

UNITED STATES PATENT OFFICE.

WILHELM DREYFUS, OF NEW YORK, N. Y.

DISINFECTING COMPOUND.

978,142.

Specification of Letters Patent.

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No Drawing.

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To all whom it may concern:

Be it known that I, WILHELM DREYFUS, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented a certain new and useful Improvement in Disinfecting Compounds, of which the following is a specification.

The present invention relates to a disinfecting and deodorizing compound containing a large percentage of formaldehyde in a form available for use in disinfecting machines, and in a process for making said compound.

It is well known that water will readily absorb formaldehyde gas, forming an aqueous solution which is useful for some purposes. Such a solution, however, is not suitable for commercial use in the machines commonly used for distributing disinfectants.

The present invention relates to means whereby the powerful disinfecting qualities of formaldehyde may be made available in the disinfecting machines commonly in use, without danger of damaging them in the least. For this purpose I incorporate formaldehyde in a liquid oily medium, preferably by the process hereinafter described.

In the preferred modification of my improved process I make a solution of caustic alkali in alcohol, and in this solution I dissolve the formaldehyde or a polymerized form thereof, preferably "paraform." This solution is incorporated successfully with a mineral oil in clear and substantially homogeneous solution by admixture of a natural or synthetic essential oil.

One way in which the above process may be carried out is the following, although it is to be understood that I do not limit myself to the use of the proportions named or to the particular substances or steps described, save in so far as specifically claimed hereinafter. Two separate mixtures are prepared. One of these—for convenience called "mixture A"—is prepared by dissolving three pounds of caustic alkali preferably caustic potash in seven gallons of grain or wood alcohol, practically free of acetones. To this I add twenty-four pounds of paraform which is dissolved by the solution. The other mixture—for convenience referred to as "mixture B"—is prepared by mixing approximately equal parts of nat-

ural or synthetic oil of wintergreen and refined mineral oil or petroleum and heating the same from 100° to 150° Fahr. The oil used for lighting purposes will answer in this connection, although I prefer the heavier distillates so long as they are liquid enough for use in the disinfecting machine above mentioned.

A barrel of my preferred disinfecting compound may be made by adding from one to two gallons of "mixture A" to ten gallons of the hot "mixture B," and, while still hot, mixing the resulting compound with enough additional mineral oil to make a barrel of about 54 gallons.

I have found that the compound produced in accordance with my invention is a substantially uniform product which gives off both formaldehyde and the perfume when properly distributed in the space to be disinfected.

The compound above described is found efficient and useful when placed in an appropriate container in the apartment to be disinfected or deodorized, whence it is disseminated by volatilization, this process being assisted in some cases by the slow discharge of the compound drop by drop from the container. For carrying out the slow discharge as aforesaid, the disinfecting machines above mentioned are generally employed; and in these wicks are generally employed for carrying out the disinfecting liquid. It is one object of my invention to supply a liquid which will be carried off successfully in this manner by means of wicks without danger of clogging. For this purpose it is out of the question to saponify the oil, and the use of alkali in my process produces no saponification, as the reaction of the paraform and alkali in solution A prevents this. By the term "free oil" in my claims, I mean oil which is not saponified.

What I claim is—

1. A disinfecting liquid comprising free mineral oil incorporated with an essential oil and with a solution of caustic alkali and formaldehyde, substantially as described.

2. A disinfecting liquid comprising free mineral oil incorporated with an essential oil and with a solution of caustic alkali and formaldehyde in alcohol, substantially as described.

3. A disinfecting liquid comprising free mineral oil incorporated with an essential

oil and with an alkaline solution of polymerized formaldehyde, substantially as described.

4. The process of preparing a disinfecting fluid which consists in mixing a refined mineral oil with an essential oil and a solution of caustic alkali and formaldehyde of such proportions that the saponifying effect of the alkali is neutralized, substantially as described.

5. The process of preparing a disinfecting fluid which consists in mixing a mineral oil with an essential oil and an alcoholic solution of caustic alkali and formaldehyde of such proportions that the saponifying effect

of the alkali is neutralized, substantially as described.

6. The process of preparing a disinfecting fluid which consists in dissolving formaldehyde in a solution of caustic alkali in alcohol, preparing a mixture of mineral oil and an essential oil, heating the latter, and mixing the aforesaid solution of formaldehyde with said heated mixture, substantially as described.

WILHELM DREYFUS.

Witnesses:

CHAS. E. JEFFERIES,
MAY A. BUTLER.