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W. J. DUDDLESON
MOTH PROTECTING AND DESTROYING DEVICE

Filed March 7, 1923

Fig. 1.

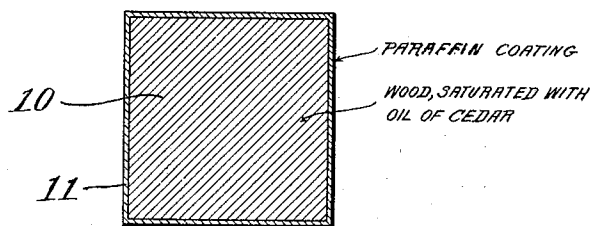
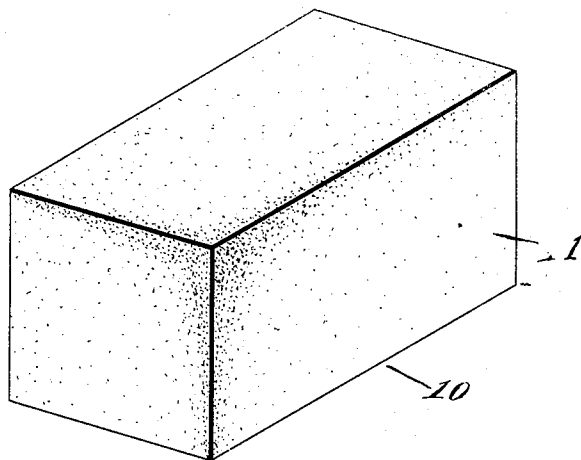


Fig. 2.

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MOTH PROTECTING AND DESTROYING DEVICE.

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To all whom it may concern:

Be it known that I, WILLIAM J. DUDDLESON, a citizen of the United States, residing at San Luis Obispo, in the county of San Luis Obispo and State of California, have invented certain new and useful Improvements in Moth Protecting and Destroying Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to an insecticidal device for use particularly in the repelling of moths and the destruction of their larvæ.

The moths, or tinead insects as known to students of entomology, are more commonly known in the following three species; the *Tineola bisselliella hummel*, commonly called the clothes moth; the *Tinea pellionella linnaeus*, commonly called the fur moth; and the *Trichophaga tapetzella linnaeus*, which is commonly called the carpet moth.

For a long time past the oils of cedar have been recognized as a moth repellant, and the principal constituents of the commercial cedar oils, i. e. oil of cedar wood and cedar leaf, are alcohol cedrol, or cedrol camphor, the sesquiterpene alcohol cedrenol, and the sesquiterpene cedrene.

A great practical difficulty in the use of oils of cedar has been in the determination, of the proper quantity of the oil proportionately to the area of the enclosure within which it is placed to secure the desired results.

In cedar chests, the oil in the cedar wood of which the chests are made or lined, is of but relatively small strength; such as from one to two per cent, and gives off a volatilization not to exceed one-three hundredth

$\frac{1}{(300)}$ that is; one part of volatile oil to three hundred parts of atmosphere.

It is an object of the present invention to provide devices, in the form of block, units, or the like, which carry practically uniform quantities of oils of cedar and which are so constructed as to give off volatile oils at a practically predetermined percentage for a predetermined length of time; thus insuring, to the certainty, effective use of the cedar oils for the extermination and repelling of moths in enclosures of different sizes by utilizing one or more of the units.

Another object of the invention is to provide an insecticidal device of this character which may be in unit form and composed of a block adapted to be employed in any desired numbers proportionate to the cubical contents of the enclosure, and which may be easily manufactured and used for securing the best results.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views.

Figure 1 is a perspective view of the unit embodying the features of the present invention, and

Figure 2 is a transverse section through the same.

Referring to the drawing, 10 designates the body portion of the unit which may be of block form and of suitable dimensions for easy handling, one size which is found to be of advantage being three-quarters by three-quarters by one-and-one-fourth inches. This body 10 may be composed of wood, compressed saw dust, or any other suitable material or composition capable of being saturated with the oils of cedar. This body 10 is completely saturated with the oils of cedar so that a plurality of the bodies contain substantially a uniform quantity of the oils.

For the purpose of regulating the volatilization of the oils of cedar from the body 10, the body, after complete saturation, is coated with a thin layer 11 of paraffin, wax or other sealing agent. This coating is preferably a thin coating and is made of a thickness which regulates the rate of volatilization so that the device will give off a strength, such as from six-three-hundredths to ten three-hundredths for a period of approximately six months. These proportions and figures are merely recited for the purpose of describing the present embodiment of the invention and may be varied within practical limits, and show that the unit or device of this invention is designed to contain a predetermined quantity of oils of cedar which may be given off in volatile oil at a requisite volume for a predetermined period of time.

The proportions of the size of the block



are based upon experiments and are found when completely saturated to give off the requisite strength or volatile oil within a closed chamber one by one and one-half by
5 four feet. The block therefore constitutes a unit which may be used in multiples of any member for insuring requisite volume of volatile oil in chambers or spaces of different dimensions.

10 It is found that the strength above specifically set forth has scientifically proven to be complete protection against the larvæ. The odor of the oils of cedar is, at the same time, very pleasing and imparts to clothing,
15 furs linen and laundry a delightful aroma.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit there-
20 of, such changes and modifications being restricted only by the scope of the following claims.

What is claimed is:—

25 1. An insecticidal device comprising a block unit of predetermined size and density

completely saturated with oil of cedar, and an external coating of paraffin on the block for enclosing the oil of cedar and retard-
ing the volatilization thereof.

2. An insecticidal device comprising a
30 block of predetermined size and density saturated with a predetermined quantity of oil of cedar for giving off a relatively definite volume of volatilization per unit of
35 closed space during a relatively definite period of time, and a coating of paraffin on the block for regulating the volatilization of the oil of cedar.

3. A moth repellent unit adapted to be
40 used in multiples and comprising a body portion of predetermined size saturated with oils of cedar or other essential oils where used for the same purpose to a prede-
45 termined extent, and a layer of volatilization controlling substance coated on the exterior surface of the body of the unit for slowly liberating the oils of cedar or other oils in an enclosure through a prolonged period of time.

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