June 11, 1940. E. S. JEFFERSON 2,204,041

ELECTRIC ANIMAL PROD

Filed Oct. 23, 1939

Fig. 1.

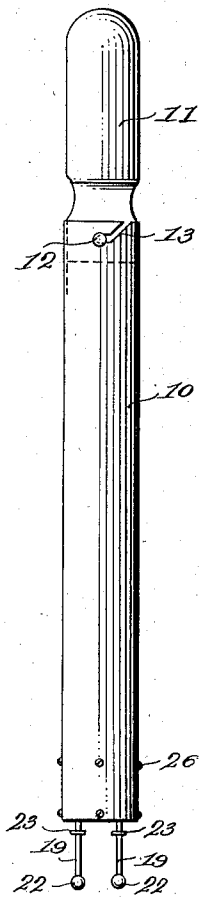


Fig. 2

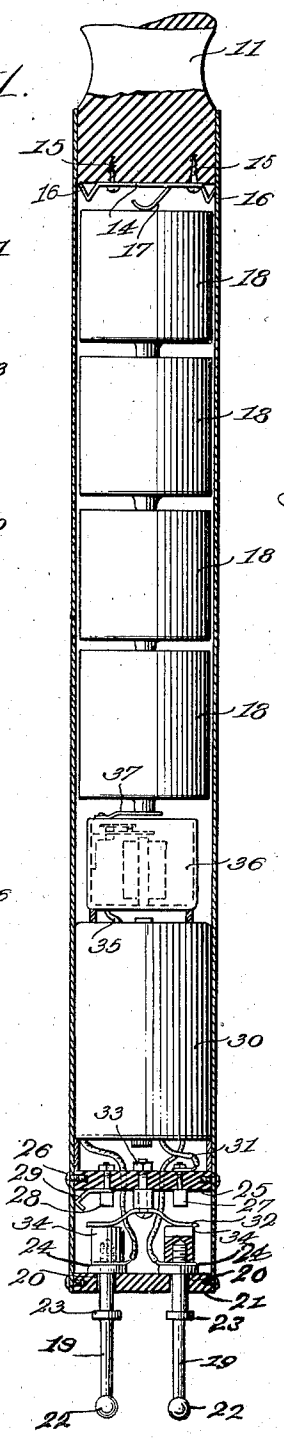
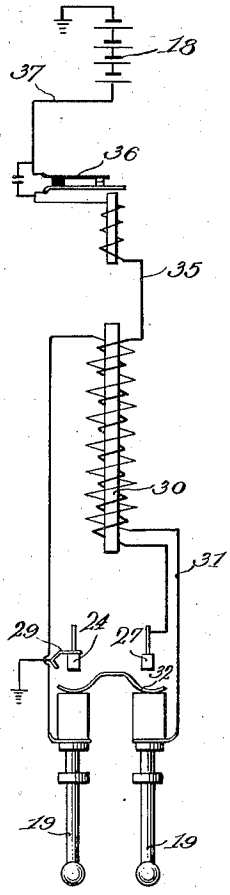


Fig. 3.



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ELECTRIC ANIMAL PROD

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Application October 23, 1939, Serial No. 300,888

1 Claim. (Cl. 231—2)

This invention relates to electric animal prods and has for an object to provide a device of this character which will embody a pair of spring pressed high tension terminals which must be simultaneously engaged with the hide of an animal and then pushed in firmly against the animal in order to operate a switch for closing the primary circuit of an induction coil to the end that accidental shocks to the operator will be positively prevented.

A further object is to provide a device of this character which will be formed of a few strong simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combination of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming a part of this specification:

Figure 1 is a side elevation of an animal prod constructed in accordance with the invention.

Figure 2 is a longitudinal sectional view of the prod.

Figure 3 is a diagrammatic view of the electrical connection of the prod.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates an elongated metal casing having a removable handle 11 secured thereto through the medium of a pin 12 and bayonet slot 13. A leaf spring 14, best shown in Figure 2, is secured to the inner end of the handle by screws 15 and is provided at the ends with V-shaped tips 16 which engage the inner surface of and are grounded upon the metal casing 10. The leaf spring is provided with a downwardly struck portion 17 which is adapted to contact with the metal bottom of the endmost battery cell 18 of a plurality of cells which are disposed in the casing in stacked relation in the usual manner.

A pair of metal rods 19 are slidably mounted in openings 20 formed in an insulating cap 21 which closes the end of the casing opposite the handle. These rods terminate in ball tips 22 and form high tension electric terminals of an induction coil as will later appear. Each rod is provided with a pair of spaced collars 23 and 24 adapted to limit sliding movement of the rod by contact with the cap 21.

An insulating disk 25 is secured in the casing in spaced relation to the cap 21 by screws 26. The disk is provided with a pair of switch contacts 27 and 28 disposed on opposite sides of the center of the disk. One of the contacts is grounded to the casing by a leaf spring 29. The other contact is connected to one end of the primary winding of an induction coil 30 by a conductor 31 as best shown in Figure 3.

A leaf spring 32, forming a bridging circuit closer for the contacts 27 and 28, is secured at the center to the center of the disk 25 by a bolt 33. The ends of the spring overlie and are spaced from insulating heads 34 threadedly engaged upon the inner ends of the rods 19. The other end of the primary winding of the induction coil 30 is connected by a conductor 35 to one member of a vibrator 36, the other member of the vibrator being connected by a conductor 37 to the center contact of the lowermost battery cell.

It can now be seen that before the induction coil can be energized by closing of the primary circuit both rods 19 must be disposed in engagement with the hide of the animal and then the rods must be pushed inwardly by pressure upon the handle 11 until both ends of the bridging switch contact formed by the leaf spring 32 engages the switch contacts 27 and 28 of the primary circuit of the induction coil 30.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

An electric prod comprising a casing, an induction coil in the casing, battery cells in the casing, a circuit including the battery cells and the primary winding of the induction coil, a pair of spaced stationary switch contacts in said circuit, a bridging leaf spring contact centrally secured in the casing and having the ends overlapping and spaced from the stationary switch contacts, and a pair of prod rods mounted for limited sliding movement in the casing and projecting from one end of the casing, said prod rods being connected to the secondary winding of the transformer and forming discharge terminals for said induction coil, said rods when pressed to their limit of movement in the casing by being manually forced against an animal's hide engaging the ends of the leaf spring contact and moving it to circuit closing position with said stationary contacts.

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