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No. 807,747.

PATENTED DEC. 19, 1905.

L. A. KLING.
INSULATING CASING FOR WIRE CONNECTIONS.

APPLICATION FILED MAY 27, 1904.

2 SHEETS—SHEET 1.

Fig. I.

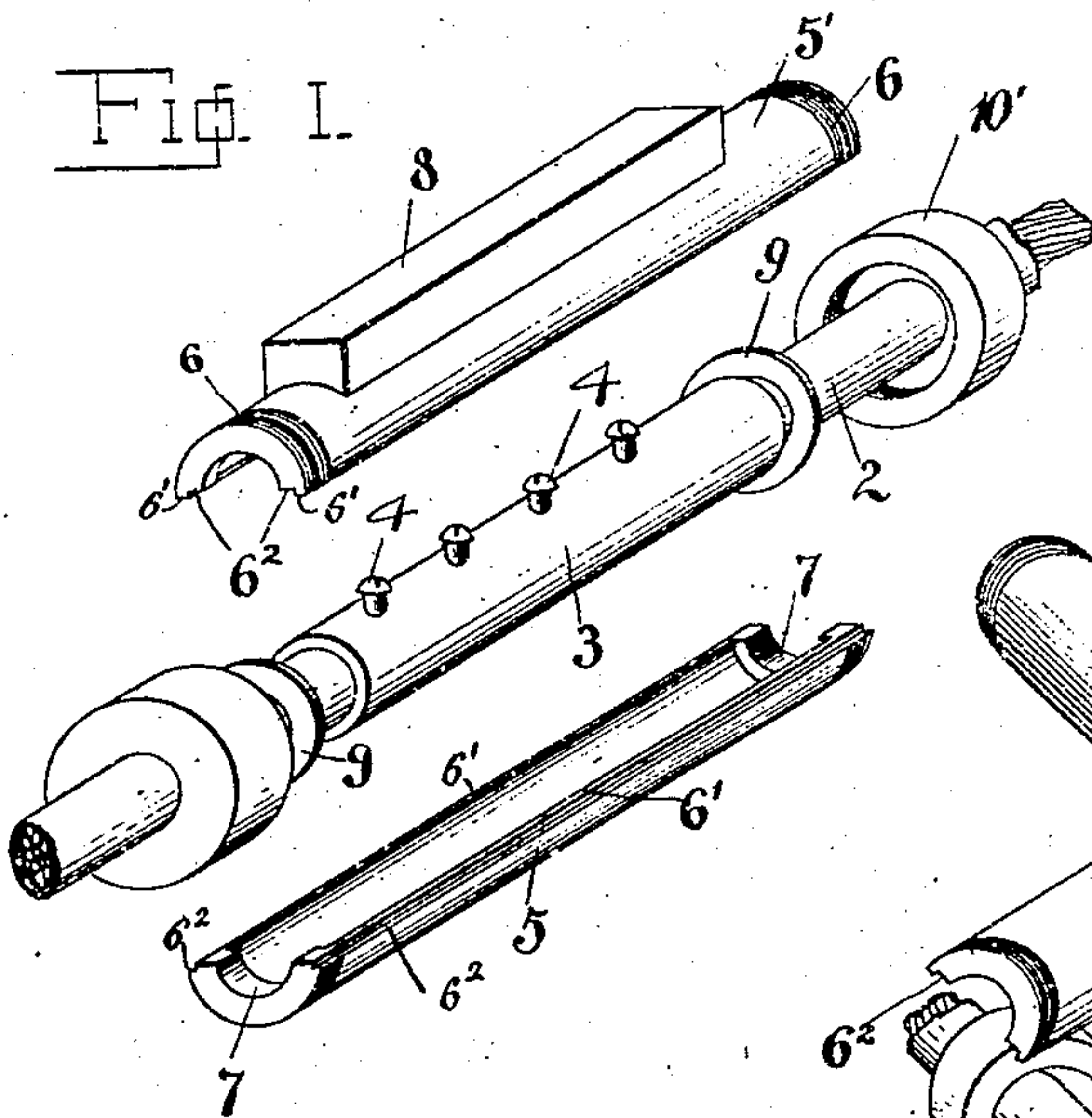


Fig. II.

