

(No Model.)

J. J. LEE.

APPARATUS FOR COATING WIRE.

No. 335,135.

Patented Feb. 2, 1886.

FIG. 1.

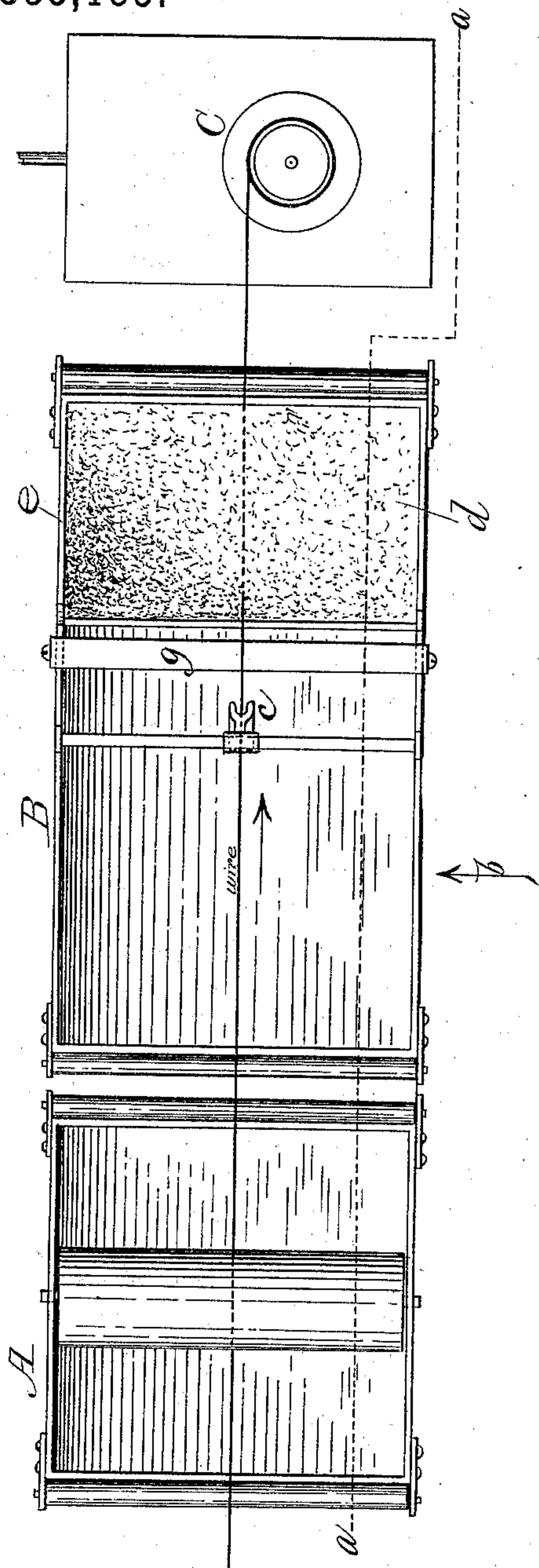
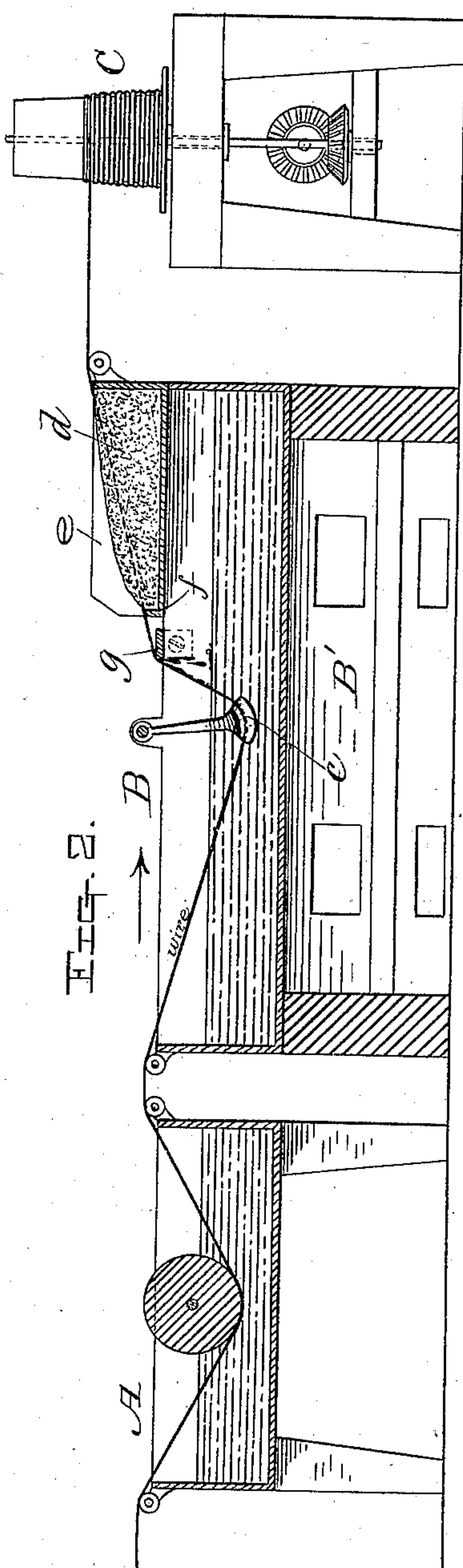


