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S. & W. O. BARTLEY.
INSULATOR.

APPLICATION FILED JAN. 2, 1904.

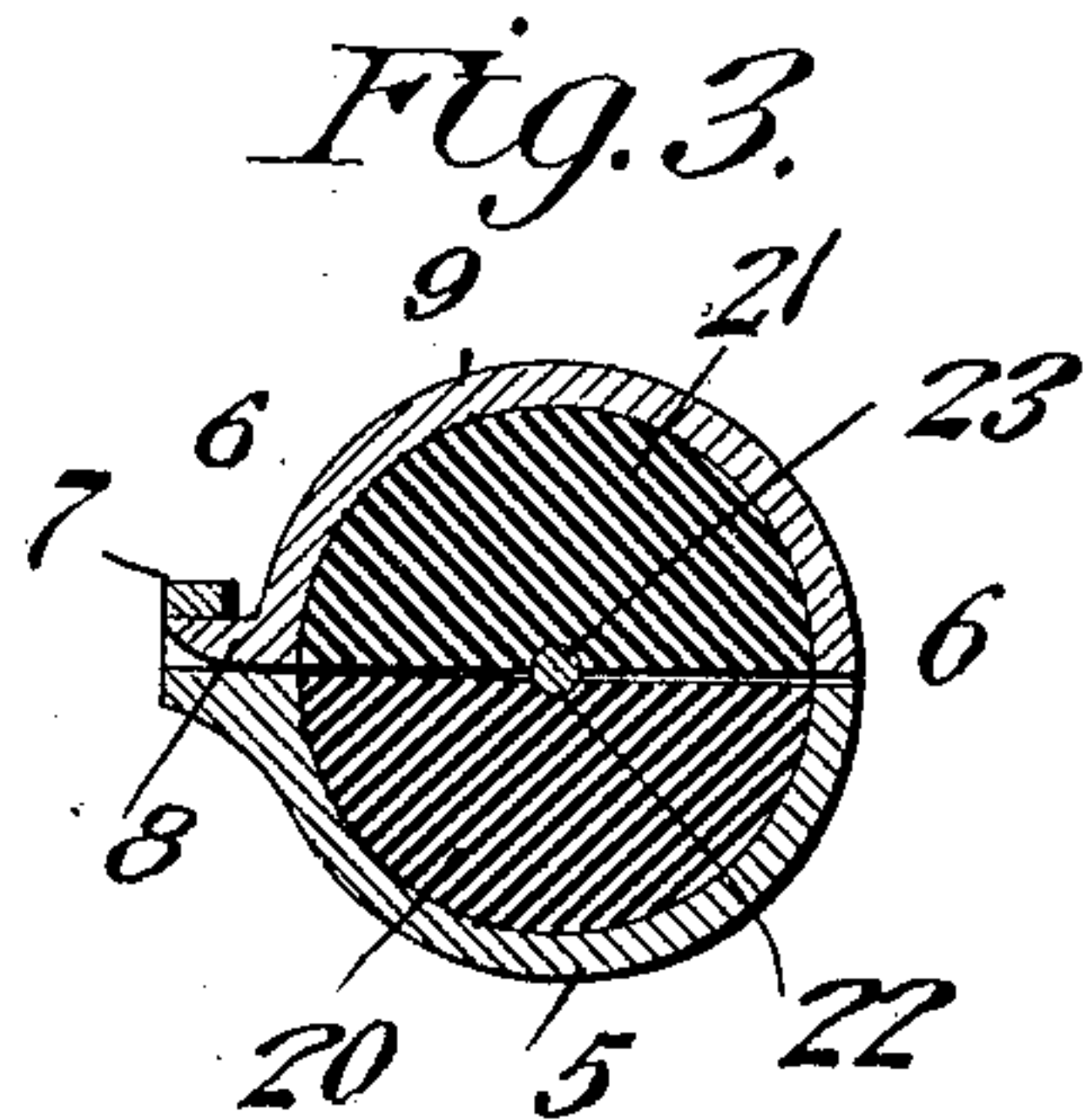
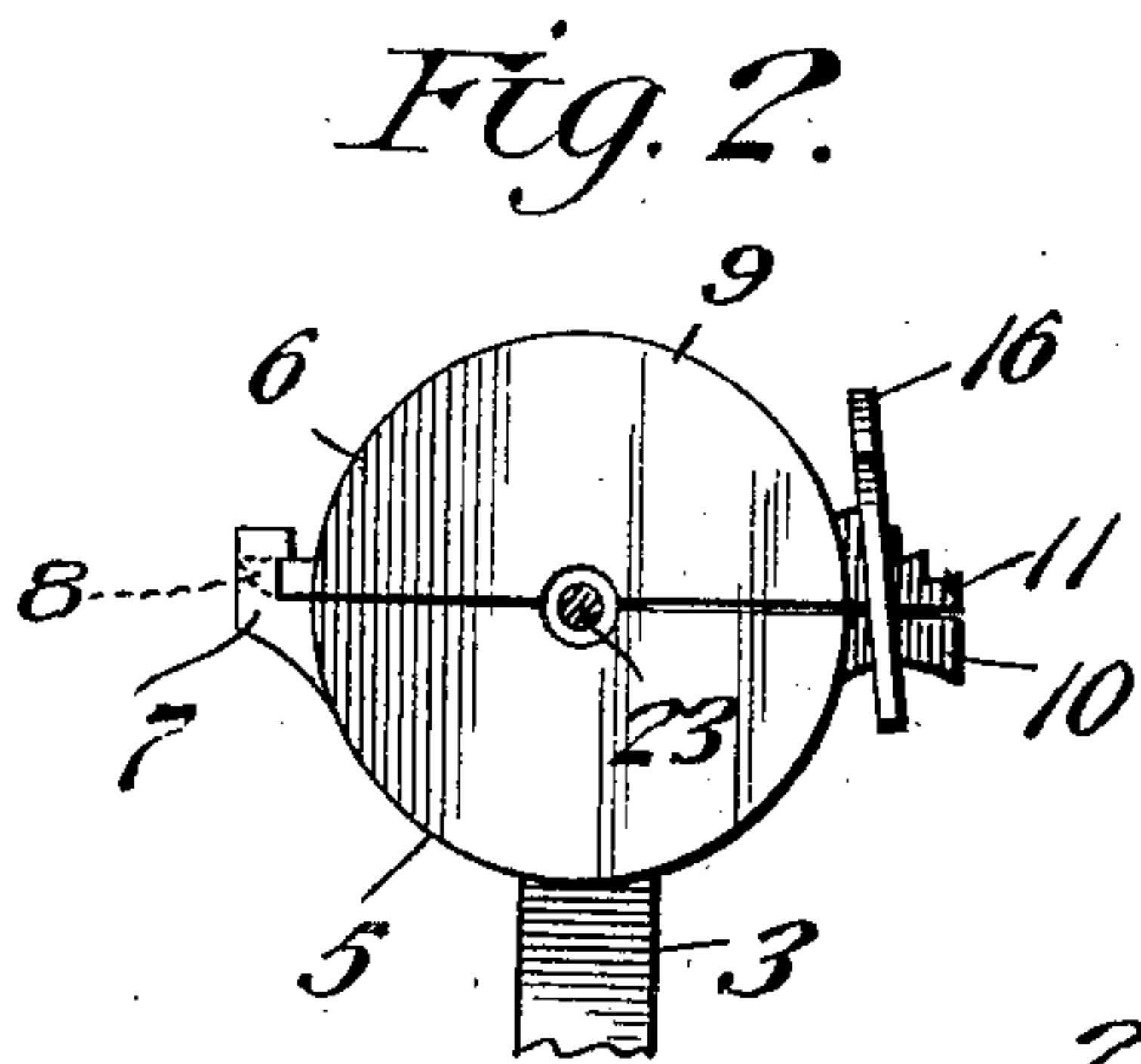
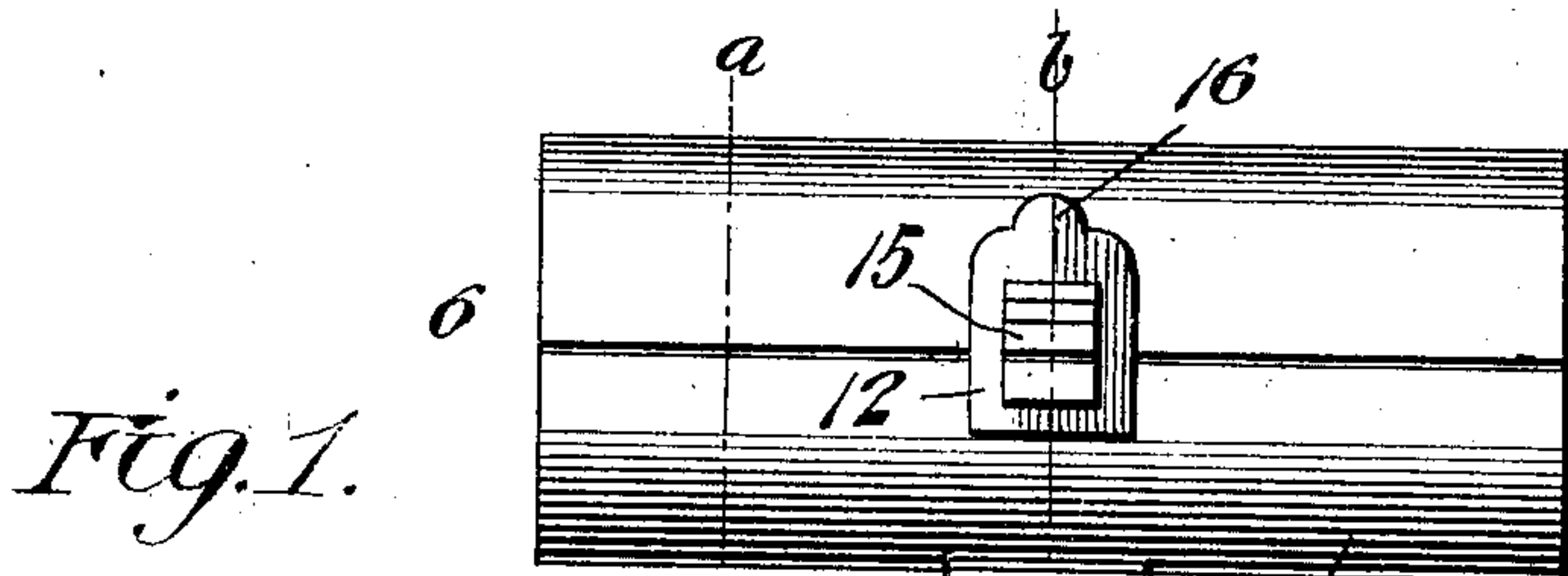


