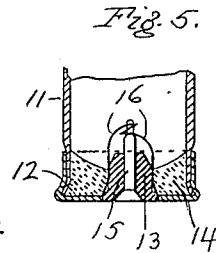
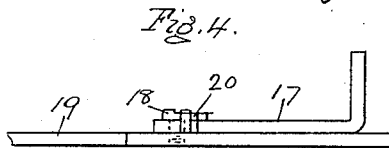
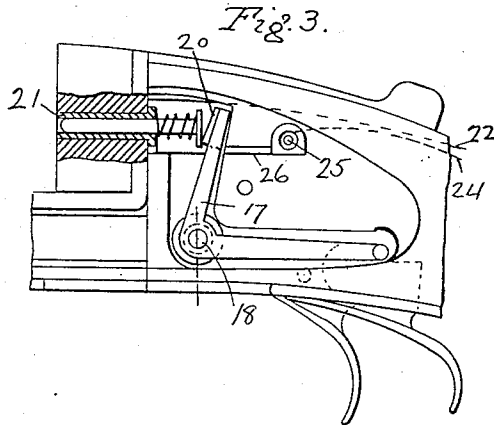
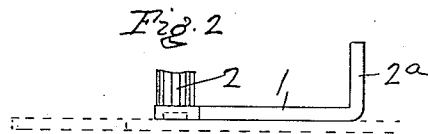
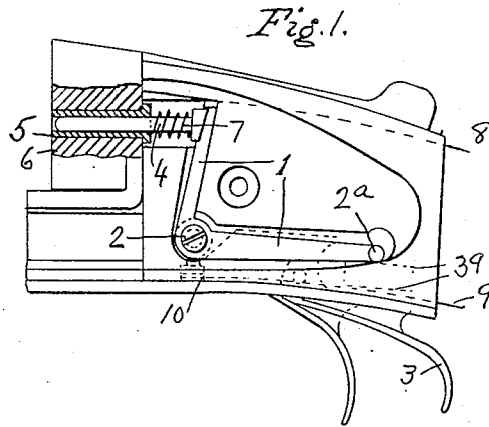


G. PEUBLE.
ELECTRIC IGNITION DEVICE FOR SMALL ARMS.
APPLICATION FILED JAN. 9, 1912.

1,043,719.

Patented Nov. 5, 1912.



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UNITED STATES PATENT OFFICE.

GABRIEL PEUBLE, OF ST. ÉTIENNE, FRANCE.

ELECTRIC IGNITION DEVICE FOR SMALL-ARMS.

1,043,719.

Specification of Letters Patent.

Patented Nov. 5, 1912.

Application filed January 9, 1912. Serial No. 670,189.

To all whom it may concern:

Be it known that I, GABRIEL PEUBLE, a citizen of the Republic of France, and residing at St. Étienne, Loire, France, have invented a certain new and Improved Electric Ignition Device for Small-Arms, of which the following is a specification.

The present invention relates to a simple and inexpensive mechanism for the electric ignition of the cartridges of rifles, shot guns, pistols and other small arms.

This mechanism comprises a bell crank lever pivoted in the stock or equivalent part of the fire arm, said lever being actuated by a trigger to set in motion a pin of conducting material which serves to complete an electric circuit through a glowler arranged in the charge of the cartridge and thus explode the latter. For double barreled guns, two bell-crank levers are provided, each having its independent actuating trigger.

The invention comprises in addition to the actuating mechanism, a novel and improved cartridge, particularly designed to coöperate with arms constructed in accordance with the present invention.

In the accompanying drawings, Figure 1 is a side elevation partly in section of sufficient of a gun stock to illustrate my invention; Fig. 2 is a broken plan of the bell crank lever; Figs. 3 and 4 are similar views of a modified form of the mechanism; and Fig. 5 is a longitudinal section through a portion of my novel cartridge.

Referring to Figs. 1 and 2, the mechanism is described with reference to but one of the two levers, since the arrangement is similar for each. In the form here shown, the mechanism comprises a bell crank lever 1, freely pivoted on the axis 2. One end of the lever is bent at right angles to form a bearing 2^a for the trigger 3. A face plate 3^a of insulating material carried by the latter insures the insulation of the trigger from the lever to which one branch of an electric circuit is carried through the wire 9 and binding screw 10. The other arm of the bell crank lever 1 bears against the head of a contact pin 4. The latter slides in a sleeve 5 of insulating material mounted in the body of the breech 6, and is held in contact with this arm of the lever 1 by the coil spring 7. To the breech the other branch of the electric circuit is led by the wire 8. Any suitable source of electricity may be employed, preferably a storage battery, or dry battery, or

the like which may be mounted in the stock of the gun or carried on the body of the person using the fire arm.

The cartridge 11 preferably employed with this mechanism comprises, as illustrated in Fig. 5, a metallic end ferrule 12. A plug 13 of insulating material which carries the central pin 15, preferably of copper, is mounted in the ferrule 12 and is held in position by any suitable retaining material 14. A filament 16 is coiled on the pin 15 with its free ends held by the retaining material 14, in contact with the ferrule 12. The copper pin 15 and the filament 16 are of course understood to lie in the chamber normally filled with a charge of powder. When adjusted in position in the breech the ferrule 12 of the cartridge is in electrical contact with the breech 6. Consequently if the trigger 3 is actuated and the lever 1 rocked to force the pin 4 into contact with the pin 15, the electric circuit is completed through the filament 16, which incandescences and explodes the charge. After the cartridge has been discharged the plug 13 may be easily removed, and a new wire 15 and filament 16 mounted thereon and then returned to position in the cartridge shell if the latter is still in good condition, or placed in a new shell. This may be repeated as often as desired, thus affording an important economy.

In Figs. 3 and 4 the bell crank lever 17 is mounted on a pivot 18 fixed on the side plate 19 of the breech and carries a plate 20 of insulating material which bears against the end of the spring contact pin 21. In this arrangement, one branch of the circuit is led by the wire 22 to the breech 23, while the other branch is led by wire 24 to a binding post 25 mounted in the wooden gun stock from which a conducting plate 26 leads the current to the pin 21. The operation of the mechanism is readily understood from the previous description of Figs. 1 and 2.

It is of course to be understood that in a double barreled gun there are two contact pins 4 or 21, and two bell crank levers 1 or 17, one for each barrel; the second lever being fixed at the other end of the axis 2 in the arrangement of Fig. 1, or pivoted on the opposite side breech cover plate 19 in the arrangement of Fig. 3.

Various modifications of and additions to the mechanism shown will readily suggest

themselves and I do not limit myself to the details shown.

I claim as my invention:—

1. An electric discharge mechanism for
5 small arms, comprising a breech forming one terminal, a contact pin movable through said breech and forming a second terminal, insulation surrounding said pin and electrically isolating said pin from the breech, a
10 rock lever for actuating said pin and an electric conductor leading current to said lever through the axis of the latter, substantially as described.

2. In combination with a fire arm of the
15 character described, a cartridge comprising

a ferrule, forming one contact, an insulating block removably mounted in said ferrule, a conducting pin carried by said block, in combination with an incandescing filament coiled in its middle portion on said pin and
2 having its ends clamped between said insulating block and ferrule, substantially as described.

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

GABRIEL PEUBLE.

Witnesses:

ALPHONSE LOTTMAN,
FRIDLE ADRISEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."