Nov. 10, 1931. R. BENNETT 1,831,476

DEVICE FOR KILLING MOSQUITO LARVAE

Filed Aug. 26, 1930

Fig. 1.

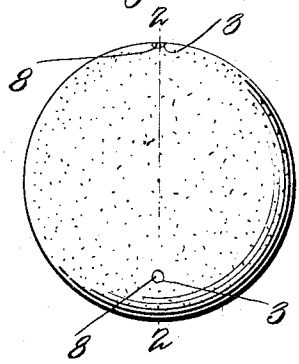
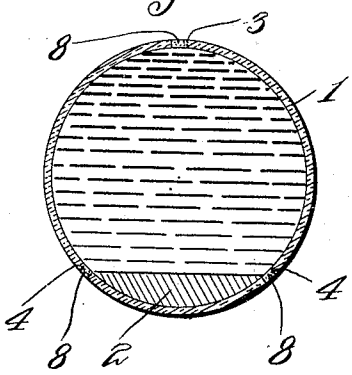


Fig. 2.



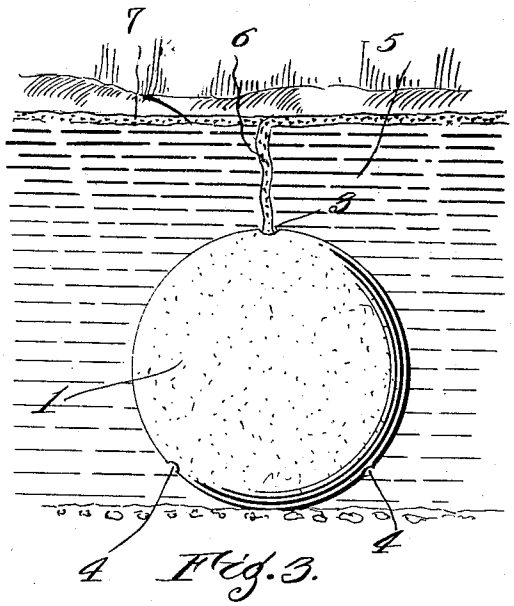


Fig. 3.

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UNITED STATES PATENT OFFICE

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DEVICE FOR KILLING MOSQUITO LARVÆ

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My invention relates to a device for killing mosquito larvæ, and it consists in the constructions, combinations and arrangements herein described and claimed.

The use of oil, such as "petroleum oil" in the killing of mosquito larvæ is quite common. Usually the method consists in placing a quantity of the liquid on pools in swamps, low places where rivers overflow, and on other bodies of stagnant water which form the breeding places of these pests. The oil spreads out on the water and forms a thin film which tends to kill the larvæ, but the method in common use has certain objections. It necessitates usually a large amount of the oil in order to cover the territory which is necessary to be covered. Many times greater amounts are applied in places than are necessary, thus entailing a waste of the oil. At other times a slight current in the stream or waves caused by winds, will carry the film away from the place where it is intended to stay, and thus the effect is lost.

An object of my invention is to provide a device which will give out a constant supply of a thin stream of oil, thus insuring the retention of the oil in a given place long enough to permit it to accomplish its purpose.

A further object is to provide a device which will render the use of oil economical in that it dispenses the oil very slowly.

A further object is to provide a convenient way of transporting and depositing the oil in position to work effectively.

A further object is to provide a device which will eliminate any loss of oil in transportation and will also eliminate any danger of conflagration, due to spilling of the oil or the breakage of large containers which might liberate a large quantity of oil.

Other objects and advantages will appear in the following specification and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawing forming part of this application, in which:

Figure 1 is a side view of one embodiment of my invention.

Figure 2 is a section on line 2—2 of Fig. 1, and

Figure 3 is a view showing the container in position for use.

In carrying out my invention I provide a container of the type best shown in Fig. 2. This consists preferably of a hollow sphere or ball 1. The ball may be made of any water-proof substance, such as celluloid, glass, sheet metal and the like. It is provided with a weight 2, which also may be made of any suitable material, but preferably some material which is in a plastic state so as to conform to the inner contour of the ball, and which will harden or set before use, such as cement or wax, but it will be understood that any suitable weight such as a metal weight or a wooden weight, might be placed in the ball before the two halves thereof are joined together. At one portion of the ball I provide an escape opening 3 for the oil and one or more air openings 4 on the opposite side of the ball.

The oil may be introduced in any suitable way such as by the introducton of an inlet pipe, not shown, into one of the lower openings 4, while the other opening 4 is held closed while permitting the air to escape from the upper opening 3, and continuing the process of filling until oil comes from the upper opening. The steps in filling the ball with oil forms no particular feature of the present invention. The openings 3 and 4 are then closed by water soluble material 8, such as a stiff flour dough.

The containers filled with oil are carried to the spot where it is desired to kill the larvæ, and it is dropped into the water 5. The weighted portion will cause the ball to assume the position shown in Fig. 3. Due to the action of the water the soluble plugs will disintegrate. Water will then enter the lower openings 4 and tend to force the oil out of the upper opening 3 in a thin stream which I have indicated at 6. When it reaches the top of the water it will spread out in a thin film 7.

In the illustration the stream of oil and the film are shown in exaggerated section, but this is merely for the purpose of illustration. The ball will remain in the water and the

thin stream of oil will continue to flow upwardly for a considerable length of time even though the film should be carried away by the current. The continued flow of the oil will provide sufficient oil to kill the larvæ.

The provision of the weight insures the maintaining of the ball in the proper position for effective use, while the provision of the soluble plugs or closures enables the oil filled ball to be transported without danger of spilling or leaking, and without any necessity on the part of the user to open the closures. In fact, it is advantageous not to have the closures opened all at once since the oil will begin to seep out slowly, thus lengthening the time of the period of use of the device. It will be observed that the water-soluble material tends to soak up some of the oil and the presence of the oil retards the disintegration so that it takes a considerable time for the closure to be completely disintegrated. This permits the oil to seep out slowly in a thin stream.

I claim:

1. A device for killing mosquito larvæ comprising a hollow sphere of water-proof material, a weight disposed within the container, said container having a water entrance opening disposed in the wall above the weight, and an exit opening at the top of the container, oil disposed within the container, and water soluble closures for normally closing said openings.

2. A device for killing mosquito larvæ comprising a hollow container of water-proof material, a weight disposed within the container, said container having a water entrance opening disposed in the wall above the weight, and an exit opening at the top of the container, oil disposed within the container, and water soluble closures for normally closing said openings, the weight of the container and the oil therein being sufficient to sink the container in water.

3. A device for killing mosquito larvæ comprising a hollow container of water-proof material, oil disposed within the container, the weight of the oil and the container being sufficient to sink the container and its contents, a water entrance opening disposed in one portion of the container, an exit opening at another portion, and water-soluble closures for normally closing said openings, said water soluble closures being in contact with the oil within the container.

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