Sept. 6, 1927. 1,641,183

E. E. MARTIN ET AL

SOLIDIFIED DEODORANT AND INSECTICIDE

Filed March 2, 1925

FIG. 1

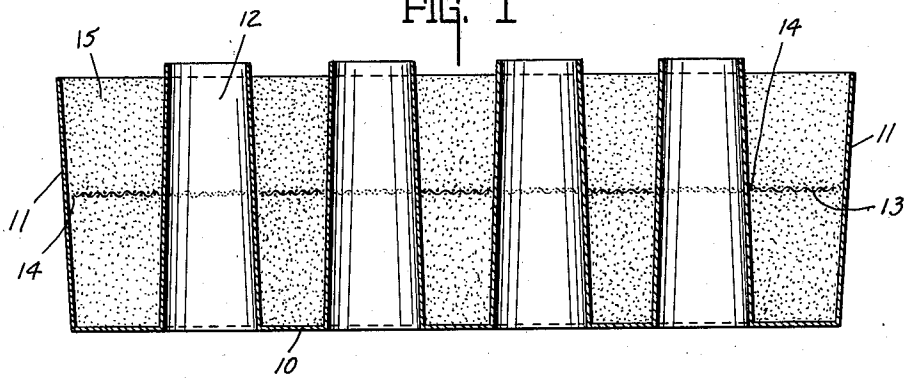


FIG. 2

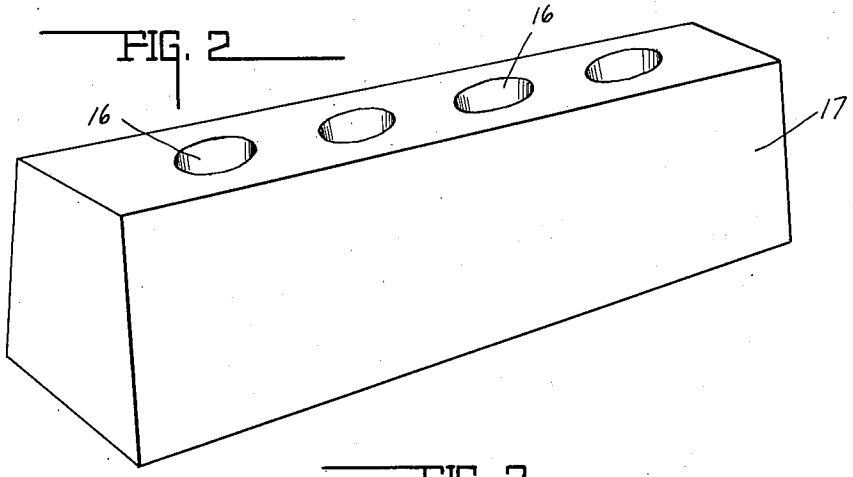
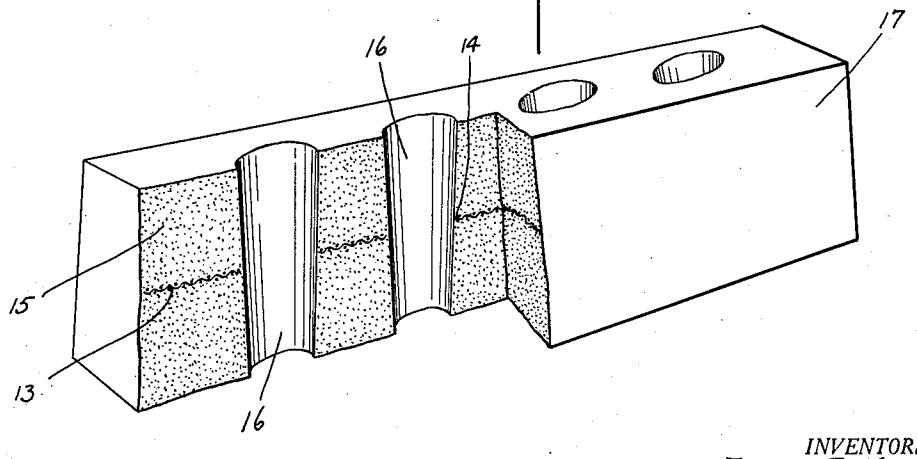


FIG. 3



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UNITED STATES PATENT OFFICE.

