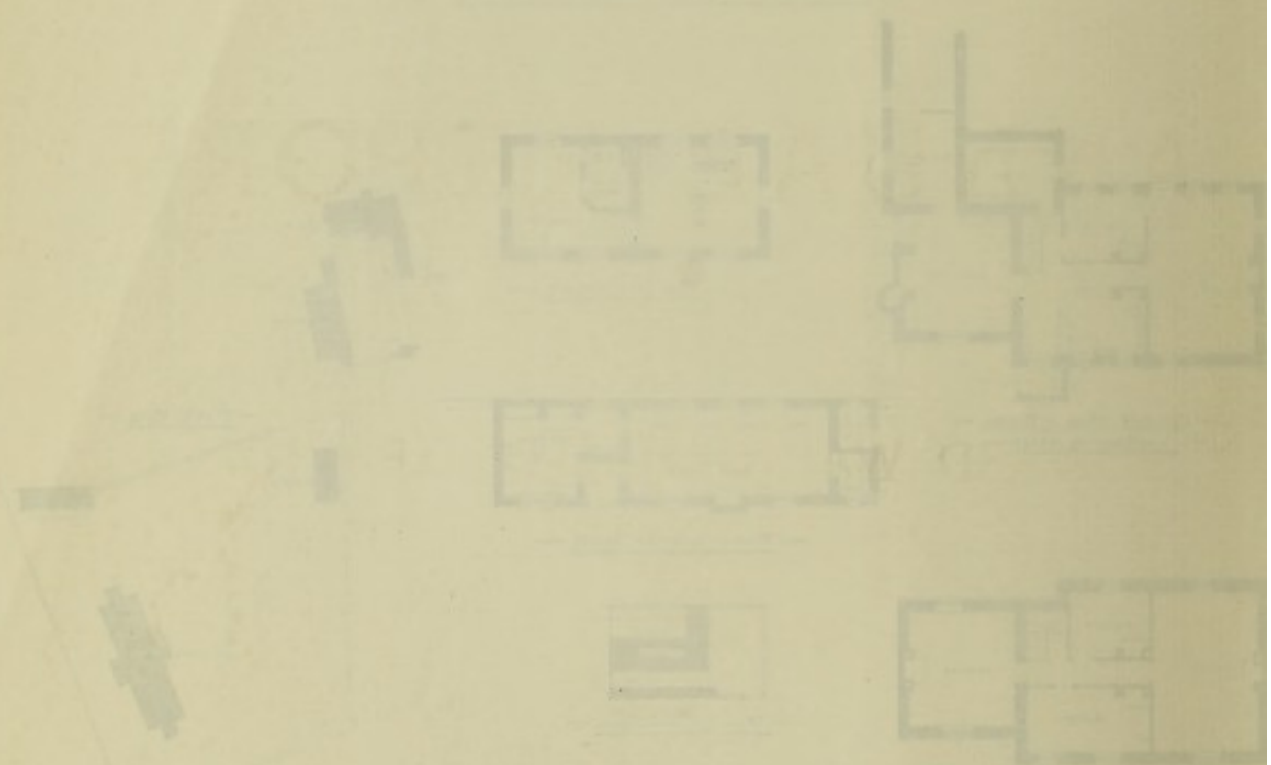


— Plan of Crematorium. —



— Block Plan. —

— General Plan of the University —



With the Medical Officer of Health's Compliments.

CARDIFF
PORT SANITARY AUTHORITY.

ANNUAL REPORT

FOR THE YEAR 1899.

BY

EDWARD WALFORD, M.D., D.P.H., CAMB.,

MEDICAL OFFICER OF HEALTH.



Printed by Order of the Sanitary Authority.

CARDIFF :
TUDOR PRINTING WORKS.

1900.

Health and Port Sanitary Committee.

Mayor :

COUNCILLOR S. A. BRAIN, J.P.

Chairman :

ALDERMAN T. WINDSOR JACOBS, J.P.

ALDERMAN P. W. CAREY, J.P.	COUNCILLOR R. HUGHES, J.P., <i>Deputy Chairman.</i>
„ J. RAMSDALE, J.P.	„ Hy. WHITE, J.P.
„ Sir T. MOREL, Kt., J.P.	„ J. MUNN.
COUNCILLOR J. JENKINS, J.P.	„ C. A. J. WARD.
„ T. ANDREWS, J.P.	„ W. H. ALLEN.
„ W. S. CROSSMAN.	„ LEWIS MORGAN.

Medical Officer of Health's Department.

Medical Officer of Health :

EDWARD WALFORD, M.D., D.P.H.

Chief Inspector of Nuisances :

DAVID JENKINS, CERTIFICATE SANITARY INSTITUTE.

Assistant Inspectors :

F. S. REES, CERTIFICATE SANITARY INSTITUTE.

S. J. HOLBOURN, CERTIFICATE SANITARY INSTITUTE.

Clerk :

W. H. ALDERMAN.

Cardiff Port Sanitary Authority.

TOWN HALL,
CARDIFF.

TO THE CHAIRMAN AND MEMBERS OF THE CARDIFF PORT SANITARY AUTHORITY.

GENTLEMEN,—

I have the honour to submit to you my Annual Report for the year 1899.

The Port Sanitary District of Cardiff was constituted in the year 1882, by a Provisional Order of the Local Government Board, which was subsequently confirmed by Parliament.

In this Order the boundaries of the District are defined as follows :—

“So much of the Port of Cardiff as lies between the River Rumney and
“Lavernock Point; together with the waters of the said Port within
“such limits, and the place for the time being appointed as the Customs
“Boarding Station for such part of the said Port, and every other
“place for the time being appointed for the mooring or anchoring
“of ships for such part of the said Port, under any regulations for
“the prevention of the spread of disease issued under the authority
“of the Statutes in that behalf; and the watersides, docks, basins,
“and creeks of and belonging to such part of the said Port.”

By a Provisional Order, dated 27th July, 1893, the limits of Jurisdiction of the Cardiff Port Sanitary Authority were extended, and on the 15th September, 1894, an Order of the Board was issued permanently constituting the Authority. This Order came into operation on the 9th November, 1894, and contains the following provisions :—

SECTION I.—CONSTITUTION OF PORT SANITARY AUTHORITY.

