

No. 747,876.

PATENTED DEC. 22, 1903.

H. W. FISHER.
INSULATING WIRE.
APPLICATION FILED NOV. 1, 1902.

NO MODEL.

FIG.1.

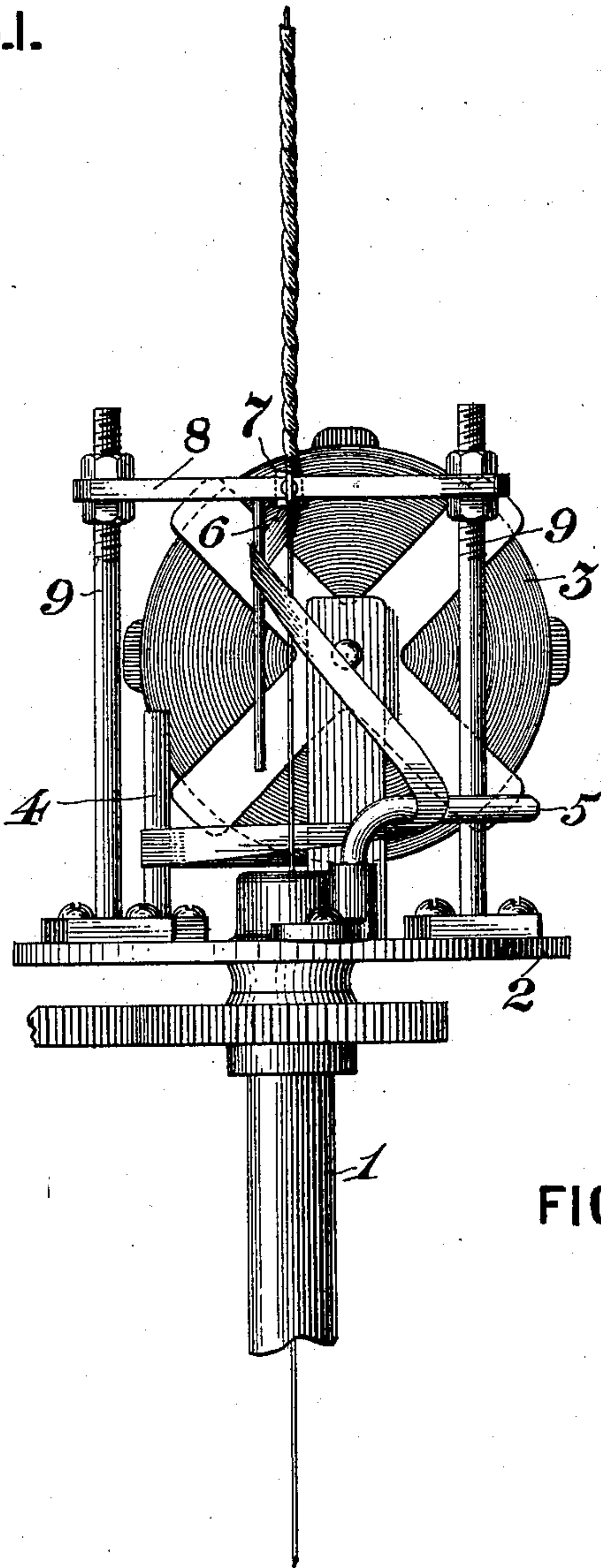


FIG.3.

