

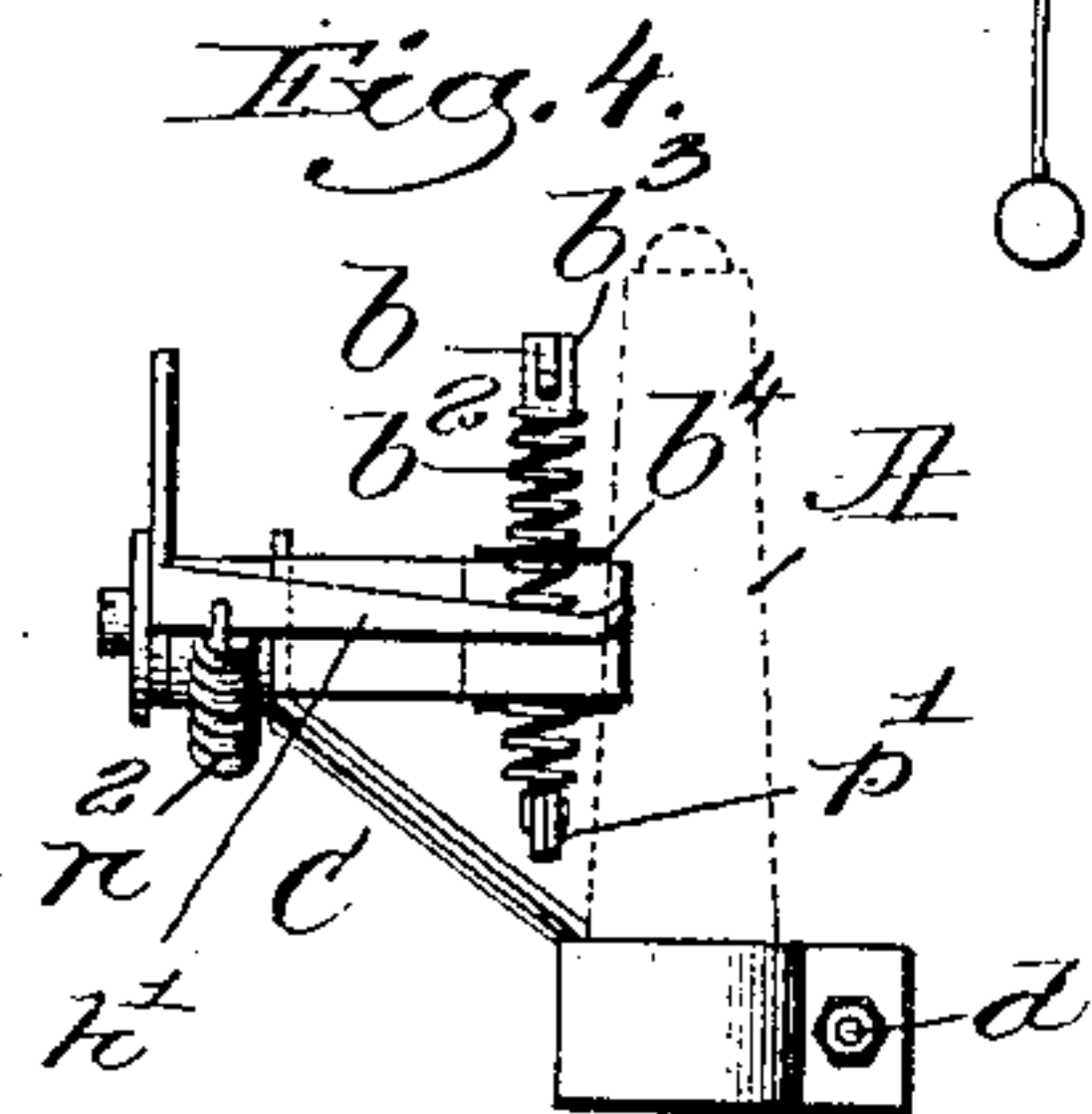
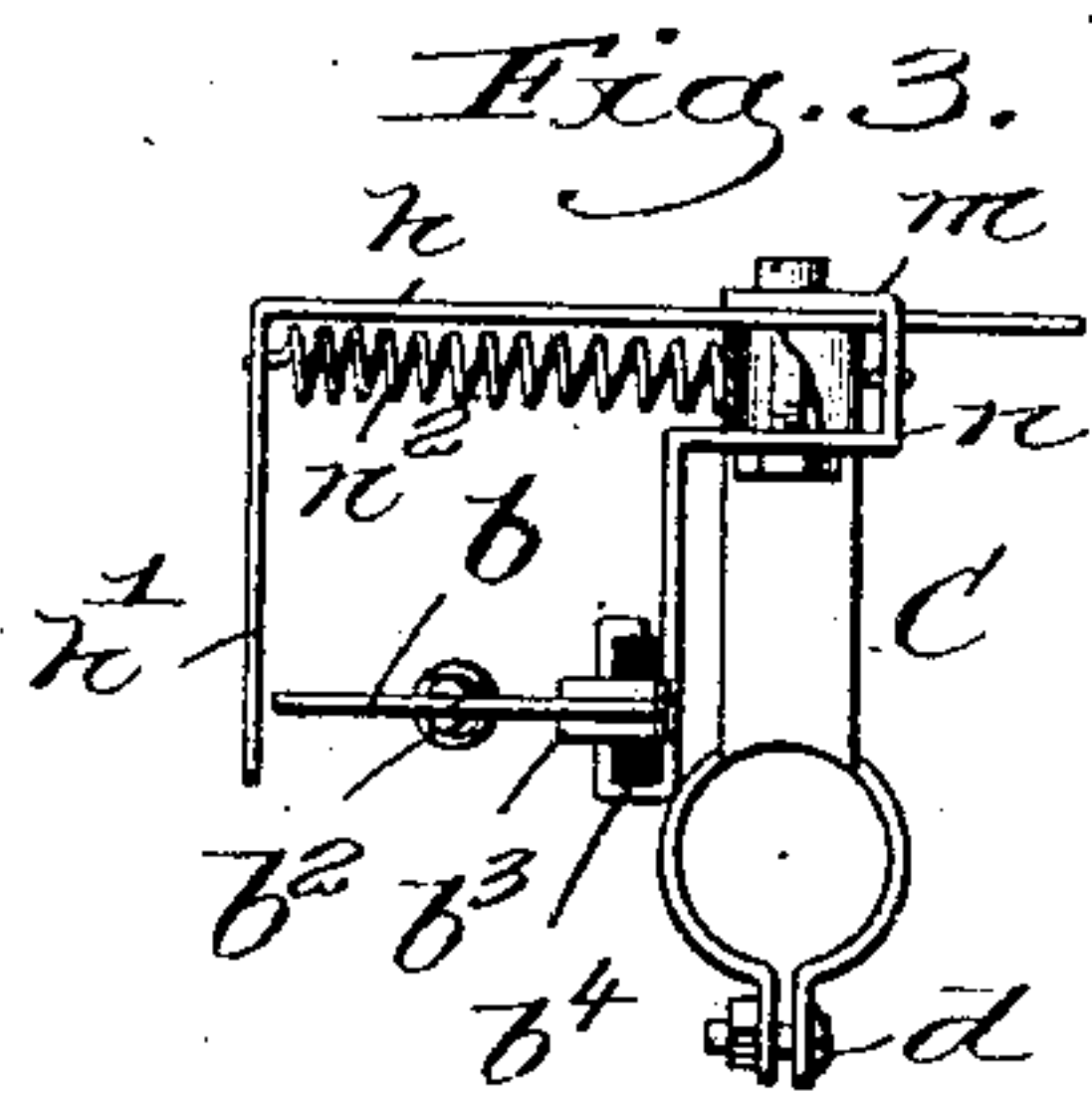