ARTICLE 1.—This Order shall come into operation on the Ninth day of November, One Thousand Eight Hundred and Ninety-four, unless it shall become Provisional, and until this Order comes into operation the said Order dated the Twenty-seventh day of July, One Thousand Eight Hundred and Ninety-three, shall continue in force.

ARTICLE 2.—The Mayor, Aldermen, and Burgesses of the said Borough of Cardiff, acting by the Council, as the said Urban Sanitary Authority, shall be permanently constituted the Port Sanitary Authority for the part of the said Port of Cardiff, hereinafter described.

ARTICLE 3.—The Port Sanitary Authority may from time to time appoint committees consisting of Members of such Authority for the exercise of any powers which, in the opinion of such Authority, can be properly exercised by committees, but the acts of every such committee shall, unless otherwise directed by the Port Sanitary Authority, be submitted to such Authority for approval.

Provided that a committee so appointed shall in no case be authorised to borrow money or to issue any precept for contributions, or to enter into any contract, and it shall be subject to the provisions of Part IV. of the First Schedule to the Local Government Act, 1894, so far as they are applicable.

SECTION II.—LIMITS OF JURISDICTION.

ARTICLE 4.—The jurisdiction of the said Port Sanitary Authority shall extend to so much of the said Port of Cardiff as is comprised within the following lines, that is to say :—

A straight line drawn due south from the seaward extremity of the common boundary of the Parishes of Sully and Lavernock to the boundary of the said Port and a line following and coincident with the boundary of the said Port from its commencement at the River Rumney to the point at which the straight line firstly hereinbefore mentioned meets such boundary ;

together with the water of the said Port of Cardiff within such limits, and the place or places for the time being appointed as the Customs Boarding Station or Stations for such part of the said Port, and every other place for the time being appointed for the mooring or anchoring of ships for such part of the said Port under any regulations for the prevention of the spread of diseases issued under the authority of the Statutes in that behalf, and the docks, basins, harbours, creeks, rivers, channels, roads, bays, and streams, belonging to such part of the said Port.

SECTION III.—ASSIGNMENT OF POWERS, &c.

ARTICLE 5.—For the purpose of this Order the following Section of The Public Health Act, 1875, the Public Health (Officers) Act, 1884, the Public Health (Ships, &c.) Act, 1885, the Public Health (Members and Officers) Act, 1885, and the Public Health Acts Amendment Act, 1890, shall apply ; and the Port Sanitary Authority shall have, exercise, perform, and be subject to, all the powers, rights, duties, capacities, liabilities, and obligations, of an Urban Sanitary Authority under the same Sections, so far as those Sections are applicable to waters within the jurisdiction of such Port Sanitary Authority, or to ships coming or being within the said jurisdiction, or to persons upon any such ship, or brought by any such ship within the said jurisdiction, or to goods or things upon any such ship, or to goods or things landed from any such ship, and being within the said jurisdiction, and which in the opinion of the said Authority or their Medical Officer of Health requires to be disinfected or destroyed ; namely :

Of the Public Health Act, 1875 :—

Section 70, relating to polluted water.

Sections 91 to 111, both inclusive, relating to Nuisances.

Sections 120 to 133, both inclusive, relating to Infectious Diseases and Hospitals.

Sections 134 to 140, both inclusive, as to the prevention of Epidemic Diseases.

Sections 141 and 142, relating to Mortuaries.

Sections 173 and 174, relating to Contracts.

Sections 175, 176, and 177, relating to Purchase of Lands.

Sections 179, 180, and 181, relating to Arbitration.

Sections 182 to 186, both inclusive, and Section 188, relating to Bye-Laws.

Section 189 (except as regards the Offices of Surveyor and Collector),
Sections 191 to 196, both inclusive, and Sections 197, 198, 205, and
206, relating to Officers and Conduct of Business of Local Authorities.

Sections 236 to 239, both inclusive, relating to Mortgages.

Sections 245, 247, (as amended by the District Auditors Act, 1879), 249,
and 250, relating to Audit.

Sections 241, and 253 to 258, both inclusive, and Section 269 (as amended
by the Summary Jurisdiction Act, 1884), relating to Legal Proceedings.

Section 278, relating to Settlement of Disputes as to Boundaries.

Sections 299 to 302, both inclusive, relating to defaulting Local
Authorities.

Sections 305 to 310, both inclusive, relating to miscellaneous Provisions.

Sections 327, 328, and 329, being Saving Clauses.

Of the Public Health (Officers) Act, 1884 :—

Section 2.

Of the Public Health (Ships, etc.) Act, 1885 :—

Section 2.

Of the Public Health (Members and Officers) Act, 1885 :—

Section 2.

Of the Public Health Acts Amendment Act, 1890 :—

Section 3, so far as it enables an Urban Sanitary Authority to adopt
Section 4S.

Provided as follows :—

(1.) Nothing herein contained shall affect the powers of any Riparian
Authority except as to such waters, ships, persons, and things as
above mentioned.

(2.) In this Article the term "ship" includes vessel or boat.

The regulations of the Local Government Board prescribe, with regard to the
Medical Officer of Health :—

"That he shall prepare an annual report, to be made to the end of
"December in each year, comprising tabular statements so far as he
"shall have been able to obtain the necessary information, of the
"sickness and mortality of persons on ship-board within the District,
"classified according to diseases, ages, and vessels, and a summary
"of the action taken during the year for preventing the spread of
"disease. The report shall also contain an account of the proceedings
"in which he has taken part or advised under the Public Health Act,
"1875, so far as such proceedings relate to conditions dangerous or
"injurious to health, and also an account of the supervision exercised
"by him, or on his advice, for sanitary purposes over places and
"vessels that the Port Sanitary Authority has power to regulate, with
"the nature and results of any proceedings which may have been so
"required and taken in respect of the same during the year."

This report is therefore made in accordance with the above quoted regulations.

