

No. 804,331.

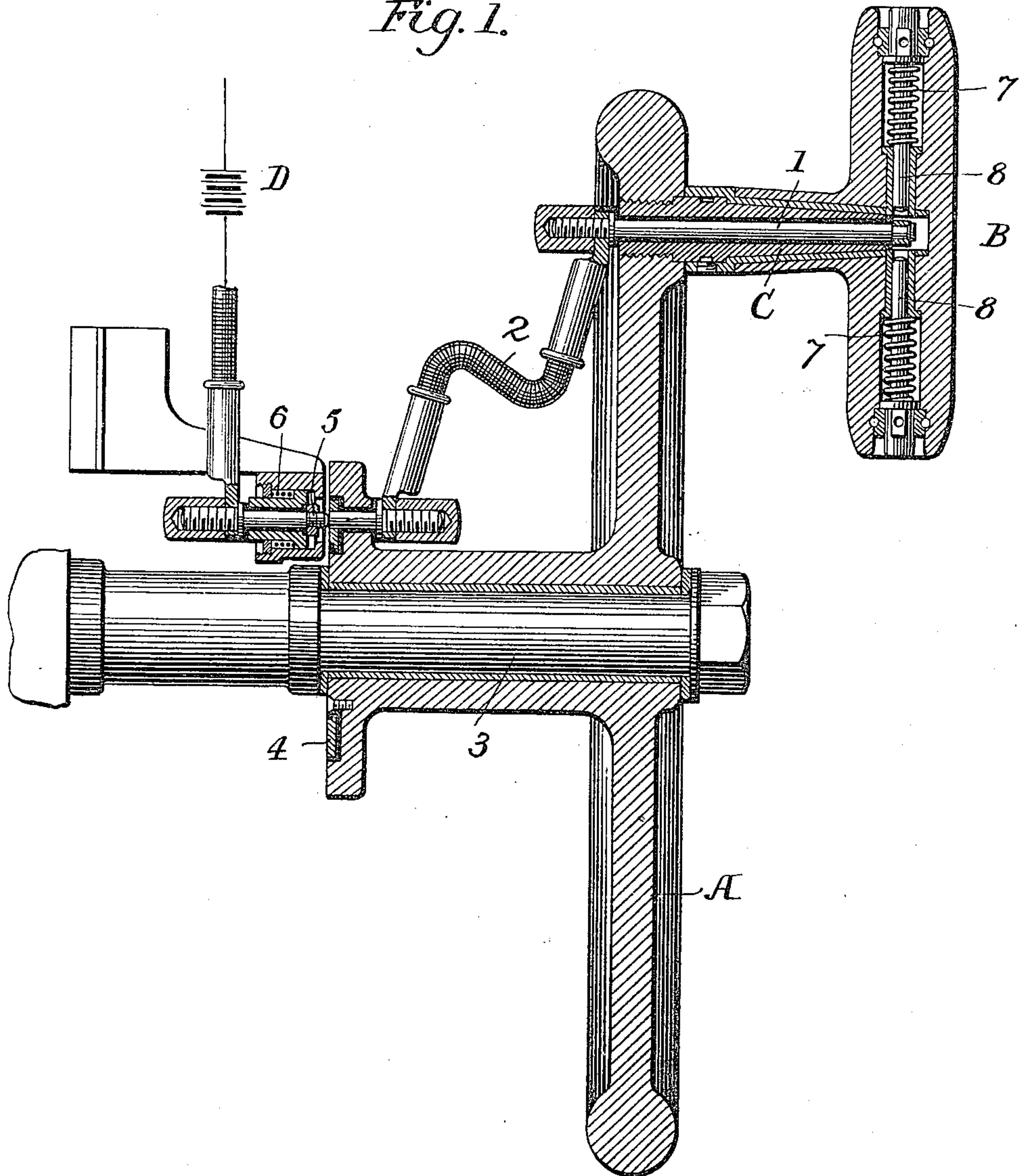
PATENTED NOV. 14, 1905.

