

No. 771,780.

PATENTED OCT. 4, 1904.

H. JANSSEN.
WIRE COVERING MECHANISM.

APPLICATION FILED NOV. 27, 1903.

NO MODEL.

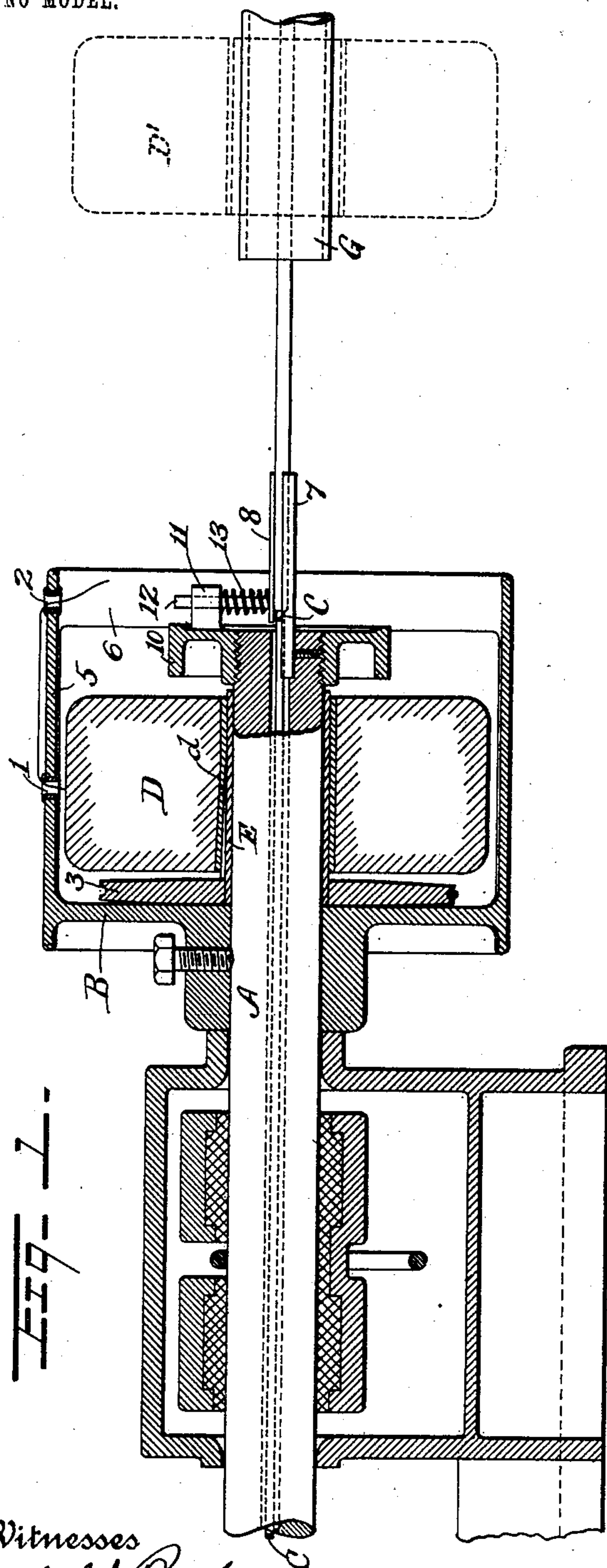


Fig. 1.