The floating population of the district is roughly estimated at 7,000 persons, and is contained for the most part in the following docks :—

	West Bute Dock.	East Bute Dock.	Roath Dock.	Penarth Dock.	Penarth Tidal Harbour.	
Width of sea gate...	45ft.	57ft.	80ft.	60½ft.		Width of sea gate
Basin ...	300ft. by 200ft.	380ft. by 250ft.	1,000ft. by 500ft.	400ft. by 330ft.		Basin
Lock ...	152ft. by 36ft.	220ft. by 57ft. Sea lock. 200ft. by 50ft. Inner lock.	350ft. by 80ft. Sea lock. 600ft. by 80ft. Inner lock.	270ft. by 60½ft.		Lock
Dock ...	4,000ft. by 200ft.	{ 3,350ft. by 500ft. 1,000ft. by 300ft. Total length 4,350ft.	2,400ft. by 600ft.	2,100ft. by 370ft.	First reach 4,600ft. by 600ft. Total length 13,000ft.	Dock
Depth of water in Dock	19ft. and 13ft. 6in.	25ft.	30ft. & 36ft.	25ft. & 35ft.	First reach 30ft.	Depth of water in dock
Depth of water on sill (spring tide)	28ft. 8½in.	31ft. 8½in.	36ft.	35ft.		Depth of water on sill (spring tide)
Do. do. (neap tide)	18ft. 8½in.	21ft. 8½in.	26ft.	25ft.		Do. do. (neap tide)
No. of coal staiths for shipment of coal	12	19	13 tips and 11 coaling cranes	14	9	No. of coal staiths for shipment of coal
Water area ...	19½ Acres of dock.	Basin, 3 acres. Dock, 46¼ acres.	Basin, 12 acres. Dock, 33 acres.	Basin, 3 acres. Dock, 25 acres		Water area

TABLE I.

YEARS.	NUMBER OF VESSELS.		Total No. of vessels foreign and coastwise.	TONNAGE.		Total tonnage, foreign and coastwise inwards.
	Foreign.	Coastwise.		Foreign.	Coastwise.	
1847	933	5,787	6,420	77,164	367,804	444,968
1848	964	6,522	7,485	145,772	426,437	572,199
1849	1,182	6,166	7,344	182,981	397,892	580,373
1850	1,366	6,314	7,680	236,383	429,893	655,376
1851	1,387	6,490	7,877	260,916	449,753	710,669
1852	1,711	6,212	7,923	331,389	431,696	763,080
1853	2,113	6,200	8,313	428,403	447,836	876,239
1854	2,688	6,304	8,992	502,951	461,115	964,066
1855	2,720	5,662	8,382	607,136	415,781	1,022,817
1856	3,106	6,018	9,124	688,477	446,442	1,134,219
1857	3,082	6,256	9,388	752,366	453,009	1,205,345
1858	2,969	6,406	9,375	650,344	487,978	1,138,322
1859	3,274	6,888	10,262	786,118	548,631	1,334,749
1860	3,528	7,379	10,907	911,442	609,064	1,520,506
1861	3,603	7,933	11,536	879,778	675,355	1,555,133
1862	4,292	7,971	12,263	1,047,400	692,197	1,739,597
1863	4,622	7,715	12,337	1,135,090	684,009	1,819,099
1864	4,146	7,768	11,914	1,120,754	655,287	1,776,041
1865	3,879	7,678	11,557	1,127,560	662,723	1,780,283
1866	4,335	7,573	11,908	1,379,350	646,655	2,026,005
1867	4,466	7,397	11,863	1,456,110	630,438	2,086,548
1868	4,632	6,962	11,594	1,578,619	591,205	2,169,824
1869	4,808	6,995	11,803	1,689,580	607,185	2,385,755
1870	4,736	7,241	11,977	1,786,690	599,440	2,386,133
1871	4,234	6,919	11,153	1,637,725	588,611	2,225,736
1872	4,943	6,994	11,836	1,951,897	600,085	2,552,702
1873	4,694	6,674	11,368	1,920,410	640,089	2,560,499
1874	4,996	6,213	11,176	2,113,987	545,692	2,659,679
1875	4,645	5,541	10,186	1,947,265	493,818	2,441,083
1876	5,111	6,957	12,468	2,367,307	601,240	2,963,547
1877	5,625	6,661	12,286	2,542,210	586,773	3,128,983
1878	5,786	7,138	13,005	2,821,409	613,845	3,335,254
1879	5,761	6,958	12,719	2,944,565	635,613	3,580,178
1880	6,609	7,117	13,726	3,664,576	667,695	4,332,263
1881	5,592	6,853	12,845	3,672,019	705,105	4,377,124
1882	6,032	7,026	13,058	2,151,751	940,836	4,435,293
1883	6,195	7,260	13,455	4,322,849	797,722	5,116,571
1884	6,184	6,823	13,007	4,513,117	785,462	5,298,579
1885	5,990	6,719	12,709	4,563,662	849,512	5,413,174
1886	5,390	6,742	12,132	4,174,950	931,503	5,106,453
1887	5,925	6,531	12,456	4,714,247	919,898	5,634,145
1888	6,179	7,095	13,274	5,148,068	935,694	6,083,762
1889	6,339	7,411	13,750	5,476,773	918,666	6,458,439
1890	4,099	9,672	13,771	3,196,973	3,952,759	7,149,632
1891	4,308	10,415	14,723	3,445,139	4,116,831	7,561,970
1892	3,447	8,770	12,217	2,548,522	2,532,527	5,081,149
1893	3,140	8,861	12,001	2,470,396	2,608,690	5,779,086
1894	3,224	10,543	13,767	2,668,418	3,122,661	5,791,079
1895	3,166	10,150	13,316	2,686,874	2,944,071	5,630,945
1896	3,104	9,652	12,756	3,019,591	3,034,854	6,054,445
1897	3,174	9,933	13,107	3,044,002	2,878,726	5,922,728
1898	2,415	7,771	10,186	1,979,709	2,343,806	4,323,515
1899	3,191	9,373	12,564	3,255,870	3,071,232	6,327,102

INFECTIOUS DISEASES IN THE PORT :—During the year 11 patients have been admitted into the hospitals for infectious diseases belonging to the Cardiff Urban Sanitary Authority. The following table is a statement of the cases and their issue :—

TABLE II.