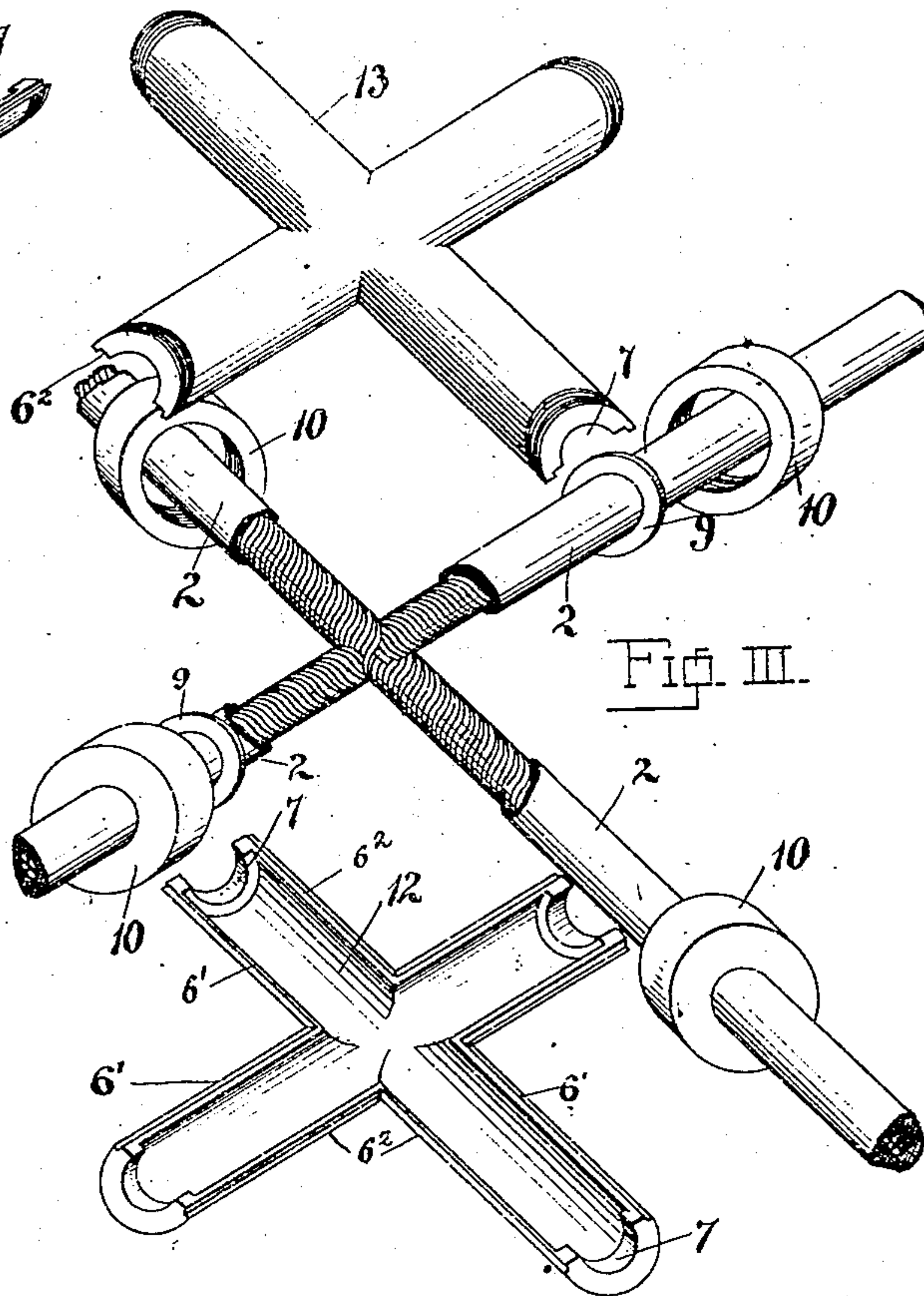
