

Supplement to Government Gazette

O F

W E S T E R N A U S T R A L I A .

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PERTH: FRIDAY, MARCH 24.

[1922.]

The Metropolitan Water Supply, Sewerage and Drainage Act, 1909.

BY-LAWS.

Metropolitan Water Supply, Sewerage,
and Drainage Department,
Perth, 24th March, 1922.

HIS Excellency the Governor in Executive Council has been pleased to approve of the following By-laws which have been duly made by the Minister of Water Supply, Sewerage, and Drainage under the powers conferred by "The Metropolitan Water Supply, Sewerage, and Drainage Act, 1909," to come into operation on the 24th March, 1922; the existing By-laws under the said Act being repealed as from the said date.

G. C. HAYWOOD,
Secretary.

DIVISION I.

INTERPRETATION.

1.—*Interpretation.*

(a.) "Catchment Area" means a Catchment Area constituted by Proclamation under the Act.

(b.) "Cesspit" includes any receptacle for night-soil or for noxious or offensive matter below or above the ground, but does not include any regulation sanitary pan, or any appliance for bacteriolytic treatment of sewage, or other approved receptacle.

(c.) "Domestic Supply." A supply of water for domestic purposes shall not include a supply for cattle or for horses, or for any steam engine or for washing carriages, where such horses or carriages are kept for hire or are the property of any dealer, or for any hotel, inn, trade, manufacturer, or business whatever, or for watering gardens or for fountains or for any ornamental purpose.

(d.) "Feeder" shall mean any watercourse, creek, stream, or other channel with either perennial or intermittent flow whereby water can be conveyed to any reservoir.

(e.) "High-Water Mark" shall mean the level of full supply of any reservoir or feeder thereto.

(f.) "Inspector" shall mean a person appointed by the Minister for the purposes of these By-laws or to administer the said By-laws.

(g.) "Piggery" means any building, enclosure, or yard in which one or more pigs are kept, bred, reared, or fattened for purposes of trade.

(h.) "Private Service." For the purposes of these By-laws "Private Service" includes all the pipes and fittings, and all connections and apparatus of whatsoever nature or kind, and whether used temporarily or otherwise on any part of any premises supplied with water, whether by meter or otherwise, and includes any pipes or fittings the property of the consumer, which are used for conveying water from the mains of the Minister whether situated on the premises of the consumer or otherwise.

(i.) "Public House" includes any house in respect of which a publican's license, an hotel license, an Australian wine and beer license, or wayside house license is held under any Act regulating the sale of intoxicating liquor.

(j.) "The Act" means the Metropolitan Water Supply, Sewerage, and Drainage Act, 1909, and includes any amendments thereof.

(k.) "The Inspector" means an Inspector doing duty in the matter in relation to which the expression is used.

DIVISION II.

BY-LAWS FOR THE PREVENTION OF POLLUTION OF THE CATCHMENT AREAS.

2.—*Scope of By-laws.*

THE By-laws in this Division apply to all Water Reserves and Catchment Areas constituted for the purpose of the Act.

3.—*Cleansing and filling up of Cesspools.*

ALL cesspools existing within a Catchment Area shall be cleansed and filled up to the satisfaction of

the Inspector, within one calendar month after notice, in writing, to that effect has been given to the occupier or owner of the premises concerned.

4.—*Situation of Closets.*

CLOSETS shall not be constructed within fifty yards of high-water mark, and any closet situated within fifty yards of high-water mark shall, within one calendar month after notice to that effect has been given the owner or occupier by the Minister or by the Inspector, be taken down and the cesspit, if such exists, cleansed and a fire made therein, after which the cesspit shall be filled up to the satisfaction of the Inspector, by the owner or occupier of the house to which such closet or cesspit is appurtenant.

5.—*Provision for sufficient number of pans shall be made.*

THE owner or occupier of every house within a Catchment Area shall provide, for the use of the occupants of such house, an earth closet, with a sufficient number of pans approved by the Inspector.

6.—*Construction of Closets.*

(a.) EVERY closet within a Catchment Area shall be of stone, iron, wood, brick, concrete, or combination of two or more of such materials. Each closet shall be supplied with a sufficient number of receptacles, which shall be interchangeable with others in the same district, and which shall be of approved size, shape, and style, and every pan shall be emptied and cleansed once every week or as often as may be required by the Inspector.

(b.) Each dwelling on a Catchment Area shall be provided with a closet and urinal erected in such position as is directed by the Inspector.

(c.) The floor and seat of every closet shall be so constructed that the top of the receptacle shall not be more than one inch below the under side of the seat.

7.—*Removal and re-erection of Closets.*

CLOSETS or urinals already in existence shall, wherever considered necessary by the Inspector, be removed where directed by the Inspector, and such removal or re-erection shall be at the cost of the owner, who shall have the work completed within one calendar month from delivery by Inspector of written notice to owner requiring this to be done.

8.—*Nuisance shall not be caused.*

THE owner or occupier of any house within a Catchment Area shall not permit the contents of any pan used in any closet or urinal to overflow from any cause whatever.

The owner or occupier of any house within a Catchment Area shall not permit any closet or urinal, or pan appertaining thereto, or used by the occupants of such house, to become offensive or a nuisance, and every such owner or occupier, whenever directed, either verbally or in writing, by the Inspector, shall properly and effectively empty and cleanse such closet, urinal, or pan to the satisfaction of the Inspector.

9.—*Disposal of Nightsoil, etc.*

NIGHTSOIL, refuse, and garbage shall be disposed of from time to time as the Minister or the Inspector may direct.

Nightsoil, faecal matter, or refuse shall not be buried within a Catchment Area.

Nightsoil or human urine whether mixed with any other substance or not, or any solution of nightsoil, unless the same has been thoroughly deodorised and disinfected to the satisfaction of the Inspector, shall not be placed, deposited, spread, or permitted to be placed, deposited, or spread, in or upon any land or garden within a Catchment Area, unless written consent thereto has been first obtained from the Minister.

10.—*Disposal of Manure, etc.*

REFUSE, dung, manure, or other offensive matter shall not be deposited or be permitted to be deposited within three hundred yards of high-water mark, or in any place where in the opinion of the Inspector such matter may be washed into any reservoir or any feeder.

11.—*Use of Artificial Manures.*

THE owner or occupier of any house, land, or premises in a Catchment Area shall not use any artificial manure for cultivation purposes, unless the approval of the Minister has been first obtained to the use of the fertiliser intended to be used.

12.—*Situation, etc., of Outbuildings.*

BUILDINGS of any description shall not be used as or constructed for a stable, cowshed, goatshed, sheep-pen, or fowl-house, and any animal or bird shall not be housed or yarded within three hundred yards of high-water mark, or in such position that storm-waters may wash any manure or refuse therefrom into any reservoir or feeder. Every such structure within a Catchment Area shall have attached thereto for containing all liquid and solid manure a water-tight receptacle approved by the Inspector. Land sloping to a feeder on which any such structure stands shall be excavated to a depth of at least twelve inches, and the soil so obtained shall be used as an embankment around the area so excavated. Such work shall be done by and at the expense of the owner or occupier of such premises.

13.—*Cleaning of Out-buildings.*

THE owner or occupier of any stable, cowshed, goatshed, sheep-pen, or fowl-house situated within the Catchment Area shall not allow any dung, manure, or other refuse to accumulate in or near such premises, but shall immediately remove or dispose of same in such manner that it cannot pollute any water flowing, or which may flow into any reservoir or any feeder, and the Inspector may by written notice to the owner or occupier order the immediate removal and disposal of any dung, manure, or other refuse from such premises, and any person omitting to comply with such notice

to the satisfaction of the Inspector shall be guilty of an offence against these By-laws and liable to penalties for breach thereof.

14.—*Deodorants shall be used.*

THE occupier of every house or premises, whether public or private, shall cause to be kept in every closet or privy belonging thereto a box containing either ashes, dry earth, lime, sawdust, carbolic powder, or other disinfectant approved by the Minister or the Inspector, and shall cause all night-soil or other matter deposited in such pan or receptacle in such closet or privy to be immediately deodorised or disinfected with a sufficient quantity of the disinfectant kept in such box.

15.—*Treatment of Nightsoil.*

EVERY Nightman or Contractor shall cause the night-soil removed from any premises to be either rendered inoffensive or treated in a destructor, desiccator, or incinerator, buried in trenches outside the Catchment Area, or disposed of in a manner approved by the Inspector.

16.—*Mode of removal of receptacles.*

THE mode of removal of each receptacle in each closet shall be as follows:—The nightman shall remove each receptacle and at once cover the same with a suitable tight-fitting lid, and upon every such removal shall carefully place a cleansed pan, of the pattern approved by the Minister or the Inspector, in lieu of every pan so removed, and each pan shall be dealt with as hereinafter prescribed, that is to say:—

Each receptacle which shall have been removed from a closet and sealed with a lid, as prescribed in the foregoing clause, shall be removed by the nightman in a cart or vehicle of a pattern to be approved by the Inspector, and the contents of all such receptacles shall be deposited in such place or places as shall from time to time be fixed by the Minister or the Inspector.

The said receptacles shall be emptied and perfectly cleansed once a week at the least or so much more frequently as the Minister or the Inspector may from time to time direct.

17.—*Charges for removal.*

EVERY nightman shall be entitled to charge, unless other arrangements be made, and to receive from the occupier of any premises from which any night-soil, trade, or house refuse shall have been removed, such sum or sums of money as are specified in the contract or approved by the Minister, and shall not ask, demand, or receive more than the sums approved.

18.—*Licensing of Nightmen.*

NIGHTSOIL shall not be removed from any closet, house, or premises within the Area under the jurisdiction of the Minister except by nightmen duly licensed by the Minister.

Individual householders shall not contract for the removal of nightsoil or any other refuse or offensive matter whatever except with the person licensed by the Minister, and in accordance with these By-laws.

The license shall be in the form in Schedule "A" of this division, and subject to the conditions contained in the license, and to the provisions of "The Health Act, 1911-1919," and of these By-laws.

19.—*Penalty for Breach.*

EVERY nightman shall be guilty of an offence and liable on summary conviction to the penalty hereinafter specified, in case he shall be guilty of any such act, default, or neglect as is specified below, that is to say:—

- (a.) For neglecting to remove any pan at the time and in the manner appointed for the purpose, 5s.
- (b.) For any and every repetition of such neglect within three months of a neglect in removing any pan, 7s. 6d.
- (c.) For each neglect to substitute a clean pan for every pan removed, 5s.
- (d.) For each neglect to place a clean pan in its proper position for use, 5s.
- (e.) For each neglect to clean or keep deodorised any pan, night cart, or other vehicle, 5s.
- (f.) For every neglect or failure to properly dispose of nightsoil as soon as it is deposited at the depot, 5s.
- (g.) For depositing any load, or part of any load, of nightsoil, slops, rubbish, or refuse at any other place than the place appointed by the Minister or the Inspector, £1.
- (h.) For neglecting to close the door or gate of any yard or the door of any closet, which was closed when the nightman entered, 5s.
- (i.) For permitting any night-cart or other offensive vehicle to remain in or pass through a town or any part thereof during prohibited hours, 5s.
- (j.) For spilling the contents or any part of the contents of any pan within the premises, or at any place other than the depot, 5s.
- (k.) For neglecting to comply forthwith with any reasonable order of the Minister or the Inspector, 5s.
- (l.) For any failure to replace any pan when so ordered by the Inspector, 5s.
- (m.) For any or every neglect to clean soiled pans, 5s.
- (n.) For allowing any refuse, rubbish, or slops for pigs to be removed in carts or receptacles, or by other than those specially set apart for that purpose, 10s.

