

No. 654,818.

Patented July 31, 1900.

H. C. THAMSEN.
SPARKING IGNITER FOR EXPLOSIVE ENGINES.

(Application filed Apr. 17, 1900.)

(No Model.)

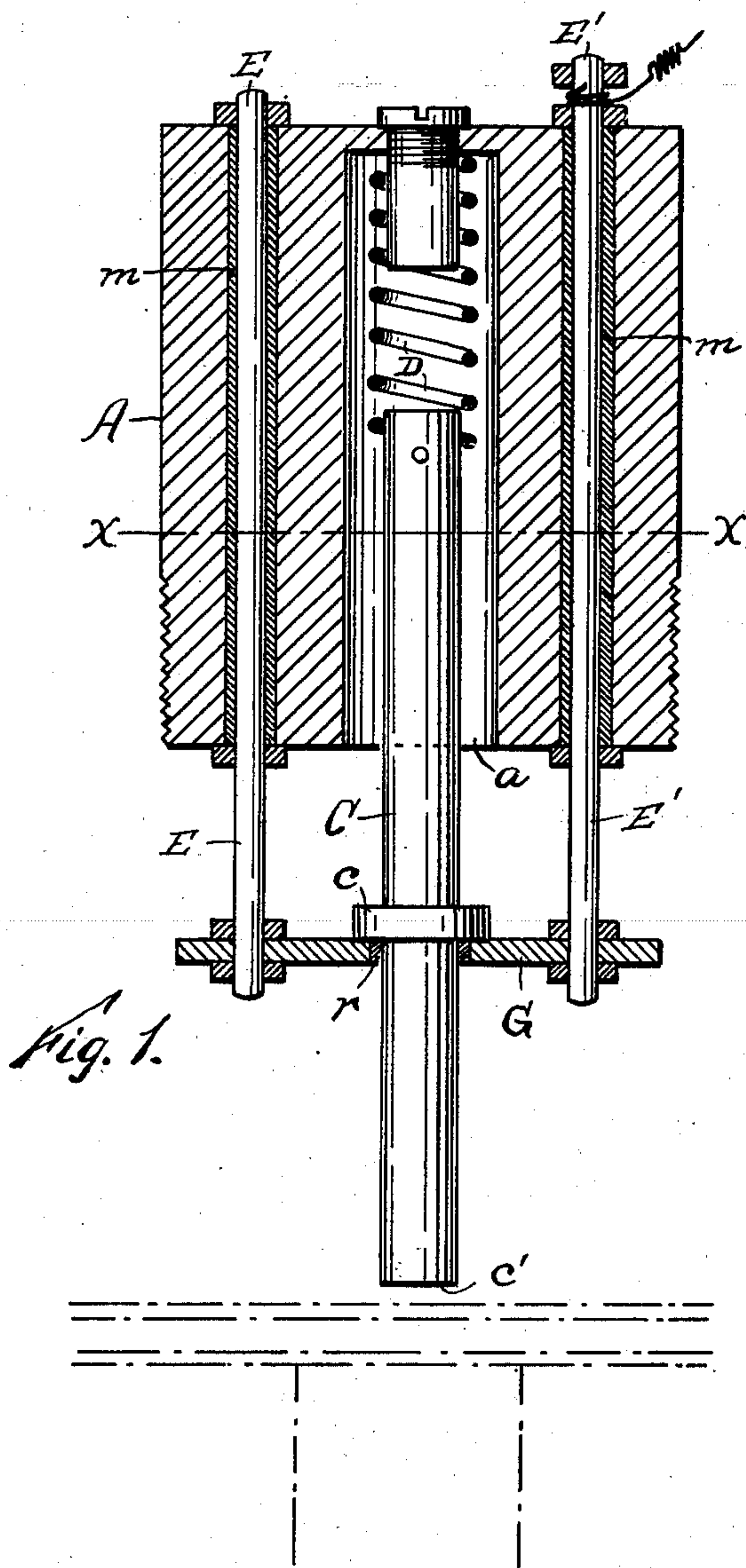


Fig. 3.

