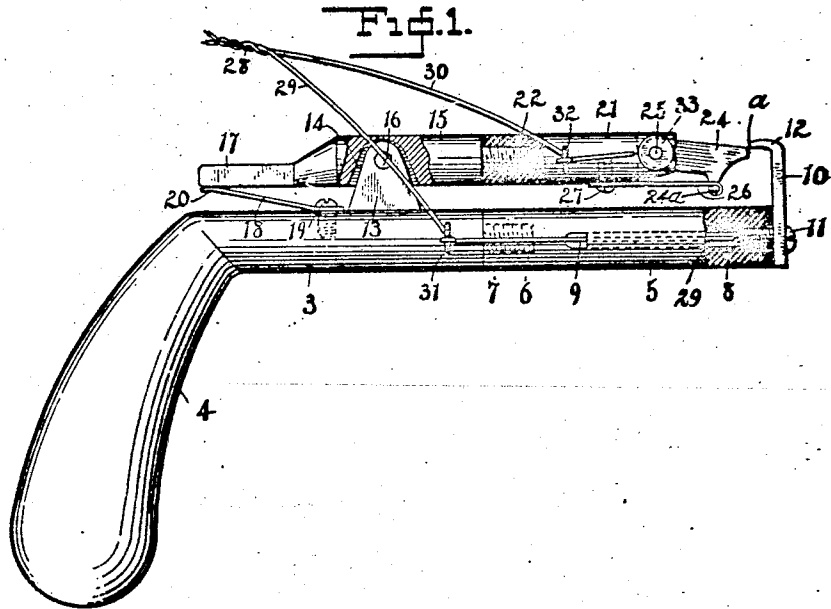
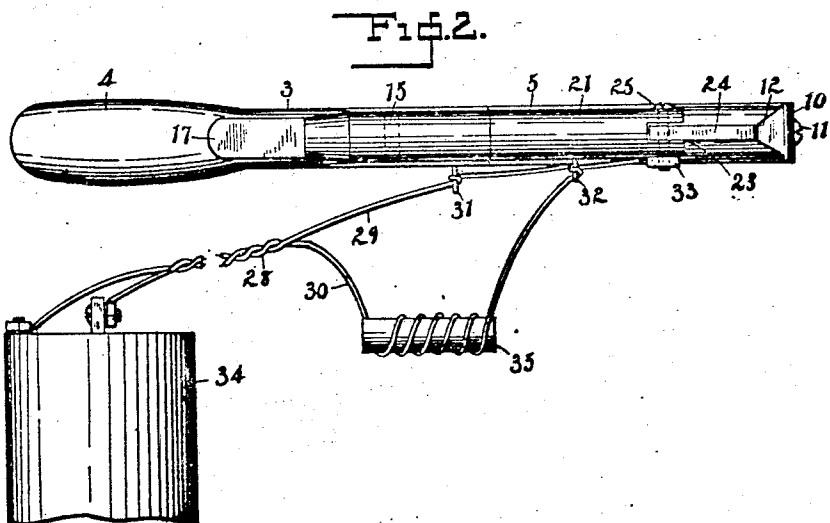


J. D. McINTYRE.
ELECTRIC GAS LIGHTER.
APPLICATION FILED MAR. 4, 1907.

899,181.

Patented Sept. 22, 1908.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES D. MCINTYRE, OF NEWMAN, ILLINOIS.

ELECTRIC GAS-LIGHTER.

No. 899,181.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed March 4, 1907. Serial No. 360,401.

To all whom it may concern:

Be it known that I, JAMES D. MCINTYRE, citizen of the United States, residing at Newman, in the county of Douglas and State of Illinois, have invented certain new and useful Improvements in Electric Gas-Lighters, of which the following is a specification

My invention relates to electric apparatus and has special reference to gas lighting devices.

The chief objects of my invention are to provide a portable means for igniting illuminating gas at the burners; and to furnish a simple and inexpensive appliance for that purpose that can be readily attached to the circuit wires whether the latter are led directly to the gas fixture or to any other locality in the compartment.

I accomplish the desired results by means of a light and simple apparatus, which is furnished with an insulated handle and connected by suitable cord circuits with the wires of the main lines, and supplied with mechanism for making connection between the terminals to produce a spark of sufficient intensity to light a gas jet.

