

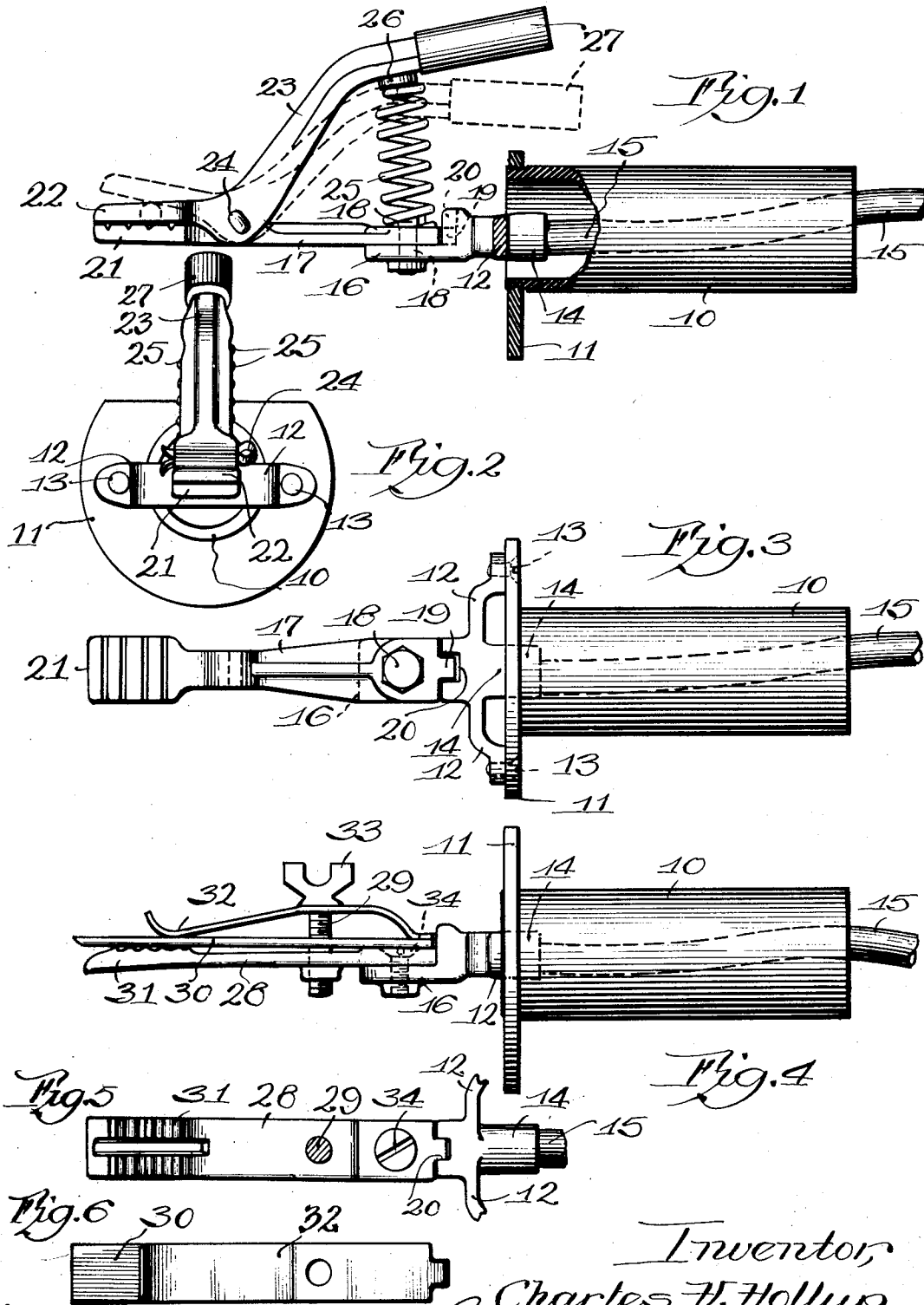
Feb. 25, 1930.

C. H. HOLLUP

1,748,346

ELECTRODE HOLDER

Filed Oct. 11, 1928



Witness:
Chas. E. Koush.

Inventor,
Charles H. Hollup,
George Bayard Jones, Atty.

UNITED STATES PATENT OFFICE

CHARLES H. HOLLUP, OF CHICAGO, ILLINOIS, ASSIGNOR TO HOLLUP CORPORATION,
A CORPORATION OF ILLINOIS

ELECTRODE HOLDER

Application filed October 11, 1928. Serial No. 311,849.

My invention relates to improvements in electrode holders.

One object of the invention is to provide an electrode holder having electrode clamps or jaws which may be readily renewed, without disturbing the cable connection, in case they are burned by the arc.

Another object is to provide an electrode holder of this type in which the heat in the handle is minimized by providing for the circulation of air therethrough.