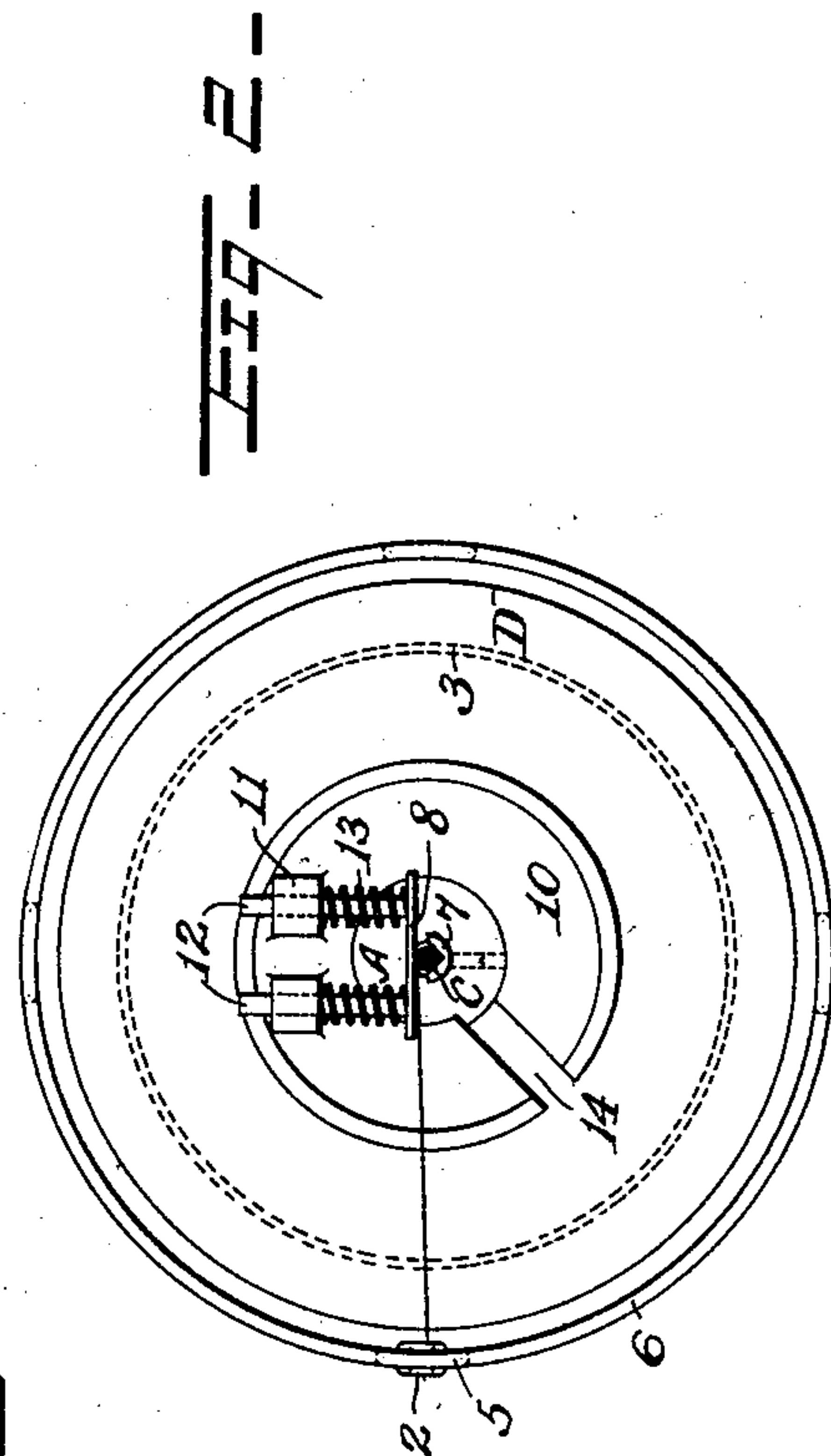


Fig. 2.

Witnesses
Caleb Preber
D. M. Stewart

Harry Janssen Inventor
by J. M. Stewart
Attorney

UNITED STATES PATENT OFFICE.

HENRY JANSSEN, OF WYOMISSING, PENNSYLVANIA, ASSIGNOR TO
TEXTILE MACHINE WORKS, OF WYOMISSING, PENNSYLVANIA,
A CORPORATION OF PENNSYLVANIA.

WIRE-COVERING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 771,780, dated October 4, 1904.

Application filed November 27, 1903. Serial No. 182,722. (No model.)

To all whom it may concern:

Be it known that I, HENRY JANSSEN, a citizen of the United States, residing in Wyomissing, county of Berks, State of Pennsylvania, have
5 invented certain new and useful Improvements in Wire-Covering Mechanism, of which the following is a specification.

My invention relates particularly to wire-covering mechanism such as is commonly employed for insulating magnet-wire; and my object is to provide improved means for properly
10 compactly and smoothly finishing the covering applied to the passing wire, while at the same time permitting the convenient substitution of new cops of covering-thread as required.

The invention is fully described in connection with the accompanying drawings, and the novel features are specifically pointed out
20 in the claims.

