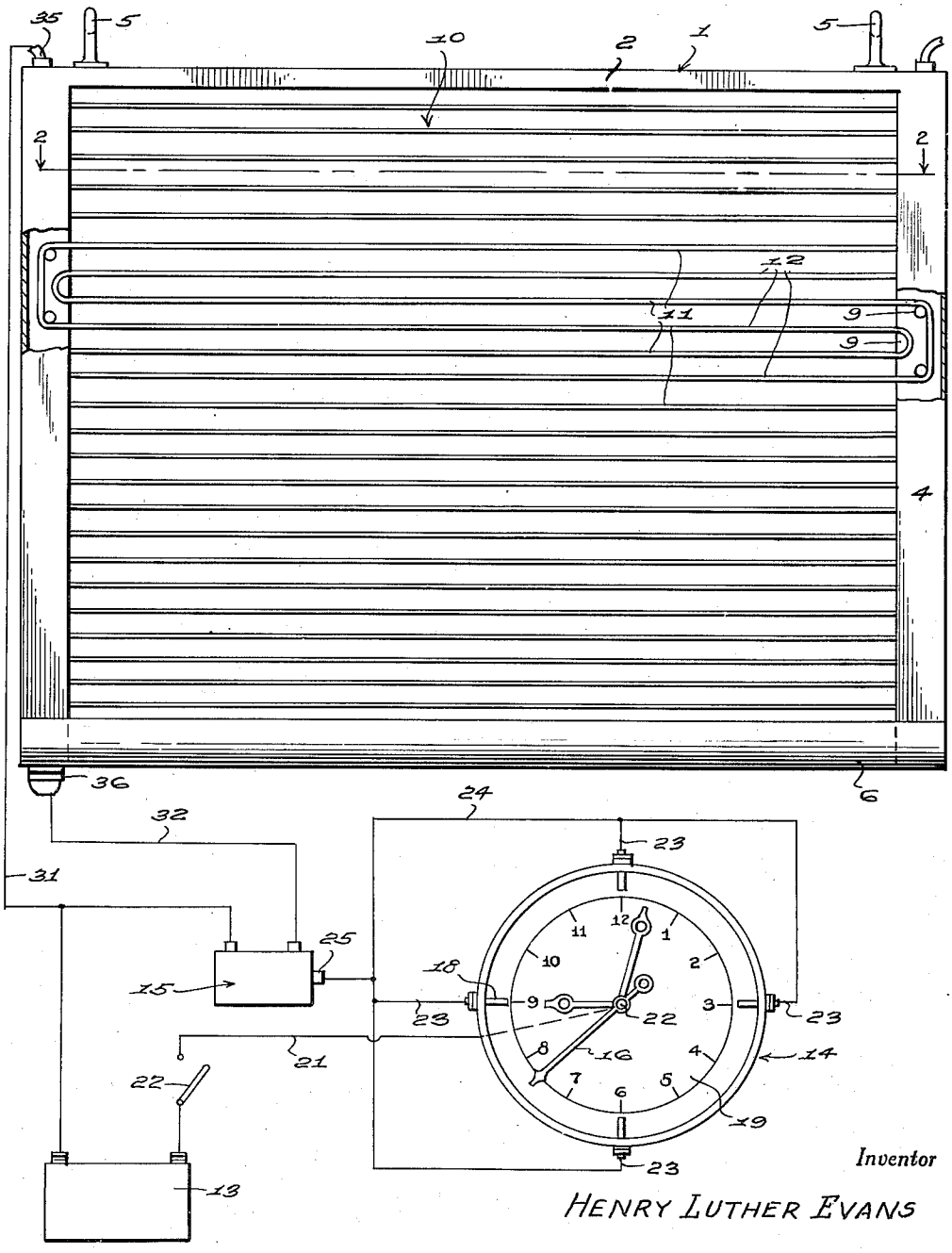
June 3, 1941. H. L. EVANS 2,244,191

FLY EXTERMINATOR

Filed June 5, 1940 2 Sheets-Sheet 1



Inventor

HENRY LUTHER EVANS

FIG. 1

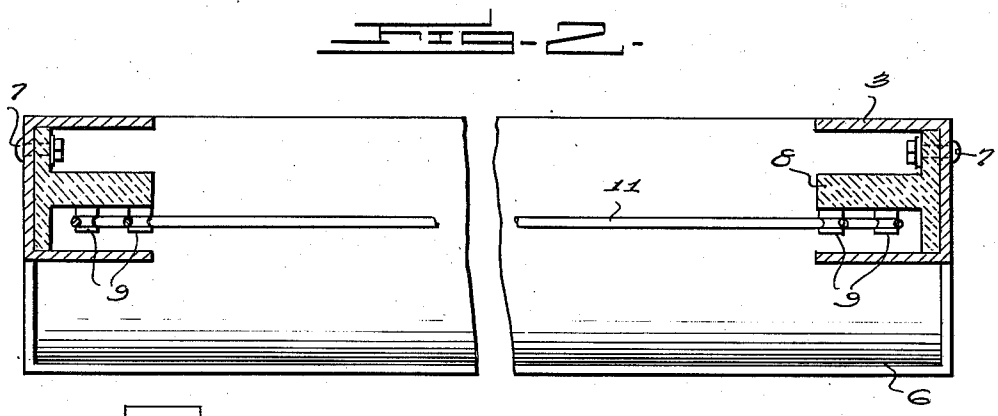
By Clarence A. O'Brien

Attorney

June 3, 1941. H. L. EVANS 2,244,191

FLY EXTERMINATOR

Filed June 5, 1940 2 Sheets-Sheet 2



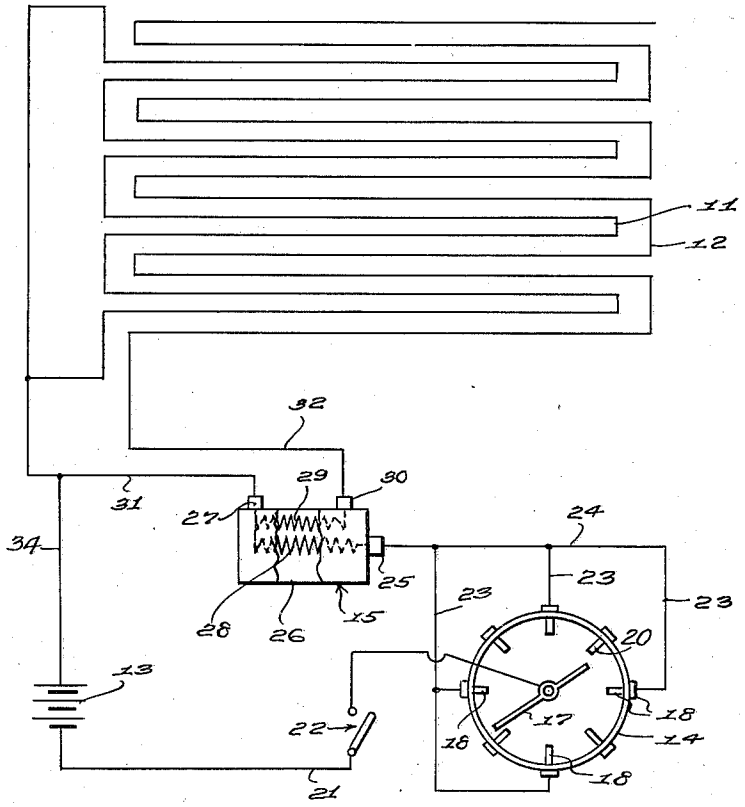


FIG. 2.

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Patented June 3, 1941

2,244,191

UNITED STATES PATENT OFFICE

2,244,191

FLY EXTERMINATOR

Henry Luther Evans, Kress, Tex., assignor of one-half to H. A. Buhrkuhl, Kress, Tex.

Application June 5, 1940, Serial No. 339,024

1 Claim. (Cl. 43—112)

My invention relates to improvements in fly exterminators and the principal object in view is to provide a simply constructed, highly efficient device of this character for electrocuting flies and which will operate on a low voltage current.

Other and subordinate objects, together with the precise nature of my improvement, will be readily understood when the succeeding description and claim are read with reference to the drawings accompanying and forming part of this specification.

In said drawings:

Figure 1 is a view in front elevation, partly diagrammatic, of the preferred embodiment of my invention,

Figure 2 is a view in transverse section taken on the line 2—2 of Figure 1, partly broken away and drawn to an enlarged scale, and

Figure 3 is a diagrammatic view illustrating the wiring.

