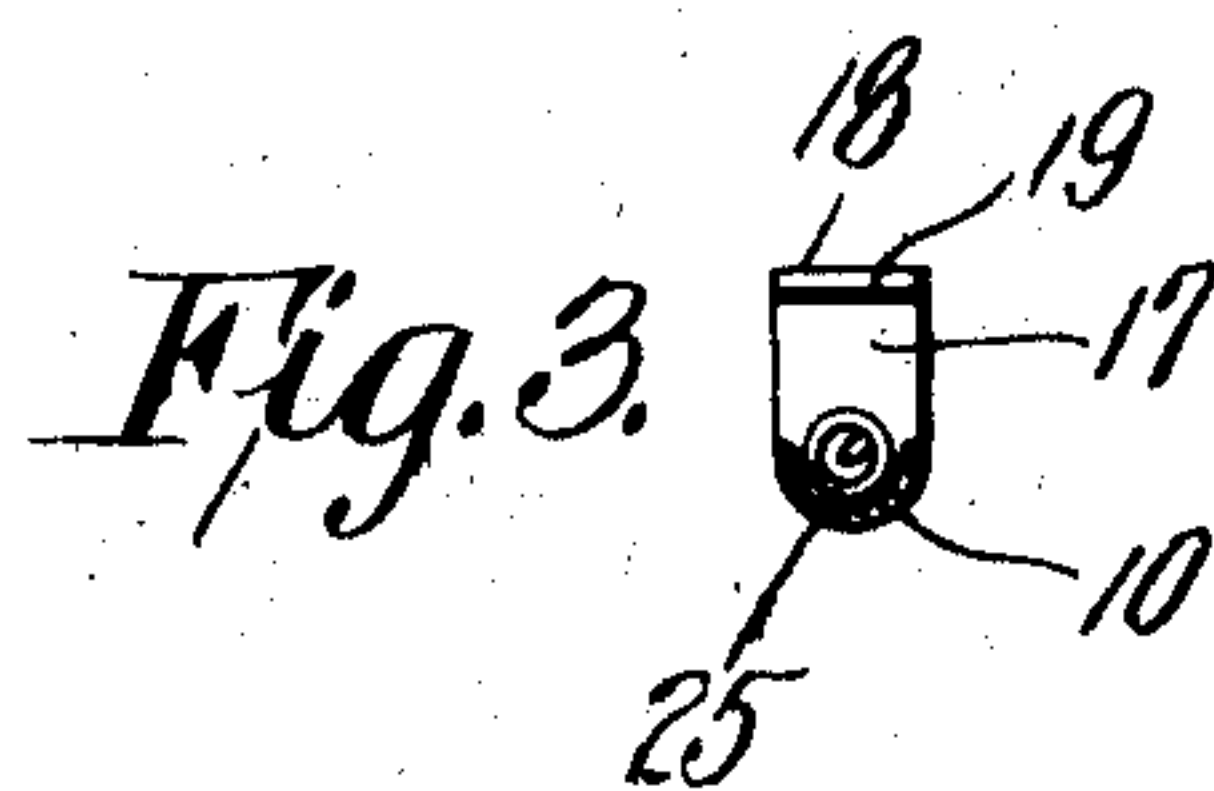
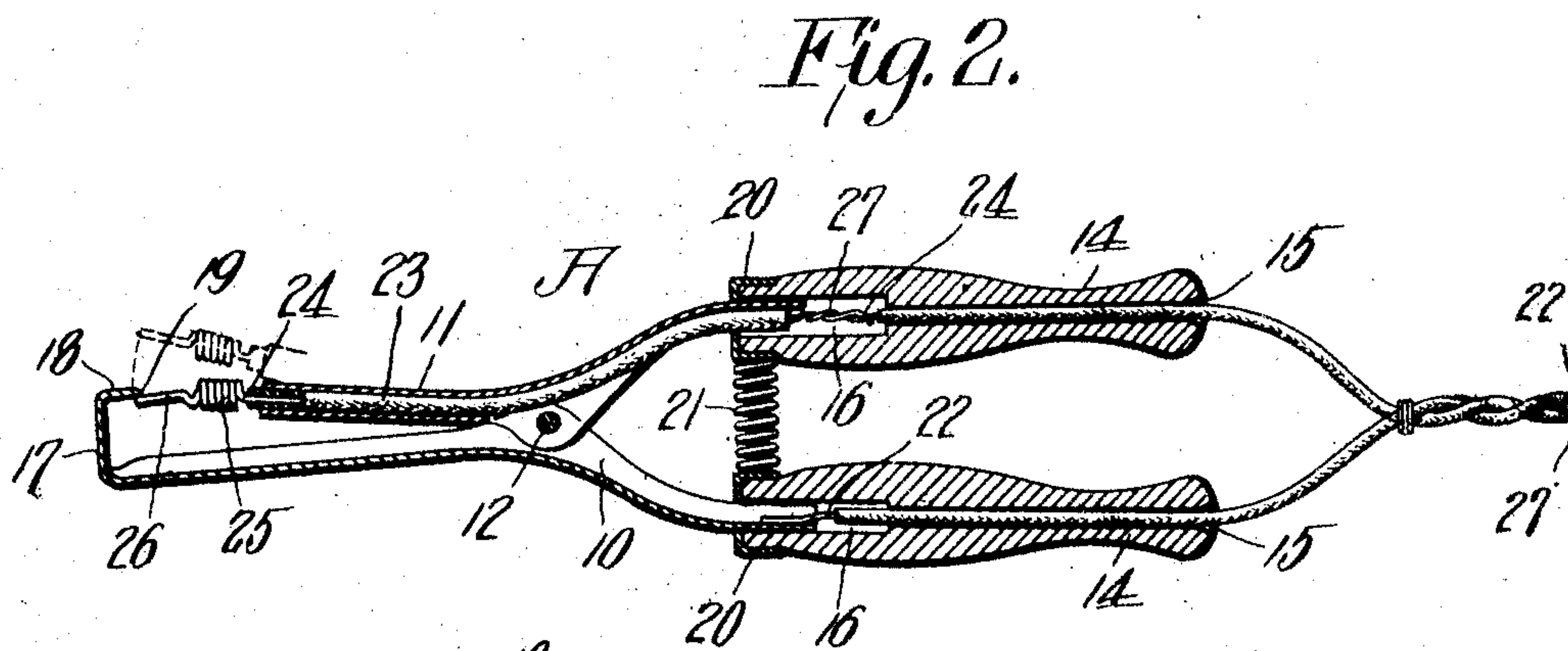
