Form 16.

Commonwealth of Pennsylvania.

DEPARTMENT OF HEALTH.

RULES TO BE OBSERVED IN THE CARE
AND MANAGEMENT OF

ROOM DISINFECTION.

The quarantine period as prescribed by law having expired and the notice of death or recovery of the patient and request for disinfection of the premises having been made by the attending physician the patient and nurse having taken an antiseptic bath as outlined in the circulars on the various diseases, the room or rooms occupied by them must be disinfected by the health officer.

The room to be disinfected should be sealed with strips of gummed paper or strips of paper and home made flour paste, closing flues, chimney places and all visible cracks and crevices about the walls.

Open up beds, stand mattresses on end, open closets, bureau drawers and trunks, spreading their contents about the room.

Fabrics, especially carpets, bed and body clothing fully unfolded, should be suspended upon chairs, clothes-lines and bedsteads, exposing all to the fumes of Formaldehyde gas, which is one of the most efficient agents for room disinfection in use at the present time.

While Formaldehyde is a powerful germ destroyer, it causes practically no injury to delicate fabrics or room furnishings.

In using Formaldehyde gas for disinfection, the air of the room should be both warm and moist. The latter may be accomplished by suspending wet sheets about the room.

An effective and economical method of generating this gas is by the addition of the official (U. S. P.) solution of Formaldehyde to Potassium Permanganate.

Eight (8) ounces, by weight (one measure) of commercial Potassium Permanganate crystals is required for each pint of a solution of Formaldehyde (at least 37½ per cent.) in disinfecting every thousand cubic feet of air space.

Briefly, this method may be described as follows:

First: Secure a tin, agate lined or iron pail with a flaring top which has a capacity at least equal to ten times the quantity of disinfectants to be used.

Second: Place the potassium permangante crytals in the pail spreading them evenly over the bottom.

Third: Set the pail containing the crystals in a pan, metal wash tub or boiler containing water, a brick or stove lid being placed under the pail.

Fourth: Pour the formaldehyde solution from a dipper or some wide-mouthed vessel over the crytals of potassium permanganate.

Fifth: Seal the door of exit including the key-hole and crevices about the door knob. This must be done quickly as 80 per cent. of gas is liberated during the first five minutes.

The seal may be broken and the container quickly removed at the end of an hour. The door should then be closed and resealed immediately.

Sixth: Leave the room closed for five hours after removing the container.

Caution: It has been determined that the gas so liberated is slightly inflammable. The room should be warm and moist, but under no circumstances should the chemicals be mixed and this form of disinfection performed in the presence of a live fire of flame in the room. Separate containers may be used for every pint of formaldehyde solution and proportionate amount of potassium permanganate required. It would be well to surround the vessel within which the container is placed, for a distance of at least three feet, with some absorptive material to receive any stray bubbles, thereby protecting the floor from any possibility of resulting stains.

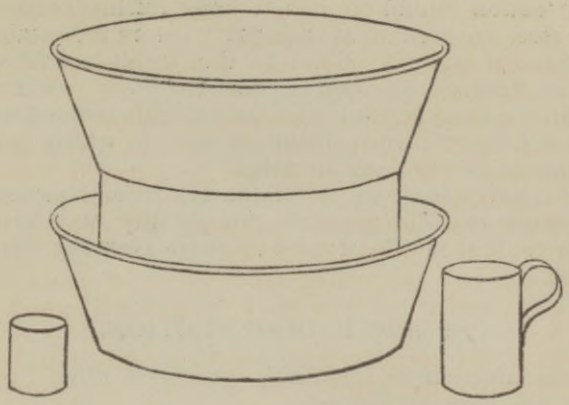
The residue from container must not be thrown out on the ground. It may best be disposed of by throwing in the privy or sewer.

After disinfection soak bed and body clothing, etc., in a solution made by adding four (4) ounces of formaldehyde solution to eight gallons of water.

After remaining in this solution for two hours they should be removed and boiled.

After the necessary cleaning, the windows should be opened and the room thoroughly aired for two days before it is again occupied.

Poisonous drugs, such as corrosive sublimate, carbolic acid, etc., should be plainly labelled "Poison" and kept beyond the reach of children.



The above cut shows the Pennsylvania State Department of Health's modification of the vessel designed by the Maine State Board of Health for use in liberating Formaldehyde gas from a water solution, by means of potassium permanganate.

The larger funnel shaped container measures 15 inches diameter at the top; 11 inches at the bottom, the inside depth or height of the flaring part 5 inches, and the depth or height of the lower part 6 inches.

The pan measures 15 inches diameter at the top, 11 inches at the bottom and has a straight height or depth of 5 inches.

The dimensions of the vessel have been fixed by empirical trial as ample for the diffusion of the gas, reducing the danger from ignition when in contact with a live flame to a minimum.

The pan within which water is placed interlocks with the container proper, leaving sufficient space between the vessels for the circulation of water which protects the floor from heat generated by the chemical action.

For convenience in carrying, the pan is made to nest in the top of the container proper and containers to nest in each other.

Three pints of Liquid Formaldehyde and twenty-four ounces of potassium permanganate may be safely used in this vessel without danger of overflow.

After Small-Pox, Scarlet Fever or Diphtheria it is advisable to burn mattresses used by the patients or books exposed to the infection, but such destruction must be at the expense of the householder, and such articles must never be destroyed by the Health Officer until he has received a statement from the householder who assumes all responsibility for damage and gives permission for such destruction.

Special attention should be paid to hand railings, door knobs, etc. If such a person has used an outside privy before the establishment of quarantine, the woodwork should be thoroughly scrubbed with the Bichloride of Mercury Solution as advised above. Scraps of paper should be thrown into the vault and the contents covered with at least two inches of freshly burned unslaked lime, to which is then added the same amount of fresh soil or ashes.

Whenever a privy receives the discharges from a patient suffering from a transmissable disease, even though they may have been disinfected, the vault should be treated as above after the recovery of the case or cases.

SULPHUR DISINFECTION.

Sulphur disinfection is frequently practiced after Formaldehyde disinfection has been performed.

This agent is most useful for the destruction of insects and vermin, but when used for this purpose all rooms in the building should be disinfected simultaneously.

Three pounds of flowers of sulphur should be used for every 1,000 cubic feet of air space.

Bricks should be placed on edge in the bottom of a metal tub containing (4) inches of water (dampness is necessary to render the fumes of sulphur effective.)

An iron kettle or vessel into which the sulphur should be placed should then be set on the bricks.

The sulphur may be ignited by hot coals or by lighting a small quantity of alcohol which is placed in the centre of this sulphur. A hasty exit should be made by the disinfector.

The same precautions should be observed with regard to sealing the room as given under instruction for Formaldehyde disinfection but when sulphur is used the room should be allowed to remain closed for at least twenty-four hours.

It should be remembered that sulphur will tarnish metals and is injurious to the coloring matter and tensile strength of fabrics.

Health Officers will use both sulphur and formaldehyde before lifting quarantine after Small-pox has been treated in a dwelling extending disinfection to every room in the house.

SAMUEL G. DIXON, M. D.,
Commissioner of Health.

Revised July 1, 1911.