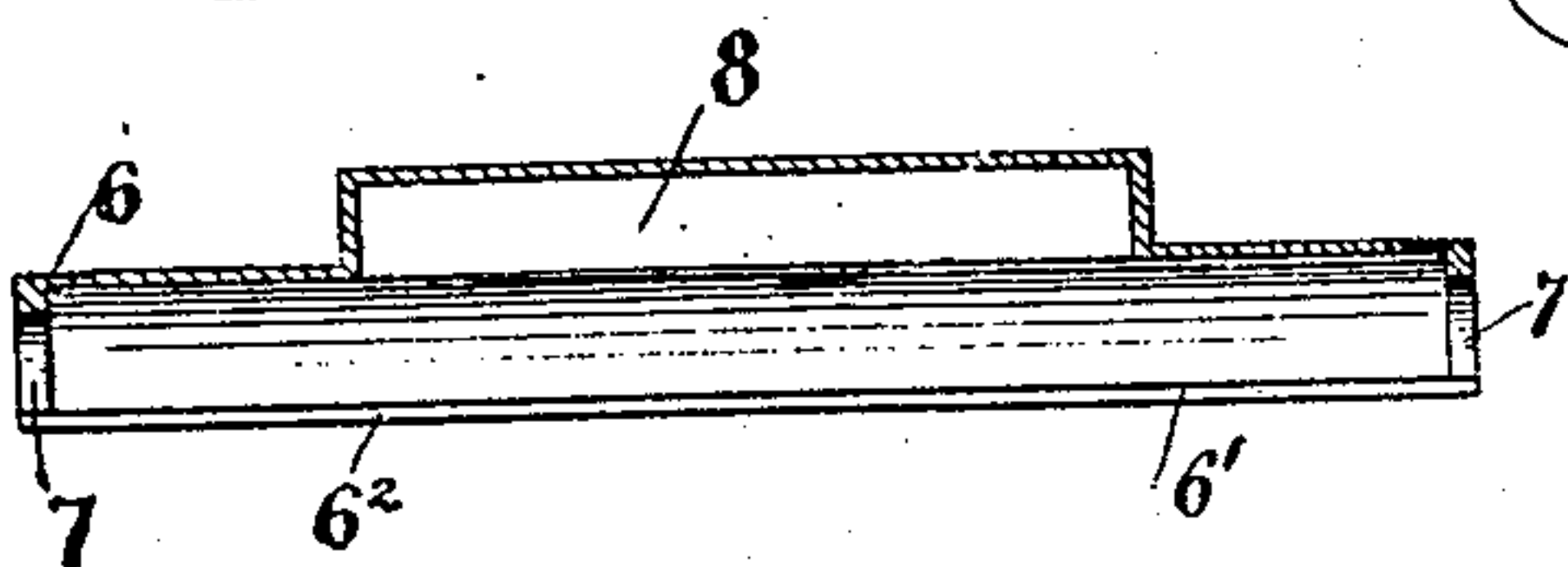