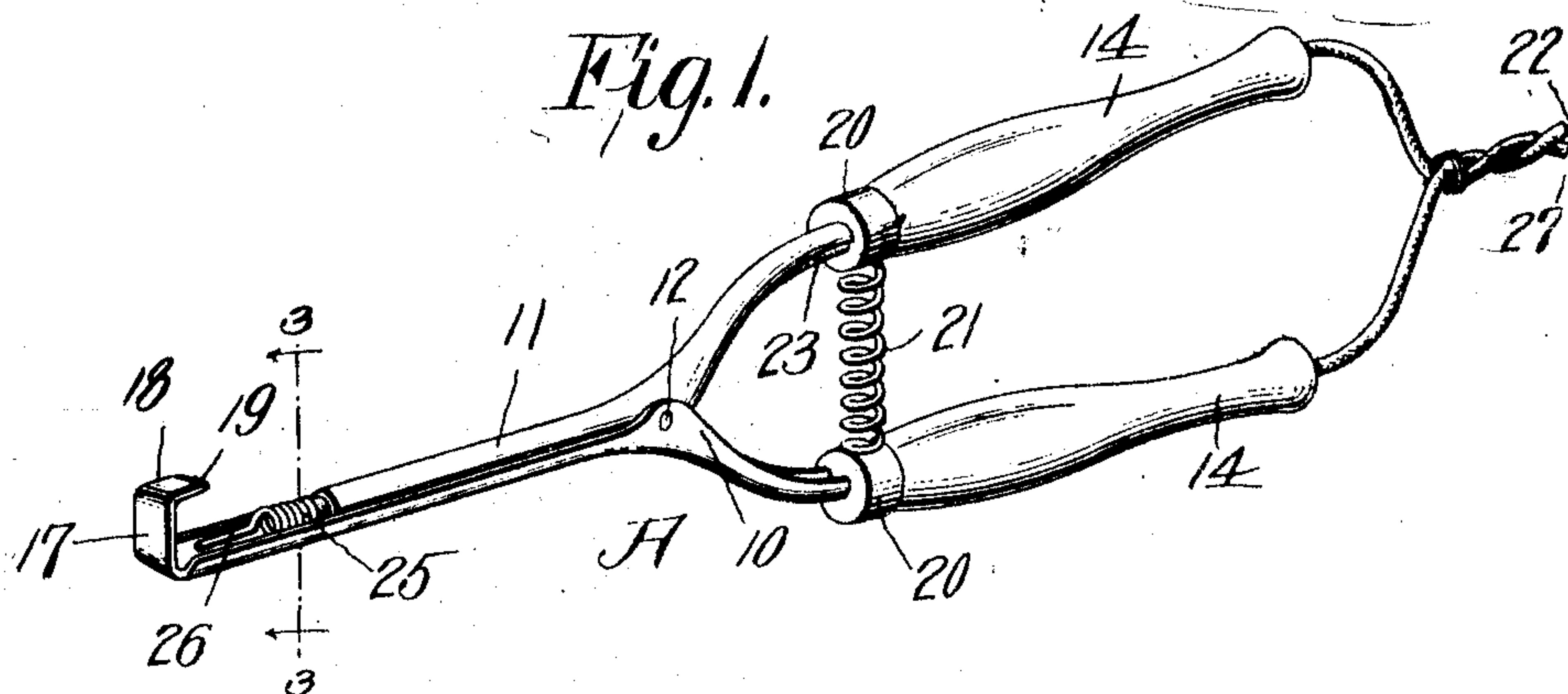