Figure 1 is a sectional elevation of a portion of a wire-covering machine embodying my invention. Fig. 2 is an end view of the flier mechanism.

25 A represents the hollow shaft of a wire-covering machine, which, as indicated, is rotatably mounted in suitable bearings, with a projecting end portion, to which is fixed a flier B, the rapid rotation of which around a longitudinally-moving central core or wire C is arranged to continuously wind upon the latter, as usual, a thread or strand of suitable insulating material. This insulating material is fed to the central wire through guide-eyes 1 2
35 on the flier from a cop D, loosely mounted on the shaft. The cop, as indicated, has a hollow pasteboard core *d*, which is non-rotatively fitted upon a loose sleeve E on the shaft A, said sleeve being provided with a friction-flange 3, against which bears a suitable friction-spring, as usual, and the guide-eyes 1 2 are provided in an arm 5 of the flier, which, as shown, is one of a circular series of arms running parallel with and equidistant from the shaft A and united near their outer ends
45 by a ring 6, so as to form an open cage around the cop D.

In my improved construction I provide at

the extremity of the shaft A a reduced extension 7, forming a supporting-finger adjacent
50 to one side of the longitudinally-moving wire C, and in connection with this I employ a yielding presser-plate 8, located on the opposite side of the wire C and arranged to bear against the newly-wound insulating material
55 on the passing wire, said plate being rotated about said wire with the supporting-finger 7 and flier B. The means provided for carrying this yielding presser-plate comprises a collar 10, removably secured to the preferably screw-threaded end of the shaft A, so as to be rotated with the latter, said collar being provided, as shown, with a double
60 guide-bracket 11, through suitable perforations in which pass guide-pins 12, rigidly secured to the plate 8 and adapted to maintain said plate parallel with the passing wire and the opposite supporting-finger 7. Springs
65 13 upon said guide-pins serve to press said plate 8 against the wound wire, the insulator-covering of which is thus subjected to the compressing and rubbing-down action of the opposing surfaces of the plate 8 and finger 7, which are jointly swung around the wire by the rotating shaft simultaneously with the
75 winding of the thread upon the wire and the continuous forward movement of the latter, thereby insuring the uniform and compacted laying of the threads and a smoothly-finished surface.

In order that the covering operation may be continued until a whole reel of wire has been completed, it is necessary to provide for conveniently substituting for an exhausted cop a new one, D', several of which may be
85 carried upon a fixed tube G, through which the covered wire passes. In order to accomplish this, it is necessary to provide for entirely removing the collar 10, and I therefore form the latter with an approximately radial
90 slot 14, which permits it, after being disengaged from the shaft A, to be removed laterally from the wire C, together with the presser-plate 8. This enables a new cop D' to be moved to position upon the shaft A, the paste-
95 board core *d* of cop D having been cut away,

after which the collar 10 is replaced, together with the presser-plate 8, and the covering operation is continued.

What I claim is—

5 1. A wire-covering mechanism comprising a hollow rotary shaft, a flier fixed thereto and provided with thread-guides, a cop-carrying sleeve loosely mounted on said shaft, a spring-backed presser-plate carried by said shaft, and
10 an oppositely-arranged rigid extension of the latter between which and said presser-plate the covering applied to the passing wire is compressed and frictionally finished.

2. In a wire-covering mechanism comprising
15 a hollow rotary shaft, a flier fixed thereto and provided with thread-guides and a cop-carrying sleeve loosely mounted on said shaft, a slotted collar removably secured to the end of the latter, a pressing device movable in
20 guides provided on said collar and a spring

adapted to normally press said device against the passing wire.

3. In a wire-covering mechanism comprising a hollow rotary shaft, a flier fixed thereto and provided with thread-guides and a cop- 25 carrying sleeve loosely mounted on said shaft, a slotted collar removably secured to the end of said shaft and provided with a projecting guide-bracket, a projecting wire-supporting finger forming a rigid extension of said shaft, 30 a pressing device guided in said guide-bracket, and a spring adapted to normally press said device toward said wire-supporting finger to compress the interposed covered wire.

In testimony whereof I affix my signature in 35 the presence of two witnesses.

HENRY JANSSEN.

Witnesses:

D. M. STEWART,
W. G. STEWART.