20.—*Keeping of Pigs.*

Pigs shall not be kept or be allowed to stray on any portion of a Catchment Area.

21.—*Straying of Animals.*

HORSES, cattle, sheep, goats, ducks, geese, fowls, or other species of live stock shall not be allowed to stray or depasture over any portion of a Catchment Area.

22.—*Keeping of Poultry.*

POULTRY yards or premises for housing of poultry shall be kept at least 25 feet from any dwelling and shall be kept in a clean condition and disinfected at least once a week with lime, ashes, or other suitable disinfectant.

23.—*Abattoirs and Slaughter Houses.*

ABATTOIRS or slaughter houses shall not be established or conducted in any part of a Catchment Area.

24.—*Removal and Destruction of Carcasses.*

IN the event of the death or of any accident necessitating the slaughter of any horse, cattle, or sheep, or other animal, the carcass of such animal shall be removed by the owner thereof to a safe distance from high-water mark, or any feeder, or to such place as the Inspector may direct, and the owner shall immediately thereafter dispose of same by burning, to the satisfaction of the Inspector, or if the owner cannot be found, the Inspector shall destroy it.

25.—*Receptacles for Refuse.*

(a.) THE occupier of every house or premises shall provide and keep, in a position approved by the Inspector, such and so many receptacles or boxes of such material and dimensions as may be required by the Minister or the Inspector for the temporary deposit of solid house refuse.

(b.) The owner or occupier of such house shall regularly collect all refuse or rubbish from such premises, and place the same in receptacles, and he shall not permit or suffer such receptacles to overflow or become offensive, and shall, when necessary or directed by the Inspector, thoroughly disinfect the same forthwith.

(c.) The owner or occupier of every house or premises to which a receptacle as aforesaid is attached or used shall cause same to be emptied at least once a week, or as often as the Inspector may direct. The owner or occupier of such premises shall keep such receptacle in good repair, and upon notice from the Inspector immediately replace by a new and improved receptacle any receptacle that the Inspector may deem worn out or unfit for use.

26.—*Disposal of and Receptacles for Noisome Things.*

RUBBISH, filth, blood, offal, or manure or any slops, soap-suds, urine, water containing urine, or other refuse, noisome thing, or matter shall not be deposited or be permitted to be deposited in any part of a Catchment Area, where it may, in the opinion of the Inspector, be carried by storm water into any feeder, but every occupier or owner shall provide and maintain proper water-tight vehicles or receptacles, fitted with close-fitting covers or lids, for the purpose of carting or receiving same.

27.—*Location of Vehicles or Receptacles.*

ALL such vehicles or receptacles shall be kept in such convenient place to allow of ready removal as may be directed by the Inspector, so as not to be a nuisance to any person, and shall be kept in a thoroughly sanitary condition, and removed at least once every week, and cleansed and disinfected both inside and out.

28.—*Reserve for Rubbish, etc.*

FOUL or offensive water or other offensive liquid, or refuse, garbage, sweepings, or other offensive matter or thing, shall not be pumped, emptied, or swept, thrown, or otherwise discharged or deposited into or upon any street, lane, yard, vacant land, or other place whether public or private within a Catchment Area other than the place set apart by the Minister or the Inspector for that purpose.

29.—*Pollution of Streams, etc.*

BATHING or washing of clothes or other articles in any stream, reservoir, aqueduct, or other water-works within a Catchment Area shall not be permitted, nor shall any person wash, throw, or cause to enter therein any dog or other animal, or throw or convey, or permit to be conveyed or thrown therein any rubbish, dirt, filth, dead animal or other noisome thing.

30.—*Entry Private Premises by Officers of Minister.*

IT shall be lawful for the Inspector, or any assistants acting under the directions of the Inspector, or other authorised officer, at his discretion, at any reasonable hour, with or without notice, to enter any land, house, or premises for the purpose of ascertaining whether any act or thing is being done or permitted within such land, house, or premises in breach of these By-laws, and to remove, or cause to be removed anything therein or thereon in breach of these By-laws, or to take such steps as he may deem necessary for carrying out these provisions. The cost of such removal or such other necessary act shall be borne by the owner or occupier of the premises upon which such breach shall occur.

31.—*Period for compliance with notices.*

UNLESS otherwise provided for, the time which may elapse between the giving of a notice and the doing of a thing required to be done by any Inspector or other authorised officer shall be determined by the Minister according to the nature of each case.

32.—*Cutting of Timber.*

ANY person whether in possession of a timber-cutter's license or not shall not cut or hew timber on any Catchment Area unless authorised so to do by the Minister.

33.—*Shooting, Hunting, and Fishing Prohibited.*

SHOOTING or hunting any game or angling for or catching of fish shall not be permitted within a Catchment Area.

Schedule A.*Nightman's License.*

THIS is to certify that the Minister of Water Supply, Sewerage, and Drainage has approved of the application of

for a License as a Nightman for the Catchment Area and hereby licenses the said

as a Nightman for the said Area, subject to the By-laws of the Minister and to the provisions of "The Health Act, 1911-1919."

Conditions upon which this license is granted :—

All gates, doors, etc., shall be closed by Nightman upon leaving, and the By-laws of the Minister shall be strictly adhered to.

Dated this day of 19 .

DIVISION III.**BY-LAWS FOR PROTECTING THE WATER, GROUNDS, WORKS, ETC., FROM TRESPASS AND INJURY.***34.—Trespassing prohibited.*

TRESPASSING within the fenced-off ground adjacent to or reserved for Water Supply, Sewerage, or Stormwater Drainage Works, or the entering without proper authority of any Water, Sewerage, or Stormwater Drainage Work not open to the public, shall not be permitted.

35.—Camping and lighting of Fires.

CAMPING or lighting of fires within the vicinity of any reservoir except on land set apart for such purposes shall not be permitted. The lighting of fires on any other reserves or fenced-off land is absolutely prohibited.

36.—Protection of Flora, Shrubs, etc.

THE removal, plucking, or damaging of any wildflower, shrub, bush, tree, or other plant, growing on any land or reserve vested in the Minister, within half a mile of any reservoir, shall not be permitted.

37.—Dogs prohibited.

DOGS shall not be permitted on any portion of the grounds in the vicinity of any Water, Sewerage or Stormwater Drainage Works.

38.—Disposal of Refuse, etc.

LOOSE paper or other refuse shall not be left on any portion of the grounds in the vicinity of any reservoir or works, except in the receptacles provided therefor.

39.—Posting or Distribution of Bills, etc.

BILLS, advertisements, or other notices shall not be posted or distributed on any portion of any reservoir or works, or on any portion of the works or grounds in the vicinity thereof.

40.—Nuisances.

NUISANCES shall not be committed on any portion of the grounds in the vicinity of any reservoir or works.

41.—Protection of Pipes.

VEHICLES, conveyances or animals, shall not be driven, taken, or ridden, in such a manner as to endanger the main conduit or any branch thereof, or be permitted to cross the same except where crossing places have been provided as indicated by signboards.

42.—Protection of Works from injury.

No person shall in the vicinity of any works carry on or cause to be carried on any mining or quarrying operations, or make or cause to be made any excavation of any sort or cause any explosion so as to injure any water-works, sewerage works, sewers, drains, pipes, or fittings whatsoever.

DIVISION IV.**LICENSING OF PLUMBERS.***43.—Plumbing Work shall be done only by Licensed Plumbers.*

No person shall do or cause to be done any work in connection with the water supply of any premises or in connection with any water supply, fitting, or apparatus connected therewith, unless he shall have been duly admitted by the Minister as a "Licensed Water Supply and Sanitary Plumber" or as a "Licensed Water Supply Plumber."

44.—Sewerage or Drainage Work shall be done only by Licensed Water Supply and Sanitary Plumbers.

No person shall do or cause to be done any work in connection with sewerage or drainage on any premises or in connection with any fitting or apparatus connected therewith unless he shall have been duly admitted by the Minister as a "Licensed Water Supply and Sanitary Plumber."

45.—Description and Scope of Licenses.

THE conditions upon which licenses will be issued by the Minister are :—

- (a.) The Minister will grant licenses to Water Supply & Sanitary Plumbers and to Water Supply Plumbers on condition that the certificate of a Board of Examiners appointed by the Minister has been obtained, the prescribed payments made, and provided he is satisfied that the applicant is a fit and proper person to hold a license. Such licenses shall be issued subject to the By-laws or any special condition that the Minister may consider desirable.
- (b.) The holder of a Water Supply & Sanitary Plumber's License may do any water supply or sewerage plumbing or drainage work within the Metropolitan Water, Sewerage, and Drainage Area, and only plumbers holding such licenses shall do plumbing or drainage work within areas open for sewerage house connections.
- (c.) The holder of a Water Supply Plumber's License only may do Water Supply work outside any area open for sewerage house connections.

- (d.) Provisional licenses, subject to any limitations endorsed thereon, may be granted to holders of licenses issued prior to 31st December, 1913, and shall be restricted to Districts for which they were originally issued.
- (e.) In the Armadale Water District plumbing work may be done under such conditions as may be approved by the Minister.

46.—*Examination—Water Supply and Sanitary Plumbers.*

SUBJECT to the provisions of these By-laws every applicant for a license as a water supply and sanitary plumber shall pass an examination by a Board of Examiners appointed by the Minister in the following subjects, that is to say:—

- (a.) All branches of the plumbers' trade, including a knowledge of all materials used by the plumber or drainer.
- (b.) Water Supply, Sewerage, and Drainage work, including the proper disposal of pipes, fittings, etc., for hot water connections.
- (c.) A knowledge of the Minister's Water Supply and Sewerage By-laws and Regulations, and the construction of all water supply and sewerage apparatus and appliances required therein; also a knowledge of the By-laws of the Local Authorities in the Metropolitan Water Supply, Sewerage, and Drainage Area.
- (d.) The general principles of sanitary work.
- (e.) Every candidate shall satisfy the Board of Examiners as to his practical ability as a sanitary plumber and drainer, and may be required to submit samples of work done by himself, and also to do any plumbing or drainage work which may be required by the Examiners. Candidates holding licenses issued by other authorities may be exempted from such portions of the examination as the Board of Examiners may think fit.