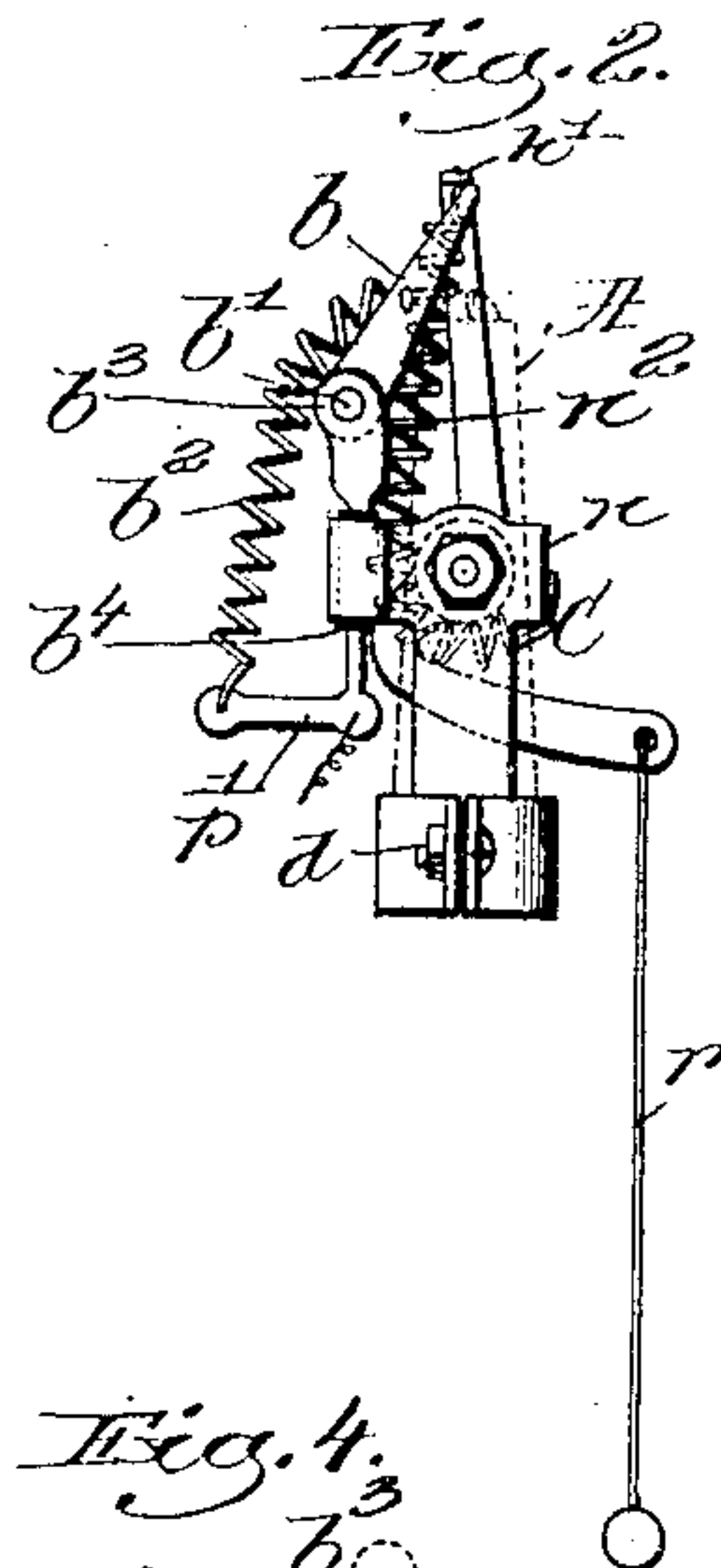
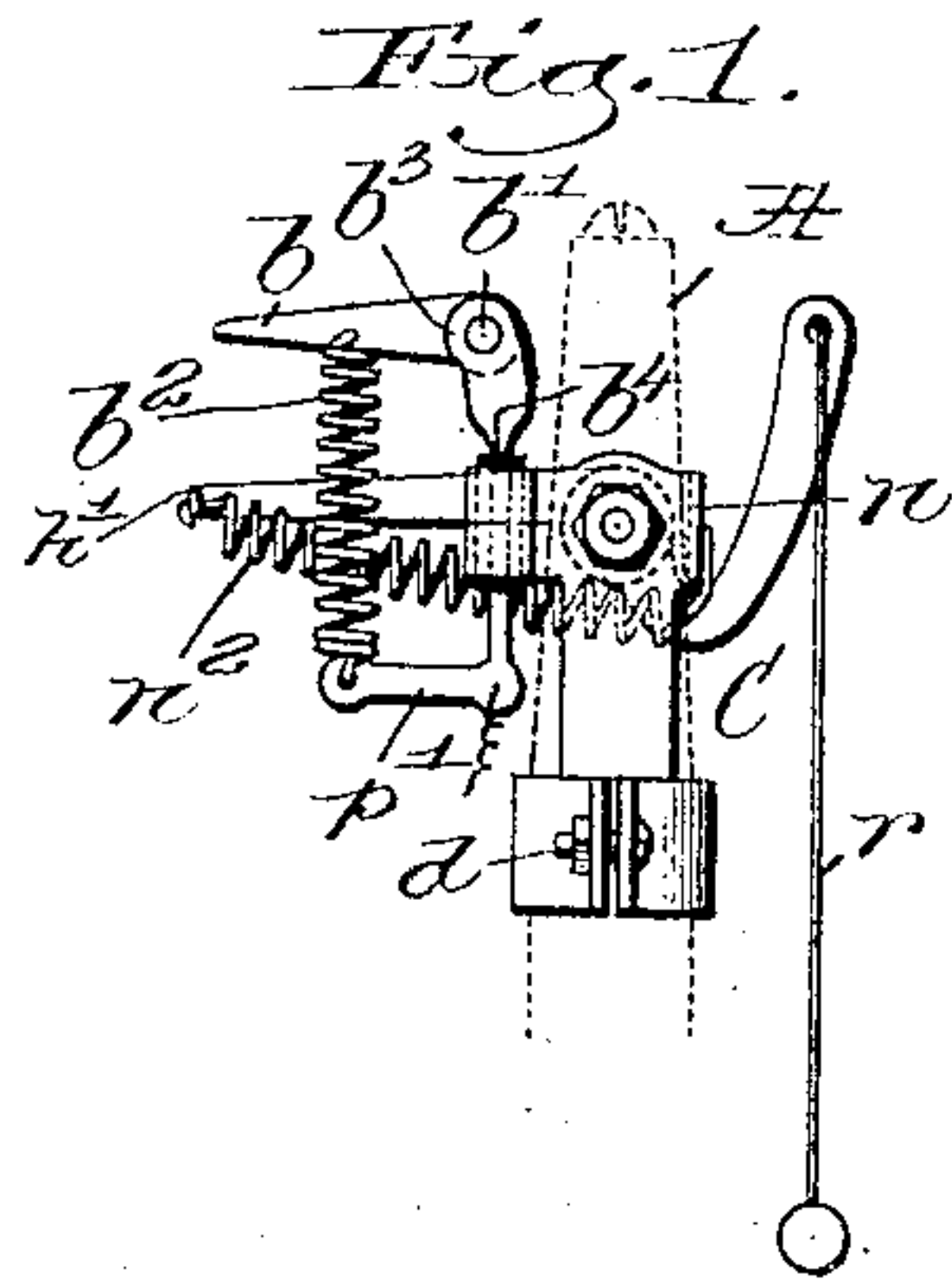
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PATENTED FEB. 18, 1908.

