Nov. 18, 1924. 1,515,644

J. WYLD

ELECTRICAL IGNITER

Filed April 25 192.

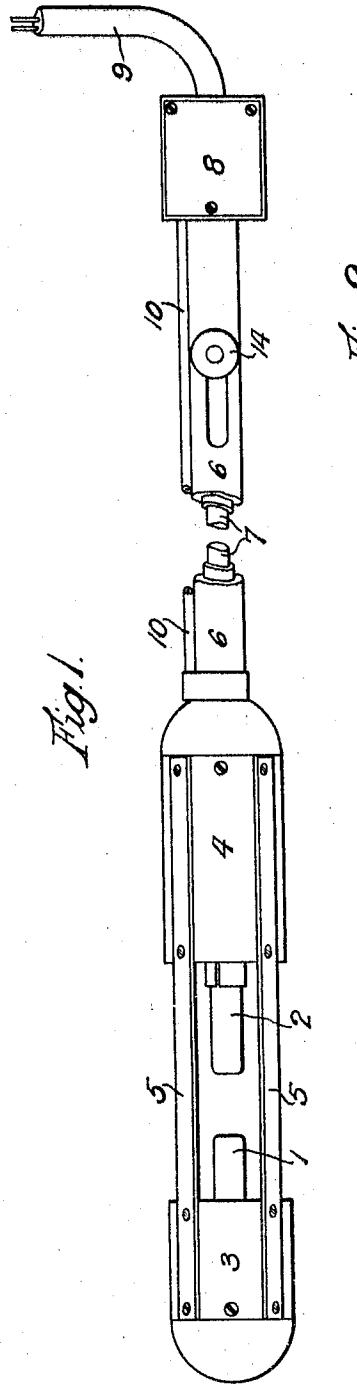

Fig. 1.

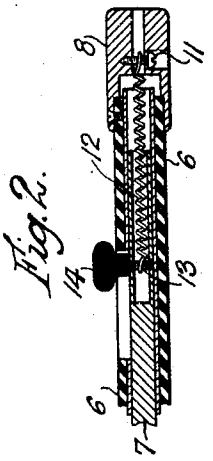

Fig. 2.

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UNITED STATES PATENT OFFICE.

JAMES WYLD, OF QUEEN'S ISLAND, BELFAST, IRELAND, ASSIGNOR TO HARLAND AND WOLFF, LIMITED, OF BELFAST, IRELAND.

ELECTRICAL IGNITER.

Application filed April 25, 1921. Serial No. 464,363.

To all whom it may concern:

Be it known that I, JAMES WYLD, a subject of the King of Great Britain, residing at Queen's Island, Belfast, Ireland, have invented new and useful Improvements in Electrical Igniters, of which the following is a specification.

This invention relates to electrical igniters and is especially applicable for use in igniting oil furnace burners.

One object of my invention is to obviate the danger of the operator being burned by the burst of flame which occurs when an oil burner is ignited.

An igniter constructed according to my invention comprises carbons supported by insulating material and preferably located in close proximity to an oil burner, and means located at a distance from the carbons and adapted to bring the said carbons together to strike an arc.

In one way of carrying out my invention the carbons are mounted coaxially in housings of insulating material separated by spacing strips. One of the carbons is fixed whilst the other carbon is connected to a rod of conducting material which passes through an insulating tube and is provided with a knob or handle by means of which the carbon may be moved against the action of a spring into contact with the fixed carbon to strike the arc.

Current is supplied by a flexible twin cable to a connection box from which the current is led to the fixed carbon and to the conducting rod.

In the accompanying drawings which illustrate my invention Figure 1 is an elevation and Figure 2 is a detail longitudinal section.

1 and 2 are carbons mounted coaxially in housings 3 and 4 and separated by spacing strips 5, 5. The outer carbon 1 is fixed to the housing 3 whilst the inner carbon 2 is slidably mounted in a bushed tube 6 of insulating material fast with the housing 4. Secured to the carbon 2 is a rod 7 of conducting material such as brass. Mounted on the end of the tube 6 is a connection box 8 to which current is supplied by a flexible twin cable 9. One cable leads to a supply wire 10 connected to the carbon 1 whilst the other cable is led to a terminal 11 to which one end of a spring 12 is attached, the other end of the spring 12 being attached to a conducting screw 13 which serves also to secure to the rod 7 an insulating handle 14 by means of which the rod 7 and carbon 2 can be moved against the action of the spring 12, so as to bring the carbon 2 into contact with the carbon 1 to strike the arc.

The tube 6 and rod 7 are made of such a length as to obviate the danger of the operator being burned when an oil burner is ignited.

What I claim is:—

1. In an electrical igniter the combination of a fixed carbon, a movable carbon, means for supplying current to the carbons, housings for said carbons, an insulating tube connected to the housing for said movable carbon, a rod of conducting material located within said tube and connected to the movable carbon and means located at a distance from the carbons and adapted to bring the said carbons together to strike an arc.

2. In an electrical igniter the combination of a fixed carbon, a movable carbon, means for supplying current to the carbons, housings for said carbons, an insulating tube connected to the housing for said movable carbon, a rod of conducting material located within said tube and connected to the movable carbon, a spring connected to said rod and adapted to cause the separation of said carbons and means located at a distance from the carbons and adapted to bring the said carbons together against the action of the spring to strike an arc.

3. In an electrical igniter the combination of a fixed carbon, a movable carbon, means for supplying current to the carbons, housings for said carbons, an insulating tube connected at one end to the housing for said movable carbon and at the other end to a connection box, a rod of conducting material located within said tube and connected to the movable carbon, and means located at a distance from the carbons and adapted to bring the said carbons together to strike an arc.

4. In an electrical igniter the combination of a fixed carbon, a movable carbon, means for supplying current to the carbons, housings for said carbons, an insulating tube connected at one end to the housing for said

movable carbon and at the other end to a connection box, a rod of conducting material located within said tube and connected to the movable carbon, a spring connected to said rod and adapted to cause the separation of said carbons and means located at a distance from the carbons and adapted to bring the said carbons together against the action of the spring to strike an arc.

In testimony that I claim the foregoing as my invention I have signed my name this 19th day of March 1921.

JAMES WYLD.