DATE OF ADMITTANCE 1899.	DISEASE.	CASES ADMITTED.	RESULT.		
			RECOVERED.	DIED.	IN HOSPITAL AT CLOSE OF YEAR.
Jan. 7	Typhoid Fever	1	1		
.. 12	Diphtheria	1	1		
Feb. 13	Typhoid Fever	1	1		
.. 14	Measles	1	1		
.. 14	Typhoid Fever	1	1		
May 12	Measles	1	1		
Sept. 16	Typhoid Fever	1		1	
.. 18	.. ..	1	1		
.. 18	.. ..	1	1		
.. 18	.. ..	1		1	
Dec. 4	.. ..	1		1	
	Total	11	8	3	

HOSPITAL ACCOMMODATION OF THE CARDIFF PORT SANITARY AUTHORITY.

The Port Sanitary Authority has the use of the Sanatorium belonging to the Cardiff Urban Sanitary Authority for the reception of cases of ordinary infectious disease occurring on board vessels in the Port. Ample accommodation for such cases exists, as, when the extension of the hospital which is now being carried out is complete, there will be nearly 200 beds available for the Urban and Port Sanitary Authorities of Cardiff. Cases of Cholera, Yellow Fever, and Plague are dealt with in another way under the regulations of the General Order of the Local Government Board, dated 9th November, 1896, as follows :—

PART I. of the Regulations contains the definition of terms.

PART II. gives power to the Customs Officer to detain vessels suspected to be infected with Cholera, Yellow Fever, or Plague, and requires him to give notice of such detention to the Sanitary Authority.

PART III. requires the Sanitary Authority to fix upon some place where vessels so detained shall be moored, and provides that the Medical Officer of Health shall at

once visit the vessel at the mooring station, for the purpose of ascertaining if it is infected. Power is also given to the Medical Officer of Health to visit and examine any ship suspected to be infected, whether detained by the Customs or not, that is, in the case of Cardiff, before the vessel has entered the docks, and in such case if it is found to be infected the vessel is to be taken to the mooring station already fixed upon. The Medical Officer of Health is required to examine every person on board the infected vessel, and every person certified by him to be suffering from Cholera, Yellow Fever, or Plague shall be removed to the hospital of the Sanitary Authority. No other person is allowed to leave the vessel unless he satisfies the Medical Officer of Health as to his name, intended place of destination, and intended address at such place, in order that this information may be forwarded to the Sanitary Authority of the district in which such intended place of destination is situate. The Regulations provide that the infected vessel shall remain under the supervision of the Medical Officer of Health until every necessary step has been taken to prevent the spread of infection, and details are given as to the destruction or disinfection of infected articles on board.

The Regulations also provide that where a ship has passengers on board who are in a filthy or unwholesome condition, or has come from an infected port, no persons on board such ship shall be allowed to land without giving to the Medical Officer of Health their names and places of destination.

Power is also given to the Sanitary Authority in the case of any such ship to require all water casks and tanks to be emptied and cleansed, and all bilge water to be pumped out in some suitable place before the vessel enters any dock or basin.

By an Agreement between the Cardiff, Barry and Newport Port Sanitary Authorities persons suffering from Cholera, Yellow Fever, or Plague within the districts of these authorities are received into the hospital of the Cardiff Authority on the Flat Holms Island.

The agreement provides that an annual payment shall be made by the Authorities in proportion to the tonnage of vessels entering the several docks, in addition to a weekly payment on account of each patient received into the hospital. The Cardiff Authority undertaking the entire management and control of the hospital.

The new hospital on the island is now complete and ready for use, it consists of one pavilion, containing two wards, and nurses' rooms, bath rooms, lavatories, etc. Each ward contains six beds. In addition to and adjoining the above is a small ward with four beds, formerly used for Cholera patients, making altogether permanent accommodation for sixteen patients. At the same time there is ample space on the island for the erection of temporary hospital accommodation, such as tents, etc., should this be required at any time.

The caretakers reside on the island in a house belonging to the Port Sanitary Authority, and which is used when required for the administration of the hospital. A very complete laundry has been erected within a convenient distance of the new buildings, and also a crematorium for the destruction by burning of the bodies of persons dying in the hospital. An agreement has been made to cremate the bodies of persons dying from the above-mentioned diseases within the districts of the Bristol, Newport and Barry Port Sanitary Authorities. A photograph of this hospital is appended to this report.

PLAGUE.—On the 16th August the Local Government Board sent an intimation to this Port Sanitary Authority that they had received information of an epidemic of Plague at Oporto, and that since July 4th up to the 12th August there had been 25 cases and 4 deaths. The Board advised that special attention should be given to vessels coming from that port. In accordance with this advice, and in consultation with the Chairman of the Health Committee, I directed that the Port Inspectors should attend the tides inspecting vessels from Portuguese ports as they arrived at the Customs Boarding Station, in conjunction with the Customs Officers.

On the 23rd August Dr. Richard Reece, one of the Medical Inspectors of the Local Government Board, visited this port and conferred with the Chairman of the Committee, the Deputy Town Clerk, and the Medical Officer of Health, with respect to the precautions against Plague in this port.

Dr. Reece visited the hospital of the Port Sanitary Authority on the Flat Holm Island and inspected all the arrangements made by your Authority, and at the same time visited the Cardiff Sanatorium, into which infectious cases from the port are received, and expressed himself well pleased with everything done.

At the next meeting of the Health and Port Sanitary Committee it was resolved that the Chairman of this Committee and the Medical Officer of Health be authorised, and empowered, to take any further precautions they may consider necessary (including the temporary engagement of extra Inspectors) to prevent the introduction of the Plague into the town and port.

During the year the following vessels entered the port from Oporto and were dealt with in accordance with the Local Government Board Regulations of November, 1896, relating to Cholera, Yellow Fever, and Plague :—

Name of Vessel.			Date of Arrival.
Britannia	...	...	August 26th
Nova Sympathia	...	...	August 29th
S.S. Bremen	...	...	September 21st
Britannia	...	...	October 23rd
S.S. Brake	...	...	October 27th
Emilia Elvira	...	...	October 30th
S.S. Amicizia	...	...	October 30th
S.S. Sines	...	...	November 11th
S.S. Brenner	...	...	November 13th
Lavora	...	...	November 25th
S.S. Leila	...	...	December 4th
S.S. B. Grainger	...	...	December 28th

The following table gives the number of vessels boarded during the Year ending December 31st, 1899, by the Medical Officer of Health and Inspectors, on account of disease on board during the voyage or at the time of arrival in the District of the Carlisle Port Sanitary Authority:—

TABLE III.