J. F. MEIGS & H. G. JAKOBSSON.
FIRING ATTACHMENT FOR GUNS.

APPLICATION FILED AUG. 19, 1903.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
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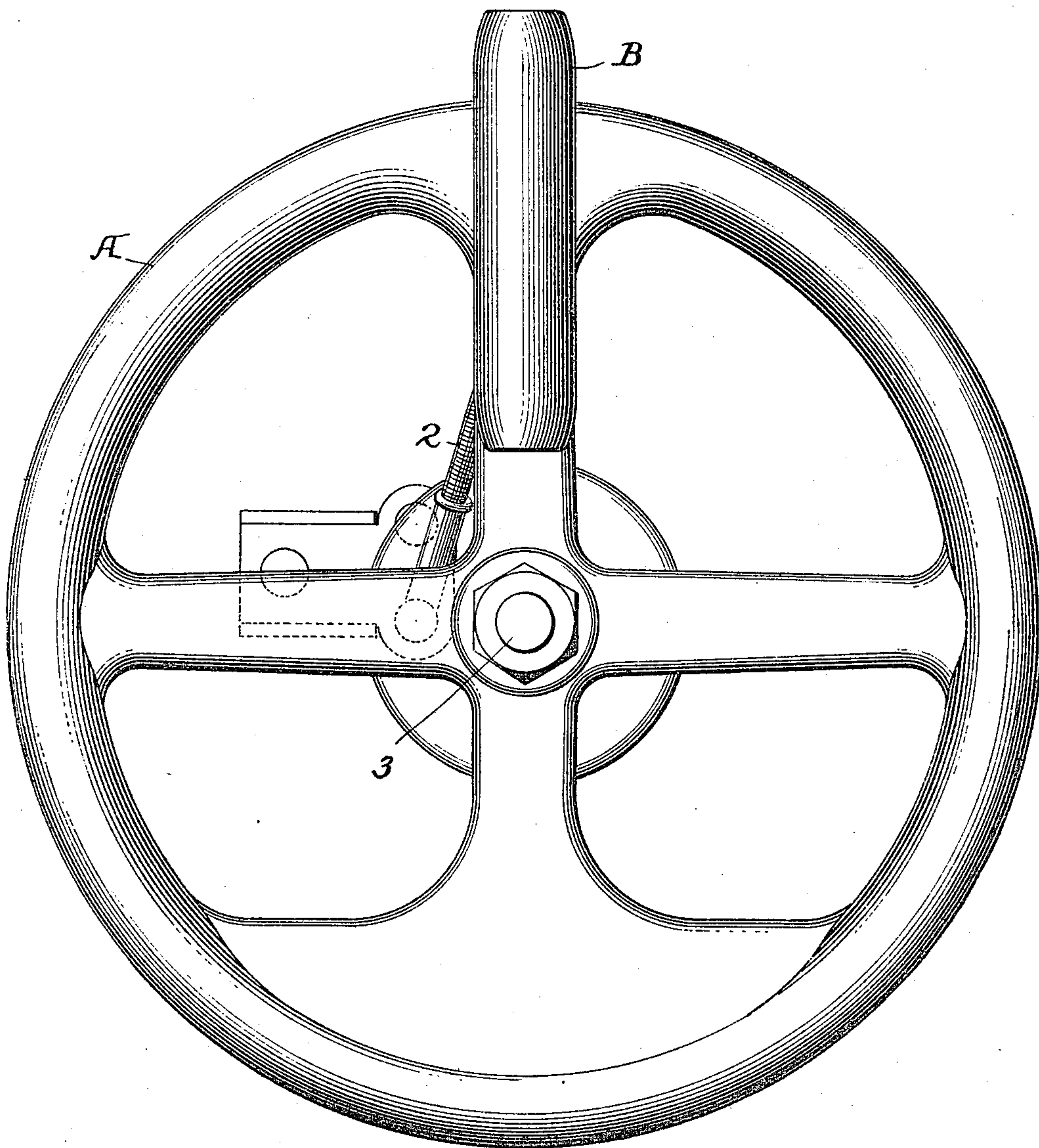
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2 SHEETS—SHEET 2.

Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN F. MEIGS AND HERMAN G. JAKOBSSON, OF SOUTH BETHLEHEM, PENNSYLVANIA, ASSIGNORS TO BETHLEHEM STEEL COMPANY, OF SOUTH BETHLEHEM, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

FIRING ATTACHMENT FOR GUNS.

No. 804,331.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed August 19, 1903. Serial No. 170,036.

To all whom it may concern:

Be it known that we, JOHN F. MEIGS, a citizen of the United States, and HERMAN G. JAKOBSSON, a citizen of Sweden, both residing at South Bethlehem, Northampton county, Pennsylvania, have invented certain new and useful Improvements in Firing Attachments for Guns, of which the following is a specification.

Our invention relates to the operating mechanism of a gun; and it consists in providing the hand-wheel or crank by means of which the mechanism is adjusted with a switch or circuit-closer in such position that it can be operated to close the circuit and explode the charge by the hand that turns the hand-wheel.

The object of the invention is to enable the gunner to fire the gun at the instant it is properly directed, and thus to avoid any unnecessary delay and secure the best effect.

