## A Girandal, Covering Mise.

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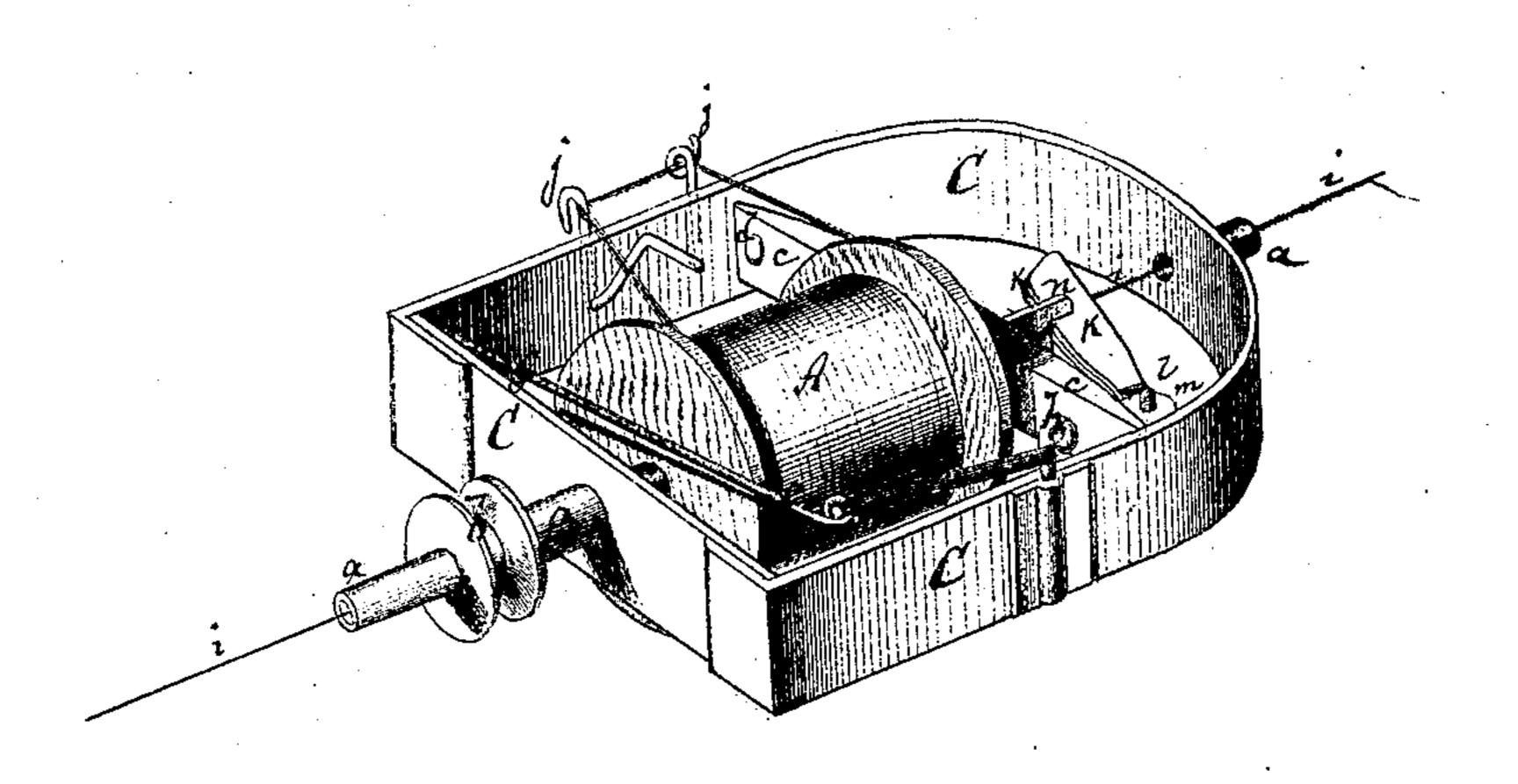


Fig. 2.

