

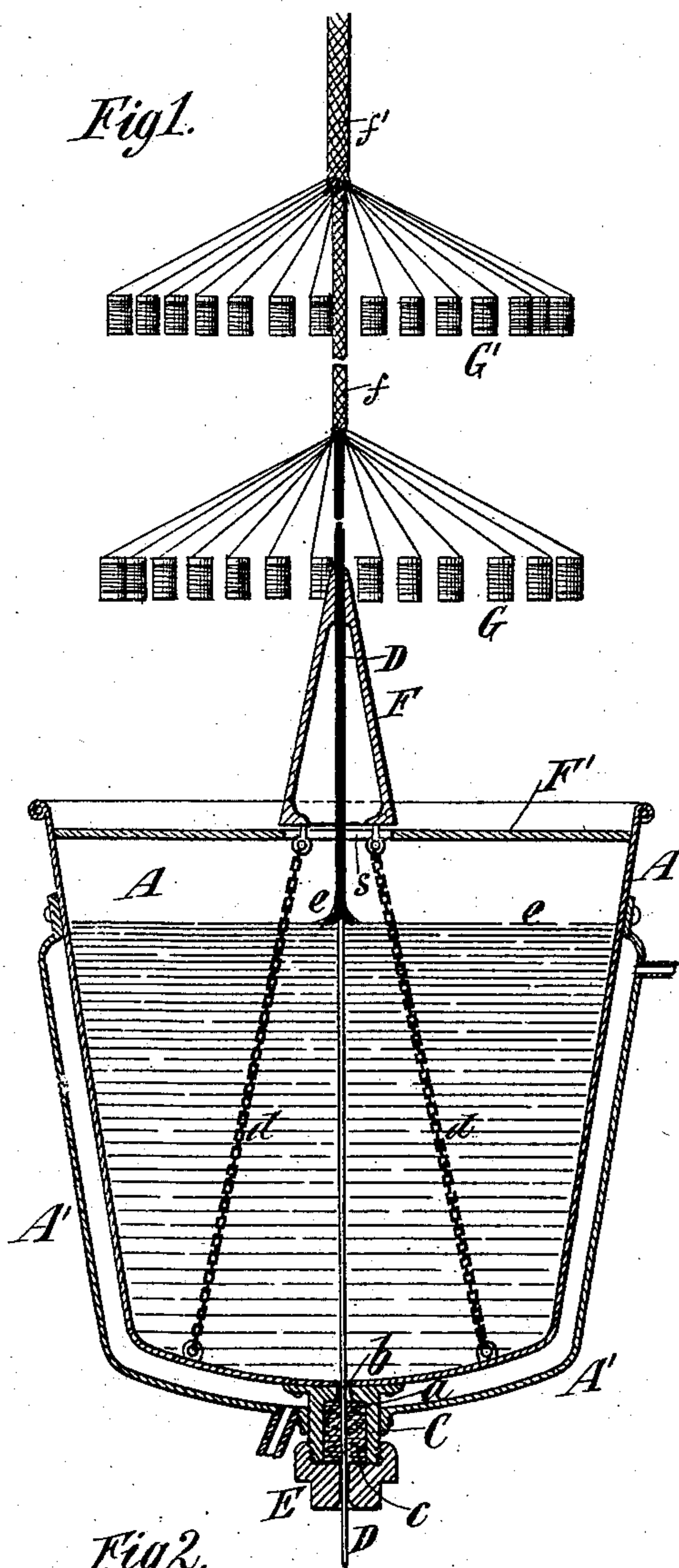
(No Model.)

H. D. STANLEY.

APPARATUS FOR COVERING ELECTRIC CONDUCTORS.

No. 291,239.

Patented Jan. 1, 1884.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY D. STANLEY, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE
BRIDGEPORT BRASS COMPANY, OF SAME PLACE.

APPARATUS FOR COVERING ELECTRIC CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 291,239, dated January 1, 1884.

Application filed June 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY D. STANLEY, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a new and
5 useful Improvement in Apparatus for Covering Electric Conductors, of which the following is a specification.

My invention relates to apparatus for applying a coating of paint or insulating compound to an electric conductor, which comprises a vat or vessel containing the paint or compound, and through which the electric conductor is drawn to receive the coating upon it.

15 The invention consists in novel features in the construction of the vat and its appurtenances, which are hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional elevation of an apparatus embodying my invention. Fig. 2 is a plan of the vat or vessel employed; and Fig. 3 is a detail view of a tapering nozzle or tube through which the conductor passes as it leaves the
25 vat or vessel, and which is adjustable in size.

Similar letters of reference designate corresponding parts in all the figures.