47.—*Examination—Water Supply Plumbers.*

SUBJECT to the provisions of these By-laws every applicant for a water supply plumber's license shall pass an examination by a Board of Examiners appointed by the Minister in the following subjects, that is to say:—

- (a.) A knowledge of that branch of the plumbers' trade relating to Water Supply.
- (b.) Water Supply work, including the proper disposal of pipes, fittings, etc., for hot water connections.
- (c.) A knowledge of the Minister's By-laws and Regulations as applied to water supply plumbing.
- (d.) The general principles of water supply plumbing work.
- (e.) Every candidate shall satisfy the Board of Examiners as to his practical ability as a water supply plumber and may be required to submit samples of work done by himself,

and also to do any water supply plumbing work which may be required by the Examiners.

48.—*Candidates holding Licenses from other Authorities.*

CANDIDATES holding licenses issued by other authorities may be exempted from such portions of the examination as the Board of Examiners may think fit.

49.—*Annual fee for License.*

A FEE of ten shillings shall be payable for every license except when a license is granted after the thirtieth day of June in any year, in which case the fee shall be five shillings.

50.—*Renewal of Licenses.*

LICENSES issued by the Minister under the By-laws and Regulations shall be current only from the 1st January to the 31st December of the year of issue, and water supply sanitary plumbers and water supply plumbers shall apply for a renewal, and pay the necessary fee before the expiry of the year for which their existing license is current.

51.—*List of Licensed Plumbers shall be published.*

A LIST of licensed water supply sanitary plumbers and water supply plumbers shall, from time to time, be published at the office of the Minister.

52.—*Breaches of By-laws by Plumbers.*

ANY licensed water supply and sanitary plumber or water supply plumber offending against any By-law or Regulation of the Minister, or who shall refuse to give any needful or proper information required by an officer of the Minister, either by himself or those employed by him, or who, within seven days from date tenders close, withdraws or varies any tender he may have lodged, or fails to complete any contract with the Minister or with a private owner within the time specified, shall be liable to a fine not exceeding Twenty pounds, and he shall also show cause why his license shall not be suspended or cancelled. Any person who has been removed from the list shall not be readmitted as a licensed water supply and sanitary plumber or water supply plumber until the term of his suspension has expired or the Minister has directed his reinstatement.

53.—*Delay in Work.*

PLUMBERS shall execute any work they undertake with reasonable despatch; and any inconvenience to the public caused by licensed water supply and sanitary plumbers or water supply plumbers by unnecessary delay in carrying out work will be rigorously dealt with by the Minister.

54.—*Accidents to Pipes shall be reported.*

ACCIDENTS caused by licensed water supply and sanitary plumbers or water supply plumbers to water, sewer, gas, or other pipes, shall be at once reported, and immediate steps taken to have repairs effected, and the cost of same shall be defrayed by such plumber.

55.—*Deposit and Declaration.*

PRIOR to issue of the license, the person to whom the same is to be issued shall deposit with the Minister a sum of £5, which shall be retained during the currency of the license as a security for the proper performance of all work done by him, and shall sign a declaration that he accepts such license subject to and in conformity with the conditions thereof and with the Regulations of the Minister, and that he will conform and comply therewith.

	lbs. per foot.
1in.	1.68
1¼in.	2.32
1½in.	2.70
2in.	3.60
2½in.	5.40
3in.	6.0
4in.	7.90

53.—*Deductions from Deposit.*

THE Minister may deduct from such deposit any fine inflicted or the expense of making good any bad work of the licensed water supply and sanitary plumber or water supply plumber or his workmen, and as often as any amount is so deducted the licensed water supply and sanitary plumber or water supply plumber shall make good the deposit to the sum of Five pounds and in default his license may be cancelled by the Minister.

57.—*Change of Address shall be notified.*

EVERY licensed water supply and sanitary plumber or water supply plumber shall, within forty-eight hours of any change in his address, give notice, in writing, thereof to the Minister.

DIVISION V.

WATER SUPPLY PLUMBING.

53.—*Specification of Pipes and Fittings for Private Services.*

IN connection with the laying down, maintenance, alteration, or repair of every private service, the following regulations shall be observed by the owner or occupier of the premises whereon such service is :—

(a.) All pipes and fittings shall be of lead, or galvanised wrought or malleable iron. Where galvanised iron pipes are used they shall be true in section, and of uniform thickness, perfectly smooth on the inside, properly galvanised internally and externally.

(b.) Where lead pipes are used, they shall be of drawn lead of equal thickness throughout, and of at least the respective weights following, viz. :—

¾in.	5lbs. per yard
½in.	6 " "
¾in.	9 " "
1in.	12 " "
1¼in.	16 " "
1½in.	20 " "

(c.) Where wrought iron tubes are used they shall be butt welded or solid drawn of regular section with British standard thread and of the following weights :—

	lbs. per foot.
½in.82
¾in.	1.17

(d.) The minimum weight of wrought and malleable iron fittings shall be fixed from time to time by the Minister, and no malleable fittings unless of approved brand shall be used.

(e.) Tees, thimbles, bends, reducing couplets, plugs, etc., shall be of the best manufacture, true in section, regular, and of equal thickness, properly and truly cut with the British Standard Thread, perfectly sound and new, and free from all defects.

The tees, bends, tubes, etc., shall be capable of withstanding a hydrostatic pressure of 300lbs. per square inch, and shall be tested to this pressure by the duly authorised officer.

(f.) All joints between pipes, tees, bends, thimbles, couplings, elbows, and cocks, etc., shall be made with red lead and flax or other approved jointing material. All joints on lead pipes shall be of the kind known as "wiped joints," and all connections between lead and iron water pipes shall be made with brass couplings and wiped joints.

(g.) No pipe or other apparatus shall be laid through any sewer, drain, ashpit, cistern, or manure bin, or through, in, or into any place where, in the event of the pipe becoming unsound, the water conveyed through such pipe would be liable to be polluted or to escape without observation, unless such pipe or apparatus be laid through an exterior cast-iron pipe or box of sufficient length and strength to afford due protection to the same and to bring any leakage or waste within easy detection.

(h.) All taps, stop-cocks, ball-cocks, valves, bath taps, or valves or other fittings used in connection with the supply of water shall be of approved types and capable of withstanding a pressure of 300lbs. per square inch, and shall be tested and stamped by the duly authorised officer of the Minister before being fixed.

(i.) Every cistern and tank shall be provided with an equilibrium ball valve and stop-cock, and the over-flow pipe shall be laid and fixed in a suitable manner, so as to discharge in some conspicuous place open to inspection, and in a position approved by the Minister.

- (j.) No service pipe on private property below the ground surface shall be laid at a less depth than 18 inches, unless otherwise approved by the Minister.
- (k.) No part of any service shall communicate directly with any vessel (other than approved apparatus for heating water for domestic purposes), except with the written permission of the Minister.
- (l.) No part of any service shall communicate directly with any steam boiler or other vessel used for generating steam, or with any other vessel, in such manner that noxious liquids or gases can return into the main or service pipes.
- (m.) Every water-closet or slop hopper fitting shall be approved of by the Minister, and shall be supplied from the service pertaining to the tenement through a proper cistern fitted with approved waste-preventing apparatus. No service pipe shall communicate directly with a basin or trap, or otherwise than with the cistern of a water-closet or slop hopper.
- (n.) Unless otherwise approved of by the Minister, the outlet of every fitting, such as baths, lavatory basins, kitchen sinks, etc., shall be distinct from and unconnected with the inlet, and the inlet shall be placed at least one inch above the highest water level of such fitting. The outlet of every fitting shall be provided with a perfectly watertight plug, and shall be constructed so as to prevent a waste of water.
- (o.) Every urinal shall be supplied only through a cistern or service box, fitted with approved waste-preventing apparatus. No service pipe shall communicate directly with any urinal.

59.—*Maintenance of Private Services.*

(a.) THE owner or occupier for the time being of any premises supplied with water shall at his own risk and expense, and, subject to the provisions of these By-laws, lay down his private service and keep it in good order and repair, and so that the same shall at all times be in accordance with the By-laws for the time being.

(b.) The service pipe within the boundary of the premises being the property of the owner or occupier of the tenement supplied by such service pipes, the occupier (if any) and if none, the owner, shall, upon receiving notice that his service pipe requires repairing, or is blocked up or broken, immediately proceed to repair the same by employing a licensed plumber, subject to the provisions of these By-laws, and he shall be responsible for any loss of water or other damage which shall be caused by reason of such service pipe being leaky or otherwise out of repair or broken, and, in default, be liable to a penalty not exceeding Ten pounds, and, in the event of continuing the offence, to a further penalty of Two

pounds, for each day after receipt of such notice and the Minister may stop the water from flowing into such premises, either by cutting off the service pipe, or otherwise, as the Minister may see fit, until the necessary repairs shall have been effected.

(c.) Without prejudice to the right of the Minister to proceed for any penalty for the breach or non-observance of any of the provisions of this By-law, the Minister may cut off the supply of water to any premises whereon the private service or any part thereof is not at all times laid, fixed, used or maintained in all respects in accordance with the provisions of the said By-law, and may keep the same cut off until such provisions have been fully observed.

60.—*Interference within three feet of Meter.*

LICENSED plumbers or other persons shall not, under any circumstances, disconnect the joints from the meter, or, after a meter has once been fixed on a service and water has been turned on, disconnect or interfere with any piping within three feet of such meter. Such work shall be done only by the servants of the Minister.

DIVISION VI.

SEWERAGE—PLUMBING AND HOUSE CONNECTIONS.

61.—*Procedure for Connections to Sewer.*

WHEN a sewer is completed and ready for use, action shall be taken under Sections 58 and 59 of the Act.

62.—*Proof of Connections having been made.*

THE certificate of such officer as the Minister may appoint, in writing, shall be *prima facie* evidence that water-closet or water-closets, or drains, appliances, apparatus, and connections have been provided, or the works, matters, and things have been performed as the case may be, and *prima facie* evidence as to the amount of costs, expenses, and interest recoverable in respect thereof.

63.—*Work carried out under System of Deferred Payment.*

IF any owner wishes to avail himself of the provisions of the Act regarding deferred payments, and the Minister has approved of his doing so, he shall sign an agreement to pay the costs incurred by the Minister in relation to such works, in not more than twenty-four quarterly instalments, with interest at the prescribed rate per annum on the amount remaining to be paid added to each instalment. But the said owner may at any time pay to the Minister such portion as then remains unpaid of such costs and expenses, together with interest thereon, at the said rate, to the date of such payment. In the event of any of the instalments or interest not being paid within fourteen days after the due date thereof, the whole amount then unpaid shall, if the Minister so desires, become due, payable and recoverable with interest as prescribed by the said principal or any amending Act.

64.—*Maintenance by Minister.*

IN the event of the Minister carrying out the work of providing such water-closet or water-closets and such drains, appliances, apparatus, and connections, the owner or occupier is legally liable for the cost of repairs and maintenance, but the Minister will, for a period of twelve months from the date of completion of the said work, and without charging the owner or occupier therefor, carry out any work of maintenance and repair which in the opinion of the Minister is necessary, and which is not, in the opinion of the Minister, occasioned by any neglect or wilful act of the owner or occupier.