Fig. 5.

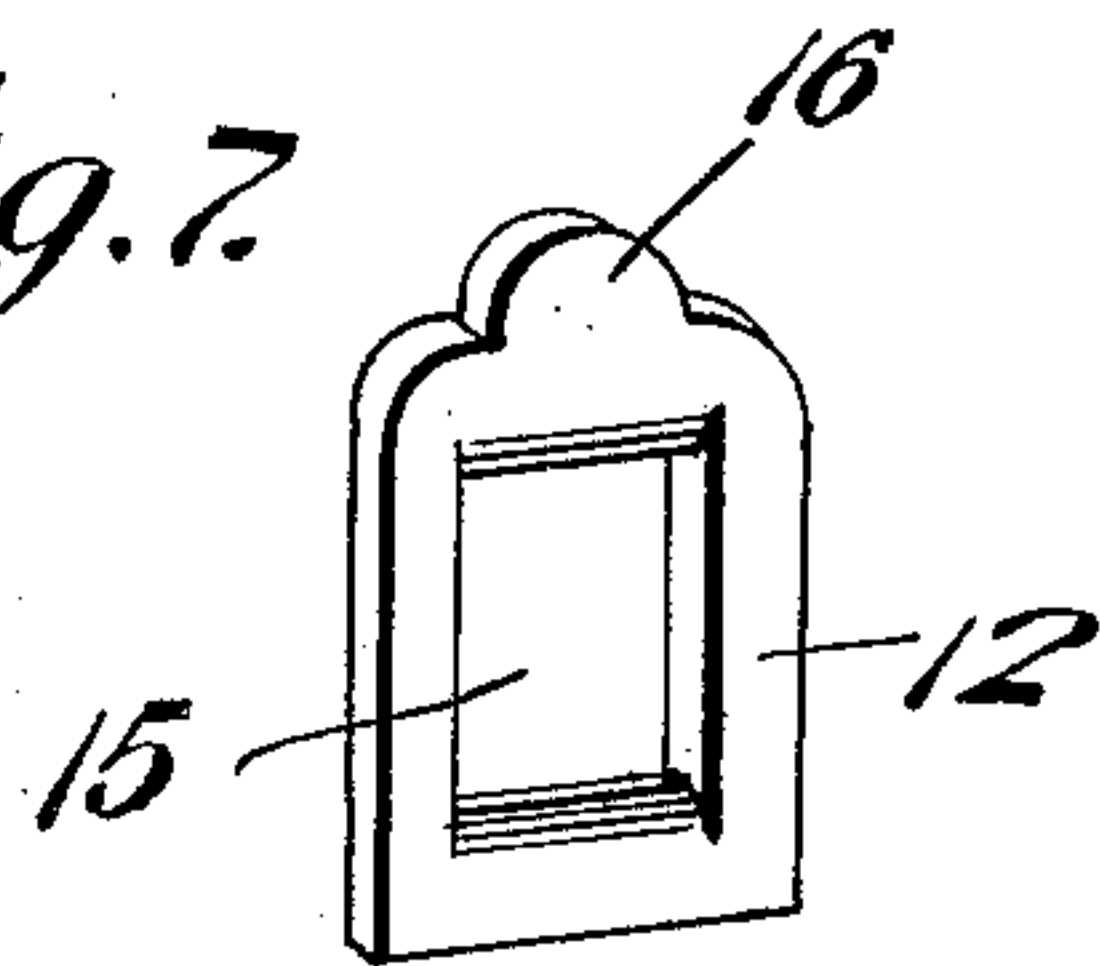
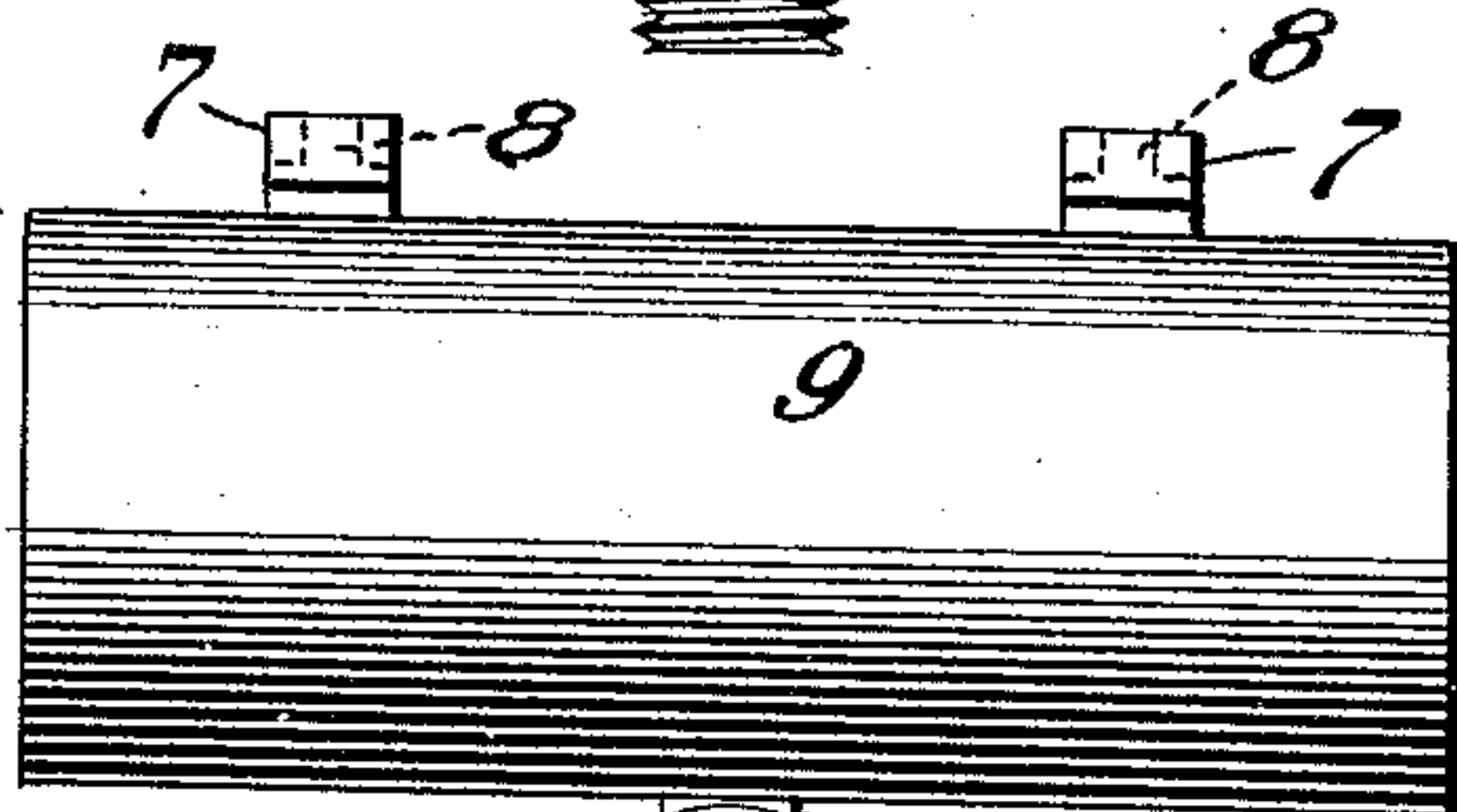
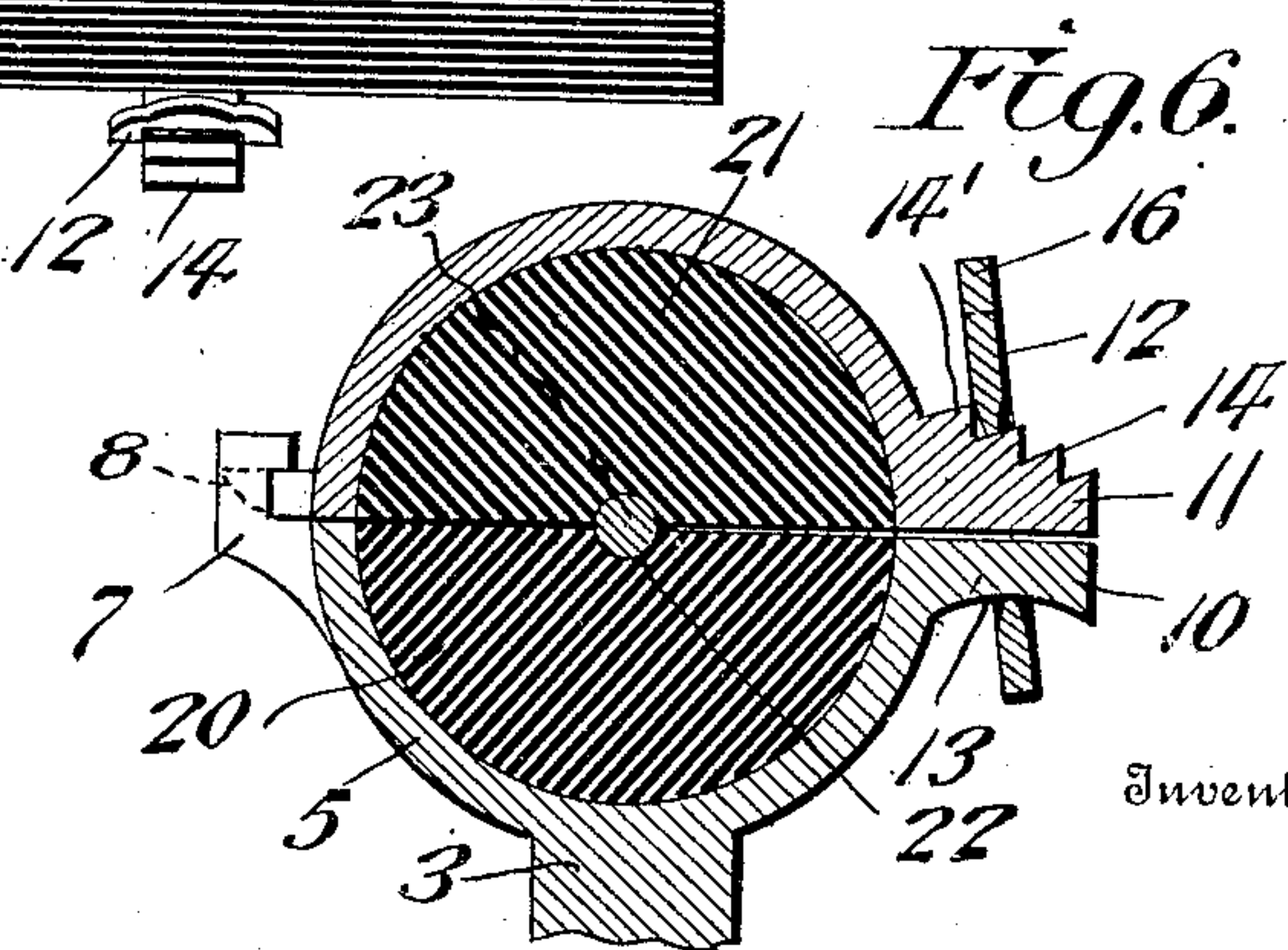
