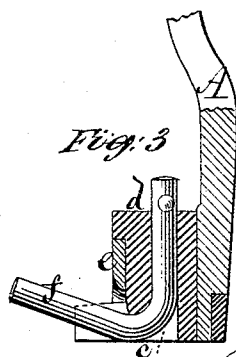
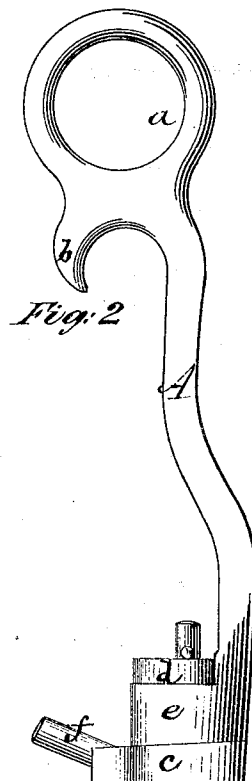
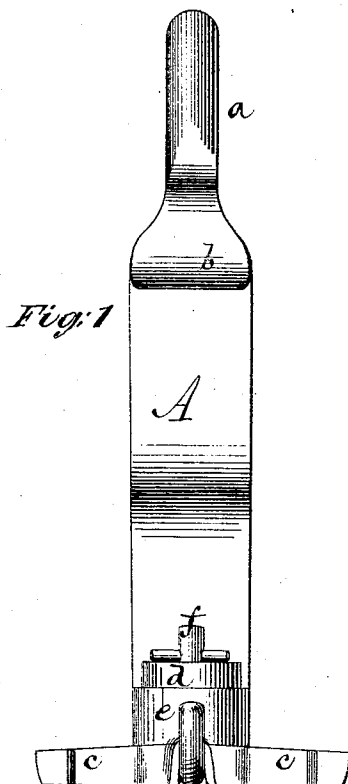


H. & H. W. LOVEJOY, J. H. FERGUSON,
& M. J. CREEGAN.

Apparatus for Electroplating.

No. 151,892.

Patented June 9, 1874.



Witnesses:
Michael Ryan
Frederick Hynes

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UNITED STATES PATENT OFFICE.

HENRY LOVEJOY, HENRY W. LOVEJOY, AND JAMES H. FERGUSON, OF
BROOKLYN, AND MICHAEL J. CREEGAN, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR ELECTROPLATING.

Specification forming part of Letters Patent No. **151,892**, dated June 9, 1874; application filed
April 28, 1874.

To all whom it may concern:

Be it known that we, HENRY LOVEJOY, HENRY W. LOVEJOY, and JAMES H. FERGUSON, of Brooklyn, in the county of Kings and State of New York, and MICHAEL J. CREEGAN, of New York, in the county and State of New York, have invented an Improved Hanger for Electro-Metallurgic Baths, of which the following is a specification:

Our invention relates to certain improvements in devices for suspending molds, and forming electric connection therewith, in the decomposing trough of a battery.

Heretofore it has been customary to suspend a mold by wires or hooks hanging on a rod placed across the top of the trough, the rod being attached by suitable connections with the battery, and, in some cases, the wires or hooks making the connection between the mold and the rod. This method makes a sure connection, but requires that all metallic surfaces where deposit is not required shall be insulated with some non-conducting substance.

In another method sometimes practiced, the rod from which the mold is suspended is not in the circuit; but there is an additional rod, which is in the circuit, from which the connection with the mold is made by wires or thin strips of metal. This method is less convenient and expeditious in hanging the molds in the bath, but saves time in preparing the mold, and as the case is not in the circuit there is no liability of copper being deposited upon it.

A third and more inconvenient method sometimes practiced is to clamp the case to a wooden frame and suspend the whole by hooks, the electric connection being effected by wires embedded in the wooden frame.

Our invention is designed to obviate the necessity of insulating the cases by covering them with non-conducting substance, and, at the same time, to make the connection certain, and with as little trouble as by the methods referred to.

The invention consists in a metallic bar, provided with a hook for hanging it on the rod over the trough, having the lower end of the bar divided and extending laterally so as to form two arms to bear against the mold, and having between said arms a socket for the reception of insulating substance, through which passes a hook for suspending the case.

In the accompanying drawing, Figure 1 is a front view of our improved hanger. Fig. 2 is a side view of the same. Fig. 3 is a sectional view of the lower portion of the hanger.

A is a metallic bar, having a ring, *a*, at its upper end for convenience of handling. Just below the ring is a hook, *b*, for suspending the bar from the rod over the trough. The lower end of the bar is divided so as to form two arms, *c c*, which extend laterally a short distance on both sides of the bar, and then turn toward the front, so that their ends will form bearers for the mold. Between the arms, at the lower end of the bar, is a socket, *e*, which is filled with rubber or other suitable insulating substance, through which passes a hook, *f*, for holding the case or frame containing the mold to be coated. The case or frame containing the mold to be coated is suspended from the hook *f*, and the hanger is suspended by hanging the hook *b* on the rod over the trough at such a distance above the surface of the bath as to prevent the immersion of the hanger in the bath, but allow the mold to be completely immersed. A strip of copper is placed on the face of the mold under each of the bearers *c*, each strip being long enough to reach below the surface of the bath, and thus complete the circuit from the hanger to the coated surface of the mold. The lower portion of the bar is bent in such form as to bring the bearers *c* in a vertical line directly under the hook *b*, so that the mold will hang in the proper position in the bath.

Being made entirely of metal, without screws or movable parts, this hanger is cheaply made, and is strong and durable.

What we claim as new, and desire to secure by Letters Patent, is—

The hanger consisting of the bar A, the arms or bearers *c c*, the socket *e*, the insulator *d*, and the hook *f*, combined substantially as shown and described.

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