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SOLIDIFIED DEODORANT AND INSECTICIDE.

Application filed March 2, 1925. Serial No. 12,661.

This invention relates to a deodorizing and insecticidal material in the form of blocks.

The chief object of the invention is to produce a block of material suitable for a deodorant or an insecticide or both which will have the necessary evaporation or vaporization rate and which will have the necessary physical form to secure or assure said rate, and which will furthermore have such physical form that it may be readily handled and also readily handled without danger of breakage and which when in use will not disintegrate as it approaches exhaustion.

The chief feature of the invention consists in forming the suitable material into suitable block form. The resultant block has apertures extending therethrough for presenting an apparently larger mass of material from a predetermined amount thereof so that said material may be more readily handled as well as the gripping portions provided by the apertures or recesses formed therein. The enlargement of the over all superficial area of the block provides an increased surface area for securing a greater amount of vapor from the same mass of material than otherwise would be obtainable from a regular and solid mass of the same material.

A further feature of the invention consists in the addition of a reinforcement incorporated in the block, whereby strength is imparted to the block so that in shipment the block, if brittle, will not crack or break, and furthermore so that the block when in use, will not disintegrate or crumble as it approaches complete exhaustion, but will maintain its block form substantially to the end of the life of the block.

The full nature of the invention will be understood from the accompanying drawings and the following description and claim:

In the drawings Fig. 1 is a central sectional view of a mold, the reinforcement and the material in the mold for forming the block. Fig. 2 is a perspective view of the completed block. Fig. 3 is a similar view of the completed block with one-fourth removed showing the removed surfaces in section.

In the drawings 10 indicates a mold which herein is shown rectangular in outline with upwardly and outwardly inclined walls 11. At suitable distances, extending upwardly from the base, are frusto conical members 12. These constitute cores for the mold and they may be of suitable form but herein are shown frusto conical. Preferably they are tapered in the direction of the top of the mold.

The material to form the deodorant and insecticide, either or both, is poured into the mold after the reinforcing member or members is or are applied to the mold. Herein the reinforcing member is indicated by the numeral 13 and the same is provided with apertures 14 that register with the cores. The reinforcement is herein shown as consisting of a single plate or sheet of screen wire having the apertures 14 of such size that the plate or screen is positioned approximately mid-way between the top and the bottom of the cores, and is maintained in that position by engagement therewith. The moldable material 15 is supplied to the mold and passes through the reinforcement and fills the entire mold except for the cored portions. As shown in the several figures, the reinforcement is not supported by any one of the sides of the mold and therefore the completed block when removed from the mold does not expose any face of the reinforcement. The reinforcement is of such character that it prevents breakage of the block in shipment and also prevents crumbling of the block when the same approaches exhaustion.

The block may be removed from the mold by chilling the same and subsequently heating the mold or by any other convenient means. The resultant block produced by the foregoing process is shown in Figs. 2 and 3. It will be noted that the total surface exposed to the atmosphere is increased over the over all dimensions by reason of the surfaces of the conical openings 16 formed in the resultant block 17 which includes the reinforcement 13.

A suitable material satisfactory not only as an insecticide but as a deodorant, or both, is paradichlorbenzol. This material is commercially available in the form of crystals and is generally marketed in that form. These crystals are also colorless and have a melting point of about 56 degrees. This

material also has the property that upon heating or application of pressure the crystals fuse and a liquid results. This liquid can be readily poured into molds and thus blocks produced. This material, furthermore, has a pleasing odor and when exposed to the atmosphere will volatilize without leaving a residue. Thus there is available a solid material at normal temperature which will volatilize under normal room temperatures. If desired there may be added to the material hereinbefore mentioned, a suitable perfume or odoriferous substance which in turn will partially mask the odor of the paradichlorbenzol. Furthermore, there may be included in the material more potent agencies for the purpose desired.

The invention claimed is:

A disinfecting block formed of materials susceptible to vaporizing and crumbling, a reinforcing element in said block, comprising a woven fabric embedded wholly within said block and terminating at its ends and edges a slight distance inwardly from the corresponding ends and edges of said block.

In witness whereof, we have hereunto affixed our signatures.

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