DATE 1899.	TIME.	NAME OF SHIP.	NATION- ALTY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
Jan. 5	4.0 p.m.	s.s. Beryl	British	Valencia <i>via</i> Liverpool	Typhoid Fever	Communication received from Medical Officer of Health, Dundee, to the effect that the Second Mate had arrived at his home in Dundee from Liverpool, and that he was suffering from Typhoid Fever. His cabin was disinfected on arrival at this Port, and no other case of sickness occurred up to the time of sailing.
Jan. 7	3.30 p.m.	Ingomar	Norwegian	Havre	Typhoid Fever	J. Andreassen, A.B., aged 24 years, was reported ill on board, and upon examination I found that he was suffering from Typhoid Fever, and ordered his removal to the Sanatorium. The fore-castle was disinfected, water-tanks emptied and cleansed, and his effects were removed for disinfection. No other case occurred on board up to the time of sailing.
Jan. 12	10.0 a.m.	s.s. Kalman Kiraly	Austrian	Rotterdam	Diphtheria	Giovanni Krejca, Fireman, aged 20 years, was removed to the Sanatorium, suffering from Diphtheria, taking his effects with him. Vessel sailed the same day.

TABLE III.—*continued.*

DATE 1899.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
Feb. 13	11.30 a.m.	s.s. Primate	Norwegian	Bordeaux	Typhoid Fever	Carl Berytson, Donkeyman, age 24 years, was found ill on board, and on the 15th he was certified to be suffering from Typhoid Fever, and was forthwith removed to the Sanatorium. I examined the remainder of crew on board and found them all well. The fore-castles were cleansed and disinfected, and the patient's effects removed for disinfection. Water-tanks were emptied and cleansed and a fresh supply of water taken on board. No other case of sickness occurred up to the time of sailing.
Feb. 14	11.0 a.m.	s.s. Colbert	French	Rouen	Measles	Nicholas Alexis, A.B., aged 25 years, was admitted into the Hamadryad Hospital Ship on the 14th, and was removed to the Sanatorium, suffering from Measles. Vessel sailed the same day.
Feb. 14	5.30 p.m.	s.s. Kingsland	British	Poti <i>via</i> Fleetwood	Typhoid Fever	Leonard Bowerbank, Apprentice, age 19 years, was found ill on arrival at this Port. I found that he was suffering from Typhoid Fever and ordered his removal to the Sanatorium. His berth was fumigated, also his effects removed for disinfection, and a fresh supply of water taken at this Port. No other case of sickness occurred up to time of sailing.
March 9	—	s.s. Carlisle	British	Black Sea <i>via</i> Algiers and Christiana	Small Pox	The Master reported that John Marsden, A.B., aged 21 years, was sent to hospital at Algiers on February 6th, suffering from Small Pox, taking his effects with him. The vessel was fumigated by the Authorities of that Port. All well on arrival at this Port.

TABLE III—continued.

DATE 1899.	TIME.	NAME OF SHIP.	NATION- ALTY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
April 20	6.15 p.m.	s.s. Wennington Hall	British ...	Rangoon <i>via</i> Hamburg	Small Pox ...	The Master reported that W. Tose, Third Mate, age 20 years, was taken ill on March 28th, and on arrival at Hamburg was sent to Hospital. On April 15th J. Hanson, Steward, age 26 years, was taken ill and removed to Hospital, both suffering from Small Pox. Vessel and effects were disinfected by the Authorities at Hamburg. All well on arrival here, names and addresses of crew taken, and the fore-castle and berths were also thoroughly cleansed and painted out at this port.
May 6	3.30 p.m.	Fratelli Gazzolo	Italian ...	Buenos Ayres <i>via</i> Havre	Influenza ...	The Master reported that several members of the crew were suffering from Influenza, and would be medically attended to on board.
May 12	—	s.s. Flying Coot	British ..	Greenock ...	Measles ...	J. Fleming, A.B., was removed to the Sanatorium suffering from Measles. All the rest of crew well.
May 16	11.30 a.m.	s.s. Norman Isles	Norwegian	Shanghai <i>via</i> Akyab and Copenhagen	Dysentery ...	The Master reported that 4 Firemen were taken ill with Dysentery, and on arrival at Akyab were sent to Hospital, where one died. Also from Akyab, on the passage to Suez, 2 other Firemen died from Dysentery and buried at sea. No other case of sickness since, and all well on arrival at this port. Watertanks emptied, cleansed and refilled at Copenhagen.

TABLE III.—*continued.*

DATE 1899.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
May 21	9.30 a.m.	s.s. Needles ...	British ...	Singapore <i>via</i> Port Said and Amsterdam	Small Pox ...	The Master reported, vessel left Singapore March 21st, and on April 1st one lascar was taken ill, and on April 17th another lascar was taken ill, and on arrival at Amsterdam, on April 29th, both men were sent to Hospital suffering from Small Pox. During the vessel's stay in Amsterdam 12 other cases occurred on various dates, and were all removed to Hospital. The remainder of crew were vaccinated, vessel disinfected and thoroughly cleansed, and all the lascars' effects destroyed. Arrived here on May 21st, all well. The ship was visited daily, and no other case occurred up to the time of sailing.
June 10	11.30 a.m.	s.s. Girdleness	British ...	Rosario <i>via</i> Hamburg	Typhoid Fever	The Master reported that D. Murphy, Fireman, age 26 years, was taken ill on the passage from Rosario, and was sent to Hospital on arrival at Hamburg, suffering from Typhoid Fever. Vessel disinfected, and water tanks emptied and cleansed at that port. No other case of sickness occurred.
June 13	5.0 p.m.	s.s. Norham ...	British ...	Ibrail <i>via</i> Portland and Dunkirk	Small Pox ...	The Master reported that Edward Cruddock, Second Mate, age 23 years, was taken ill on May 20th, whilst on the passage from Ibrail, and on arrival at Portland, on June 1st, he was sent to Hospital, suffering from Small Pox. The ship and effects were disinfected and vessel sailed for Dunkirk. Arrived here June 10th, all well. Names and addresses of crew taken, no other case occurred up to the time of sailing.

TABLE III.—continued.