65.—*Fees for Plans of Drainage.*

DRAINAGE plans will be furnished by the Minister upon application, and payment for the same, as follows:—

Plan of drainage, including survey, etc., for every house or building, a minimum charge of 7s. 6d., and an additional charge of 7s. 6d. for every water-closet more than one, and of ten shillings for each urinal stall in or appurtenant to such house or building.

Plan of any alteration or addition to original plan, 5s.

Plan of alteration or addition to water-closet, urinal stall, or lavatory (for each such alteration or addition), 5s.

Copy of drainage plan, 2s. 6d.

The charge for amendment of plan is to be taken as meaning a charge of 5s. for plan only, and not per number of closets.

66.—*Plan to remain the property of owner.*

THE plan supplied by the Minister shall be produced by the licensed water supply and sanitary plumber whenever required during the progress of the work, to the Inspector or other officer of the Minister, and on completion of the work the plan shall be handed to the proprietor or his agent. Any special instructions which may be written on the plan shall be strictly adhered to.

67.—*Notice and Plan of intended new Building or Additions, etc., to existing Building.*

EVERY person intending to erect a building, or rebuild, or to make any addition or alteration to any building adjacent to the Minister's sewers shall give to the Minister seven days' notice of such intention, which notice shall be accompanied by plans and sections of such intended building, or addition or alteration, drawn to a scale of not less than one inch to every sixteen feet, showing the position of proposed fittings. Provided that, when required by the Minister, enlarged details to such scale as instructed shall be supplied.

68.—*When House Drains shall be trapped from Sewer.*

THE owner or occupier of every house or tenement shall, where an internal closet is installed or where ordered, cause every house-drain of such house or tenement to be provided with a suitable interceptor trap at a point as distant as may be prac-

ticable from such house or tenement, and as near as may be practicable to the point at which such drain may be connected with the public sewer or other means of drainage, but, if possible, within the boundaries of the property.

- (a.) An internal closet is a closet which forms a part of the house premises and is entered from the main building of the house, factory, workshop, or workplace.

DRAINS—MATERIAL FOR, ETC.

69.

EVERY person who shall construct, alter, or repair any sewer or drain shall comply with the following conditions:—

Pipes—Specification.

- (a.) The pipes shall be good and sound, and shall be formed of glazed stoneware, concrete, iron, or of other suitable material approved by the Minister.

Size and fall.

- (b.) Every such sewer or drain shall be of adequate size, and no such sewer or drain shall be used for conveying sewage unless the internal diameter thereof be not less than four inches, and (when directed by the Minister) the drain shall be laid in a bed of concrete, or other equally suitable material, with a proper fall, and with water-tight socketed or other suitable joints.

Drains under Buildings.

- (c.) Every sewer or drain shall be so constructed as not to pass under any building, except in any case where any other mode of construction is impracticable; and if in any case a sewer or drain shall be so constructed as to pass under any building, such sewer or drain shall be so laid in a direct line for the whole distance beneath such building, and of such depth that there shall be a distance equal at least to a full diameter thereof between the top of such drain at its highest point and the surface of the ground under such building. The drain pipe used in any such case shall be of cast-iron, jointed with lead as is usual with water-pipes, or of stoneware bedded in and surrounded with good cement concrete at least six inches thick. All drains carried through walls shall have a space of three inches left over the pipe.

Drains near tree roots.

- (d.) Every sewer or drain which is likely to be damaged or blocked by the roots of trees shall be surrounded by concrete six inches thick, or if in the opinion of the Minister it is necessary, cast iron sewer and drain pipes shall be substituted for earthenware pipes for such distance as the Minister may direct, or the trees adjacent to the drain or

sewer shall be removed for such a distance as the Minister may direct.

Drains exposed to vehicular Traffic.

- (e.) Where drains are in rights-of-way or other open spaces where there is vehicular traffic, and are less than three feet in depth, or in yards where vehicles are kept, are less than two feet in depth, or when they are in any case less than one foot in depth, they shall be surrounded with concrete six inches in thickness, or the surface of the right-of-way, yard, etc., shall be covered with at least six inches of concrete or granolithic pavement.

Drains shall be ventilated.

- (f.) Every such drain shall be ventilated in a manner hereinafter provided by these By-laws and Regulations.

Inlets shall be trapped.

- (g.) Every inlet to any sewer or drain (not being an inlet provided in pursuance of the By-law and Regulation in that behalf as an opening for the ventilation of such drain) shall be properly trapped.

Drains and Pipe Lines shall be in straight lines.

- (h.) Every sewer or drain shall be laid in straight lines, and where changes of direction occur junctions shall be made with "Y" junctions of the required angle, or bend pipes, in such manner as the Minister may previously approve of. Right angle junctions shall not be used.

Grades of Sewers and Drains.

- (i.) All pipes and house-drains shall be laid with true gradients, and the inclination of the same shall be as steep as the circumstances will permit, but shall in no case be less than 1 foot in 40 feet for 4-inch pipes or 1 foot in 60 feet for 6-inch pipes, or shall not be laid with a grade of more than one foot in 15 feet unless by special permission of the Minister, and approved provision shall be made for regular and efficient flushing.

Foundations.

- (j.) In all cases where the Minister or his officers shall so direct, all pipes shall be supported on piles and timber foundations, or shall be bedded on concrete. Drops or bends in a vertical position shall have a concrete support placed thereunder as directed. The concrete for this purpose shall be of the proportions of one of cement, two of clean sand, and five of stone, broken to 1½ inch gauge, or gravel approved of by such officer.

Junction Pits or Manholes.

- (k.) Junction pits or manholes shall not be installed except with the special permission of the Minister.

Reflux Valves.

- (l.) Whenever there is a danger of the sewage backing up a house drain, all pipes shall be fitted with reflux valves, and such valves shall be of brass or gun-metal.

Jointing of Stoneware Pipes.

- (m.) All pipes shall be carefully bedded on the barrel on the solid ground, and all joints shall be made with cement mortar, mixed in the proportion of one of cement and two of sand. All joints shall be completely filled with mortar and splayed off on the outside to an angle of 45 degrees. Jointing of the following description shall be carried out as circumstances require, viz. :—In dry sand the joints shall be made with cement mortar as described in By-laws and Regulations. After the jointing is done the pipe shall be wiped clean of surplus mortar and left perfectly clean on the inside before another pipe is laid. In water-charged ground the pipes shall be supported, as described in Part (j) of this Bylaw, on concrete or timber foundations as may be directed. Every precaution shall be taken to prevent the entrance of sand or silt into the pipes. All pipe lines are to be inspected, tested, and approved before the trenches are filled in, and no drain shall be used before being passed by the Minister or his officer.

Testing of Pipes and Fittings.

- (n.) All pipes, bends, and other apparatus necessary for any such house-drain shall be submitted to the Minister for his testing and shall be approved and passed by his Inspector before being used.

The following charges shall be made for testing and branding fittings and pipes :—

Lead Pipe per length of six feet—3in. to 4in., 2d. ; 1½in. to 2½in., 1d.

Lead Traps—1½in. to 4in., 1d. each.

Galvanised Wrought Iron Pipe per length of six feet—1½in. to 2in., 1d. ; 2½in. to 3in., 2d.

Metal Flush Pipes for W.Cs. and Hoppers, 1d. each.

Springs and Bends, 1d. each.

Cast Iron—6in. Soil Pipes, 3d. per 6ft. length ; 4d. per 9ft. length. 6in. Soil Pipes (Specials), 3d. each. 3in. and 4in. Soil Pipes, 2d. per 6ft. lengths ; 3d. per 9ft. lengths, 3in. and 4in. Soil Pipes (Specials), 2d. each.

Reflux Traps or Valves, 6d. each.

Gully and P. Traps, Grates and Inspection Shaft Covers, 1d. each.

Silt Trap, 3d. each.

Galvanised Cast Iron Mica Flap Inlets—4in., 2d. each ; 2in., 1d. each.

Kitchen Sink and Lavatory Basin, 3d. each.

Flushing Cisterns, including ball valves, 6d. each.

Silent flusher of the press button or lever type, 2s. 6d. each.

Earthenware—Pedestal Pans and Slop Hoppers, 6d. each. Metallic Joints when tested separately, 6d. each. 4in., 6in., and 9in. Stoneware Pipes, Bends, and Junctions, 1d. each. "P" and "S" Traps, yard gullies, 3d. each when tested at Department's testing yards. When material is tested at Manufacturer's or Merchant's premises an additional sum of three shillings (3s.) per diem will be charged as travelling expenses for the testing officer for each day or portion thereof the officer is employed at the premises of the person requiring such tests.

Brass Fittings—Fittings for all wastes, 1d. each. Bib, Stop, and Ball Cocks, 2d. each. Straight Ferrule Unions, Plumbers' Unions, 2d. each. Straight Connections, Caps, and Linings for Water, 2d. each.

Galvanised Sheet Iron—4in. Vent Pipe, 1d. per length of 6ft. or less. 1½in. to 2in. Pipes, 1d. per length of 3ft. or less. 6in. Offsets and Bends, 2d. each. 2in. and 4in. Offsets, 1d. each. 2in. and 4in. Bends, 1d. each. 6in. Vent Cowls, 3d. each. 4in. Vent Cowls, 2d. each. 1½in. and 2in. Vent Cowls, 1d. each.

Urinals—Fireclay Urinals, including Flush Pipe, 2s. 6d. each.

The fittings and material which require to be approved of but not stamped are as follow :—

Baths, Wash Troughs, etc. (outlet connections must be stamped).

Lead Caps and Tacks or Lugs for Lead Pipe.

Galvanised Wire Strainers for Vent Pipes.

Wrought Iron Bolted Clips for Cast and Sheet Iron Pipes.

Galvanised Clips and Vent Stays.

Valves and Couplings for Cisterns.

All pipes and fittings shall be brought to places indicated by the Minister, and all fees shall be paid before the material is removed after testing.

Fees shall be payable on all material tested, whether rejected or passed.

Any material submitted for retest shall be clearly marked as being so submitted and full fees will be charged for each retest.

SPECIFICATIONS OF WASTE, VENT, AND SOIL PIPES.

70.

EVERY person who shall construct any lead soil pipe, waste-pipe, or other pipe whatsoever in connection with drainage or sewerage shall comply with the following conditions :—

Material, Sizes, and Weights.

(a.) All material and fittings shall be of the best quality and of the following weights and dimensions :—

Fitting.	Diameter of Waste or Soil Pipe.	Minimum Weight of Lead per square foot.	Diameter of Vent Pipe.	Minimum Weight of Lead per square foot.
	inches.	lbs.	inches.	lbs.
One Lavatory Basin	1½	6	1½	6
Row of three or more Lavatory Basins	2	6	2	6
Lavatory Basin overflow	1½	6
One Bath ...	2	6	2	6
Combined Waste for Baths	2	6	2	6
Bath Overflows ...	1½	6
Wash Tub ...	2	6	2	6
Set of Tubs ...	2	6	2	6
Kitchen Sink ...	2	6	2	6
Pantry Sink ...	2	6	2	6
Slop Sink ...	4	7	4	7
One Urinal ...	2	7	2	7
Row of Urinals ...	2	7	2	7
Soil Pipes ...	4	7	4	7

Joints.