No. 886,138.

PATENTED APR. 28, 1908.

J. N. LANSINGER.
ELECTRIC IGNITER.
APPLICATION FILED APR. 24, 1907.



Inventor

John N. Lansinger

Witnesses

Oliver H. Holmes

M. A. Beeler

By

Beeler & Robb

Attorneys

UNITED STATES PATENT OFFICE.

JOHN N. LANSINGER, OF KENT, OHIO.

ELECTRIC IGNITER.

No. 886,138.

Specification of Letters Patent.

Patented April 28, 1908.

Application filed April 24, 1907. Serial No. 370,007.

To all whom it may concern:

Be it known that I, JOHN N. LANSINGER, a citizen of the United States, residing at Kent, in the county of Portage and State of Ohio, have invented certain new and useful Improvements in Electric Igniters, of which the following is a specification.

This invention relates to the class of electric igniters, and pertains in general terms to those devices of this class which include a suitable battery, either stationary or portable, circuit wires connected to the battery, and two contact points adapted to make and break the circuit, and whereby a spark is created for the purpose of lighting gas or gasoline stoves, gas lamps, street lights, and the like.

Among the objects of the present invention is to simplify the mechanical construction of the device, and at the same time secure a high degree of efficiency and durability of both the igniting device and the battery with which it may be employed.

Specifically the invention consists in the details of construction hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which

Figure 1 is a perspective view of the igniter with the parts in normal position; Fig. 2 is a longitudinal section showing the position assumed by the parts when about to make a spark, and Fig. 3 is a cross-sectional detail showing the normal position of the movable contact with respect to other parts.

Like reference characters refer to similar parts on all the views of the drawings.

The igniter A comprises two main members 10 and 11 pivoted together at 12, and each provided with a suitable handle 14 through which is formed a central bore 15 terminating at one end in an enlargement or socket 16. The member 10 throughout the greater part of its length is substantially semi-circular in cross-section, and at its outer end is flattened, as at 17, the extreme end thereof being broad and flat and bent back upon or parallel with the main part, as indicated at 18. It will be understood that the said end of the member 10 extends substantially inward toward the pivot 12, and the edge 19 thereof lies substantially parallel with the axis of said pivot, for a purpose which will soon appear.