Referring to the drawings by numerals, in the preferred embodiment thereof my improved exterminator comprises, as its basic element, a rectangular frame 1 of any suitable material, internally channeled and including top and bottom bars 2, 3, and end bars 4, all preferably integral. A pair of suitable hooks 5 are provided on the top bar 2 for suspending the frame from the top edge of a screen, screen door, or any other suitable place, for instance, a wall. A trough 6 extends along the bottom bar 3 at what constitutes the front side of the frame 1 and for a purpose presently seen.

Fitted in the frame 1 and suitably secured therein, as by bolts 7, is a rectangular grid supporting frame 8 of insulation material, preferably of T-iron form in cross-section, and provided on the front face thereof with insulator studs 9 spaced vertically along the sides of the same as best shown in Figure 1.

The frame 8 supports a grid 10 of wires extending from side to side thereof in parallel equidistantly spaced relation. The grid 10 is formed of two lengths of wire, of suitable conductive material, each looped back and forth across the frame 8 over studs 9 to form two separate series 11, 12, of parallel wire stretches, the stretches of each series alternating with those of the other, and the spacing of the stretches being such that an electric current of high voltage which the device is designed to utilize will not jump from one stretch to another, but will jump through the body of a fly travelling on one stretch to an adjacent stretch. The series 11 of wire stretches comprises one side of the grid and the series 12 the other side.

The described series of wire stretches 11 and 12 are designed to be energized primarily from a suitable low voltage electrical source, for instance, the battery 13, and through the medium of a time controlled circuit maker and breaker 14 and a vibratory ignition coil 15.

The circuit maker and breaker 14 comprises a clock with the usual second hand 16 operating a contact arm 17 fast on the arbor thereof to wipe at quarter minute intervals over contacts 18 arranged in said clock in 90 degree angular relation around the dial 19 thereof. Contacts 20 similar to contacts 18 are provided for controlling another exterminator and which need merely be mentioned in passing. A lead wire 21 connects the positive side of battery 13 to the arbor of the second hand 16, with a suitable control switch 22 interposed therein. Branch leads 23 extend from the contacts 18. A lead 24 connects the branch leads 23 to the primary tap 25 of the ignition coil 26 which is of the usual type having a secondary terminal tap 27 common to the primary and secondary windings 28, 29, and another secondary terminal tap 30 for the secondary winding 29. A lead 31 connects the tap 27 to the series 11 of wire stretches and a lead 32 connects the tap 30 to the series 12, said leads 31, 32, forming extensions of said series respectively. Lead 31 is connected to the negative side of the battery 13 by a return wire 34 intermediate tap 25 and the stretches of series 11. The leads 31, 32, may be formed with suitable plug-in terminals 35, 36, for connection to the frame 1 and series 11, 12.

The operation of my invention will be readily understood. With the described frame 1, and grid 10 hung on a screen, or the like, not shown, the clock suitably hung on a wall, for instance, and the leads 31, 32, suitably connected, the switch 22 is closed, thereby conditioning the device for operation. Each time the contact 17 engages a contact 18, the device is conditioned for closing of a circuit from battery 13 through lead 21, switch 22, hand 17, branch lead 23 from the engaged contact 18, lead 24, primary coil 28, and lead 31, and return line 34 back to battery 13. In the meantime a fly lighting on stretches 11, or 12, causes a high tension circuit, induced through secondary coil 29, to be closed, the current flowing through coil 29, lead 32, the stretch 12 concerned and jumping to the stretch 11 concerned to return by way of lead 31 back to coil 29. As will be understood, the high tension cir-

cuit is of the proper voltage to kill the fly which drops into the trough 6.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention without further explanation.

Manifestly the invention as described, is susceptible of modification without departing from the inventive concept, and right is herein reserved to such modifications as fall within the scope of the subjoined claim.

What I claim is:

In a fly exterminator, a rectangular frame adapted to be suspended from a fixed object, an electric circuit including two series of wire stretches extending across said frame in parallel relation and with the stretches of said series alternating in spaced relation for bridging of the current from stretches of one series to those of the other series through the body of a fly lighting on the stretches of either series, said frame comprising a pair of outer and inner frame members of insulation and conductive material, respectively, the outer frame being internally channeled and the inner frame having a flat rim fitting against the bottom of said channel and an inwardly projecting flange on said rim centered in said channel and spaced from the sides thereof, said flange having laterally extending studs thereon within said channel around which the series of wire stretches are looped whereby said stretches are housed and insulated from the outer frame member to obviate contact therewith by individuals handling the frame.

HENRY LUTHER EVANS.