(b.) All joints of lead soil pipes and waste pipes shall be of the kind known as wiped joints, excepting where, in the opinion of the Minister, expansion joints are necessary.

Cast Iron Pipes.

(c.) Cast-iron pipes may be used for soil-pipes, and shall be of uniform thickness throughout of ¼-inch, or equal in weight to not less than 37lbs. per lineal yard. The socket of pipes shall be not less than 3in. in depth, and joints shall be made with gasket and lead. Lead shall be run in hot and well caulked with proper tools. All cast-iron pipes shall be sound, free from holes and cracks, and coated with tar, asphaltum or other approved mixture.

Lead Pipes.

(d.) Lead pipes shall be supported by tacks or lugs wiped on in pairs to the pipes. Such tacks shall be not more than the following distances apart from centre to centre :—

4in. vertical pipe—2ft. 6in. centres.

4in. horizontal pipe—2ft. centres.

For pipe less than 4in. diameter the distance between the centres of tacks or lugs shall be not more than three feet and two feet three inches respectively.

The dimensions of the tacks or lugs shall be as follows :—

Diameter of Pipe.

4 inches	...	8 inches by ¼ inch
3 inches	...	6 " " ⅜ " "
2 inches	...	4 " " ½ " "
1½ inches	...	3 " " ⅝ " "

WASTE PIPES.

71.

EVERY person constructing, repairing, or altering waste-pipes shall comply with the following conditions :—

Trapping and Venting.

- (a.) All waste pipes from urinals, house-maid's slopsinks, kitchen sinks, lavatory basins, wash tubs, and baths shall be trapped and properly vented, provided that where the length of the waste pipe from lavatory basins, baths, and wash tubs does not exceed 10 feet in length, or the seal of trap is not reduced by discharge from fitting, and where wash tubs are in open sheds detached from a dwelling, the vent may be omitted.
- (b.) The traps in each case shall be placed, unless otherwise directed, as near the outlet of fittings as possible.

Cleaning Eyes.

- (c.) Cleaning eyes shall be fixed where necessary, and in positions approved of by the Minister,

Grading.

- (d.) The grades of all waste pipes shall be as steep as circumstances will permit, but shall not be less than 1 in 30 for 3-inch, 1 in 15 for 2-inch, and 1 in 10 for 1½-inch pipes.

Wrought Iron Tubes.

- (e.) Wrought iron tubes may be used for waste or vent pipes from lavatory basins, sinks, baths, and wash tubs, and such tubes shall be of the weight and quality specified in By-law No. 58. The tubes shall be secured in an approved manner every six feet or such less distance as the Minister may require.

Fittings.

- (f.) All fittings shall be of brass or malleable iron of approved quality.

BATHS, SINKS, ETC.72.—*Baths, Sinks, Tubs, and Basins.*

SINKS, tubs, basins, or other fitting provided with an outlet shall not, without the written approval of the Minister, be fixed or used unless connected to the Minister's sewers in conformity with the By-laws and supported in such a manner as to be entirely open for inspection. Galvanised iron baths, if not self-supporting, shall be supported with a wooden frame. All fittings shall be graded with a fall to the outlet, so that when the plug is out no water will remain in the fitting. Kitchen sinks, wash tubs, and drainage boards shall be flashed with not less than 5lb. lead when ordered by the Minister.

WATER CLOSETS AND LATRINES.

73.

Position and Ventilation.

THERE shall be one closet provided for each tenement, and every person who shall construct a water-closet in a building shall comply with the following conditions :—

- (a.) One of its sides at least shall be an external wall of such building, abutting on to a street, lane, or an open space of an area of not less than 50 square feet the property of the owner of the building, and if ordered, the owner shall provide a window or louvre opening directly into the external air, and such opening shall be of not less dimensions than one foot three inches by one foot.
- (b.) It shall not be entered directly from any room or building used for the manufacture, preparation, or storage of food for man or used as a factory, workshop, or workplace.
- (c.) On any side on which such water-closet would abut on a room intended or used for the manufacture, preparation, or storage of food for man, or used as a factory, workshop, or workplace it shall be enclosed by an airtight partition of brick or other approved material extending the entire height from floor to ceiling.
- (d.) With the permission of the Minister, a water closet may have direct access from a room used for sleeping or for a meeting room, but in such cases the ventilation shall be so arranged that a current of air is in circulation through the water closet independent of the room from which it opens off.

Window to internal Closet and Bathroom.

- (e.) In addition to the window, the owner or occupier shall provide adequate means of constant ventilation by at least one air-brick built in an external wall of such water-closet, or by an air-shaft, or by some other effectual method or appliance for ventilation. Provided that where a bathroom is also used as a closet the window shall be of such size as the Minister may direct.

Safe for internal closet.

- (f.) Every person or occupier of any house or tenement in which an internal water-closet is constructed and used shall cause such internal water-closet to be provided with an approved impervious floor or a lead safe, and escape pipe 1½ inches in diameter attached thereto. Such escape pipe shall be in a suitable position to completely drain the safe and shall be fitted with a 2in. brass grate and a brass flap valve. The safe shall discharge in some conspicuous place. Provided that this By-law shall not apply to any water closet situated on the ground floor of any house or tenement, and where

in the opinion of the Minister there is no likelihood of damage being caused by leakage or blockage.

Joints for internal closet Pan.

- (g.) In tenements, factories, and other buildings permanently occupied, the joint between the pan, slop hopper, soil pipe, and vent pipe of internal closets, shall be of "Metallo-Keramic" type, or its approved equivalent.

Floors of External Closets.

- (h.) The floor of every external water-closet shall be constructed of concrete or other approved impervious material six inches thick, and shall have a slope of one-half of an inch to each foot towards the door.

Closets to have proper Basins.

- (i.) Every owner or occupier of any house, tenement, or lands in which a water closet is constructed or used, shall furnish such water closet with an approved stoneware or fireclay pedestal pan of non-absorbent material, and of such shape, of such capacity, and of such mode of construction as to receive and contain a sufficient quantity of water, and to allow all filth which may from time to time be deposited in such pan, basin, or receptacle, to fall free of the sides thereof, and directly into the water received and contained in such pan.

Flushing.

- (j.) Every pan, unless permission is obtained to vary the quantity of the flush, shall be of such type and construction as to be thoroughly cleaned with a flush of two gallons of water from a cistern provided in accordance with Clause "l." Where a large quantity of water is necessary for the type of pan installed, the flushing arrangements shall be approved by the Minister.

Seats of Closets shall be removable.

- (k.) The owner or occupier of every house or tenement shall cause the seats of the water-closets connected therewith to be so constructed that the same may be easily removed or attached to the pan in such a manner that every part of the closet may be inspected with facility. Seats with holes of such size as to cause fouling of the pan shall not be used.

Cisterns and Down Pipes.

- (l.) Every owner or occupier of any house, tenement, or land in which a water-closet is constructed or used, shall cause such water-closet to be supplied with a proper cistern fitted immediately over the pan, and shall also cause the following fittings to be constructed :—The down-pipe from such cistern shall in no case be less than $1\frac{1}{4}$ inch internal diameter, and shall be fitted as straight as

possible under the circumstances. The valve seating of every such cistern shall be at least five feet clear above the closet seat, but in cases where this distance cannot be obtained in existing buildings without structural alteration four feet will be allowed, but the internal diameter of the down pipe shall then be $1\frac{1}{2}$ inches. Every such cistern shall be made and maintained of such materials and dimensions, and of such plan of construction, and with such ball cocks, stop cocks, down and waste pipes, and other appliances as shall be deemed requisite by the Minister to prevent waste of water. Every cistern used in connection with a water closet or slop sink shall discharge two gallons at each flush. The supply pipe shall be adequate to fill the cistern at the rate of one gallon in 30 seconds.

Storage of Water.

- (m.) The Minister may require the owner or occupier of every house, tenement, factory, institution, or place, public or private, to provide same with tanks or cisterns for storing water for flushing and cleansing the pipes, drains, traps, and apparatus of water closets and urinals connected therewith, in the event of a temporary stoppage of water supply or otherwise, and such tanks or cisterns shall be of such capacity, dimensions, and arrangement as shall be required by the Minister, and the owner or occupier shall comply with such requisition.

74.—*Sanitary Conveniences at Hotels, Lodging Houses, and Shops.*
In hotels, offices, lodging houses, and shops, and if so directed by the Minister in any other premises, sanitary conveniences shall be provided as under, and in accordance with the following conditions :—

- (a.) One water closet for males and one for females, placed in suitable positions, shall be provided for every ten people who live or work on the premises, in accordance with Clause (c) hereunder—
- (b.) In hotels urinals shall be provided for the public frequenting the premises.
- (c.) Closets for different sexes shall not adjoin each other, unless separated by a wall of brick, stone, or concrete of approved thickness; such wall may be the wall of one closet or common to both.
- (d.) The door of every external closet or urinal shall be properly screened, at least 6ft. high, and reaching to the ground; and if required, a screen shall be fixed to prevent the closet or urinal being visible from overlooking windows.
- (e.) Any closet for the use of females shall have a separate entrance behind such screen, and such entrance shall not be within 12ft from the entrance of any closet intended for the use of males.

(f.) Every school, kindergarten, college, or institution where children are trained or educated, shall be provided with accommodation in the following proportion:—

For every 33 boys attending such school, kindergarten, college, or institution—
1 water closet.

For every 25 girls attending such school, kindergarten, college, or institution—
1 water closet.

For every 30 boys attending such school, kindergarten, college, or institution—
1 stall urinal.

Closets for schools shall conform to Clauses (c), (d), and (e) of this By-law.

75.—*Sanitary Conveniences at Factories.*

THE owner of any building used for the purpose of a factory shall provide sanitary conveniences for the use of the employees at such building, in accordance with the following scale and conditions:—

Water Closets.	Proportion of Pans to Female Employees.	Proportion of Pans to Male Employees.
When the number of employees does not exceed 100	One to 20	One to 25
When the number of employees is over 100 and under 200	One to 25	One to 30
When the number of employees is over 200	One to 25	One to 40

Closets for factories shall conform to Clauses (c), (d), and (e) of By-law No. 74.

76.—*Urinals.*

THE floors of all urinals shall be tiled or paved with an approved fall towards the drain from the stalls. The walls shall be of approved non-absorbent material, and the urinals shall be of the type known as the round backed stall pattern. Other forms of urinals will only be allowed by permission of the Minister.

In factories urinal accommodation for male employees shall be provided in the proportion of one stall to each 30 employees.

Urinals shall be screened in a similar manner to water closets, and as approved by the Minister.

77.—*Cisterns for Urinals.*

APPROVED automatic flushing cisterns shall be fixed on public urinals, and shall be timed to discharge at such intervals as the Minister may direct. The use of automatic flushing cisterns shall be confined to railway stations and public conveniences. In all urinals the whole of the flush pipes shall be of copper, unless the approval of the Minister is obtained to substitute wrought iron pipes.

Pull and chain cisterns shall be used in connection with urinals in all other situations, unless by permission of the Minister some other type is substituted, and the discharge shall be equal to one gallon for each urinal stall, except where otherwise allowed.