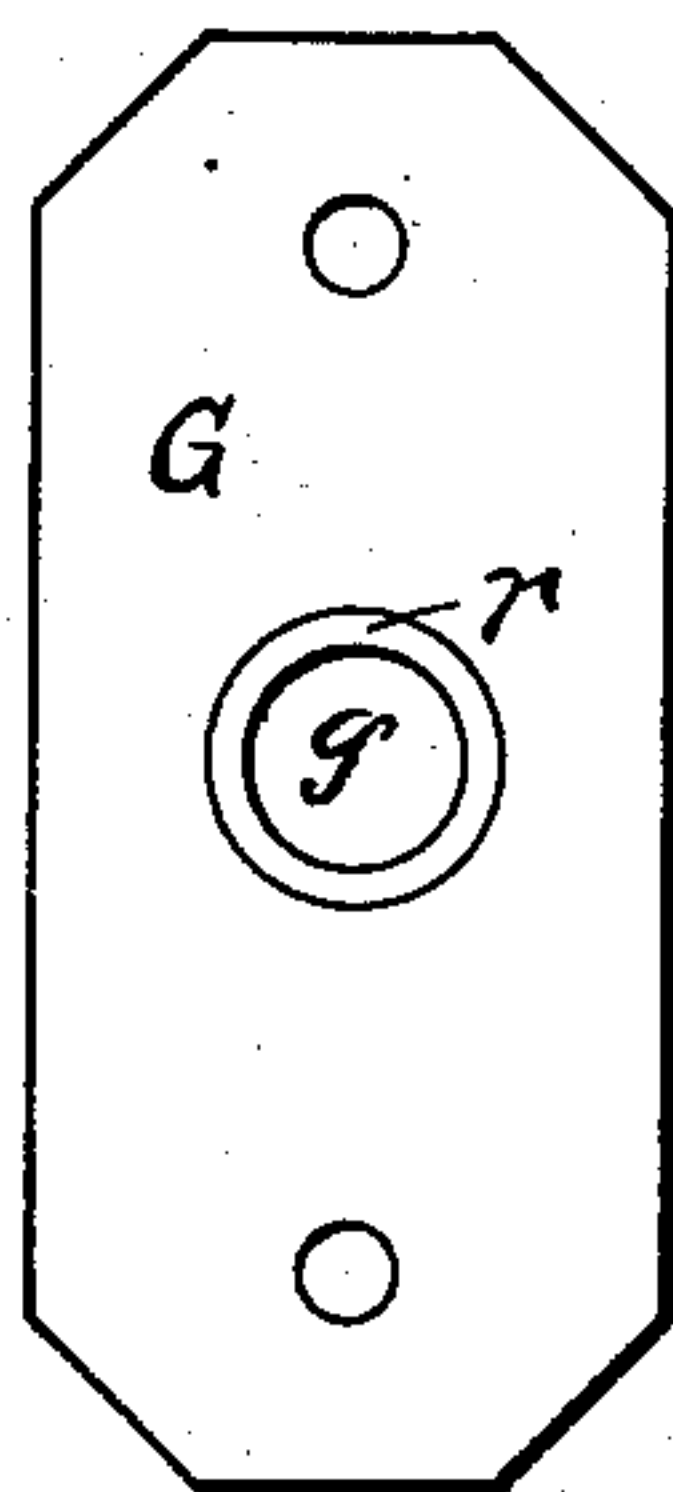
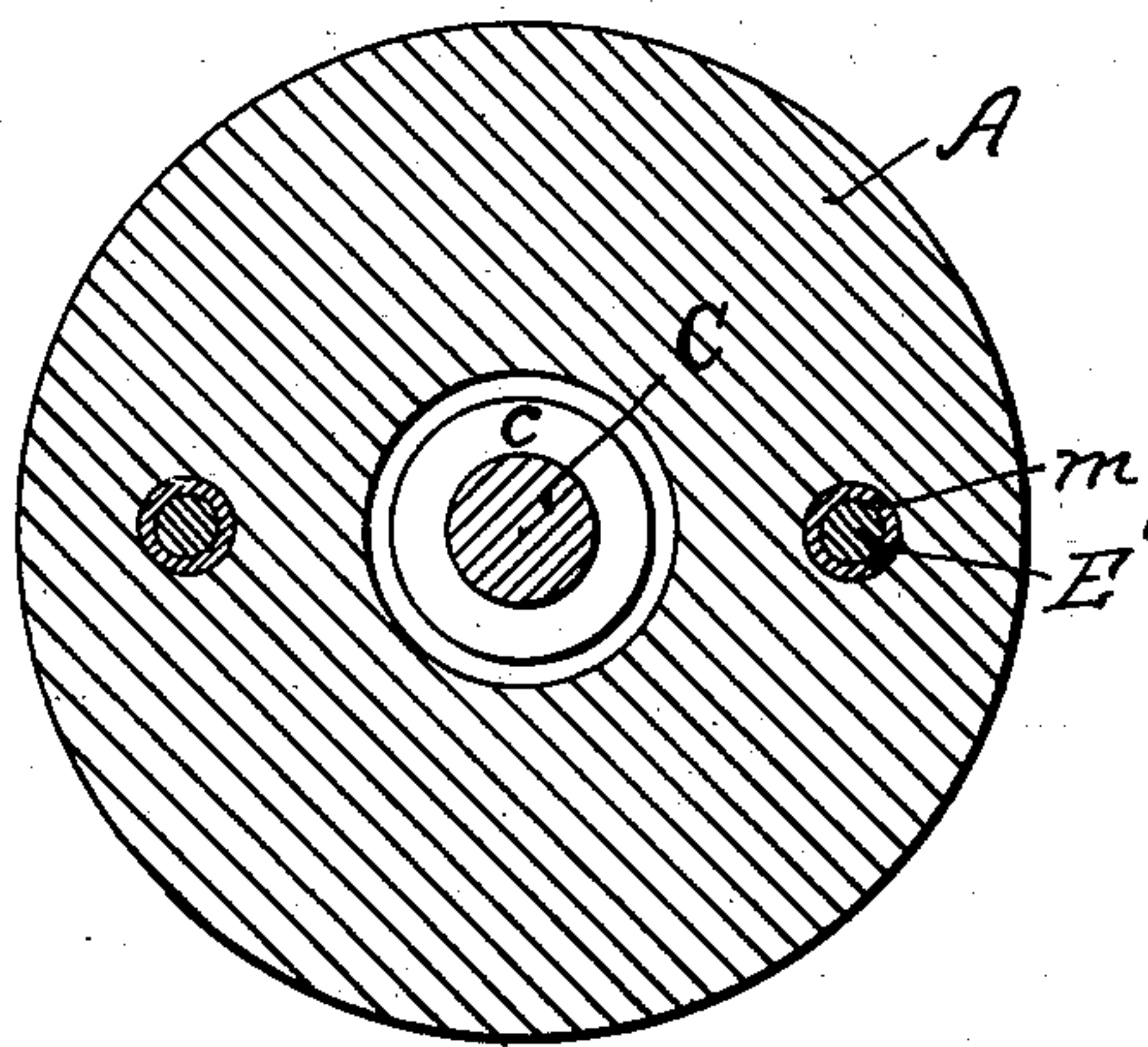


