Nov. 7, 1933. J. B. TIEDEMANN 1,933,942

WELDROD HOLDER

Filed March 12, 1930

FIG. 1.

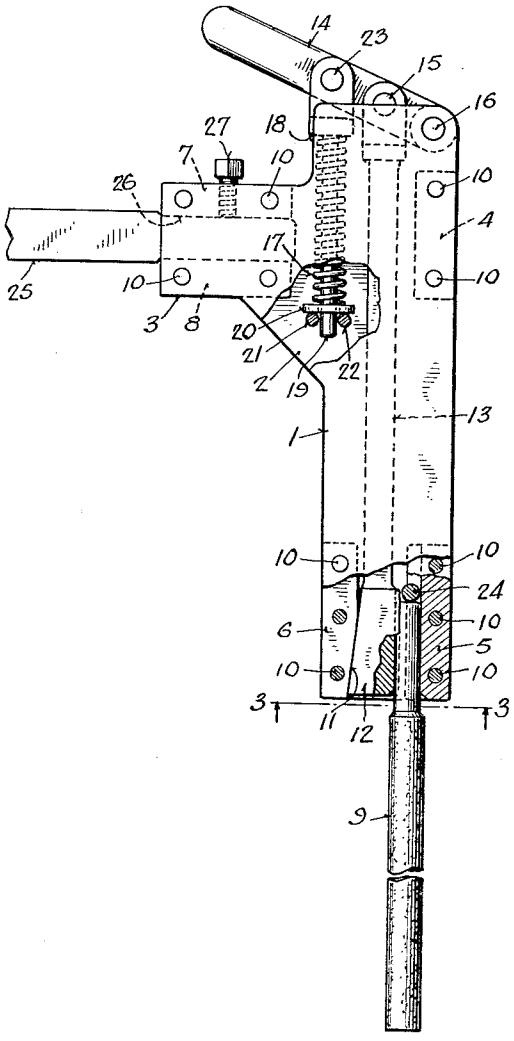


FIG. 2.

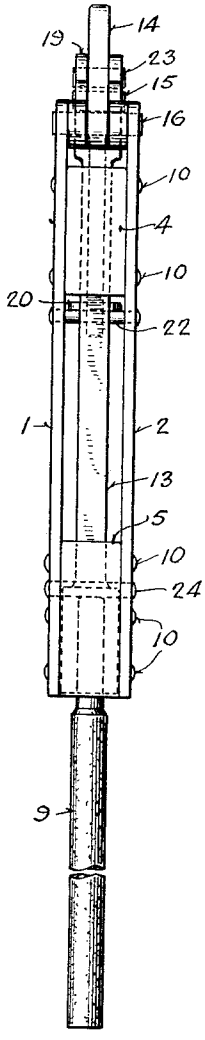
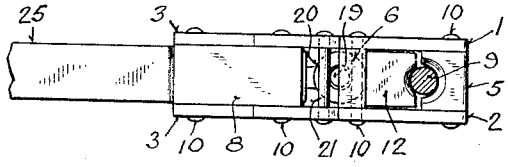


FIG. 3.



INVENTOR.

Julius B. Tiedemann

BY Glenn A. Andrus

ATTORNEY.

Patented Nov. 7, 1933 1,933,942

UNITED STATES PATENT OFFICE

1,933,942

WELDROD HOLDER

Julius B. Tiedemann, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

Application March 12, 1930. Serial No. 435,149

3 Claims. (Cl. 219—8)

This invention relates to a weldrod holder.

An object of the invention is to provide a weldrod holder which insures good electrical contact for the welding electrode.

A further object is to provide a weldrod holder which is adapted to expedite replacement of used weldrods during the welding operation.

The invention is best understood by referring to the accompanying drawing in which:

Figure 1 is a side view of a preferred embodiment of the invention, portions being broken away.

Fig. 2 is a front view.

Fig. 3 is a view taken on the line 3—3 of Figure 1.

The weldrod holder has two side plates 1 and 2 which are preferably cut from sheet metal. Each side plate has a projection 3 to which a handle or bracket may be attached.

The plates 1 and 2 are spaced apart by blocks 4, 5, 6, 7, and 8. Block 5 forms a clamping member and is preferably of metal, such as copper, and serves to conduct the current to the weld-rod 9. Each of the blocks is held in place by rivets 10 which pass through the block and through the plates 1 and 2 on each side securing the same in assembled relation. Block 6 has a beveled face 11 against which a wedge shaped member 12 is adapted to slide, said member being confined between the plates 1 and 2. Integral with the wedge 12 is an extension 13, the upper end of which is forked and pivotally attached to a small hand lever 14 by means of a pin 15. The hand lever is preferably located at the top of the holder and is pivotally attached thereto by a pin 16.

The wedge 12 is drawn upwardly and into engagement with the weldrod 9 by the lever 14. The lever 14 is urged upward by a compression spring 17 interposed between a shoulder 18 of the guide 19 and a fixed washer 20 engaging two pins 21 and 22 which serve to confine the guide 19 at its lower end. The guide 19 is forked at its upper end and is pivotally attached to the hand lever 14 by a pin 23.

In use the shank of the weldrod 9 is inserted into a space provided between the block 5 and the wedge 12. The face of the wedge 12 which abuts the weldrod 9 is shaped to conform to the rounded surface of the weldrod and to afford thereby a greater area of contact.

A pin 24 restricts the insertion of the weldrod and abuts against it to add to the area of electrical contact.

When the weldrod 9 has been consumed as much as practical in the welding operation the hand lever 14 is depressed, causing the wedge 12 to move downwardly and release the end of the used weldrod. The stub drops out and a new weldrod may be substituted therefor with very little loss of time. The release may be accomplished with one hand.

The present invention is adapted for use either for hand or for machine welding. The projection 3 may be located at any place which is most convenient for the use for which the holder is intended. If the holder is used for hand welding, its position is preferably that shown in the accompanying drawing. A handle 25 is shaped to fit the socket 26 formed by the projections 3 of the side plates 1 and 2, and the spacers 7 and 8. A set screw 27 may be used to secure the handle in assembled relation.

While a specific form has been shown, I claim all embodiments within the scope of the present invention.

I claim:

1. In a weldrod holder, clamping means adapted to engage the weldrod, comprising a wedge, a stationary member, means biasing the wedge longitudinally of the holder relative to the stationary member, and a guide for forcing the wedge against the weldrod to secure the weldrod between the wedge and the stationary member as the wedge is actuated by the biasing means.

2. In a weldrod holder, clamping means comprising a member adapted to abut a weldrod, a wedge, means biasing the wedge relative to the member, and a guide to move the wedge toward the weldrod to engage the weldrod and grip the same between said abutting member and said wedge as the wedge is actuated by the biasing means.

3. A holder for weldrods comprising, in combination, a frame, a jaw upon the frame for receiving a weldrod, a movable jaw disposed on the frame, means for wedging the movable jaw to grip a weldrod in cooperation with the first jaw, and biasing means for effecting the actuation of the wedging means.

JULIUS B. TIEDEMANN.