In the accompanying drawing which forms a part of this specification: Fig. 1 is a side elevation of my improved gas lighter, and Fig. 2 is a top plan view showing method of connecting the wires with a battery

Referring to the drawing in detail the numeral 3 indicates the barrel of a pistol shaped member having a handle 4 by means of which the device can be conveniently held and moved about in any direction to reach the various gas burners within its radius of movement. The said handle is formed integral with the barrel and the latter has an extension 5 secured to the portion 3 by means of a lug 6 projecting axially from the latter and furnished with threads 7 which engage corresponding threads in the extension 5. The latter is formed of some insulating material and for this purpose I prefer hard rubber as affording the requisite physical qualities in a marked degree. The said extension 5 is provided with a central bore 8, which extends from the front end rearwardly and communicates with the external surface by an orifice 9. A metallic arm 10, preferably formed of copper, is secured to the muzzle by a screw 11 which engages threads cut in the bore 8. The said arm 10 extends upwardly at a right angle with the barrel and has its end 12 bent to the rear.

Upon the upper surface of the barrel 3 is secured a lug 13 which engages a socket 14 in the under side of a lever 15 which lies parallel with the said barrel, and is pivotally connected to the said lug by a rivet 16. The rear portion of the said lever is reduced in size to form a thumb piece 17 and the lever is kept in its initial position by means of a spring 18 secured to the barrel 3 by a screw 19, its free end 20 being in contact with the underside of the thumb piece 17. The anterior portion 21 of the lever is formed of hard rubber or other insulating substance, and is secured to the rear portion 15 by a threaded lug 22 as in the case of the extension 5, previously described. The front end of the lever is furnished with a slot 23 in which is inserted a copper contact piece 24, a bolt 25 serving as a pivot on which said contact piece turns, and a spring 26 secured to the under surface of the anterior portion 21 by a screw 27 holds the piece 24 in its initial or extended position which is in alinement with the lever 15. The tip of said spring 26 is turned about a lug 24^a so as to restore the piece 24 to its initial position when flexed in either direction upward or downward as it passes the contact point *a* when operated as hereinafter described.

Connection is made with any available source of electrical energy by means of a conductor 28, the wires 29, 30, properly insulated being securely knotted to screw eyes 31, 32, respectively fixed to the sides of the members 3-21 and the wires are then continued to their contacts. The wire 29 passes into the bore 8 through the aperture 9 and is soldered or otherwise secured to the metal screw 11 which is in electric contact with the arm 10 thus constituting one terminal of the circuit. The other wire 30 is in contact with the terminal 24 through the pivot bolt 25 its nut 33 serving as a binder for the said wire.

In order to install the appliance, the conductors are connected to the house wiring when such is present, or special apparatus is provided as shown diagrammatically in Fig. 2 in which 34 indicates the battery and 35 a sparking coil connected in the circuit in the usual manner.

To use the apparatus the operator grasps the instrument by the handle 4 and having turned on the gas holds the end carrying the terminals 10 and 24 in proximity to the escaping jet. The lever 15 is rocked upon its pivot 16 by pressure made upon the piece 17 by the thumb of the same hand that

grasps the handle 4 and the adjustment is such that the terminal 24 will yield sufficiently as it makes contact with the tip 12 to pass by and when the thumb piece 17 is released the spring 18 will restore the parts to their initial position, the piece 24 yielding as it passes by the terminal 12 in the same manner as before, thus causing a double spark at the contact *a* each time the lever 15 is rocked 10 up and down.

It is obvious that many changes may be made in the details of the devices of my invention as herein disclosed without departure from the spirit and scope thereof and I 15 do not wish, therefore, to be limited to the precise construction set forth.

Having thus described my invention, what I claim is:—

1. An electric gas lighter, including a main 20 lever provided with a handle, an auxiliary lever yieldingly pivoted to the main lever, means for manually operating said auxiliary lever, extensions formed of insulating material attached to said levers, a contact arm 25 secured to the main lever extension, a contact piece yieldingly pivoted to the auxiliary lever extension, said contact piece being adapted to engage the said contact arm in

passing the same when the said auxiliary lever is operated, and electric conductors 30 connected with said contact piece and said contact arm.

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 35 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 40 having a flattened end adapted to substantially guard the movable contact from outside influence and constituting a stationary contact, operating handles secured to the 45 ends of the said contact members, circuit wires secured to the said contact members, and spring means normally tending to retain the movable contact within the stationary contact.

In testimony whereof I affix my signature 50 in presence of two witnesses.

JAMES D. McINTYRE.

Witnesses:

WILL. A. COOLLEY
A. H. RUSH.