

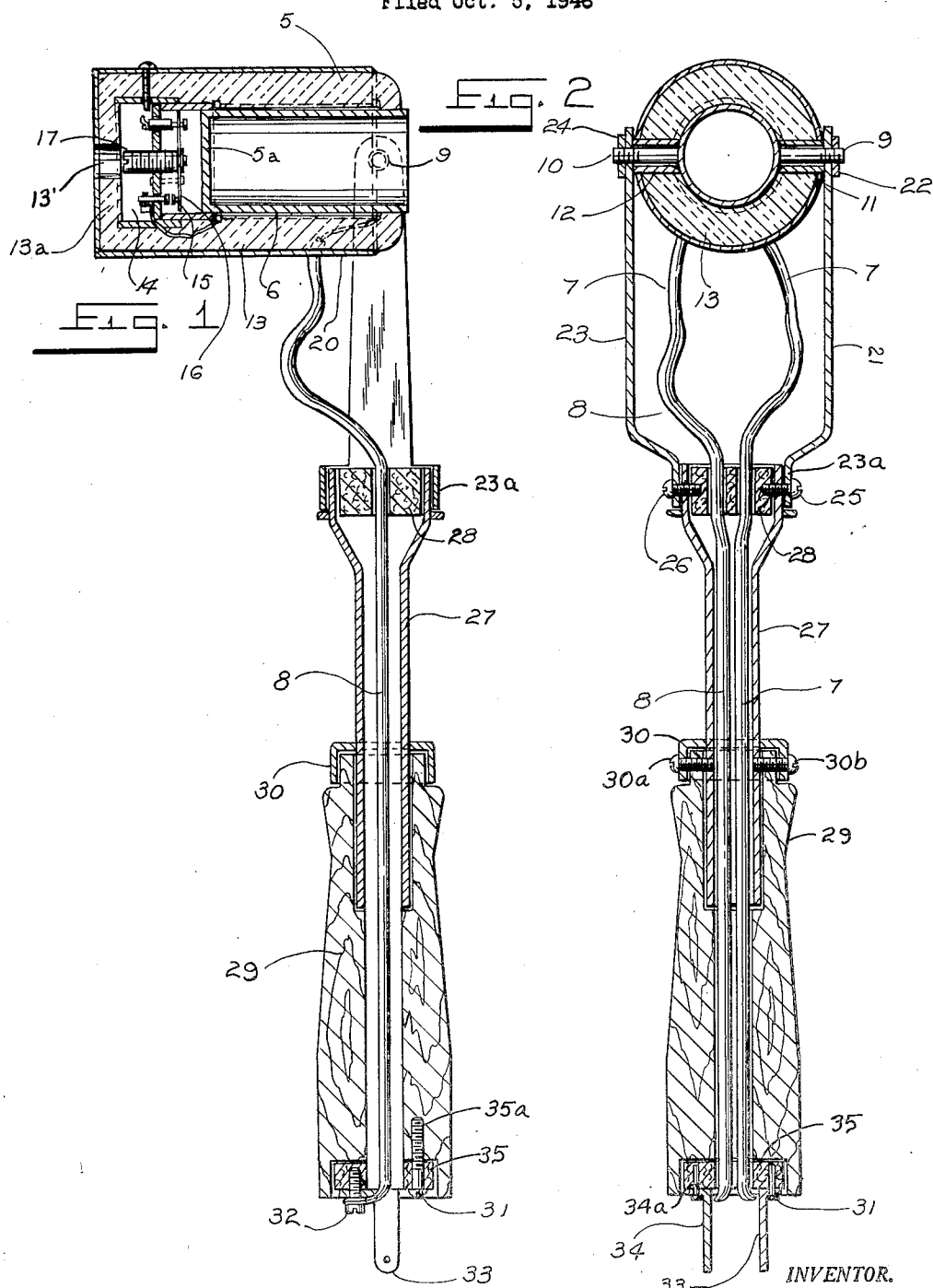
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AUTOMATIC ELECTRICAL SOLDERING LADLE

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AUTOMATIC ELECTRICAL SOLDERING
LADLE

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1 Claim. (Cl. 219-44)

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This invention relates to an electrical soldering ladle, and one of its objects is to provide a ladle with an inner pot for holding molten metal, a refractory jacket for this pot, a metal covering for the jacket, a heating unit disposed around the inner pot and protected by the insulating jacket, and a handle coupled to the inner pot and provided with a connector electrically coupled to the terminal wires of the heater unit, so that electrical circuit connections may be readily established and readily broken.