Fig. 2.



Witnesses
Katharine Kelly
Adam H. Leader.

Harry C. Thamsen, Inventor.

By Attorney *Edw. T. Kelly*

UNITED STATES PATENT OFFICE.

HARRY C. THAMSEN, OF HAMBURG, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO ALEXANDER MURDOCH, OF SAME PLACE, AND ADAM H. LEADER, OF READING, PENNSYLVANIA.

SPARKING IGNITER FOR EXPLOSIVE-ENGINES.

SPECIFICATION forming part of Letters Patent No. 654,818, dated July 31, 1900.

Application filed April 17, 1900. Serial No. 13,198. (No model.)

To all whom it may concern:

Be it known that I, HARRY C. THAMSEN, a subject of the Emperor of Germany, residing at Hamburg, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Igniters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in electric igniters, and is intended more particularly for use on gas or gasolene engines, though it may, perhaps, be applied to other uses with equal advantage.

The object of the invention is to produce an igniter of simple construction and one that will be positive in its action.

The invention is fully described in the following specification and clearly shown in the accompanying drawings, in which—

Figure 1 is a vertical sectional view of my igniter. Fig. 2 is a cross-section taken on line *xx* of Fig. 1. Fig. 3 is a detail of the contact-plate.

The casing A is formed with a central opening *a*, extending its full length, adapted to receive the end of the operating-rod C, which is backed by a coiled spring D. Two vertical posts E and E' are arranged in the casing A, one on either side of the opening *a*. These posts are insulated from the casing by means of any suitable insulating material *m*, and one of them extends sufficiently above the top of the casing to permit the electric wire to be attached thereto. The lower ends of the posts E and E' depend some distance below the casing and are connected by means of the contact-plate G. This plate G is formed with a central opening *g*, through which the rod C passes and from which it is insulated, as

shown at *r*. The rod C is formed with a flange *c*, which in normal position rests against the contact-plate G, due to the action of the coiled spring D, by which it is backed. In the position indicated in the drawings it will be seen that a positive circuit is formed, the rod C forming the one pole, while the other is formed by the plate G through the posts E and E'. The piston of the engine (shown in dotted lines) will at each stroke strike the end *c'* of the rod C sufficiently to raise the flange *c* from its contact with the plate G, thus breaking the circuit and striking the spark. The spring D will return the flange to its original position, thus closing the circuit when the piston makes the back stroke. This operation continued will cause a succession of sparks.

The construction and operation are very simple and the danger of its becoming inoperative is reduced to a minimum.

Having thus fully described my invention and its operation, what I claim, and desire to secure by Letters Patent, is—

In an electrical igniter, a casing A having vertical insulated parts E and E' passing through said casing, their ends depending below the casing and connected by means of a contact-plate G, an operating-rod C passing through an insulated opening *r* in said plate and having a flange *c* adapted to contact with the upper face of said plate, the upper end of said rod C entering the casing and backed by a coiled spring D, all substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY C. THAMSEN.

Witnesses:

ED. A. KELLY,
E. P. VAN REED.