In the accompanying drawings I have illustrated two embodiments of my invention:

Fig. 1 is a side elevation of one form of the improved electrode holder;

Fig. 2 is an end view thereof;

Fig. 3 is a top plan view with the upper lever and associated parts removed;

Fig. 4 is a side elevation of another form of improved electrode holder;

Fig. 5 is a top plan view thereof with certain parts removed; and

Fig. 6 is a top plan view of certain detached parts.

In Figs. 1, 2 and 3, a handle 10 is provided, made preferably of heat insulating and electric insulating material such as fiber in the form of a tube. One end of the tube is received within an opening in a shield 11 also made of heat resistant material. A metal bracket 12 is secured to the shield 11 by suitable fastening means such as screws 13. The bracket spans the opening in the shield 11 and is spaced therefrom but has a boss 14 thereon projecting into said opening. Said boss has a recess which receives the exposed end of the conductor 15 which is preferably in the form of a cable. The conductors which project from the end of said cable are soldered in said recess. Bracket 12 has a shelf or extension 16 thereon to which an arm 17 is secured by a stud 18. The bracket and said arm 17 are made of conducting material. The inner end of said arm has an extension or lug 19 received within a correspondingly

shaped slot or recess 20 in the yoke to lock the arm against pivotal movement about the supporting stud 18.

The outer end of the arm 17 forms one of a pair of clamping jaws 21, 22, one of which is preferably notched or corrugated to more firmly hold the electrode which is preferably a metallic electrode or welding rod, although not necessarily so. The other jaw 22 forms part of a lever 23 which is pivoted to the arm 17 by means of a cotter pin 24. The jaws are normally held in clamping engagement by means of a stiff spring 25, one end of which encircles the head of the stud 18, and the other end of which encircles a button 26 of insulating material. A thumb piece 27 is provided which is preferably in the form of a tubular member of fibre or other electrical insulating and heat insulating material similar to the main handle and shield.

In order to insert an electrode between the clamping jaws, it is necessary merely to rock the lever 23 by pressure of the thumb on the thumbpiece 27.

If the clamping jaws and associated parts disintegrate, due to the excessive heat of the arc, so that it is necessary to renew them, the arm 17 may be readily removed from the supporting shelf 16 merely by unscrewing the single stud 18 after first removing the helical spring. Thus renewals may readily be effected without disturbing the permanent connection between the bracket and the end of the conductor or cable.

The hollow handle provides a substantial clearance between itself and said conductor and is of such diameter as to permit the free circulation of air therethrough, thus minimizing the heat in the handle. The shield protects the hand from the excessive heat radiated from the arc.

In Figs. 4, 5 and 6, the handle and bracket are substantially the same as those previously described, and the same reference letters have been employed. Instead of a pair of pivoted

clamping jaws, I provide an arm 28 having a screw threaded opening in which is carried a screw threaded shaft 29, the latter passing also through openings in a flat strip of steel 30, serving as a clamping member and yieldingly pressed toward the corrugated jaw 31 by a curved strip of spring steel 32. The pressure may be increased or relaxed altogether by manipulation of the head 33 of the screw threaded shaft or stud 29. The arm 28 and associated parts may be readily removed by removing the single screw 34 as in the case first described.

It will be noted that there are no metallic parts in the handle, and that the latter, while supporting the bracket and electrode clamping jaws, is not attached directly to said metal bracket but directly through the shield so as to minimize the effect of the heat conducted through the metal parts.

What I claim is:

1. An electrode holder comprising a conducting member having a terminal portion to which a conductor may be electrically connected, a heating insulating shield secured to said member, a handle carried by said shield, and a pair of electrode clamping jaws removably secured to said member whereby said jaws may be renewed without disturbing said electrical connection.

2. An electrode holder comprising a conducting member having a terminal portion to which a conductor may be electrically connected, a heat insulating shield secured to said member and a hollow handle surrounding said conductor and connected to said shield, said member carrying a detachable clamp.

3. An electrode holder comprising a conducting member having a recess in which the exposed end of a cable may be secured to provide electrical connection therewith and an electrode clamping device removably secured to said member, a heat insulating shield also secured to said member and a handle secured to said shield at a point other than the point of attachment of said member.

4. An electrode holder comprising a tubular handle, a disc-like shield at one end thereof having an opening receiving said handle, a metal bracket secured to said disc and spanning said opening, a hollow boss on said bracket projecting into said opening, a conductor passing through said handle and secured in said hollow boss and an electrode clamping device detachably secured to said bracket.

5. An electrode holder comprising a handle, a bracket supported thereby having a notch therein and a supporting shoulder adjacent thereto, an arm removably secured to said shoulder and fitting within said notch and a clamping member movable with reference to said arm.

6. An electrode holder comprising a han-

dle, a transverse bracket carried thereby and spaced therefrom, a horizontal shoulder projecting from said bracket, a vertical slot in said bracket adjacent said shoulder, an electrode holding arm and a single screw threaded member holding the latter to said shoulder, said arm having a lug thereon received within said notch to lock the parts against relative rotation but permit quick detachment thereof.

In testimony whereof, I have subscribed my name.

CHARLES H. HOLLUP.