DATE 1899.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
August 9	11.0 a.m.	Nor	Norwegian	Havre	Diarrhœa	On arrival the Master reported that all the members of the crew had suffered more or less from Diarrhœa on the passage from Havre to Cardiff, which was attributed to the drinking water obtained at that port. Water tanks emptied and cleansed, and a fresh supply taken at this port.
.. 17	11.30 a.m.	s.s. Milton	British	Philadelphia <i>via</i> Copenhagen	Typhoid Fever	The Master reported the H. Holland, A.B., aged 35 years, was taken ill August 1st, on the passage from Philadelphia, and on arrival at Copenhagen on August 4th, he was removed to Hospital suffering from Typhoid Fever. Water tanks emptied and fresh supply taken at Copenhagen, and fore-castle disinfected at this port.
.. 19	6 p.m.	s.s. Gladiolus	British	Vera Cruz, New Orleans and Cadiz, <i>via</i> Lisbon	Yellow Fever	On boarding this vessel on arrival the Master reported that W. H. Sanders (late Master), aged 39 years, was taken ill on May 19th, and landed on May 24th at Vera Cruz, suffering from Yellow Fever, taking all his effects with him. Ship was fumigated by the Authorities at that port. All well on arrival here.
Sept. 15	11.0 a.m.	s.s. Pearlmoor	British	Mobile and Halifax <i>via</i> Dordrecht	Malarial Fever	The Master reported that several members of crew have suffered more or less from Malarial Fever during the voyage. All well on arrival at this port.
.. 16		s.s. Centurion	British	Rotterdam	Typhoid Fever	Notification received to the effect that George Mayne, fireman, aged 27 years, was admitted to the Hamadryad Hospital Ship on September 13th, from s.s. Centurion, lying in Barry Dock, and certified on September 15th to be suffering from Typhoid Fever, and forthwith removed to the Sanatorium.

TABLE III.—*continued.*

DATE 1899.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
Sept. 18		Orient ...	Norwegian	Hernosand ...	Typhoid Fever	Notification received to the effect that Otto Carl Anderson, O.S., age 23 years, was admitted to the Hamadryad Hospital Ship on September 13th from Orient, in Barry Dock, and certified on the 18th to be suffering from Typhoid Fever. This ship afterwards put back to Penarth Dock on September 19th, and on the following day Aksel Tranto, A.B., aged 25 years, and Aksel Johansen, A.B., aged 19 years, were found ill on board, and on the 21st Tranto was removed, and on the 23rd Johansen was removed to the Hamadryad Hospital Ship suffering from Typhoid Fever.
Oct 17	4 p.m.	... s.s. Scaw Fell...	British ...	Smyrna <i>via</i> Antwerp	Typhoid Fever and Dysentery	On September 30th C. M. Ericksen, A.B., aged 33 years, was also certified to be suffering from Typhoid Fever, and forthwith removed to the Hamadryad Hospital Ship. These three last cases afterwards removed to Sanatorium. All the effects of the crew were removed for disinfection; vessel fumigated and cleansed, water tanks emptied and cleansed, and a fresh supply taken in. No other case of sickness occurred up to day of sailing, October 6th. On boarding this ship on arrival, the Master reported that Charles Anderson, A.B., aged 37 years, was sent to Hospital at Smyrna, on September 1st, suffering from Typhoid Fever. On September 14th J. Cassent, A.B., aged 29 years, was also sent to Hospital at the same port (nature of sickness not defined), vessel and effects disinfected at that port. Also on September 24th a fireman was sent to Hospital at Algiers suffering from Dysentery. Water tanks were emptied and cleansed and all well on arrival at this port.

TABLE III.—*continued.*

DATE, 1899.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
Oct. 24	12.5 a.m.	s. s. Radnorshire	British	Saigon <i>via</i> Bordeaux	Beri Beri	On arrival at this port the Master reported that 3 members of the crew (Chinamen) were taken ill at Bordeaux suffering from Beri Beri. One died at that port and the other 2 were brought on to this port. They were medically examined by the Medical Officer of Health, but both died within a short time of each other after their arrival at this port. The berths and forecables were disinfected by Cardiff Port Sanitary Authority.
Nov. 14	12.0 noon	s. s. Euidwen	British	Rotterdam	Gastritis	The Master reported that J. Richards (late Master) was sent to hospital at Rotterdam, on October 30th, suffering from Gastritis. All well on arrival at this port.
Nov. 14	5.30 a.m.	s. s. Brinkburn	British	Galveston <i>via</i> Falmouth and Havre	Pneumonia and Typhoid Fever	The Master reported that J. W. Fairweather, 1st Engineer, was sent to Hospital at Falmouth, on October 31st, suffering from Pneumonia, and died following day. Also on arrival at Havre, L. J. Hunter, 2nd Mate, aged 32 years, was sent to hospital suffering from Typhoid Fever. His berth and effects fumigated at this port, and water tanks emptied and cleansed at Havre.
Nov. 16	3.30 p.m.	s. s. Frey	Norwegian	Pensecola <i>via</i> Greenock	Typhoid Fever and Malarial Fever	The Mate reported that O. Falck (late Master) was sent to hospital at Pensecola, on September 20th, suffering from Typhoid Fever. Vessel and effects disinfected by the Authorities at Pensecola. On November 15th, Oscar Lundgren, A.B., was sent to Hamadryad Hospital suffering from slight attack of Malarial Fever.

TABLE III.—continued.

