

May 21, 1946.

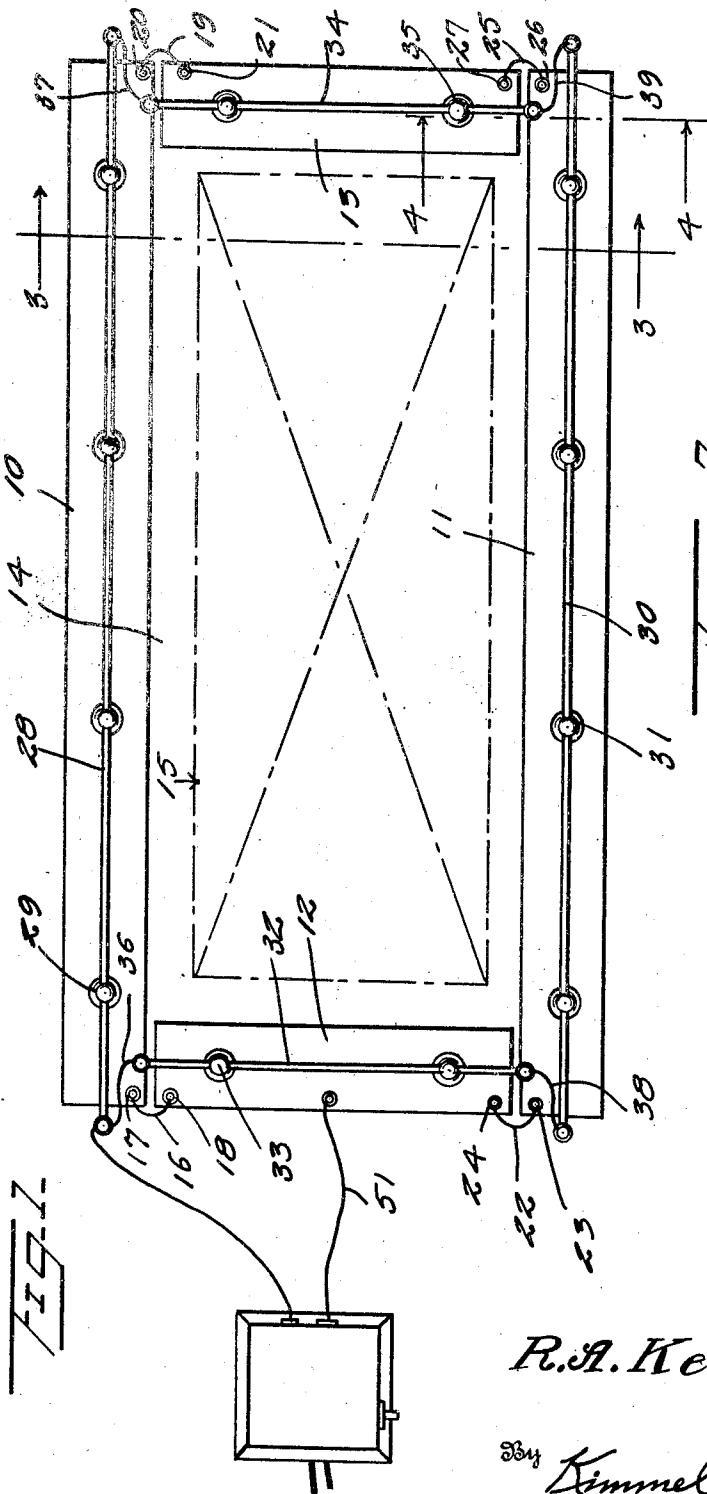
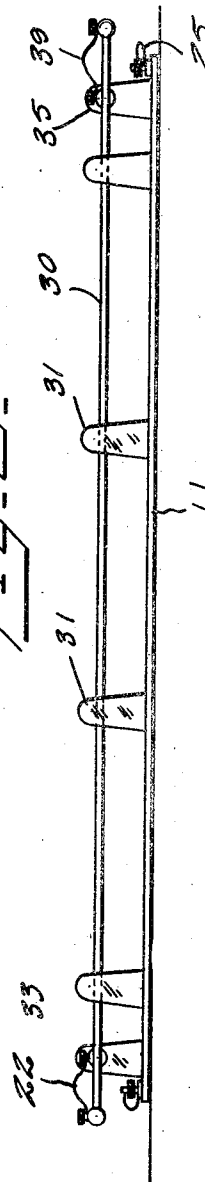
R. A. KENNEDY.