C. J. LARKIN.

LIGHTING ATTACHMENT FOR GAS AND ACETYLENE BURNERS.

APPLICATION FILED AUG. 10, 1907.



Witnesses:

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UNITED STATES PATENT OFFICE.

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LIGHTING ATTACHMENT FOR GAS AND ACETYLENE BURNERS.

No. 879,824.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed August 10, 1907. Serial No. 387,997.

To all whom it may concern:

Be it known that I, CLIFFORD J. LARKIN, a citizen of the United States, and a resident of Everett, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Lighting Attachments for Gas and Acetylene Burners, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

This invention has for its object the production of a novel lighting attachment that may be readily applied to the barrel of any burner connected with any usual supply of illuminating gas or acetylene, the present application is filed as a continuation of my application Se. No. 368,567, filed April 16, 1907.

In constructing my lighting attachment in the form in which I have herein chosen to illustrate the same, I employ a standard or body provided at one end with a clamp to fit the barrel of the burner, a portion of the standard or body at its opposite end being shaped to sustain two electrodes, one made as a movable lever arm, a spring co-acting with said lever arm to maintain the same in its inoperative position.

In the construction herein illustrated the second electrode is shown as a stiff electrode pivotally mounted at one end and normally held in its inoperative position by a spring, said spring immediately returning said electrode to its inoperative position after the same has been turned into its operative position by or through the main electrode, the latter leaving the first named electrode at just the point where a spark will light the gas.

Figure 1, in side elevation, shows my novel lighting attachment applied to a burner, the secondary electrode being in its inoperative position; Fig. 2 shows the same parts with the main electrode about to leave the secondary electrode and make a spark; Fig. 3 is a plan view in about the line *x*, Fig. 1; and Fig. 4 is a side elevation of the parts shown in Fig. 1, looking at the same from the left.

In the drawing A represents a burner to deliver gas, or it may be acetylene, said burner having its lower end threaded interiorly to fit any usual pipe for conducting gas or acetylene to the burner.

