No. 723,641. PATENTED MAR. 24, 1903.

H. H. BORING.

INSECT EXTERMINATOR.

APPLICATION FILED MAR. 5, 1902.

NO MODEL.

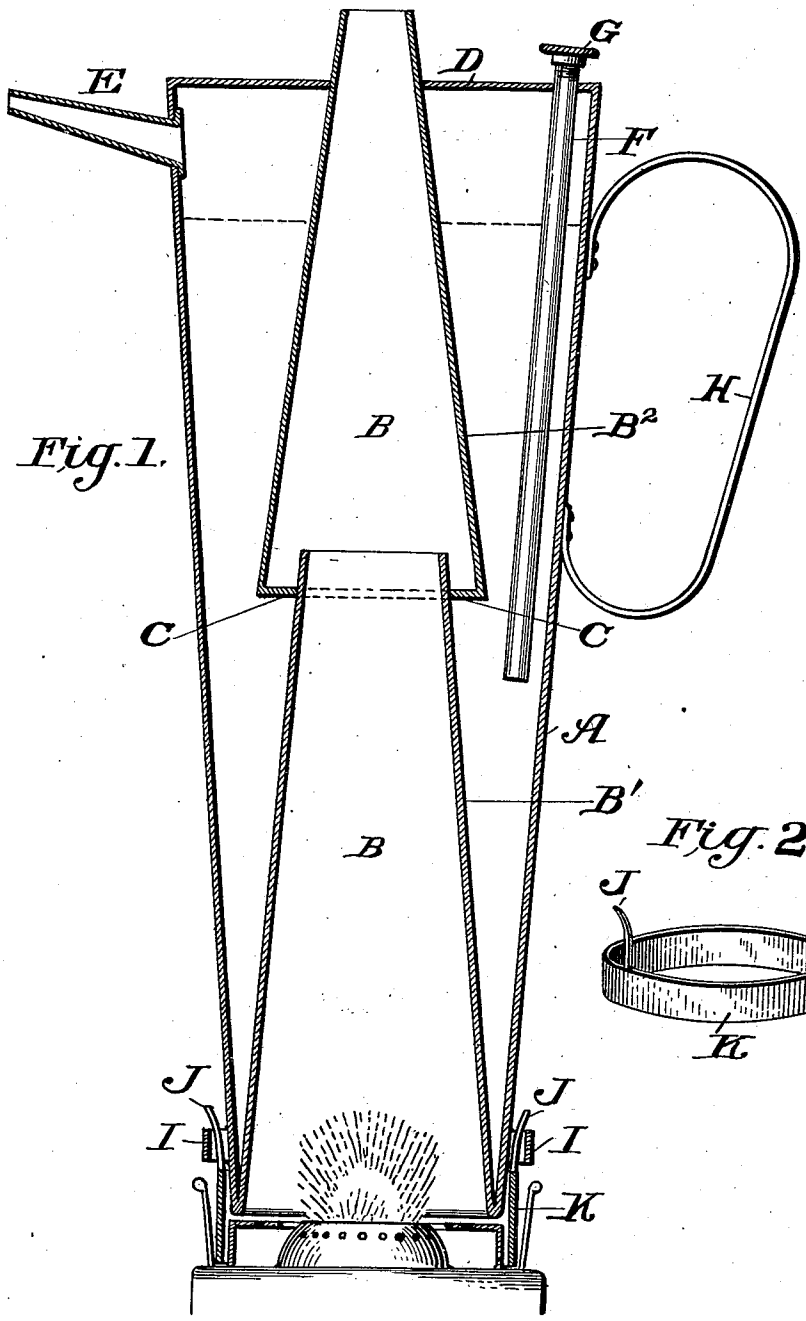


Fig. 1.

Fig. 2.

WITNESSES:

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HILLIARD HARRIS BORING, OF FLORAL, ARKANSAS.

INSECT-EXTERMINATOR.

SPECIFICATION forming part of Letters Patent No. 723,641, dated March 24, 1903.

Application filed March 5, 1902. Serial No. 96,771. (No model.)