Fig. III.

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Harry E. Knight

Inventor
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By his Attorney *[Signature]*

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2 SHEETS—SHEET 2.

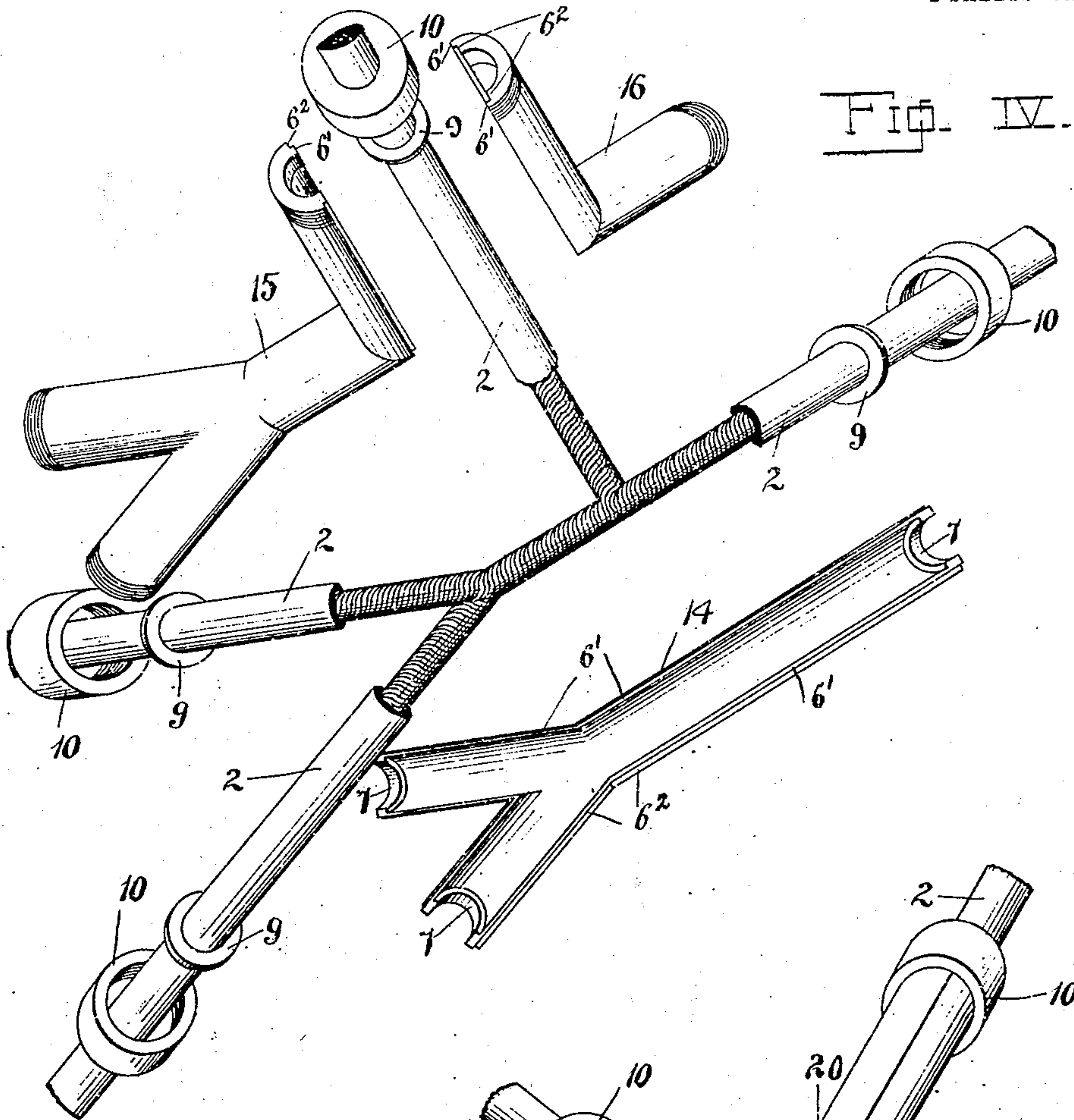


Fig. IV.