In a combination of two urinals one two-gallon cistern may be used.

78.—*Urinal Waste Pipe.*

URINALS shall be connected direct to the soil pipe or drain in a manner similar to water closets, except that in all cases they must be back vented.

BATHS, LAVATORY BASINS, KITCHEN SINKS AND WASH TROUGHS.

79.

EVERY owner or occupier of any house, tenement, or lands in which any of the abovementioned fittings are constructed or used, shall comply with the following conditions:—

Outlets.

(a.) Baths or lavatory basins, kitchen sinks or wash troughs shall be provided with an outlet, the dimensions of which shall be equal to the area of the waste pipe.

Inlets.

(b.) The water supply inlet or inlets shall, in all cases, be placed one inch above the top water level of the fitting.

Lavatory Basins in Bedrooms.

(c.) Lavatory basins may, with the permission of the Minister, be fitted in rooms used as sleeping rooms.

Lead Flashing.

(d.) Baths, lavatory basins, kitchen sinks, etc., shall be flashed with not less than 5lb. lead where ordered by the Minister.

Fixing of Troughs.

(e.) Wash troughs shall be of approved pattern and material. They shall be securely fixed and supported and drain freely towards the outlet.

Lead Safe.

(f.) Where baths, lavatory basins, wash troughs, or kitchen sinks are fixed in such positions as, in the opinion of the Minister, to require a lead or other safe, such shall be fixed; or where an existing safe is in position and is allowed to remain, such safe shall be properly graded towards the outlet or escape pipe, which shall be 1½ in. in diameter, so placed as to drain the safe and to be fitted with a 2 in. brass grate and flap valve, the outlet of which shall be in a conspicuous position.

SLOP SINKS.

80.

ALL connections to slop sinks shall be made in accordance with the following conditions:—

Connections.

(a.) A housemaid's slop sink shall be treated and connected to the soil pipe in the same way as a water closet, except that it must be properly back vented. The size of the

waste and vent pipes shall be as given in By-law No. 70.

Type.

- (b.) Only the pedestal type of slop sink as approved by the Minister shall be used.

Waste Pipe.

- (c.) The waste pipe shall discharge directly into a soil pipe, or into the house drain as directed.

Draw-off Taps.

- (d.) Draw-off taps shall not be used directly over slop sinks, unless at least 18in. above the sink.

YARD GULLIES.

81.—*Yard Gullies.*

(a.) EVERY owner or occupier of any house or tenement shall cause such house or tenement to be provided with a yard gully for kitchen or house slops, and of such design as approved of by the Minister, wherever practicable or unless approval is given otherwise by the Minister such gully shall be within 10 feet of the back door or kitchen door of the house or tenement.

Traps, Gratings, etc.

(b.) Yard Gullies shall be fitted with traps and connected with the drains of such house or tenement, and all inlets of such yard gully shall be protected with suitable gratings, which shall be raised to such a height above the surface of the ground as will prevent the ingress of surface water to the Minister's sewers.

Rainwater Pipes.

(c.) Rain water pipes shall not be connected to or discharge into any gully connected with the Minister's sewers.

Separate Gullies.

(d.) Every house shall have a separate yard gully, over which a water tap shall be placed, except where otherwise allowed by the Minister.

Gullies shall not be inside Buildings.

(e.) Gullies shall not be constructed or be allowed to remain inside any buildings unless with the approval of the Minister.

Grease Traps.

(f.) Grease intercepting traps of approved design shall be provided where directed, and fixed to discharge into a gully before communicating with the drain.

SOIL PIPES.

82.—*Shall be outside Building.*

(1.) ANY person who shall erect a new building shall not construct any drain of such building in any such manner as to allow any inlet to such drain (except such inlet as may be necessary from the apparatus of any water closet) to be made within

such building if any other method be possible, and shall not permit any soil pipe from water closet or urinal to be fixed or to be within any house or tenement.

Connections.

(2.) The owner or occupier of any house or tenement shall cause the connection of every soil pipe with any closet, urinal, lavatory, or other sanitary fitting inside such house or tenement to be made as short and straight as possible, and to comply with the following conditions:—

Ventilation.

- (a.) Every soil pipe shall be ventilated by being carried up above the roof of such house or tenement in such a manner as the Minister shall in each case direct.

Dimensions of Pipes.

- (b.) Soil pipes which shall be less than four inches internal diameter, shall not be fixed or used or permitted to be fixed or used nor shall any continuation thereof for ventilation be less than four inches internal diameter.

Material for Soil Pipes.

- (c.) Soil pipes shall be of cast-iron or lead and shall be connected with the sewer or drain in such a manner as the Minister shall in each case approve of.

Traps on Soil Pipes.

- (d.) Soil pipes shall be so constructed and maintained that there shall not be any trap between such soil pipe and the drains, or any trap (other than such as may necessarily form part of the apparatus of any water closet) in any part of such soil pipe.

VENTILATION.

83.

EVERY owner or occupier of any house, tenement, or lands where an internal closet has been installed shall comply with the following requirements, viz.:—

Untrapped Openings.

- (a.) At least two untrapped openings to the drains of such house, tenement, or lands, shall be provided, and in the provisions of such openings such one of the two arrangements hereinafter specified shall be adopted as the circumstances of the case may render the more suitable and effectual, that is to say—

Inlet and Outlet.

- (b.) One opening, being at or near the level of the surface of the ground adjoining such opening, shall communicate with the drains by means of a suitable pipe, shaft, or disconnecting chamber, and shall be situated as near as may be practicable to the trap which, in pursuance of the By-law or

Regulation in that behalf, shall be provided between the main drain or other drain of the building and the sewer or other means of drainage with which such drain may lawfully communicate. Such opening shall also in every case be situated on that side of the trap which is nearer to the building. The second opening shall be obtained by carrying up from a point in the drains, as far distant as may be practicable from the point at which the first mentioned opening shall be situated, a pipe or shaft vertically to such a height and in such manner as effectually to prevent any escape of foul air from such pipe or shaft into any building in the vicinity thereof.

Reversal of Ventilation.

- (c.) If drains cannot be ventilated as provided for in Clause (b) of this By-law, the system of ventilation may be reversed by authority from the Minister.

Ventilation for Connection.

- (d.) In addition to the ventilators specified in Clause (b) of this By-law, a further ventilating opening shall, if ordered, be provided on the down stream side of the interceptor trap in the position and of the size and height ordered by the Minister.

Direct Ventilation.

- (e.) Where an interceptor trap is not provided the ventilators specified in Clauses (a), (b), (c), and (d) of this By-law need not be installed, but from the highest or such other points of the house drain as the Minister may direct, exhaust or induct ventilators of the sizes and heights ordered shall be erected.

Gratings over Ventilators.

- (f.) Every opening provided in accordance with either of the arrangements before mentioned, or for any other purpose in accordance with these By-laws or Regulations, shall be furnished with a suitable grating or other suitable cover for the purpose of preventing any obstruction in or injury to any pipe or drain by the introduction of any substance through any such opening, and such grating or cover shall be constructed and fitted so as to secure the free passage of air through such grating or cover by means of a sufficient number of apertures of which the aggregate extent shall not be less than the sectional area of the pipe or drain to which such grating may be fitted.

Size of Ventilators.

- (g.) Every pipe or shaft which may be used in connection with either of the arrangements hereinbefore specified shall be of a sectional area not less than that of the drain with which such pipe or shaft may communicate,

and not less in any case than the sectional area of a pipe or shaft of the diameter of four inches. Such ventilator shall be secured with stays as directed by the Minister.

Bends in Vents.

- (h.) Bends, angles, or horizontal lengths shall not (except by the special authority and permission of the Minister) be formed in any pipe or shaft used in connection with either of the arrangements hereinbefore specified.

Cowls.

- (i.) Every shaft used as a ventilating pipe shall be provided with an approved cowl.

Soil Pipe as Vent.

- (j.) Provided always, that for the purpose of either of the arrangements hereinbefore specified, the soil pipe of any water closet, in every case where the situation, sectional area, height, and mode of construction of such soil pipe shall be in accordance with the requirements applicable to the pipe or shaft to be carried up from the drains, may be deemed to provide the necessary opening for ventilation which would otherwise be obtained by means of such last mentioned pipe shaft.

84.—*Material for and support of Vent Pipes.*

MATERIAL for and the erection of Vent Pipes shall comply with the following conditions:—

- (a.) Pipes used solely as ventilating pipes and situated wholly outside buildings may be of cast-iron, galvanised iron, or lead, and of stoneware beneath the surface of ground. Galvanised iron pipe of less thickness than 24 gauge shall not be used; joints shall be thoroughly air-tight. The first six feet of vent pipe shall be of cast-iron or 18-gauge galvanised iron. The internal diameter of the pipe shall be not less than that of the drain, and in no case less than four inches. Ventilation pipes shall be painted on the inside with patent asphaltum or other approved composition paints, and on the outside with two coats of best paint of approved tints. As far as possible, all ventilating pipes shall be fixed outside buildings. Rainwater pipes shall not be used as ventilators.
- (b.) Vent pipes shall be supported by means of clips fastened to plugs in brick, stone, or concrete walls, or by screws to wooden buildings; there shall be one clip to each six feet of pipe and the top clip shall in all cases be bolted through or into the wall.
- (c.) Where vent pipes are within 30 feet of any window they shall be carried up at least six feet above such window. Vent pipes shall be two feet above any adjoining

parapet or ridge, and if within 10 feet of any chimney are to be two feet below the chimney opening or of the height directed.

- (d.) Vent pipes of 24-gauge without any offset shall not remain unsupported if more than 12 feet above the top clip; if there is an offset the unsupported length shall not exceed nine feet; but in the event of the gauge being increased to 18-gauge the respective heights may be 20 and 15 feet. Where the heights given are exceeded, the vent pipe shall be supported by galvanised bolted clips with galvanised pipe stays.

85.—*Ventilating opening shall be kept free.*

THE owner or occupier of every house or tenement shall cause all openings for ventilation or other purposes made in accordance with the By-laws or Regulations to be kept open and perfectly free from obstruction, and shall at all times keep all openings to the drains upon his premises, whether for ventilation or otherwise, and all traps and other fittings in good order, clean, and free from obstruction.

86.—*Lowest Storey of Building shall be at level above Sewer.*

EVERY person who shall erect a new building shall construct the lower storey of such building at such level as will allow of the construction of a drain sufficient for the effectual drainage of such building, and of the provision of the requisite communication with any sewer into which such drain may lawfully empty, at a point in the upper diameter of such sewer or with any other means of drainage with which such drains may lawfully communicate. The Minister may in any case in which he thinks proper exempt any person from the provisions of this By-law or Regulation upon application by the owner and an undertaking providing that it is solely at the owner's risk.

87.—*Fittings in Basement.*

FITTINGS shall not be placed in a cellar or basement except with the permission of the Minister, and where necessary approved reflux traps shall be fixed.