In the accompanying drawings, Figure 1 is a longitudinal section of a hand-wheel provided with our improved device as adapted for application to a gun. Fig. 2 is an elevation looking on the face of the wheel.

The gun-carriage (not shown) is, as usual, provided with elevating mechanism or traversing devices, or both, actuated by the rotation of a hand-wheel or crank A, and the cartridge is exploded on the closing of an electric circuit. In order to enable the circuit to be closed without necessarily removing the hand from the handle of the wheel, we support a circuit maker and breaker or switch in, on, or adjacent to the said handle with the parts in such position that the pressure of the thumb or one of the fingers upon one of the parts will complete the circuit.

As shown, there is a T-shaped handle B, which turns freely on a crank-pin C, extending from the wheel A and through which extends an insulated rod 1, connected at one end with one of the wires of an electric circuit 2, including a battery D and an exploder of suitable character. The return portion of the circuit is through the metal of the gun and operating devices.

The wheel A is mounted upon a stud or pin 3 and supports an insulated ring 4, against which bears frictionally an insulated pin 5, pressed outward by a spring 6 and supported in position by any stationary part of the gun-fixtures, the pin and ring constituting when

in contact a part of the circuit 2, and the arrangement of the ring in respect to the pin 55 permitting the hand-wheel A to be turned to any position without breaking the circuit.

The circuit maker and breaker is preferably duplex, consisting of two independent pins 8, each supported to slide in one arm of the handle B, the outer ends being exposed so that either pin can be pressed inward against the stress of its coiled spring 7 to thereby bring the end of the pin 8 into contact with the end of the pin 1, when the circuit will be closed through the pin 1, through the pin 8 and the metal bushings of the pin 8, the crank-pin C, the metal wheel A and its supports, which are in electrical circuit with the metal of the gun. By duplicating the pins 8 the circuit may be closed instantly and conveniently whichever end of the handle is uppermost.

While we have shown one construction and arrangement of circuit maker and breaker or switch, it will be evident that our invention may be carried out through the medium of any suitable terminals which are capable of being brought into contact by pressure of the hand which turns the wheel or crank so that the firing may take place at the desired moment.

Without limiting ourselves to the precise construction and arrangement of parts shown, we claim as our invention—

1. The combination with the hand-wheel of a gun, of an operating-handle, an electric-circuit closer or switch inclosed in the handle and having one member extending through an end of the handle, and an electric circuit including said circuit-closer or switch, for the purpose set forth.

2. The combination with the hand-wheel of a gun, of a T-shaped operating-handle connected to said wheel, and an electric-circuit closer or switch mounted within said handle, for the purpose set forth.

3. The combination with the hand-wheel of a gun, of a T-shaped operating-handle connected to said wheel, and two electric-circuit closers or switches mounted at opposite ends of said handle, for the purpose set forth.

4. The combination with the hand-wheel of a gun, of an operating-handle connected to said wheel, a ring or disk carried by the hand-wheel but insulated therefrom, a spring con-

tact-piece in electrical connection with said insulated ring, and a circuit-closer mounted within and extending longitudinally of the operating-handle and adapted to close an electric circuit including said ring and pin, for the purpose set forth.

5 5. The combination with the hand-wheel of a gun, of an operating-handle mounted to turn about but insulated from a rod projecting
10 from said wheel, a ring or disk carried by said wheel but insulated therefrom, an electric conductor connecting said ring and rod, a contact-piece carried by a stationary fixture and having electrical connection with said insulated ring and a portion of said operating-
15 handle, and a circuit-closer mounted in said handle and adapted to electrically connect said rod and conducting portion of the handle, for the purpose set forth.

20 6. The combination with the hand-wheel of a gun, of an operating-handle, an electric-circuit closer or switch including a plunger mounted to reciprocate longitudinally of the said handle, and an electric circuit including
25 said circuit-closer or switch, for the purpose set forth.

7. The combination with the hand-wheel of

a gun, of an operating-handle connected to said wheel, an electric-circuit closer or switch including a rod extending into and insulated
30 from said handle and a plurality of reciprocating plungers mounted within said handle and adapted to be moved into contact with said rod, and an electric circuit including said circuit-closer or switch, for the purpose
35 set forth.

8. The combination with the hand-wheel of a gun, of a T-shaped operating-handle connected to said wheel, an electric-circuit closer or switch including a rod insulated from said
40 handle and extending into the head thereof and two oppositely-extending plungers mounted within the handle-head and adapted to contact with said rod, and an electric circuit including said circuit-closer or switch, for the
45 purpose set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN F. MEIGS.

HERMAN G. JAKOBSSON.

Witnesses:

J. E. MATHEWS,

E. A. MILLER.