2,400,629

ELECTRIC FENCE

Filed May 21, 1945

2 Sheets-Sheet 1



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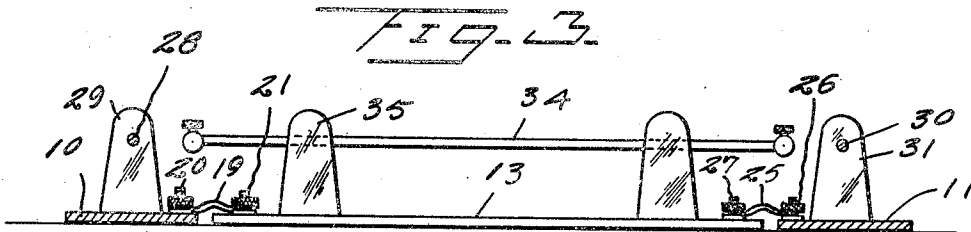
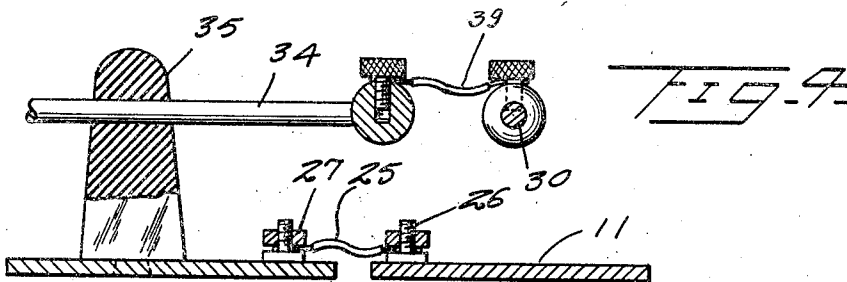
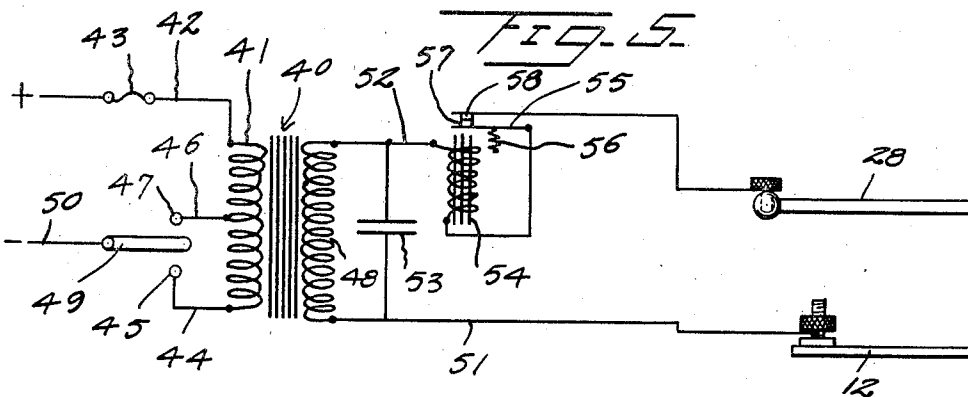
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2,400,829

ELECTRIC FENCE

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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ELECTRIC FENCE

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4 Claims. (Cl. 256-10)

This invention relates to an electrified fence, or enclosure, for protecting articles of merchandise, or the like.

An object of this invention is to provide an electrified enclosure means which is adapted to engage about a predetermined area, and which will prevent the entrance of rodents, or the like, into the enclosed area.

Another object of this invention is to provide a structure of this kind which is readily portable and which can be regulated so as to either electrocute the rodents, or to shock the rodents sufficiently to prevent the entrance of the latter into the enclosed area.

A further object of this invention is to provide a structure of this kind which is simple in construction and can be readily regulated to provide the desired electric current value for producing the desired result.

A further object of this invention is to provide in a construction of this kind an automatic operable circuit breaking means which will break the electric circuit to the fence.

To the foregoing objects and others which may hereinafter more fully appear, the invention consists of the novel construction, combination and arrangement of parts, as will be more specifically referred to and illustrated in the accompanying drawings, but it is to be understood that changes, variations, and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawings:

Figure 1 is a plan view of a device constructed according to an embodiment of this invention.

Figure 2 is a detail side elevation of the fence structure.

Figure 3 is a sectional view taken on the line 3-3 of Figure 1.

Figure 4 is a sectional view taken on the line 4-4 of Figure 1.

Figure 5 is a diagrammatic view of the electric circuits embodied in this invention.

Referring to the drawings, the numerals 10 and 11 designate a pair of spaced apart parallel elongated base plates which are adapted to rest on a floor or other plane surface, and the numerals 12 and 13 designate a pair of end base plates which are disposed between the side base plates 10 and 11.

The base plates 10, 11, 12 and 13 are adapted to enclose an area 14 within which an article, or series of articles, generally designated as 15, are adapted to be positioned. Base plate 10 is electrically connected with end plate 12 by means of

a wire 16 connected to terminals 17 and 18 carried by the plates 10 and 12, respectively. The opposite end of base plate 10 is connected to plate 13 by means of a wire 19 connected to terminals 20 and 21 carried by the plates 10 and 13, respectively. The ends of the plates 12 and 13 may be spaced from the adjacent lengthwise edges of the longitudinal plates 10 and 11, or, if desired, may be placed in direct contact therewith.

By providing the wires 16 and 19, connecting the base plate 10 with the end plates 12 and 13, the adjacent ends of end plates 12 and 13 may be spaced slightly from the base plate 10 so as to increase the area 14. The base plate 11 is connected to the opposite end of base plate 12 by means of a wire 22, which is connected to terminals 23 and 24 carried by base members 11 and 12, respectively. The base plates 11 and 13 are connected together by means of a wire 25, which engages terminals 26 and 27, carried by base plates 11 and 13, respectively.

