

The term "Nuisance Authority" has the same meaning as in "The Sanitary Act, 1866:"

2. The Master of every ship within the district of a Nuisance Authority, having on board any person affected with cholera, or the body of any person dead of cholera, or anything infected with or that has been exposed to the infection of cholera, shall, as long as the ship is within such district, moor, anchor, or place her in such position as from time to time the Nuisance Authority directs.

3. If at any time a Nuisance Authority is informed that cholera exists, or within three days previously has existed, in a ship within its district, such authority shall cause the ship to be forthwith visited, inspected, and otherwise dealt with (according to the circumstances of the case), in like manner as nearly as may be as if the ship were a house within the district of such authority, and shall give all such medical and other directions with reference to the persons therein, as seem to such authority requisite or proper for preventing the spread of the disease therefrom, and for disinfection or disposal of any thing infected, or that has been exposed to infection therein or therefrom.

(Signed) EDMUND HARRISON.

PRIVY COUNCIL OFFICE.

MEMORANDUM ON DISINFECTION.

N.B.—It is to cleanliness, ventilation and drainage, and the use of perfectly pure drinking water, that populations ought mainly to look for safety against nuisance and infection. Artificial disinfectants cannot properly supply the place of those essentials: for, except in a small and peculiar class of cases, they are of temporary or imperfect usefulness. That no house-refuse—not only no excremental matter, but also no other kind of dirt or refuse, should remain on or about inhabited premises, is a first rule against infection. That the air within the house should never in any part of the house be stagnant, but should always be in course of renewal from without by uninterrupted and abundant supplies of fresh air, is a condition of equal importance. And that all water meant to be used for drinking or cooking should be drawn from sources which cannot have been polluted by any kind of refuse-matter, is a third most important rule for the avoidance of infection.

If dwelling-places have within them any odour of drainage, particular examination should be made (1) whether the filth which house-drains are meant to carry away is retained in or near the premises in ill-made drains, or sewers, or cesspools, or perhaps is leaking from house-drains within the house; and (2) whether, inside the house, the inlets of drains and sinks are properly trapped; and (3) whether the drains and sewers are sufficiently ventilated outside the house. All water-closets within houses should have free openings for ventilation from and into the outer air. Of a cesspool, the only true disinfection is to abolish it. In country-places, where proper drainage is not provided, the nuisance of open privies may be best avoided by the use of the so-called earth-closet.

If a sewer is much complained of, as stinking into the public way, generally the presumption is, that, from original ill-construction or some other cause, it does not properly fulfill its object, but has filth accumulated and stagnant in it; and such a sewer, besides occasioning nuisance in the public way, may be the source of serious danger to the inhabitants of houses which drain into it. It is most important that all sewers should be well ventilated at points where their effluvia will be least injurious; and ordinary drain-pipes may be used to conduct the effluvia to a distance.

For convenience, in this memorandum, the word "disinfectants" is used to cover, not only those true disinfectants which permanently destroy infective matter, but also those agents which merely arrest the process, or absorb the offensive products, of organic decomposition.

For artificial disinfection on a large scale, the agents which most commonly prove useful are—quick-lime, chloride of lime, carbolic acid, sulphate of iron, perchloride of iron, and chloride of manganese. The following are also efficient disinfectants, but, as being dearer, are less suited for large operations:—sulphate of zinc, chloride of zinc, chloride of soda, and permanganate of potash. In certain cases chlorine gas, or nitrous acid gas, or sulphurous acid gas, may advantageously be used; and, in certain other cases, powdered charcoal or fresh dry earth.

Quick lime ought to have been recently burnt, and may be used, either in the form of dry powder, or, stirred up with about ten times its bulk of water as milk of lime. Chloride of lime is best used with water, and thoroughly mixed with it, in the proportion of a pound to the gallon; or, of the solution, as commonly sold, about two pints may be mixed with a gallon of water. Carbolic acid (in the fluid form in which it is commonly sold) should be dissolved in about eighty times its volume of water, with which it must be mixed by strong shaking in a closed vessel. Sulphate of iron should be dissolved in ten times its weight of water; a solution which is best effected by employing hot water and stirring. Of perchloride of iron and chloride of manganese, the common concentrated solutions may be used, diluted with ten or twelve times their bulk of water. Sulphate of zinc should be dissolved in about ten times its weight of warm water. Of Chloride of zinc the common concentrated solution may be diluted with eight or ten times its bulk of water.* Of chloride of soda, the common solution may be used like that of chloride of lime. Of permanganate of potash an ounce may be dissolved in a gallon of water.†

All disinfectants must be used in quantities proportionate to the amount of matter or surface to be disinfected. When the matters requiring to be disinfected have an offensive smell, the disinfectant should be used until this smell has entirely ceased; and as often as the smell recurs, the disinfectant must again be used.

1. During the emptying of privies and cesspools, and whenever else temporary disinfection is required for them, carbolic acid, or sulphate of iron, or perchloride of iron, or chloride of manganese, or chloride of zinc, will be found available. A dilute solution (as above) of one of those agents should be poured into the privy or cesspool, from a quart to a pailful at a time, till the desired effect is obtained. Especially where cholera or typhoid fever is present, privies and cesspools ought to be very frequently flooded in this manner. The best test of their being adequately disinfected, is the entire absence of faecal or ammoniacal odour.

2. Heaps of manure or other filth, if it be for the time impracticable or inexpedient to remove them, should be covered, to the depth of two or three inches, with a layer of freshly-burnt vegetable charcoal in powder. Freshly-burnt lime may be used in the same way, but is less effective than charcoal. If neither charcoal nor lime be at hand, the filth should be covered with a layer, some inches thick, of clean dry earth. For a privy which has only solid contents, the

* Or the preparations respectively known as Burnett's and Crew's disinfectant solutions may be employed.

† Or Condy's disinfectant fluids, which contain manganic and per-manganic salts, may be used.