88.—*Rainwater pipes and street gullies shall not be connected with Sewer.*

GULLIES or pits for the disposal of road drainage, or for the disposal of storm water from any roof, yard, or vacant land shall not be connected with any sewer or drain under the control of the Minister.

89.—*Deposit of Refuse in Sewers and House-drains—Explosives.*

ASHES, house refuse, animal or any other solid matter shall not be deposited in any sewer, drain or apparatus connected therewith so as to endanger the efficiency of same; and suitable provision shall be made to intercept and prevent same passing into such sewers or drains. Sludge water or wastes from manufactories shall, if ordered by the Minister, be purified and reduced to a temperature not exceeding 100 degrees Fahrenheit before being discharged into any sewer or drain. Gaseous or acid liquids or solids of an explosive nature shall not be discharged into any sewer or drain.

90.—*Infectious Disease.*

SOLID or liquid discharge from patients suffering from typhoid fever or any other infectious or contagious disease shall not be emptied into any sewer or drain from any hospital, institution, or other private or public building, unless such discharge has been thoroughly disinfected.

DIVISION VII.

BY-LAWS FOR GENERAL PURPOSES.

91.—*Supply to rated properties.*

APPLICATIONS for water services to rated properties shall be made on printed form procurable at the Head or Branch Offices, and shall be lodged not less than seven days before the service is required. Full information, as indicated on the prescribed form, shall be supplied, and the full amount of rates or other charges due on the premises to which a service is required shall be paid on or before application and before the work is commenced.

92.—*Supply to non-rateable properties.*

APPLICATIONS for water services to non-rateable properties shall be made on printed form procurable at the Head or Branch Offices, and the Minister may provide a supply on payment of an annual minimum fee, as determined by him in each case, the cost of service, and, except in cases of private residences, meter rent if service is metered.

It shall be at the discretion of the Minister as to whether or not a meter shall be fixed in each case.

The minimum fee shall take the place of a water rate, and the general provisions of these By-laws as applying to rate-paying consumers shall apply to consumers under this By-law.

This By-law shall not apply to water for railway purposes.

93.—*Supply of Water not compulsory.*

It shall be at the discretion of the Minister to supply water to any individual consumer or to any land whether rated or not.

94.—*Separate Services required.*

EXCEPT with the written permission of the Minister not more than one house or tenement shall be supplied from a single water service. The Minister may, in special cases, consent to two or more tenements being supplied from one water service, but in such cases the sub-services shall be so arranged that the supply to each house shall be independent of the supply to the remaining houses and controlled by a stop-cock on such sub-service.

95.—*Sizes of Service Pipes.*

THE size of the service pipe shall in each case be fixed at the discretion of the Minister.

93.—*Notice of Intention to Build.*

THE owner or occupier of any land supplied with water within a Water District who shall erect, or make, or cause to be erected or made any building or addition to an existing building on such land, shall, before the commencement of same, give notice in writing thereof to the Minister.

97.—*Locking of Taps, etc.*

THE occupier of any premises to which the water has been laid on, or, in the event of there being no occupier, the owner shall cause proper means to be taken, by locks or otherwise, subject to the approval of the Minister, to prevent the use of the water from the main by persons not connected with the said premises.

98.—*Misuse of Water.*

ANY person entitled to a supply of water for domestic purposes only, or entitled only to a supply of water for any other specified purpose, shall not use such water for any other purpose except that specified.

99.—*Water not to be used on other premises.*

No person shall, without the written permission of the Minister, use water supplied by the Minister except on the premises in respect of which application was made for the service from which the water was drawn, or carry away any such water from such premises, or allow any other person to carry any such water away therefrom.

100.—*Illegal taking or selling of Water.*

No person whether entitled to receive water from the Minister or not shall, without the written permission of the Minister, take, carry away, or allow to be taken or carried away, such water from his premises, or sell the same to any other person.

101.—*Turning off when repairing and tapping.*

THE Minister may, from time to time, when necessary for the purpose of tapping or repairing the main, or otherwise, cut off the supply of water from any part or parts of a Water District.

102.—*Reward—Reporting Leakage.*

THE Minister may in his discretion adequately reward any person (not being the person in fault) who shall communicate timely information to the Minister of any leakages or waste of water, whether the same be accidental, negligently or wilfully occasioned or suffered, or who shall give such information as shall lead to the conviction of any person or persons who shall steal or cause to be stolen or improperly appropriated the water of the Minister.

103.—*Waste of Water.*

No person supplied with water by the Minister, whether by meter or otherwise, shall allow the same to run to waste.

104.—*Non-metered Supply to be used for Domestic purposes only.*

IT shall not be lawful for any person to use water for other than domestic purposes, unless such water is measured by a meter, and in the case of a

metered supply the Minister or any officer appointed by the Minister may require that water shall not be used for other than domestic purposes.

105.—*Water for Street-watering.*

IT shall not be lawful for any person or corporation to use any water whatsoever for street-watering purposes, unless with the written approval of Minister first obtained.

106.—*Fixing of Meters.*

ANY officer appointed by the Minister for the purpose may fix a meter on any service, and shall determine the size and class of meter in each case. Meters will be supplied by the Minister and may be open or encased, at the discretion of the Minister.

107.—*Repairs and Maintenance of Meters.*

ANY person supplied with water through a meter belonging to the Minister shall pay the cost of making good all damages to such meter whilst on his land and in his charge. Any repairs required shall be done by the officers of the Minister, and the expense incurred by the Minister in so doing shall, on demand, be paid by the owner or occupier of the land, and if not paid on demand shall be recoverable in the same manner as water rates.

108.—*Notice of Damage or Non-registration shall be given.*

ANY person supplied by the Minister with water through a meter shall, on finding that meter is damaged, or not registering, immediately give notice of the fact to the Local Water Supply Office.

109.—*Interference with Meters.*

ANY person shall not break or in any way interfere with the seal fixed on the meter through which water is supplied by the Minister, or turn or attempt to turn any screw, bolt, or nut on or attached to such meter, or use any tool or appliance on any such meter, or introduce or attempt to introduce any body or substance into such meter, or in any way interfere with any portion of such meter or any pipes or fittings attached thereto.

110.—*Period for Reading.*

THE quantity registered by a meter at any time between ten days before and ten days after any stated date may be taken as the reading of the meter at such stated date.

111.—*Averaging Consumptions.*

DURING the time any meter is undergoing repairs, or should it cease to properly register the consumption of water, the Minister or any officer appointed by the Minister may, at his option, estimate the quantity of water consumed by taking an average of the quantity used during any previous period, or by adopting any other basis of adjustment, as the Minister may determine, and the quantity so ascertained shall be paid for by the consumer.

112.—*Testing Meters.*

IF any consumer shall at any time be dissatisfied with any particular reading of a meter, and be desirous of having the meter tested, he shall give

written notice thereof to the Minister or his officer within seven days from date of such reading, and thereupon the said meter shall be tested by passing through it a pre-determined quantity of water, and if, upon such testing, it shall appear to the satisfaction of the Minister or his officer that the meter registered more than five per cent. in excess of the quantity that shall actually pass through it at such testing, then the Minister shall bear the expense of and incidental to such testing, and shall also adjust the charge to the said consumer; but if the meter upon such testing shall not register more than five per cent. in excess of the quantity that shall actually pass through it, then the consumer shall pay to the Minister all the expenses of and incidental to such testing, provided that the expense of every test shall be fixed by the Minister, subject to a minimum charge of ten shillings for each test; provided also that the consumer shall not, unless the Minister decides otherwise, be at liberty to avail himself of the right to test the registration of the meter for any period other than the period of registration next preceding the date of reading in respect of which he shall have given notice as aforesaid.

113.—*Authority to enter Premises.*

ANY officer acting under the Minister's authority may at all reasonable times enter any house or premises connected, or intended to be connected with the water mains or sewers, in order to examine whether the water pipes, drains, and other fittings in such house or premises are in proper order. Any person refusing such admission or in any way hindering such officer in the execution of his duty shall be guilty of an offence and liable to a penalty as hereinafter prescribed.

114.—*Gratuities prohibited.*

OFFICERS, workmen, or agents of the Minister shall not solicit or receive any fee or gratuity whatever.

115.—*Standard Fittings and Drawings.*

APPROVED standard fittings and type drawings will be exhibited at the Minister's office. Due consideration will be given by the Minister to the claims of any other fittings which may be presented for approval, and, if considered satisfactory, the same may be placed among and become one of the approved standard fittings. The Minister may, from time to time, amend, alter, or cancel any or all of the standard fittings or type drawings, and replace them by such other approved fittings or drawings.

116.—*Junction or Interference with Pipes, Sewers, or Fittings.*

No person shall make any connection or interfere with any pipe, sewer, or fitting of the Minister or with any water pipe, sewer, or drain communicating therewith at any other place than shall be approved of by the Minister, and the mains shall only be tapped by the workmen of the Minister.

117.—*Issue of Permits for and Inspection of Works.*

WORK shall not be undertaken in connection with Water Supply, Sewerage, or Drainage, or in the extension or alteration thereof until such time as the necessary printed permit is obtained. Two days' notice shall in all cases be given by the licensed plumber before work is intended to be commenced unless the officer of the Minister duly appointed to issue permits expressly accepts shorter notice. In no case shall any water pipes, drains, or apparatus in connection with Water Supply, Sewerage, or Drainage be used until the said work shall have been inspected, and if necessary, tested by the said officer, and certified by him on the prescribed form. No underground or enclosed work shall be covered up or concealed from view until the same shall have been duly inspected and passed by the Inspector, and for this purpose the person to whom the permit has been issued shall immediately report any work which is ready for inspection or test, and every facility shall be afforded to such officer for making such inspection or test.

118.—*Obstruction of Pipes, Sewers, Drains, or Fittings.*

1. ANY person who, without the written consent of the Minister, erects or maintains any building or structure or causes any building or structure to be erected or maintained, or places or keeps any material or thing or causes any material or thing to be placed or kept over any pipe, sewer, drain, or fitting which is the property of the Minister, and thereby—

- (a.) Trespasses on or injures such pipe, sewer, drain, or fitting; or
- (b.) Prevents or in any way impedes or obstructs the inspection, maintenance, cleansing, repair, management, or use of such pipe, sewer, drain, or fitting,

shall be guilty of an offence and punishable on summary conviction by a penalty not exceeding twenty pounds, and in the case of a continuing breach of this By-law the offender shall be liable to a further penalty not exceeding five pounds for each day the offence continues after notice thereof has been given by or on behalf of the Minister to the offender.

2. The Minister may cause any building, structure, material, or thing erected, placed, maintained, or kept over any such pipe, sewer, drain, or fitting in contravention of this By-law to be altered, pulled down, removed, or otherwise dealt with as he shall think fit.

3. Any person committing any breach of this By-law shall, in addition to any penalty imposed on him, pay any expense incurred by the Minister in consequence of such breach.

4. This By-law shall extend and apply to buildings, structures, materials, or things maintained or kept as aforesaid, whether they were erected or placed over the pipe, sewer, drain, or fitting before or after the passing of this By-law.

DIVISION VIII. RATES AND CHARGES.

119.—Rates.