To all whom it may concern:

Be it known that I, HILLIARD HARRIS BORING, of Floral, in the county of Independence and State of Arkansas, have invented certain new and useful Improvements in Insect-Exterminators, of which the following is a specification.

My invention relates to certain improvements in that class of insect-exterminators employing steam as the destroying agent, and the invention is designed to obviate objections to all such as now constructed for one or another reason, among which appear the fact that no such apparatus known to me is adapted to fit varying sizes of lamp-burners with proper feed of air to the burner, such as had with an ordinary chimney, and at the same time be securely fastened or retained in place; also, due to the free passage of the products of combustion up the chimney when the lamp is lighted, the full steam working power thereof is not utilized, and to overcome such objections my invention is chiefly directed. With such objects in view I have devised and constructed an insect-exterminator employing a water-tank of novel form having within it a chimney designed to check and to a degree hold back the products of combustion in its passage up through the tank, and thereby quickly heat and convert the water into steam, all as hereinafter fully described, and shown in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a central vertical section through the whole apparatus and an ordinary lamp-burner, and Fig. 2 is a perspective view of a special collar device adapting my apparatus to varying sizes of lamp-burners.

In the drawings, A denotes the outer walls of an inverted-cone-shaped water-tank—*i. e.*, the larger end being uppermost. Within the tank I arrange a passage-way B for the products of combustion of the lamp in outlines substantially as two cones B′ and B^2, placed one upon the other, with the base of the upper cone projecting to form a shoulder or baffle C. The upper end of the passage-way B projects through the top plate, as shown. The lower end of said passage-way is substantially the same size and conforms to the lower end of the wall A of the tank. It is obvious that all joints must be made steam-tight with solder or by other desired method.

Near the top of the tank I arrange a spout or nozzle E and at the opposite side of the tank provide a tube F, extending from a point below the ledge or baffle C, as shown, to and through the top plate D, where it is closed by a screw-cap G or other suitable means. To facilitate manipulating the apparatus, I provide the tank with a handle H and near the lower edge or bottom of the tank fixedly-arranged loops or ears I, with which engage spring-arms J of a collar K. The collar K is designed to be placed on the burner similar to an ordinary chimney and be of such size as will fit the common and well-known No. 1 or No. 2 burner.

As noted in the statement of my invention, one of the features of novelty resides in the special construction of the heat passage-way or chimney arranged through the tank and in having in its length on the outside and about half-way thereof an overhanging ledge or baffle C. With this construction it is apparent that the flow of the heat from the burner in passing up the chimney is impeded by the converging walls of the passage-way, first at the lower part B′ and then again at B^2. The heat or products of combustion being thus checked, it is evident that the water in the tank will be heated and steam generated more quickly than possible with an unobstructed passage-way.

In working the apparatus with the lamp lighted it is evident that the water will be more rapidly heated at the bottom of the tank and that it will circulate upwardly in a direction along the outer walls B′ until meeting the ledge C and turned in a direction toward the outer walls A of the tank, to be displaced by cooler water circulating downward along or near thereto.

My apparatus is also adapted to vaporize medicine placed in the tank with the water. In such use, however, it may be desirable to arrange a short length of rubber tubing on the nozzle E, by which the medicated vapor may be led to the mouth or nose or as occasion requires. It is understood that the water in the tank may be renewed by removing the screw-cap at such times as is necessary.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with an insect-exterminator employing an inverted conical-shaped steam-tight tank having an exit-spout and a special centrally-located heat passage or flue extending through the tank from bottom to top, of fixed ears or loops on the tank, a detachable collar adapted to be seated upon an ordinary lamp-burner, and arms on the said collar adapted to engage the said loops, substantially as described.

2. The combination with an insect-exterminator employing an inverted conical-shaped steam-tight tank having an exit-spout, means for filling the tank and a suitable handle, of a special heat passage or flue extending through the tank from its bottom to the top thereof, as shown, the said heat-passage consisting of a plurality of upwardly-tapering sections arranged one upon the other and joined together steam-tight, the larger end of the lower section and the smaller end of the upper section forming the heat-passage exterior openings, substantially as described.

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Witnesses:
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