The standard or body C is formed of a blank, a portion of which is bent to form a

socket to receive a clamp screw *d'* by which to clamp the body to a burner.

The upper end of the body C has a projecting arm bent, as shown at *n*, *m*, to receive a short tube *n'*, the portion *m* receiving a stud or screw which is extended through the central portion of the main electrode *h* and thence through the upper end of the body, as shown in Fig. 3, where said screw receives a nut, the nut being turned sufficiently to clamp the tube firmly in position.

To the portion *n* of the body I attach one end of a spring *n'*, the opposite end being fixed to the main electrode near where the same is bent, see Fig. 3, in the formation of the arm *h'* of said electrode that in its upward movement preparatory to lighting a burner meets the free end of the secondary electrode *b*, shown as a stiff arm of metal pivoted at *b'* and held in the position Fig. 1 by a spring *b'*. The pivot *b'* enters a fulcrum block *b'*, the shank of which is clamped in suitable insulating material *b'* held in position by a portion *p* of the body, said block having also connected with it the wire *r'* in communication with some suitable source for electricity. The main electrode has connected therewith at one end a pull *r*.

The lower end of the shank of the block *b'* is bent laterally and outward below the insulating material, as shown, one end of the spring *b'* being made fast thereto, the entire device being removable bodily from the burner.

The blank from which the standard or body is formed will thus be seen to comprise two ears which form the socket encircling the burner provided midway of the length of the said ears with an upright portion which in turn is provided at its upper end with two arms, one of which is bent to constitute the double bearing for the pivot of the main electrode *h*, and the other of which is bent into position substantially parallel with the said upright, and again bent at its end to constitute the portion *p* which holds the insulating material.

In operation the pull will be engaged and depressed turning the main electrode from the position Fig. 1 until the portion *h'* meets the underside of the secondary electrode *b*, when in the further movement of the main electrode the secondary electrode

is carried with it into substantially the position Fig. 2, stretching the two springs n^2 and b^2 and then the portion h' of the main electrode passes the free end of the secondary electrode and by reason of the burner being connected in an electric circuit a spark is made as the two electrodes pass each other that ignites the gas.

Having described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A lighting attachment comprising a body having ears bent to encircle a burner and provided with two arms one sustaining a main electrode, the other arm sustaining insulating material, and a fulcrum block having a depending shank held in said insulating material, the lower end of the shank being bent laterally and outward below said material, combined with a main electrode pivotally sustained by one of said arms, and with a secondary electrode pivotally mounted on the fulcrum block above said insulating material, a spring connected with said main electrode, a spring connected at one end with said secondary electrode, and at its other end with the laterally bent lower end of the fulcrum block shank, the movement of the main electrode taking with it the secondary electrode, the contact being broken therewith at the point where the gas issues from the burner, said springs immediately returning said main and secondary electrodes to their inoperative positions.

2. In a lighting attachment, a body shaped to present two arms and a foot to embrace the burner, a main electrode pivoted on one of said arms, a fulcrum block insulated from but sustained by the other of said arms and having a depending shank bent laterally at its lower end, a secondary electrode pivoted on said fulcrum block, a spring intermediate said body and said main electrode, and a second spring intermediate

said secondary electrode and the laterally bent end of the shank of said block.

3. A lighting attachment comprising a standard having two ears bent to encircle a burner and provided midway of the length of said ears with an upright portion provided at its upper end with two arms, one bent to constitute a double bearing, and the other bent into position substantially parallel with said upright, and again bent at its end to constitute a holder for insulating material, combined with a stud sustained in said double bearing, a movable electrode mounted on said stud between the arms of said double bearing, a spring acting normally to retain said electrode in its inoperative position, and a second electrode sustained by the insulating material of said holder.

4. A lighting attachment comprising a standard having two ears bent to encircle a burner and provided midway of the length of said ears with an upright portion provided at its upper end with two arms, one bent to constitute a double bearing, and the other bent into position substantially parallel with said upright and again bent at its end to constitute a holder for insulating material, combined with a stud sustained in said double bearing, a movable electrode mounted on said stud between the arms of said double bearing, a spring acting normally to retain said electrode in its inoperative position, and a second electrode located substantially in the line of the longitudinal axis of the burner, said second electrode being sustained in the insulating material of said holder.

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

CLIFFORD J. LARKIN.

Witnesses:

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