J. W. M. CARMICHAEL.

ELECTRIC RAT EXTERMINATOR.

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1,034,976.

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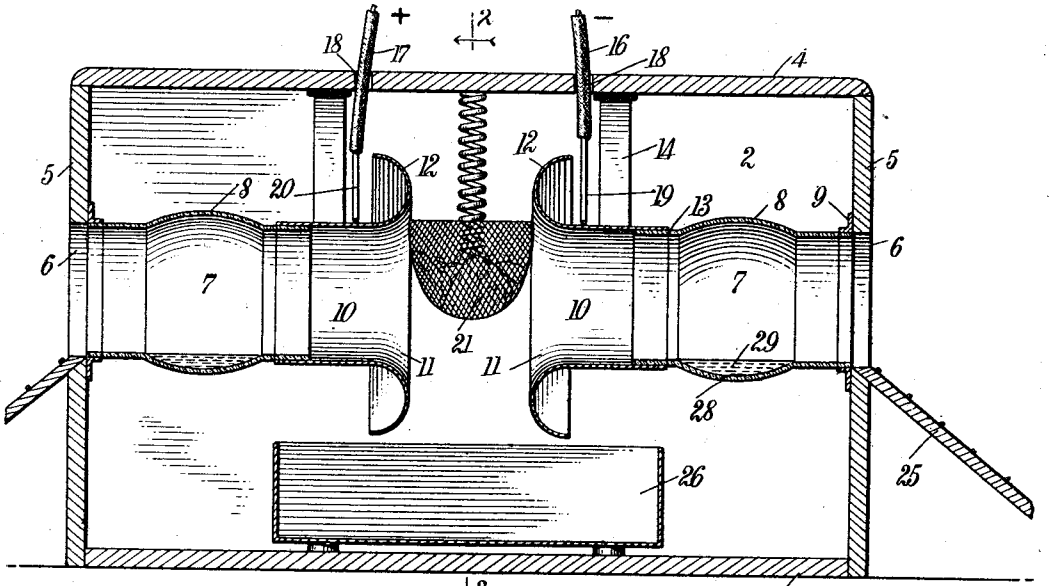

Fig. 1.

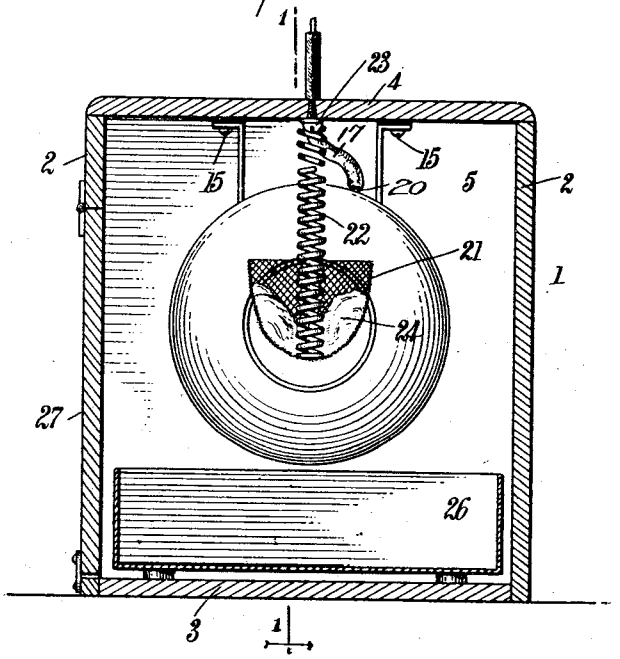

Fig. 2.

WITNESSES

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ELECTRIC RAT-EXTERMINATOR.

1,034,976. Specification of Letters Patent. Patented Aug. 6, 1912.

Application filed October 16, 1911. Serial No. 654,799.

To all whom it may concern:

Be it known that I, JAMES W. M. CARMICHAEL, a citizen of the United States, and a resident of Wellsburg, in the county of Brooke and State of West Virginia, have invented a new and Improved Electric Rat-Exterminator, of which the following is a full, clear, and exact description.

The object of the present invention is to produce a rat exterminator which shall be of simple and cheap construction, and one, which, by means of an electric circuit arranged to be automatically closed by the animal as it passes into and through the apparatus, will kill the rat.

A further object is to so construct the apparatus that the rat as it is killed will fall from the entering passage, and in which the circuit will be automatically opened preparatory to another operation.

Reference is to be had to the accompanying drawings, constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views and in which—

Figure 1 shows a longitudinal section view through an apparatus embodying the invention upon line 1—1 of Fig. 2; and Fig. 2 shows a vertical sectional view taken on the line 2—2 in Fig. 1.

The apparatus comprises a suitable casing 1 which may be constructed of any suitable material and preferably in the form of a rectangular box, having the sides 2, a bottom 3, a top 4, and the end pieces 5. The end pieces 5 are each provided with a central opening 6, which, as shown, are located about at the center of the end pieces and communicate with passages 7, through which the animal may pass after it enters the opening 6. As shown in the drawing, there are two of the passages 7 located in horizontal alinement with each other, and they are constructed of a part 8 substantially cylindrical in cross section, which is supported at one end by means of a collar 9 attached to the inner face of the end piece 5, and for a purpose to be hereinafter described, the parts 8 are preferably made of glass or some other insulating material. Each of the parts 8 is provided at its inner end with a metallic extension 10, flaring outwardly at its inner end 11, and provided with the rounded collar or flange 12. The metallic extension 10 is fitted to a cylindrical portion 13 of the parts 8 as shown clearly in Fig. 1 of the drawing.