With the above and other objects in view the invention comprises certain new and useful constructions, combinations and arrangements of parts, clearly described in the following specification, and fully illustrated in the drawings, in which:

Fig. 1 is a longitudinal sectional view of the improved electrical heated ladle.

Fig. 2 is a similar view taken at right angles thereto.

Referring to the accompanying drawings, 5 designates a metal pot, which may be cast iron, and which is provided with an integral end wall 5a. Around this pot a heating element 6 is arranged, and its conductor wires 7 and 8 are extended outwardly thereof.

On one side of the metal pot 5 a stud shaft 9 is secured, as by welding, and on the opposite side another stud shaft 10 is similarly secured, so that both shafts provide trunnions which are axially aligned with each other. The shaft or trunnion 9 works in a tubular bearing 11, and the shaft or trunnion 10 works in a tubular bearing 12. A jacket 13 of refractory material is cast around the pot and on the bearings 11 and 12.

Outwardly of the end wall 5a a chamber 14 is provided in which a thermostatic unit 15 is arranged, which may be of any suitable type. The heating element 6 is in circuit with this unit. The end wall 13a of the jacket 13 is provided with a central hole 13' for adjusting the setting of the thermostat.

The trunnions or stud shafts 9 and 10 engage the metal arms 21 and 23, which are united to each other at their inner ends by means of the ring 23a. A nut 22 is threaded on the end of the shaft or trunnion 9 to hold the arm 21 in place and a nut 24 is threaded on the shaft or trunnion 10 to hold the arm 23 in place, and to vary the frictional resistance to the pivotal movement of the jacketed pot.

The ring 23a is connected to the fibre block 28 by means of the screws 25 and 26, which are threaded through said ring into said block, and

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this block is formed with spaced openings through which the line wires 7 and 8 extend. The forward end of the metal protecting tube 27 is also secured on the fibre insulating block 28 by means of the screws 25 and 26, and is shown to be disposed inside of the ring 23a.

The tube 27 extends into a wood or other handle 29, the forward end of which is equipped with a ferrule 30, which is provided with screws 30a and 30b, which are threaded through the neck of the handle into the tube 27.

The handle 29 is formed with an axial passage through which the line wires 7 and 8 extend. The wire 7 is connected to the binding post 31, on the fibre block 35, and by the binding post 31 the connector prong 33 is held against this fibre block. The line wire 8 is connected to the block 35 by means of the binding post 34a, which also holds the connector prong 34 in place. A screw 35a holds the fibre block against the rear end of the handle 29.

By means of the nuts 22 and 24 the melting pot 5 may be supported in various angular positions to the handle arms 21 and 23. The thermostat naturally provides means for supplying a constant heat to the metal being kept in a molten condition. This thermostat is automatic in action and cuts off the flow of current when the temperature rises, and closes the circuit when the temperature falls below a working level.

It is understood that various changes in the details of construction, their combination and arrangement, may be made, in carrying out the invention, defined by the subject matter of the claim herein set forth.

I claim as new:

An electrical soldering ladle comprising a metal pot, trunnions connected respectively to the opposite sides of said pot and extending laterally therefrom, a jacket concentrically disposed about the pot, a chamber disposed adjacent the pot and within the jacket, tubular bearings surrounding the trunnions and extending between the pot and the jacket, said jacket further including refractory material cast about the pot within the jacket and about the chamber, a heating element surrounding the pot, said refractory material containing said heating element, a thermostatic unit lying in the chamber, said jacket having an opening to render accessible said thermostatic unit for adjustment, each of said trunnions comprising a threaded stud shaft, the latter receiving tightening nuts, metal arms connected to the stud shafts adapted to be frictionally held in place against the bearings by the respective nuts, a ring con-

connected to the free ends of the arms, a metal protecting tube, ring overlapping one end of said metal protecting tube, an insulating block lying within the tube, cable wires extending from the heating element and through the block and tube, fastening means securing together the ring, the tube and the insulating block, a hollow handle receiving the other end of said metal tube and the cable wires, means for releasably securing the handle to the tube whereby said cable wires will be insulated at the extension of the same into the metal tube and such as to permit the tilting and pivotal movement of the parts without interference from the cable wires.

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