A designates a vat or vessel, which may be constructed of metal, with the sides tapering
30 downwardly. It may be supported by resting on beams or timbers, or in any other suitable way. The vat or vessel may be wholly or partly surrounded by a jacket, A', into which steam or other heating agent may be introduced.

At the bottom of the vat or vessel is an externally-threaded projection, C, in which is a recess, a, and a smaller central aperture, b. In this recess is inserted a plug, c, of india-
40 rubber, cork, leather, or other packing material, which is also provided with an aperture for the passage of the wire or conductor D.

E designates a gland or cap which is screwed upon the projection C, and bears against the
45 plug c of packing material. By screwing up the cap or gland E the packing c is compressed around the wire or conductor D, and leakage is prevented. The gland or cap E is accessible from the exterior of the vat or vessel A,

and may be readily adjusted while the vat or
50 vessel is filled with material and the machine in operation. This is very necessary, as it may be desirable when the machine is stopped to tighten the gland or cap, so as to compress the plug c tightly around the wire to prevent
55 leakage. This could not be done if the vat or vessel were filled with material and the gland or cap were accessible only from the inside thereof.

Near the top of the vat or vessel A is a tapering tube or nozzle, F, through which the
60 conductor D is drawn in passing upward out of the vat or vessel. This tube or nozzle is arranged above a cross-bar, F', which is secured in the vat or vessel, and when not in
65 use the tube or nozzle will rest upon this cross-bar, and be prevented from falling into the vat or vessel. The tube or nozzle F is connected with the vessel by chains d, or other
70 flexible and yielding connections, which permit the tube or nozzle to tilt or cant or move as crooked or bent portions of the conductor D pass through it; and such connections or
75 chains pass through an opening, s, in the cross-bar. It will be observed that the holes in the cross-bar F' is large enough to allow the chains d to play freely therein, and hence the tube or nozzle can move freely laterally independently of the cross-bar, and is allowed
80 to accommodate itself to bent or irregular portions of the conductor.

In the vat or vessel A is placed paint or other insulating material or compound, e, and as the wire or conductor D passes through it a coating of the paint or compound adheres to
85 the wire or conductor and covers it completely. As the wire or conductor passes through the tube or nozzle F, the mouth of which is slightly larger in diameter than the wire or conductor, the paint or compound is consolidated, and a
90 uniform thickness secured all over the wire, while the surplus is scraped off and falls back into the vat or vessel.

For different sizes of wire or different thicknesses of coating I may employ nozzles or tapering tubes having their tips or mouths of
95 different diameters, or I may make the tip or mouth adjustable in size, as shown in Fig. 3.

In said figure the tube or nozzle is represented as slit at *o* from the tip downward for a considerable distance, and as having a tapering screw-thread, *p*, at the tip. To this screw-
 5 thread is fitted a taper-nut, *O*, and by screwing this nut on or off the size of the tube or nozzle at the tip may be varied.

Above the vat or vessel there may be arranged a machine for braiding, weaving, or
 10 otherwise applying a covering of fibrous material to the paint-coated wire or conductor. I have here shown an arbitrary illustration, *G*, of such a machine for applying a fibrous covering, *f*. A second covering of fibrous
 15 material may also be applied, and I have here shown an arbitrary illustration, *G'*, of a second machine for applying a second covering, *f'*.

What I claim as my invention, and desire to
 20 secure by Letters Patent, is—

1. The combination, with the vat or vessel containing paint or insulating compound, and provided at the bottom with a recess or cavity, of a plug of packing material in said re-
 25 cess or cavity having an aperture for the passage of a conductor, and means accessible from the exterior of the vat or vessel, and preferably consisting of a cap or gland for compressing said plug and causing it to fit tightly

around the conductor, substantially as speci- 30
 fied.

2. The combination, with a vat or vessel having an aperture in the bottom for the passage of a conductor, of a tube or nozzle at or near the top of the vat or vessel, through
 35 which the conductor may pass, and flexible or yielding connections between the said tube or nozzle and the vat or vessel, substantially as and for the purpose specified.

3. The combination, with a vat or vessel
 40 having an aperture in the bottom for the passage of a conductor, of a tube or nozzle at or near the top of the vat or vessel, through which the conductor may pass, flexible connections between said tube or nozzle and the
 45 vat or vessel, and a cross-bar above which said tube or nozzle is placed, and which prevents its falling into the vat or vessel when not in use, substantially as specified.

4. The combination, with the vat or vessel
 50 *A*, of the tube or nozzle *F*, the mouth or tip of which is adjustable in size, and flexible connections *d*, between said tube or nozzle and said vat or vessel, substantially as specified.

HENRY D. STANLEY.

Witnesses:

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