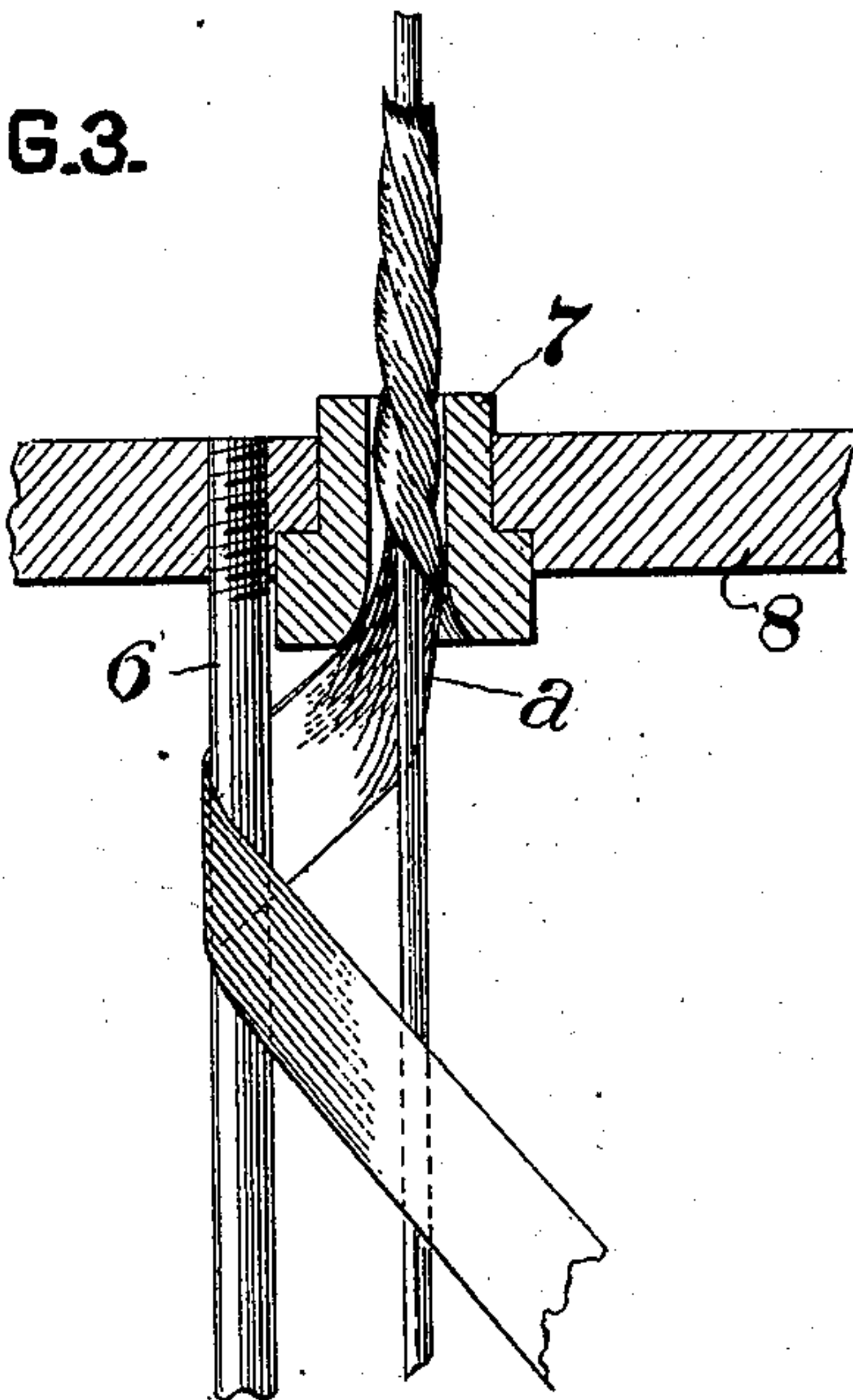
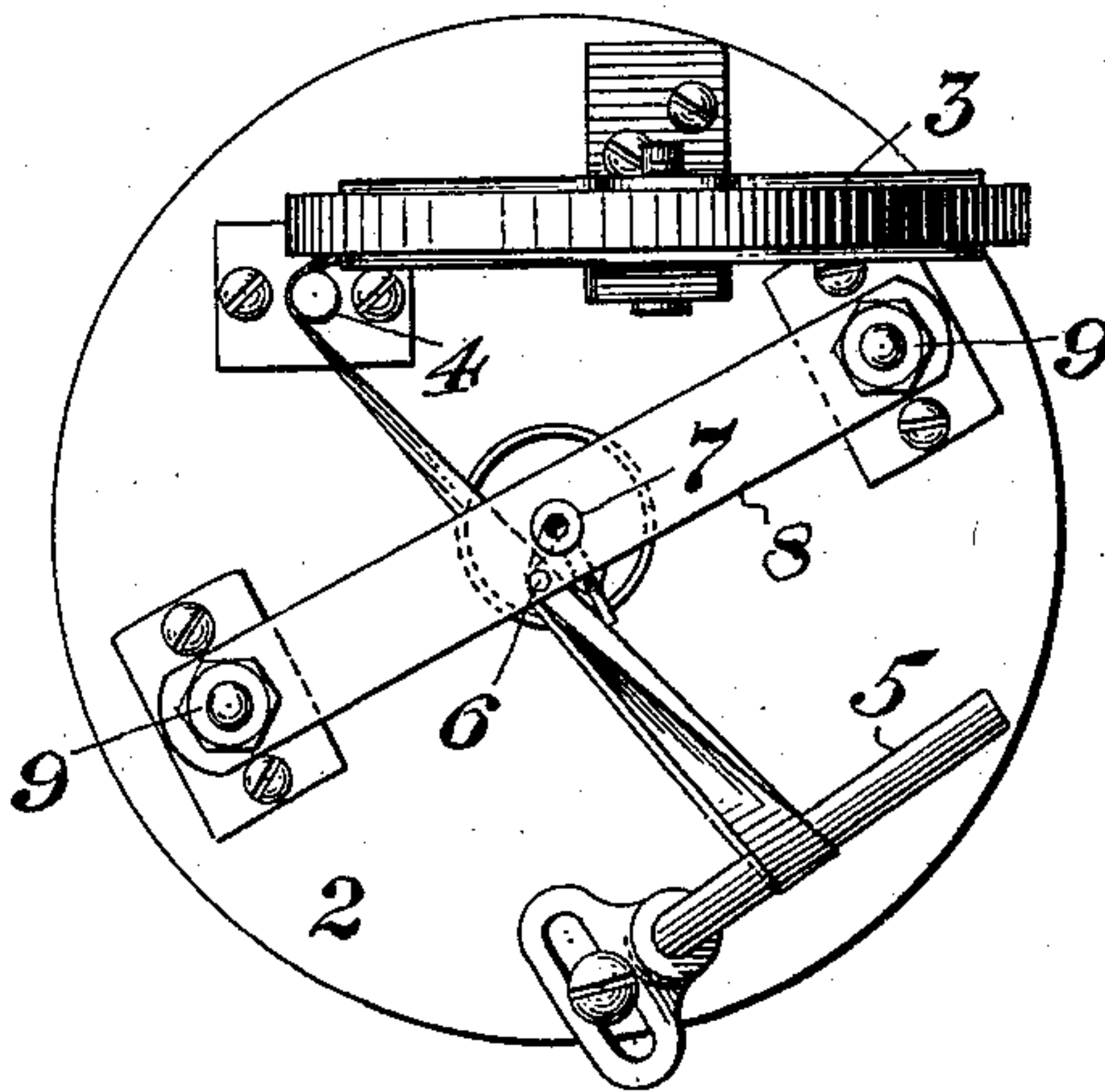