DATE 1899.	TIME.	NAME OF SHIP.	NATION- ALITY.	WHERE FROM.	NATURE OF SICKNESS.	REMARKS.
Nov. 27	12.0 noon.	s.s. Juno	British	Charleston(S.C.) <i>via</i> Bremen	Gastric Fever and Typhoid Fever	The Master reported that H. Mears, A.B., aged 38 years, was sent to Hospital at Charleston, S.C., on September 22nd, suffering from Gastric Fever. On October 12th, George Elliot, fireman, age 28 years, was sent to Hospital at same port suffering from Typhoid Fever, and died on the 16th. On the 18th, O. Olsen, A.B., aged 20 years; J. B. Ashwell, O.S., aged 17 years; and Jno. Frazer, Cook, aged 25 years, were sent to Hospital at the same port suffering from Typhoid Fever. The vessel and effects were disinfected by the Authorities at that port. Water tanks emptied and cleansed at Bremen. No other case of sickness occurred up to time of sailing from this port.
Dec. 1	12.10 p.m.	s.s. Gena	British	Genoa <i>via</i> New Orleans and Antwerp	Gastritis	The Master reported that a member of the crew was sent to Hospital at Genoa on October 16th, suffering from Gastritis. Also, on Nov. 9th, after leaving New Orleans, another member of the crew was taken ill with Gastritis, and died at sea on November 12th. Vessel and effects were disinfected by the Authorities at Antwerp, and water tanks emptied and cleansed.
Dec. 4	—	s.s. Perseveranza	Italian	Genoa	Typhoid Fever	The vessel arrived at this port from Genoa on November 27th. The 1st Engineer, named Angelo Sevaralli, aged 35 years, was reported ill on board and on December 4th he was certified to be suffering from Typhoid and was forthwith removed to the Sanatorium, where he died on December 13th. His effects and berth were disinfected and water tanks emptied and cleansed.
Dec. 16	9 35 a.m.	s.s. Kelvindale	British	River Plate <i>via</i> Dunkirk	Enteritis	On arrival at this port, the 1st mate was reported ill on board. Medical treatment was recommended when it was found that he was suffering from Inflammation of the bowels.

INSPECTION OF SHIPPING.—During the year 1899, 7,170 vessels were inspected, 5,573 were found in a fair or good condition, and 1,597 in a more or less defective or insanitary state.

Two hundred and eighty-five written notices were served, and thirteen hundred and twelve verbal orders were given.

The systematic inspection of shipping in the Bute and Penarth Docks was efficiently performed by the Chief Inspector, David Jenkins, and by the Assistant Inspectors, F. S. Rees and S. J. Holbourn.

The annexed tables will afford evidence of useful work performed by the officers of the Port Sanitary Authority, and will show that the inspection of shipping in the port has resulted in a great improvement in the sanitary condition of the floating population.

The chief defects found on board ship were: defective ventilation, impure water supply defective bulkheads, defective drainage or water-closet accommodation, leaky decks, unlined iron decks, and direct communication between men's berths and water-closets.

As a rule very little difficulty was experienced in obtaining compliance with the requirements of the Inspector.

Shipowners and Masters willingly carry out the recommendations of the Port Sanitary Authority, with the result that the proportion of vessels having sanitary defects, amongst those which frequent this port, has decreased in a most marked manner.

The following table shows the number of vessels, foreign and coastwise, inspected during the year:—

TABLE IV.

				NUMBER INSPECTED.	NUMBER DEFECTIVE.	NUMBER OF ORDERS ISSUED.
FOREIGN	...	}	Steamships	2,371	615	615
			Sailing Ships	523	196	196
			Fishing	—	—	—
				2,894	811	811
COASTWISE	...	}	Steamships	2,905	535	535
			Sailing Ships	1,325	246	246
			Fishing	46	5	5
				4,276	786	786
Total Foreign and Coastwise				7,170	1,597	1,597

The following table shows the number and nationalities of the vessels inspected during the year :—

TABLE V.

NATIONALITY.				STEAM.	SAIL.	TOTAL STEAM AND SAIL.
American	...	...	...	1	—	1
Argentine	...	...	...	1	1	2
Austrian	...	...	...	56	1	57
Belgian	...	...	...	15	1	16
Brazilian	...	...	...	5	—	5
British ...	...	...	...	4,262	1,316	5,578
British American	...	...	...	3	11	14
Danish	...	...	...	30	24	54
Dutch ...	...	...	...	45	3	48
French	...	...	...	209	139	348
German	...	...	...	112	35	147
Greek	...	...	...	63	—	63
Italian	...	...	...	116	26	142
Norwegian	...	...	...	240	184	424
Portuguese	...	...	...	1	7	8
Russian	...	...	...	14	30	44
Spanish	...	...	...	92	20	112
Swedish	...	...	...	83	24	107
Totals				5,348	1,822	7,170

During the year the forecastles, berths, water-closets, etc., in 787 British ships and 253 Foreign ships, respectively, have either been cleansed, painted, or lime-washed.

The following table shows their nationality :—

TABLE VI.

Argentine	...	...	...	...	...	1
Austrian	...	...	...	...	...	11
Belgian	...	...	...	...	...	5
Brazilian	...	...	...	...	...	1
British	...	...	...	...	...	787
British American	...	...	...	...	...	5
Danish	...	...	...	...	...	3
Dutch	...	...	...	...	...	3
French	...	...	...	...	...	74
German	...	...	...	...	...	19
Greek	...	...	...	...	...	14
Italian	...	...	...	...	...	25
Norwegian	...	...	...	...	...	48
Portuguese	...	...	...	...	...	1
Russian	...	...	...	...	...	2
Spanish	...	...	...	...	...	29
Swedish	...	...	...	...	...	12
Total						1,040

The following table shows the number and nationalities of the vessels on which structural defects were detected:—

TABLE VII.

NATIONALITY.	Number of Ships.	Defective Side Ports.	Defective Water-closets.	Defective Bulkheads and Floors in Crews' Spaces.	Defective Cable Casings in Crews' Spaces.	Defective or Unlined Iron Decks over Berths.	Defective Stoves and Furnels in Crews' Spaces.	Defective Ventilation.	Defective Ventilation to Deck Water-closets.	Defective and Dirty Water Casks and Tanks.	Defective Lighting.	Defective Ventilators in Crews' Spaces.	Defective Drainage.	Leaky Decks over Berths.	Foul Bilges and Peaks.	Ship's Stores kept in Crews' Spaces.	Foul Accumulations.	Water-closets and Paint Lockers adjoining and ventilating into Berths.	Overcrowding.	CASES.	REMEDIED.
Argentine	1	1	1	2	2
Austrian	8	...	3	1	2	1	1	...	3	11	10
Belgian	2	2	2	2
British ...	523	147	59	28	31	58	61	18	44	32	42	29	7	41	19	55	43	4	718	684	
British American...	2	...	3	2	5	5
Danish ...	8	1	2	1	3	1	1	1	10	8
Dutch ...	5	2	...	1	1	1	...	1	1	1	1	9	8
French...	62	6	1	9	3	2	3	22	3	7	38	...	1	9	2	11	1	...	118	115	
German	19	3	3	2	...	3	...	...	13	1	1	...	...	1	...	1	...	1	29	21
Greek ...	10	3	...	1	...	2	4	...	...	...	...	1	...	...	1	...	...	...	12	11
Italian ...	25	3	1	6	1	2	3	5	7	4	4	...	...	...	1	3	1	...	41	34
Norwegian	90	8	12	5	3	...	2	23	39	5	24	5	...	6	...	2	3	1	138	132	
Portuguese	2	1	1	2	1
Russian	16	...	1	...	...	...	1	3	10	...	6	2	...	1	...	1	1	...	26	22
Spanish	15	1	2	3	1	...	...	1	2	2	3	...	...	...	...	6	1	...	23	20
Swedish	15	2	1	1	...	2	1	3	8	...	3	...	...	...	...	...	...	...	21	20
Total	864	176	88	57	40	71	77	78	132	53	124	37	8	60	25	81	53	6	1167	1095	