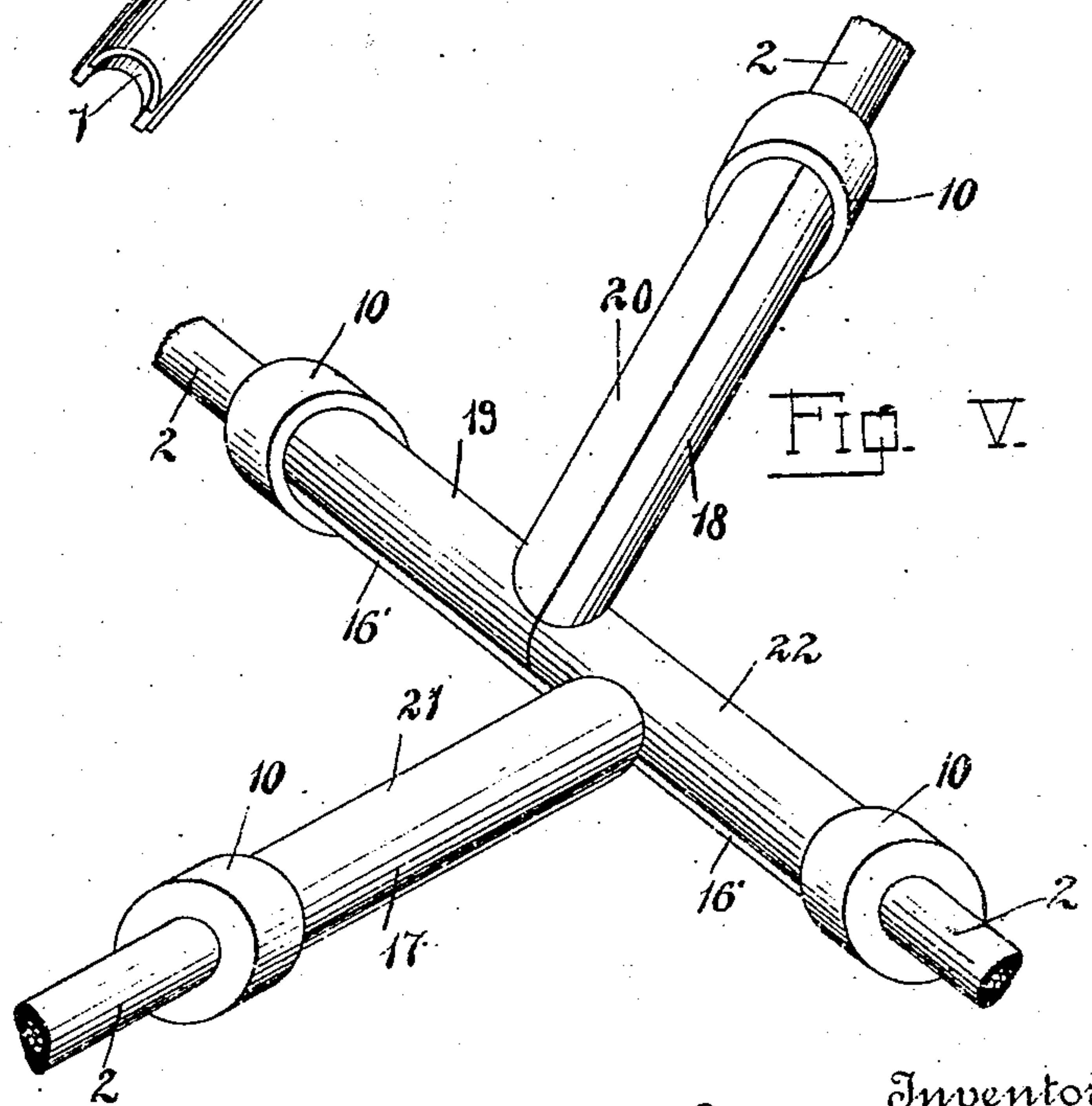


Fig. V.

Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS A. KLING, OF ELIZABETH, NEW JERSEY.

INSULATING-CASING FOR WIRE CONNECTIONS.

No. 807,747.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed May 27, 1904. Serial No. 210,063.

To all whom it may concern:

Be it known that I, LOUIS A. KLING, a citizen of the United States, and a resident of Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Insulating-Casings for Wire Connections, of which the following is a specification.

The idea of substituting an inflexible and detachable casing either in the form of sleeves or segments for the more usual way of insulating wire connections by thoroughly wrapping the spliced wires or joints with tape is old, but the appliances heretofore used for this purpose have either been inapplicable to the varying angles of spliced or joined wires or the expense has prevented the extensive use to which they are applicable.

The main object of my invention, therefore, has been to produce separable and detachable insulating-casings of simplified construction applicable to straight or angular wire connections, at the same time affording a thoroughly-waterproof protection for the joints having high insulating qualities.

Another object of my invention is to provide such casings with a plain longitudinal joint between the meeting edges of the halves which can be readily interlapped and at the same time be easily cleared of any obstruction accumulating upon the recesses of the lower halves, such as earthy matter, when employed in underground construction.

In the accompanying drawings like numerals indicate like parts, and in which—

Figure 1 is a perspective view of a straightway connection with its insulating-casing in position to be assembled. Fig. 2 is a vertical sectional view of the top or cap portion of the insulating-casing. Fig. 3 is a perspective view of a four-way right-angular splice connection with its insulating-casing in position to be assembled. Fig. 4 is a perspective view of a four-way-splice connection with the insulating-casing in position for assembling. Fig. 5 is a perspective view of a straightway right-angular double-branch connection, showing my improved insulating-casing applied thereto.