FIG.2.



WITNESSES:
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UNITED STATES PATENT OFFICE.

HENRY W. FISHER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO STANDARD UNDERGROUND CABLE COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION.

INSULATING WIRE.

SPECIFICATION forming part of Letters Patent No. 747,876, dated December 22, 1903.

Application filed November 1, 1902. Serial No. 129,678. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. FISHER, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Insulating Wire, of which improvements the following is a specification.

It has been found that paper makes a highly effective insulation for wires for telegraph and telephone lines and that this efficiency is greatly increased and the electrostatic capacity of the conductor is decreased if pockets or cells for dry air be formed by the paper wrapping.

The invention described herein has for its object the application of the paper strips or tapes in such manner as to form air pockets or cells during the wrapping of the strips or tapes on the wire.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a view in elevation of a wire-wrapping mechanism adapted for the practice of my invention. Fig. 2 is a top plan view of the same; and Fig. 3 is a detail view of the mechanism, showing the manner of crinkling the paper as it is being wrapped on the wire.

In the practice of my invention the wire to be covered is passed through a guide-tube 1, on which is mounted the rotatable disk 2, carrying the spool 3, having the paper tape wound thereon, and suitable guide-pins 4, 5, and 6. The wrapper 7, directly operative in applying the tape to the wire, is formed in or carried by a bar 8, supported by posts 9, secured to the disk 2. It is preferred that the wrapper should be made in the form of a block having a hole or passage therethrough of such diameter relative to the gage of wire operated on as to slightly compress the crinkled tape on the wire. The front or entering end of the passage is preferably flared, so as to facilitate the movement of the covered wire into the hole or block. Heretofore the guides have been so set that the tape would be wound smoothly on the wire, and the hole or passage through the wrapper 7 was

made straight, or substantially so. In the practice of my improved method the guides for the tape are so adjusted that the upper edge of the tape between the last guide and the wire is somewhat slack, and the longitudinal feed of the wire is such that the wrapping of such edge of the tape will occur within the passage in the wrapper 7, and the portion of the tape adjacent to its upper edge will be deflected and crinkled and be applied in such condition to the wire. It is preferred that the guides should be so adjusted that the lower edge of the tape will be under some tension and be applied straight and smooth to the wire, while the upper edge of the tape will be sufficiently slack, so that the tape will form an inverted cone *a* around the wire. As shown in Fig. 3, the upper edge of this cone extends up into the flaring mouth of the wrapper 7 and that wall of this mouth deflects or bends down the upper edge of the cone. By the onward movement of the wire and tape the crinkling initiated by the bending and deflecting of the edge of the tape and portions adjacent thereto is caused to extend across the tape, and the walls of the flaring mouth will gradually compress the folds or bends in the tape onto the wire, thereby forming air-containing pockets.

I claim herein as my invention—

1. As an improvement in the art of insulating wire the method herein described, which consists in conjointly wrapping a tape of fibrous material around the wire and folding or crinkling the tape as it is wrapped on the wire, substantially as set forth.

2. As an improvement in the art of insulating wire, the method herein described which consists in maintaining one edge of the tape as it passes to the wire at a greater tension than the other edge, deflecting or bending to one side the loose edge of the tape, and wrapping the tape so distorted on the wire, substantially as set forth.

In testimony whereof I have hereunto set my hand.

HENRY W. FISHER.

Witnesses:

F. E. GAITHER,

DARWIN S. WOLCOTT.