To support the inner ends of the tubular passages, there are provided the depending brackets 14 which are secured at their upper ends by means of screws 15, at the under side of the top 4, and which extend beneath the metallic extensions 10. As hereinbefore stated, the apparatus is intended to be constructed so as to pass an electric current through the body of the animal, and for this purpose, conductors 16 and 17 from a source of electrical supply are led through the casing 1 through apertures 18 located in the top 4, and have their lower ends 19 and 20 connected one to each of the metallic extensions 10. As clearly shown in Fig. 2 of the drawing, these metallic extensions 10 are at their inner ends spaced apart so that the circuit is normally broken. It is the intention that the rat as it enters the passages 7 and attempts to pass through in either direction, shall come in contact with a movable circuit closer, and in its effort to still further traverse passages 7, the circuit closer will be moved to contact with one or the other of the metallic extensions 10 and thus establish a circuit through the body of the rat. Preferably, this movable circuit closer will consist of a metallic wire basket 21 suspended by means of a coiled spring 22 which is connected at its upper end as by means of a screw 23 to the top 4 of the casing, and it normally holds the basket 21 in an intermediate position in the opening or space between the inner ends of the metallic extensions 10, and out of contact therewith.

The metallic basket 21 is intended to receive and contain any suitable bait 24 to attract the animals into the apparatus.

To facilitate the entrance of the animal into the opening 6, the apparatus at each end will be provided with an inclined runway 25 leading to the opening 6.

In operation, the animal enters at the opening 6, passes through the passage 7 attracted by the bait 24, and in order to reach the basket 21 containing the bait, he brings his fore paws into contact with the metallic extension 10. In his efforts to secure the bait 24, he will in nosing the basket 21, push it toward the opposite metallic extension 10, the spring 22 yielding to permit this, and as soon as the basket 21 makes contact with the opposite extension 10, the circuit is closed and completed through the extension 10, the basket 21, the animal's body and the other extension 10, the shock killing

the rat. As the rat is killed, it slides out of the flaring, bell-like opening 11 of the extension 10, and preferably, a removable box or tray 26 will be provided into which the dead rats will drop, and from which they may be removed by means of a hinged door 27 in one of the sides 2 of the casing 1.

In order to insure an effective electric circuit through the body of the animal, the glass parts 8 of the passages 7 will preferably be provided with a bulging portion 28 adapted to receive a small quantity of water 29, so that as the rat passes through the passage 7, his fore feet will get wet and thus facilitate the electrical contact with the metallic extensions 10.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A rat exterminator, comprising a suitable casing having an opening therein at each end, and insulated passageways leading inward from the openings in line with each other but disconnected at their inner ends, metallic extensions forming the inner ends of said passageways, electric conductors connected to such extensions, and a movable contact piece interposed between the metallic extensions but normally out of contact therewith.

2. A rat exterminator, comprising a casing, having insulated metallic passageways leading into the casing in line with each other but spaced apart at their inner ends. electric conductors connected to said passageways, and a freely movable contact piece interposed between the ends of the passageways but normally out of contact therewith.

3. A rat exterminator, comprising two insulated metallic channeled bodies arranged in alinement and spaced apart, electric conductors connected with the inner ends of the bodies, and a movable contact between the bodies and normally out of contact therewith.

4. A rat exterminator, comprising an insulated metallic channeled body, an insulated metallic member spaced from the inner end of the body, electric conductors connected with the said member and the body, and a movable contact at the inner end of the body and normally out of contact with said member, said contact being adapted to be moved into engagement with the member by the rat in the body.

5. A rat exterminator, comprising an insulated metallic channeled body, an insulated metallic member arranged at and spaced from the inner end of the body, electric conductors connected with the said member and the body, and a swinging contact in the form of a bait holder at the inner end of the body and normally out of contact with said member, said contact being adapted to be moved into engagement with the said member by the rat attempting to get the bait.

6. A rat exterminator, comprising an insulated channeled body having a metallic inner end and formed with a water receptacle in its bottom, an insulated metallic member spaced from the inner end of the body, electric conductors connected with the said member and the metallic inner end of the body, and a movable contact at the inner end of the body and adapted to be moved into engagement with the said member by the rat in the body.

7. A rat exterminator, comprising an insulated channeled body having a metallic inner end and provided with an annular enlargement intermediate of its ends forming a water receptacle, an insulated metallic member spaced from the inner end of the body, electric conductors connected with said member and the metallic end of the body, and a movable contact at the inner end of the body and adapted to be moved into engagement with the said member by the rat in the body.

8. A rat exterminator, comprising a casing having insulated metallic passageways leading into the casing in line with each other, but spaced apart at their inner ends, electric conductors connected to such passageways, and a swinging contact piece interposed between the ends of the passageways, but normally out of contact therewith.

9. A rat exterminator, comprising a casing having insulated metallic passageways leading into the casing in line with each other, but spaced apart at their inner ends, electric conductors connected to said passageways, a contact piece, a coiled spring supporting said contact piece between the ends of the passageways, but normally out of contact therewith.

10. A rat exterminator, comprising a casing having insulated metallic passageways leading into the casing in line with each other, but spaced apart at their inner ends. electric conductors connected to said passageways, a movable metallic bait basket, and means to support said basket between the ends of the passageways, but normally out of contact therewith.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES W. M. CARMICHAEL.

Witnesses:
JOHN C. PALMER, JR.,
J. A. GIST.