FIG. 2.



Witnesses;

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APPARATUS FOR COATING WIRE.

SPECIFICATION forming part of Letters Patent No. 335,135, dated February 2, 1886.

Application filed October 30, 1885. Serial No. 181,357. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. LEE, of Worcester, county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Apparatus for Coating Wire; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a top or plan view of so much of a wire-coating apparatus as is necessary to illustrate my aforesaid improvements thereon; and Fig. 2 represents a vertical longitudinal section, taken on line *a a*, Fig. 1, looking in the direction indicated by arrow *b* of said figure, also showing a side view of portions of the apparatus.

The object of my invention is to provide a means for more perfectly wiping the wire as it leaves the coating-bath, prior to its passing through the body of wet sand or similar wiping material commonly used at the forward end of the coating-tank.

It consists of a wiping rod or bar interposed between the usual holding-foot employed in a coating-tank and the usual body of wet sand or similar wiping material aforesaid, and stretched from side to side across said tank.

It also consists in the combination of said wiping rod or bar with the coating-tank and a box or receptacle arranged above the coating-bath for holding the aforesaid wet wiping material, as and for the purpose herein-after set forth.

To enable those skilled in the art to which my invention appertains, I will now proceed to describe it more in detail.

In the drawings, A represents the acid-tank usually employed in advance of the coating-tank; B, said coating-tank arranged over the furnace B', and C an ordinary reel or block for coiling up the wire as fast as completed. The coating-tank B is provided with the usual holding-foot, *c*, hinged at the top, and made with an enlarged forked end at the bottom for keeping the wire in position as it is drawn forward. The usual way has been to place the wiping-sand *d* (which is wet by pouring water upon the same as required) directly upon the surface of the coating material at its for-

ward end. This method is quite objectionable, for the reason that in pouring the cold water upon the same to maintain the proper degree of moisture, considerable of it leaches through, and thus cools the coating material, oftentimes to such an extent as to greatly impair the coating operation. To obviate this objection, I arrange a box or receptacle, *e*, above the coating material over the forward end of the coating-tank, which is made open at the top and at its inner end, said end being extended up only a sufficient distance, as shown at *f*, to hold the sand or similar material, *d*, in place in the same.

At a short distance from the inner end of the box *e* is arranged the wiping rod or bar *g*, which extends crosswise from one side to the other of the coating-tank, and is fastened to the same at each end thereof.

By the old method of coating, without the wiping-bar *g*, the wire is unevenly coated. There being no provision made for wiping the superfluous coating material from the under side of the wire, which adheres to it as it leaves the bath, the sand soon gets clogged or overcharged, so that it does not perform its office properly, and therefore results in the production of much imperfectly-coated wire, as aforesaid.

By the use of the rod or bar *g* all superfluous coating is removed from the underside of the wire, the same dropping down into the tank as it is wiped off by passing over in contact with said rod or bar, as shown in Fig. 2 of the drawings. Consequently, before entering the final wiping material *d*, it is in proper condition to receive said wiping operation, and leaves the same with the coating applied in a very uniform and smooth manner, which result I have ascertained by the application of my invention to practice in coating considerable wire.

It will be understood that I claim as new only the wiping rod or bar *g*, and the box *e* for supporting the wet wiping material *d* above the coating material, in combination with the old parts of a wire-coating apparatus, the annealing-furnace of which, for obvious reasons, is not shown in the drawings.

Having thus fully described my invention, what I desire to secure by Letters Patent is—

1. In an apparatus for coating wire, a wiping rod or bar interposed between the usual wire-holding foot of the coating-tank and the usual wet wiping material contained in the forward end of said tank, said rod or bar being stretched from side to side across the tank, substantially as shown and described.
2. The combination of the wiping rod or bar *g* with the coating-tank B, its wire-holding foot *c*, and the box *e*, for holding the wet sand or similar wiping material in *d*, above the coating material, substantially as shown and described.

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