The member 11 from the pivot outward is substantially tubular and is shorter than the corresponding portion of the member 10

within which it is normally received as plainly illustrated. The inner end of each of the members 10 and 11 is secured in any suitable manner within the socket 16 of its handle 14, there being shown in this embodiment of the invention a metallic ferrule 20 surrounding each of the said members and inclosing the end of the handle and its socket, and to which ferrule the member may be brazed or otherwise secured if desired.

In order to maintain the parts normally in the position indicated in Fig. 1, any suitable resilient means may be employed, such means being herein shown as consisting of a strong coil spring 21 permanently secured as by brazing to and between the ferrules 20.

A circuit wire 22 is secured to the member 10, preferably at its inner end within the socket 16 and passes through the bore of the adjacent handle 14. The member 10, being thus connected, constitutes a part of the circuit and the end 18 may be considered a stationary electrical contact thereof. Within the tubular member 11 and extending therethrough is a heavy piece of insulation 23 having a metallic core 24, the latter projecting beyond both ends of the insulation. Said core 24 is composed of spring wire, and the outer end thereof between the outer end of member 11 the contact 18 is formed into a coil 25 from which projects outwardly a short straight portion 26 which may be regarded as a movable contact. To said core 24 is secured, at any suitable point as within the socket 16, the circuit wire 27 which leads through the handle adjacent thereto. The wires 22 and 27 are preferably insulated, and are suitably connected in a well-known manner to a battery (not shown), the circuit being normally broken.

From the foregoing description of the device the operation thereof will be readily comprehended, and in brief is as follows: The handles being grasped and forced toward each other, the outer ends of members 10 and 11 will separate. The contact 18 lying in the path of the movable contact 26 will be engaged thereby closing the circuit, but the latter contact upon snapping past the former will break the circuit, causing a spark from the battery in a well-known manner, the same being sufficient to ignite inflammable gas. Upon release of the handles, the spring 21 will promptly return the parts to normal position, so that all probability of short circuiting will be obviated, and this desirable

feature is further insured by reason of the fact that the only non-insulated or exposed portion of the circuit connected with the member 11 consists of the spring 25 and point 26, and this portion is not only normally out of contact with the member 10 but is prevented by said member 10 and parts connected therewith from coming into contact with outside metallic bodies which might cause short-circuiting.

As indicated most plainly in Fig. 3, the end 18 is comparatively broad and the edge 19 thereof is long. The contact 26 moves in a plane coincident with the plane in which the member 11 is pivoted to move, and such plane intersects the said edge 19. It will be appreciated, therefore, that the end 18, in addition to the primary function of being a contact, serves to shield the movable contact from danger of short-circuiting and being broad would allow of considerable possible distortion of the contact 26 without likelihood of failure to make contact therewith in the operation of the igniter.

I am aware that it is not broadly new with me to provide a hand igniter for the general purposes for which mine is designed, but

What I claim as of my invention, and desire to secure by Letters Patent of the United States, is:

1. An electric igniter comprising, in combination, a member substantially semi-circular in cross-section and having its end flattened and bent back parallel with the main portion thereof, said end constituting a sta-

tionary contact; a member substantially tubular in cross-section pivoted to and normally within the first-named member, a movable contact secured to said tubular member and passing therethrough and insulated therefrom, the movable contact being adapted to engage the said stationary contact, handles secured to the said pivoted members, and circuit wires attached to the contact members and passing through the said handles.

2. In an electric igniter, the combination of two contact members pivoted together intermediate of their ends, one of said members carrying a movable spring contact which contact projects in substantial alinement therewith and moves in a plane coincident with the plane of movement of said carrying member, the other of said contact members having a flattened end adapted to substantially guard the movable contact from outside influence and constituting a stationary contact, operating handles secured to the ends of the said contact members, circuit wires secured to the said contact members within the said handles, and spring means normally tending to retain the movable contact within the stationary contact, substantially as set forth.

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

JOHN N. LANSINGER.

Witnesses:

R. T. ARMSTRONG,
W. W. REED.