(a.) WATER and sewerage rates shall be levied in the Metropolitan Water Sewerage District and Armadale Water District and stormwater rates shall be levied in Metropolitan Stormwater Districts upon the net annual value of each separately assessed piece of rateable land within such Districts, at the following rates, viz. :—

Water Rate : Not exceeding 1s. in the £ per annum.

Sewerage and Stormwater Rates, taken together : not exceeding 1s. 6d. in the £ per annum.

(b.) The minimum sum payable in each year as rates within the Metropolitan Water Sewerage District and Armadale Water District, and within Metropolitan Stormwater Districts, on each separately assessed piece of land, shall be such amount as shall be determined by the Minister in each year, not exceeding—

For water rate : 10s. (ten shillings).

For sewerage and stormwater rates combined : 10s. (ten shillings).

(c.) In the event of a dispute as to whether or not the land shall be regarded as vacant, the decision of the Minister shall be final in every case.

120.—Rates—How payable.

RATES shall become due and payable in each year in equal moieties in advance on the first day of July and the first day of January. Provided that in all cases where a rate is made after the first day of July in any year the notice of the order for the making and levying of such rate, published in the *Government Gazette* and a newspaper, as provided by Section 95 of the said Act, shall specify the minimum sum payable as rate as aforesaid, and the date or dates when the rates shall be due and payable, and such rate shall be and become due and payable in accordance with the terms of such notice.

121.—Allowance for Rate.

SUBJECT to the provisions of these By-laws every ratepayer will be entitled to consume on each separately assessed piece of land of which he is the owner or occupier that quantity of water which, if calculated at the price specified in the Schedule hereto as being that at which water is supplied in return for the rate in the District in which such property is situated, would amount to the equivalent of the water rate paid on each property provided that such water is taken during the period for which the rate is struck.

122.—Proportion of Allowance supplied where Meter installed during year.

WHEN, during the currency of the year in respect of which a water rate has been levied, a meter is attached to a pipe on any land supplied with water, the consumer shall pay for the quantity of water taken, as registered by the meter, from the time when the meter was attached, at the prescribed

price per 1,000 gallons, so far as the water supplied is in excess of the quantity to which the consumer is entitled in respect of the proportionate part of the rate paid by him, apportioned to the period from the date when the meter was attached, to the end of the then current year in respect of which the rate was paid.

123.—Payment for Excess Water.

EVERY ratepaying consumer taking water in excess of the quantity to which he is entitled in respect of the rate shall pay for the excess in accordance with prices set forth in the Schedule hereto.

124.—Fees for Additional Services.

IN any case where the owner or occupier of any separately rated or non-rated piece of land requires more than one service to be installed for supplying water to such land such additional service or services shall, at the discretion of the Minister, be installed on such occupier or owner paying in advance the cost of installation and a fee of not less than One pound per annum, in addition to meter rent, for each additional service. In return for such fee an equivalent quantity of water will be supplied in each year, in the same way as water is supplied in return for water rates. The allowance of water made in return for water rates or minimum water fee paid in respect of original and additional services to each separately assessed property shall not be pooled and set against the quantity drawn through either service or both services.

125.—Meter Rents.

EVERY person supplied with water by measure to other than rated premises or private residences shall pay meter rent in advance according to the following scale :—

Size of Meter.	Annual Rent.			
	Inferential.		Positive.	
	Open.	Encased.	Open.	Encased.
	s.	s.	s.	s.
1 inch	10	20	10	20
1½ inch	10	20	10	20
2 inch	10	20	10	20
2½ inch	10	20	10	20
3 inch	15	30	25	50
3½ inch	15	30	25	50
4 inch	20	40	40	80
5 inch	25	50	60	120
6 inch	30	60	100	200
8 inch	40	80	130	260

126.—Disconnection and Reconnection Fees.

IN every case in which the supply of water shall have been cut off by reason of non-payment of rates or other charges, or by reason of a defective service, or by request of the occupier or owner, or when, in the opinion of the Minister or local officer, necessary to prevent waste of water, or for other reasons, a minimum fee of five shillings shall be

charged for disconnection, and a similar fee for reconnection ; provided that, where the cost exceeds the minimum fee, the actual cost of the disconnection and reconnection, as determined by the Minister, shall be charged, and shall be payable by the owner or occupier for the time being on demand. The service shall not be restored until such fee has been paid.

127.—*Private Fire Services.*

PRIVATE fire services will be allowed, but every such service shall be sealed, except in cases where the Minister may decide that sealing is unnecessary. For each such service the owner or occupier shall pay in advance the actual cost of installation and a minimum annual fee and meter rent as determined by the Minister in each case. The owner or occupier for the time being shall at his own risk and expense, and subject to the provisions of these By-laws, keep the fire service in good order and repair, and so that the same shall at all times be in accordance with the By-laws. No water shall be taken from any sealed portion except for extinction of fire. In the event of the seal having been broken in case of fire or by accident or otherwise, the owner or occupier shall give notice forthwith to the Department and pay the cost of resealing.

128.—*When Accounts due and payable.*

WHERE water is supplied by measure to the owner or occupier of land, whether rated under the Act or otherwise, payment for same shall become due and payable within 14 days after due service of the account, unless otherwise agreed upon.

129.—*Flushing Allowances.*

EVERY consumer of water who receives his supply of water through a meter and pays for such supply an amount exceeding the sum which he would be required to pay upon the rating of his premises, shall, out of such excess, be allowed, so far as such excess will admit thereof, a deduction equal to the value of 5,000 gallons of water per annum on account of each water closet on the premises, for which the supply of water for the flushing shall pass through and be recorded by such meter, except in case of factories or premises having a range of privy closets receiving their water flush from one flushing cistern, in each of which cases the allowance or deduction shall be equivalent to the value of 3,000 gallons of water for each privy seat in such range.

130.—*Sewerage Services and Fees—Non-rateable Properties.*

APPLICATIONS for sewerage services to non-rateable properties shall be made in the prescribed form, and the Minister may provide a service on payment of a minimum annual fee as determined by him in such case.

The minimum annual fee shall take the place of a sewerage rate, and the general provisions of these By-laws shall apply to such services.

131.—*Water for Building Purposes.*

(a) WHERE water is required for building purposes, an application shall be lodged, in writing, on the prescribed form, and the charges shall be in accordance with the fees set forth in the schedule of prices of water in By-law 132.

(b) All fees and charges, except charges for water consumed in excess of quantity allowed in return for fee shall be paid in advance. Charges for excess water referred to shall be payable on demand and in accordance with By-laws and Regulations relating to the sale of water by measure.

(c) When applying for a building service the applicant shall produce the plans of the building to be erected for endorsement thereon of fee paid, and also, if called upon, shall produce the specifications and contract.

(d) Charges shall be based on the cost of the building, and where there is no contract, the value of the proposed building shall be fixed by the Minister.

(e) No person shall use any water for building purposes from an existing service without first making application for same and paying a building fee.

(f) If any person shall use water in connection with any work, in addition to that mentioned at the time of applying to the Minister for a building supply, without first paying the necessary additional fees, the whole supply may be cut off without prejudice to the Minister's right to proceed for breach of this By-law.

132.—*Prices of Water.*

THE scale of charges for water supplied by measure, and the minimum quantity of water to be charged for by the Minister within the Metropolitan Water Sewerage District and Armadale Water District shall be as set out in the Schedule hereto :—

SCHEDULE.

METROPOLITAN WATER SEWERAGE DISTRICT AND ARMADALE WATER DISTRICT.

Class of Service, etc.

Per 1,000 gals.
s. d.

- (1) Water in return for water rates or for minimum water charges (except for special services of "Hills" water) ... 1 6
- (2) Water supplied in excess of the quantity allowed for water rates or minimum water charges :—

(a) Domestic Services :

Where full year's rates and minimum charges and all arrears of rates and minimum charges and interest from previous years are paid on or prior to 30th November of current rating year ... 1 3

	Per 1,000 gals.
	s. d.
Where rates and minimum charges and all arrears of rates and minimum charges and interest from previous years are not so paid ...	1 6
(b) Trading and all other services not otherwise specified ...	1 6
(c) Services to bowling, cricket, golf, and other sports grounds; also cemeteries ...	1 0
(d) Services to parks and reserves open to public and not used as sports grounds; public sanitary conveniences; religious and charitable institutions (except for trading purposes); public hospitals; and for street watering ...	0 9
(3) Special services of Hills water (other than for shipping), subject to the approval of the Minister in each case:—	
Fremantle and Suburbs ...	2 6
Perth and Suburbs ...	2 0
Applicants to pay full cost of service and all annual charges, including minimum fees, meter rent, etc., as fixed by the Minister.	
(4) Shipping services for water delivered on vessels at wharves:—	
Hills water ...	4 0
Local water ...	3 0
Jettyman's services:—	
5 p.m. to midnight ...	2s. 6d. per hour
Midnight to 7.30 a.m. ...	3s. 6d. „
Sundays and Proclaimed Holidays ...	3s. 6d. „
(5) Building services (metered or non-metered)—	
(a) Houses, brick, stone, concrete:—One-fourth per cent. on cost of building. Minimum fee, 20s.	
(b) Houses, wood or iron, with brick chimneys, or lath and plaster lining:—One-fifth per cent. on cost of building. Minimum fee, 10s.	
NOTE.—This charge also applies to wood and iron houses without brick or plaster work, if service is installed before completion of construction of building.	
(c) Other buildings:—One-tenth per cent. on cost of building. Minimum fee, 20s.	

It shall be at the discretion of the Minister as to whether or not in any case a supply of water shall be classed as a supply for building purposes, and as to whether or not the supply shall be measured by meter.

Should the Minister specially meter a service, water shall be allowed in return for building fee at 1s. 6d. per 1,000 gallons, and the applicant shall pay for all water consumed in excess of such allowance at the rate of 1s. 6d. per 1,000 gallons.

In cases where supply is drawn through an existing metered service, water shall be allowed in return for building fee paid at 1s. 6d. per 1,000 gallons.

The cost of installing service to boundary of premises and affixing meter shall, in addition to fee, be borne in each case by applicant or owner, provided that, if property is rateable and service is to remain as a means of permanent supply, the cost shall be defrayed by Department.

By-law No. 132 (5) shall be read in conjunction with By-law No. 131.

DIVISION IX.

PENALTIES.

133.—Penalty for Breaches.

ANY person committing a breach of any of the foregoing By-laws to which no specific penalty is attached or who shall refuse or neglect to obey any injunction in any such By-law, or to comply with any requirements therein contained, shall, upon conviction, be liable to a penalty not exceeding £20, and, in case of continuing offence, a further penalty not exceeding £5 for each day after notice of such offence shall have been given by or on behalf of the Minister to such offender, and the offender may be ordered to pay (in addition to any penalty imposed) the expense incurred by the Minister in consequence of the breach of the By-law.

WM. J. GEORGE,

Minister of Water Supply,

Sewerage, and Drainage,

7th March, 1922.

Approved by His Excellency the Governor in Executive Council, this 15th day of March, 1922.

BERNARD PARKER,

Clerk of the Council.