An elongated rod 28 extends lengthwise of base plate 10, being supported in upwardly spaced relation with respect to base plate 10 by means of a plurality of insulating posts, or supporting members 29. The rod 28 is slightly greater in length than the length of plate 10, so that when desired the end members 12 may be moved outwardly so as to increase the length of area 14.

A second elongated side rod 30 is disposed in upwardly spaced relation with respect to base plate 11, being supported by means of a plurality of insulating posts or supporting members 31. The ends of rod 30 also project beyond the adjacent ends of base plate 11. An end rod 32 is disposed above base plate 12, being supported thereabove by means of at least a pair of insulated supporting posts 33. A second end rod 34 is disposed above base plate 13, being supported thereabove by means of a pair of insulating posts 35.

The opposite ends of rods 32 and 34 project slightly beyond the adjacent ends of base plates 12 and 13, so that they may overlie the adjacent inner edges of base plates 10 and 11. One end of rod 28 is connected by means of a wire 36 to the adjacent end of rod 32, and the opposite end of rod 28 is connected by means of a wire 37 to the adjacent end of rod 34. One end of rod 30 is connected by means of a wire 38 to the adjacent end of rod 32, and the opposite end of rod 30 is connected by means of a wire 39 to the adjacent end of rod 34.

In order to provide electric current for the rods 28, 30, 32 and 34, and the base plates 10,

11, 12 and 13, I have provided a transformer 40 of conventional construction, which includes a primary 41, having one side thereof 42 connected to one side of an electric source with a fuse 43 interposed in the wire 42. The other side of the primary 41 has a conductor 44 connected thereto and the conductor 44 is connected to a contact 45, forming part of a switch structure.

A wire 46 connected to a second switch contact 47 is also connected to an intermediate portion of the primary 41, so that the amount of electric current which is passed to the secondary 48 may be manually regulated. A switch arm 49, which is connected by means of a conductor 50 to the opposite side of the electric source, is adapted to be selectively moved into engagement with contact 45 or contact 47.

One end of secondary 48 is connected by means of a conductor 51 to base plate 12, and the opposite end of secondary 48 is connected by means of a conductor 52 to one end of rod 23. A condenser 53 of suitable capacity is connected across the ends of secondary 48, and a relay coil 54 is interposed in conductor 52. The relay coil 54 has associated therewith a spring-pressed armature 55, which is normally urged away from the core of relay 54 by means of an expanding spring 56.

Armature 55 has mounted thereon a contact 57, which is normally engaging with a stationary contact 53 connected to wire 52. With a construction of this kind in the event a short circuit should develop between any one of the base plates and the insulated rods, relay 54 will cause breaking of the electric circuit to the rods and in practice the breaking of the electric circuit will be intermittent, so that a fire will not develop.

In the use and operation of this device, the article or articles 15 are placed on the floor or other plane surface, and the plates with the insulated rods carried thereby are positioned about the article or articles in slightly spaced relation in respect thereto. The rods are supported above the base plates a sufficient distance so that a normal rodent will not be able to pass therebeneath, and will make it necessary for the rodent to climb over the rods. The base plates extend from the rods a sufficient distance so that a rodent resting on one base plate will engage the rod supported by such plate, and when the rodent touches the rod it will receive an electric shock. The voltage delivered if switch arm 49

engages contact 47 will not be sufficient to kill the rodent, but will be of sufficient intensity to scare the rodent and cause the same to remain outside of the enclosed area.

If switch arm 49 is in engagement with contact 45, the electric current available in the base plates and insulated rods is sufficient to kill the rodent, and if the rodent should remain in contact with a rod and a plate and thereby cause a short circuit, the relay 54 will cause an intermittent breaking of the electric current delivered from the secondary 48 so that a fire will not develop.

The exact configuration illustrated is regarded as the optimum, but some of the desirable results inherent in this disclosure may be obtained by various slight modifications including some departure from the exact configuration shown, and it is therefore requested that the scope of the invention should be regarded as limited only by the terms of the claims.

What I claim is:

1. An electrified enclosure means comprising a pair of elongated side plates, a pair of elongated end plates disposed between said side plates, means electrically connecting the adjacent ends of said side and end plates together, a pair of elongated side rods above said side plates, insulated supporting means for said side rods, a pair of elongated end rods disposed above said end plates, insulating supporting means for said end rods, means electrically connecting the adjacent ends of said side and end rods together, means connecting said plates to one side of an electric circuit, and means connecting said rods to the other side of the electric circuit.

2. An electrified enclosure means as set forth in claim 1, including relay means in said circuit whereby to effect intermittent breaking of said circuit in the event of a short circuit between said rods and said plates.

3. An electrified enclosure means as set forth in claim 1, wherein the electrical connections between adjacent plates and adjacent rods are such as to provide for selective adjustment of said plates and rods relative to each other to thereby vary the size of the area enclosed by said plates and rods.

4. An electrified enclosure means as set forth in claim 1, wherein said end rods project beyond the ends of said end plates to thereby overlap the inner portions of said side plates.

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