A. D. HOFFMAN.

WIRE-COILING MACHINE.

No. 190,139. Patented May 1, 1877.

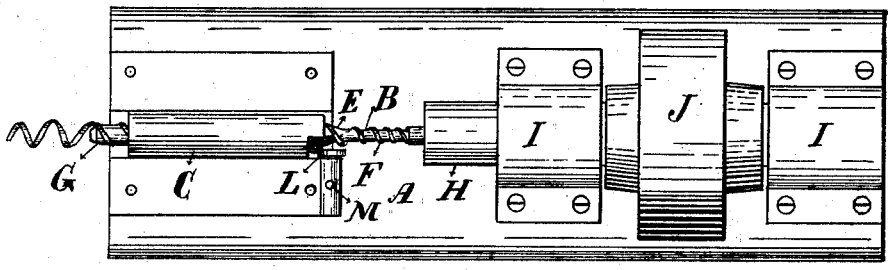

Fig. 1.

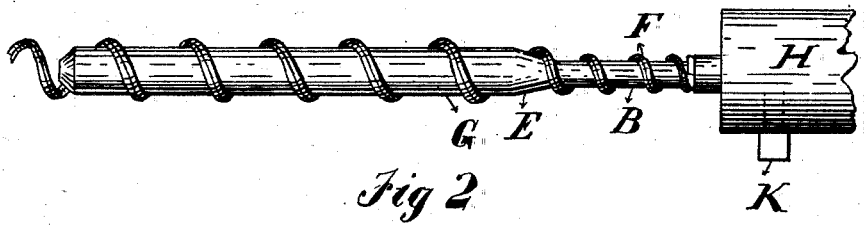

Fig 2

Fig. 3.

Attest.

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UNITED STATES PATENT OFFICE

AUSTIN D. HOFFMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO JOHN E. WHITTLESEY AND JOURGEN W. C. PETERS, OF SAME PLACE.

IMPROVEMENT IN WIRE-COILING MACHINES.

Specification forming part of Letters Patent No. **190,139**, dated May 1, 1877; application filed March 22, 1877.

To all whom it may concern:

Be it known that I, AUSTIN D. HOFFMAN, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Wire-Coiling Machines, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a top or plan view of that part of the machine which contains my invention. Fig. 2 is a detached view of the revolving spindle, and Fig. 3, a detached view of the tubular case C.

The nature of my invention consists in a roller and revolving spindle in a spiral-wire machine, so arranged that the roller forces the wire coiled on the small portion of the spindle onto the large part of it, as hereinafter described.

In the accompanying drawings, A represents a bed-plate, attached to any ordinary frame or bench. B is a spindle, upon which the wire D is wound to produce the spiral coils.

The spindle B has a shoulder, E, where the smaller part F joins the larger part G.

H is a revolving head that has bearings I, and is revolved by the band-pulley, J.

The spindle B is secured to this revolving head H by means of the set-screw K.

L is a roller, mounted on a shaft or spindle, which revolves in a bearing, M.

C is a tube that passes over the large part G of the spindle B. The inside of this tube is provided with spiral grooves N. The tube C is so arranged on the spindle B that it will not revolve with it.

The operation of my machine is as follows: The wire is wound on the smaller part F of the spindle B, from a spool placed at any convenient place to deliver the wire to the spindle. As the spindle B turns to coil the wire upon the smaller portion F of the spindle, the roller L striking against the coil passes it from the smaller portion F of the spindle over the shoulder E, upon the larger portion G of the spindle. This roller constantly feeds the coil from the smaller portion to the larger portion of the spindle; and the grooves in the tube C force it along and deliver the wire in a uniform spiral coil from the end of the spindle.

My machine is especially adapted to coiling two or more wires together.

The roller L raises the two wires together over the shoulder E, and passes them along in the same spiral coil, without their being separated.

Having thus fully described the construction and operation of my invention, what I claim, and desire to secure by Letters Patent, is—

The spindle B, provided with a shoulder, E, in combination with a roller, L, for feeding the coil from a smaller to a larger circumference, substantially as specified and shown.

AUSTIN D. HOFFMAN.

Witnesses:

JOHN E. WHITTLESEY,

L. A. BUNTING.