The following table shows the quantity of Frozen Meat that has been landed at this Port during the year :—

TABLE VIII.

DATE. 1899.	NAME OF SHIP.	WHERE FROM.	BEEF.		MUTTON.			Lambs	Hearts (Boxes & Bags)	S'ndries (Cases)
			Quarters	Hind Quarters	Carcasses	Half Carcasses	Hind Quarters			
Jan. 3	s.s. Zero	River Plate via Liverpool...	...	...	8,700			30	
Feb. 6	s.s. Zephyrus	River Plate via Liverpool...	...	...	7,854			150	
" 6	s.s. Hornby Grange	River Plate via Newcastle	2,000		11,250		4,200	152		
" 17	s.s. Zarate	River Plate via Liverpool...	...	...	3,600				
April 5	s.s. Ovingdean Grange	River Plate via Newcastle	1,108		13,300		5,000		97	
" 17	s.s. Zero	River Plate via Liverpool...	100		4,000			20		
May 5	s.s. Beacon Grange	River Plate via Liverpool...	485		9,920		5,000		120	
" 29	s.s. Zarate	River Plate via Liverpool...	150		5,000					
July 17	s.s. Zuleika	River Plate via Liverpool...	...	20	5,250				10	
" 26	s.s. Amiral Aubé	River Plate via Avonmouth	1,200		14,627		9,000		191	
" 31	s.s. Zero	River Plate via Liverpool...	135		7,000				31	
Aug. 16	s.s. Zephyrus	River Plate via Newcastle	...	523					500	
Sept. 22	s.s. Amiral Baudin	River Plate via Avonmouth	200		14,809		7,000			
Oct. 16	s.s. Elstree Grange	River Plate via Liverpool...	...	80	7,000				60	
" 31	s.s. Zuleika	River Plate via Liverpool...	...	...	16,320				26
Dec. 2	s.s. Amiral Corbét	River Plate via Avonmouth	1,500		13,105		7,000		797	
		Totals	6,958	20	142,258	14,000	23,000	253	412	1,772

IMPORTATION OF FROZEN MEAT.—From the enclosed table it will be seen that the frozen meat trade is, in the port, a large and important industry, and the due inspection of such meat forms an important part of the duty of the Inspectors. In each case the ship carrying the meat was inspected and notice of the destination of the cargo forwarded to the Inspector of Nuisances of the Urban Sanitary Authority, who visits the refrigerators and provision shops.

In this way the meat is kept, as far as possible, under supervision until the time of sale. Altogether, sixteen cargoes of frozen meat arrived in this port during the year.

The following table shows the number of Oxen and Sheep that have been landed at this Port during the year:—

TABLE IX.

Date 1899.	NAME OF SHIP.	Where from.	No. of Cattle.	No. of Sheep.
June 7	s.s. Lord Iveagh ...	Quebec ...	300	151
„ 30	s.s. Lord Charlemont ...	Montreal ...	198	251
July 14	s.s. Lord Iveagh ...	Montreal ...	300	167
Aug. 11	s.s. Lord Charlemont ...	Quebec ...	250	—
„ 22	s.s. Lord Iveagh ...	Montreal ...	298	152
Oct. 2	s.s. Lord Iveagh ...	Quebec ...	304	150
„ 9	s.s. Lord Charlemont ...	Quebec ...	218	287
Nov 13	s.s. Lord Iveagh ...	Montreal ...	299	160
	Totals ...		2,167	1,318

LIGHTERS.

The lighters engaged in carrying grain, etc., in the Docks have been periodically examined, cleansed, limewashed, and repaired, during the year.

CATTLE SHIPS.

During the year 59 vessels which had discharged cattle at other ports, were inspected. Several of these had not had the fittings or manure removed, in each case the fittings were cleansed and limewashed, and the manure disinfected before being allowed to land, and the vessels were also thoroughly cleansed and limewashed.

LEGAL PROCEEDINGS.

February 17th, 1899.—Proceedings were taken against Captain Cozec, of the French vessel “Marie Joseph,” of Auray, for non-compliance with an order of the Port Sanitary Authority to remedy certain Sanitary defects on his vessel. An order was made for the Captain to carry out the necessary work within 24 hours, which was done, the Captain also having to pay costs.

June 1st, 1899.—Proceedings were taken against Captain Chenio of the French vessel "Alcide," of Nantes, for non-compliance with an order of the Port Sanitary Authority to remedy certain Sanitary defects on his vessel. He was fined £5 and costs, in fault of distress one month's imprisonment. An order was also made to carry out the necessary work within two days.

October 12th, 1899.—Proceedings were instituted against Captain Watts, of the British vessel "Amazon," for non-compliance with an order of the Port Sanitary Authority to remedy certain Sanitary defects on his vessel. A summons was issued, but was withdrawn on payment of costs and the Captain promising to carry out the necessary work, which was done.

ARTICLES DESTROYED AS UNFIT FOR FOOD.

July 17th, 1899.—Cargo of British vessel "Morning Star," consisting of 46 tons of potatoes, certified by the Medical Officer of Health as unfit for human consumption, was seized, and an order of the Magistrates was obtained for its destruction.

I have the honour to be, Gentlemen,

Your obedient Servant,

EDWARD WALFORD, M.D.,

Medical Officer of Health.