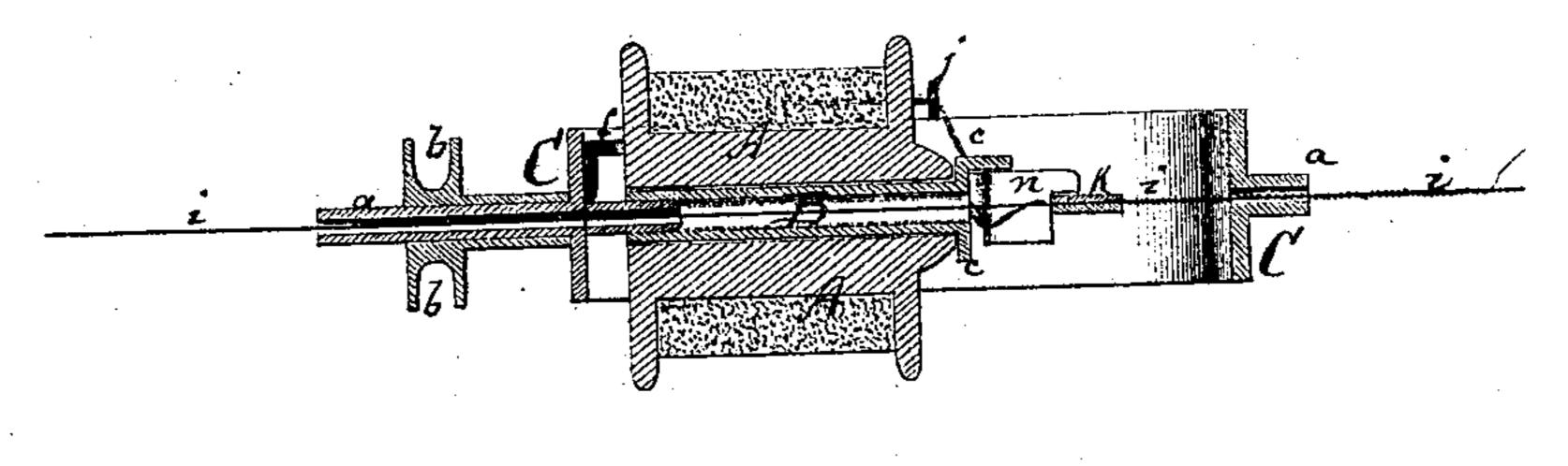


Fig. 3.

Witnesses:

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## Anited States Patent Office.

## AMBROSE GIRAUDAT, OF NEW YORK, N. Y.

Letters Patent No. 102,110, dated April 19, 1870.

## IMPROVEMENT IN WIRE-COVERING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, Ambrose Giraudat, of the city, county, and State of New York, have invented a new and improved Machine for Covering Wire; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 represents a perspective view of my im-

proved wire-covering apparatus.

Figure 2 is a longitudinal section of the same.

Figure 3 is a detail horizontal section of the same. Similar letters of reference indicate corresponding parts.

This invention relates to machines for covering wire, and consists in certain improvements upon the spool-carrier, which will be specified hereinafter.

The spool A is hung loose upon a tube, B, which is secured in the rotary frame C. The frame C is a bent, endless metal bar or plate, provided with tubular short axles or supports aa, which are hung in suitable bearings of a stationary frame.

On one of the projecting tubes a is mounted a pulley, b, which is to receive the belt or cord whereby the frame is revolved. The two tubes a a are in line

with each other.

The tube B is with the end slid over the inward-projecting end of one of the tubes a. The other end is fixed to a cross-bar, c, which is, by pins d at its ends, supported in inward-projecting ears e of the frame C.

The spool is fitted upon the tube B, and then the

latter is secured to the tube a and ears e.

By a spring, f, the spool is interposed between the back end of the frame C and the spool, the latter is forced against the bar c, and the bar against the ears e, so as to be held in place.

The spring f is with one end secured to the frame. Its other end is connected, by a string, g, with a swivel-

pin, h, which, when turned, winds the string around it, to more or less increase the tension of the spring. The friction of the spool while revolving on the frame is thus regulated.

The wire i to be covered is drawn through the axles a a, and passes consequently also through the tube B. It is drawn from a roll and covered with gum before it enters the outer tube a, and does not revolve. The thread from the spool is carried through ears jj of the revolving frame, and is wound around the wire directly in front of the cross-bar c.

In order to cause the thread to adhere well to the gummed wire, the latter, immediately after having been covered, is drawn between two spring plates k k, by means of which the thread is securely pressed against the wire.

The plates k k are fastened, by a pin or pivot, l, to an ear, m, that projects from the bar c. They are, in front of the tube B, held in place by a notched arm, n, projecting from the bar c. After passing through the front journal a, the covered thread can be wound upon a suitable roller or otherwise prepared for use.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The spool A hung upon the tube B, which is held in line with the tubular axles a a of a rotary frame, and secured by the cross-bar c and ears e, in combination with the spring f, all arranged as set forth.

2. The spring f, string g, and swivel-pin h, combined with cross-bar c, all relatively arranged on a wire-coverer, as set forth, and for the purpose described.

3. The pivoted plates k k, bar c, and notched arm n, all combined with the tube B, as and for the purpose described.

A. GIRAUDAT.

Witnesses:

A. V. BRIESEN, ALEX. F. ROBERTS.