In the accompanying drawings, Fig. 1, 2 represents a wire or cable having a connecting-conductor-sleeve 3. 4 4 are series of binding-screws passing through said sleeves and acting as a retainer for the wires. 5 and 5' are respectively halves of an insulating-casing, the two forming a complete covering for the

uninsulated portions of the wires and sleeve, said casing having threads 6 upon the two extremities thereof. The under half 5 is formed with a projecting portion 6', which conforms with the cut-out portion 6² of the upper half, together forming a rabbet-joint or half-lap water-tight inclosure. 7 is an offset collar formed integral with and within the end of the insulating-casing, the inner surface being so curved as to encompass the insulation of the joining conductors. The top portion 5' is formed with a recessed top or cap 8, adapted to receive the projecting screws 4. 9 9 are snugly-fitting gaskets. 10 10 are threaded caps or nuts adapted to screw upon the threads 6 and hold the various parts in assembled position.

In Fig. 3, wherein is shown in perspective a four-way connection, the wires or cables have been spliced. The connecting-sleeve has been dispensed with. In this form of connection I preferably make an insulating-casing in two semitubular pieces in the form of a cross, though it is obvious that the same might be made in four angular pieces. These pieces 12 and 13 are formed with the usual projecting portion 6' and cut-out portion 6², together forming a rabbet-joint or half-lap water-tight connection. Formed integral with and within the ends of the casing are the offset collars 7. The gaskets 9 and caps or nuts 10 are similar in construction to those described with relation to Fig. 1.

The wires or cables shown in Fig. 4 are spliced, as above described. The casing here employed is composed of three component parts 14, 15, and 16 to conform with the peculiar angular joints of the wires or cables. In other respects the casing is constructed the same as described in Fig. 3 with the gaskets, caps, &c.

In Fig. 5 the branches are at right angles to each other. It is necessary on account of their location to make this insulating-covering of three parts, similar in construction to the casing employed in Fig. 4, one part being large enough to encircle the lower half of the main wire or cable, as indicated at 16', and the lower half of one of the angular branches, as indicated at 17, another portion covering half of the other branch, as indicated at 18, and the remaining uninsulated upper portion of the branch, as indicated at 21, and half of the upper uninsulated portion of the main wire, as indicated at 22. The third part is formed to fit over the remaining

uninsulated portion of the main wire and branch, as indicated at 19 and 20.

In insulating the joints the collars or caps are first slipped on, the proper joint or connection then made, the segment-casing assembled and held in position by screwing the collars or caps thereon. Thus it will be seen that the joints are protected in a manner that will allow of ready removal for inspection or repair.

Having thus described my invention, what I claim as new herein, and desire to secure by Letters Patent, is—

1. An insulating-casing for wire connections comprising semicircular halves formed with rabbet-joints and with externally-screw-threaded extremities, screw-threaded caps, adjustable upon the extremities of the halves and gaskets fitting within the caps and seating against the extremities of the halves.

2. An insulating-casing for wire connections comprising semicircular halves formed with rabbet-joints, with externally-screw-threaded extremities, and with collars within the extremities, screw-threaded caps, adjustable upon the extremities of the halves and gaskets fitting within the caps and seating against the extremities and collars of the halves.

3. An insulating-casing for wire connections comprising semicircular halves formed

with semicircular branches, with rabbet-joints and with externally-screw-threaded extremities, screw-threaded caps, adjustable upon the extremities of the halves and gaskets fitting within the caps and seating against the extremities of the halves. 35

4. An insulating-casing for wire connections comprising semicircular halves formed with semicircular branches, with rabbet-joints, with externally-screw-threaded extremities, and with collars within the extremities, screw-threaded caps, adjustable upon the extremities of the halves and gaskets fitting within the caps and seating against the extremities and collars of the halves. 40 45

5. An insulating-casing for wire connections comprising a connecting conductor-sleeve, binding-screws passing through the sleeve, semicircular halves formed with rabbet-joints and with externally-screw-threaded extremities, and with a recessed top upon one of the halves to receive the projecting parts of the screws, screw-threaded caps, adjustable upon the extremities of the halves, and gaskets fitting within the caps and seating against the extremities of the halves. 50 55

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Witnesses:

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