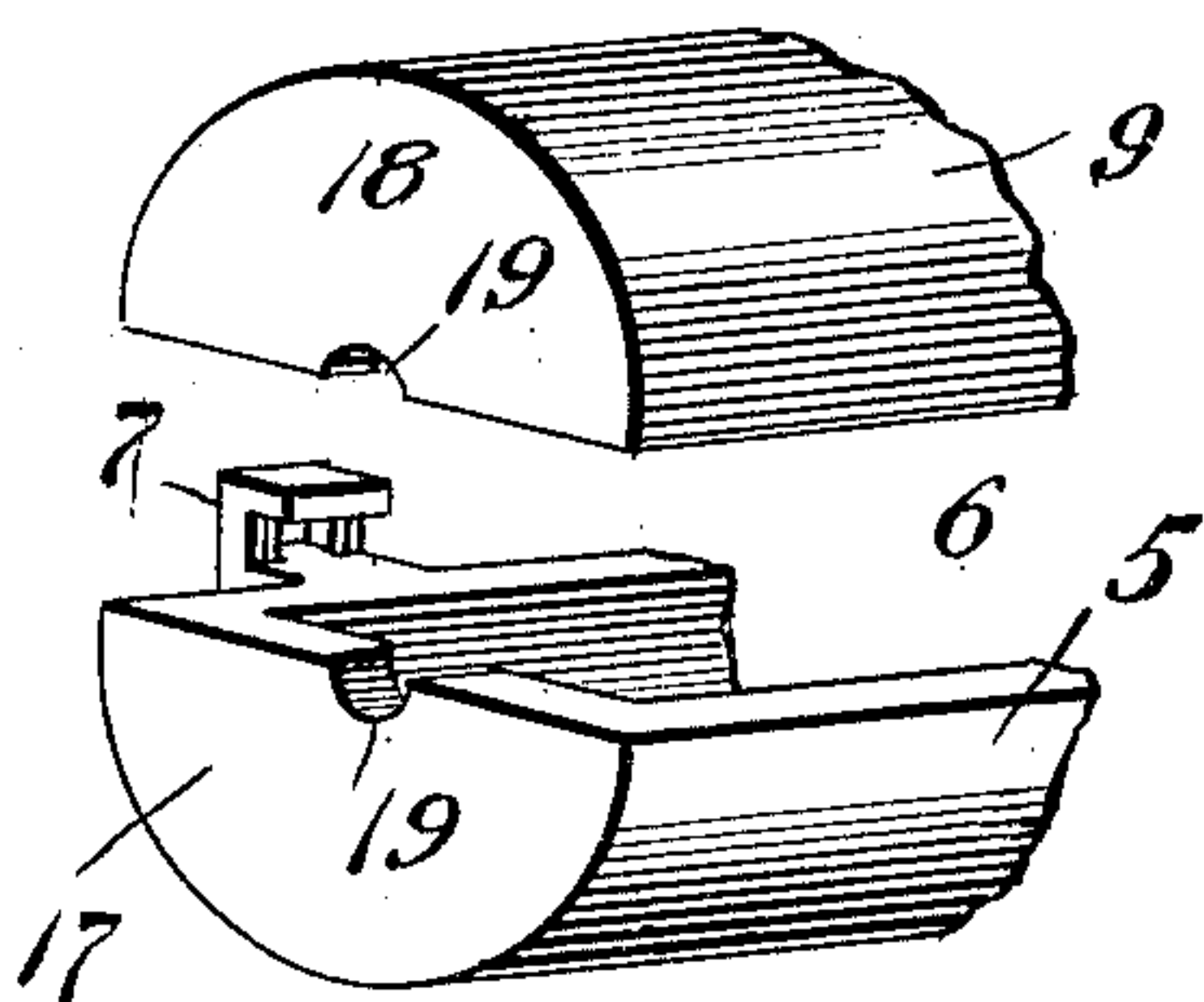


Fig. 4.



Witnesses

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By

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UNITED STATES PATENT OFFICE.

SAMUEL BARTLEY AND WILLIAM O. BARTLEY, OF CALHOUN, ILLINOIS.

INSULATOR.

No. 826,916.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed January 2, 1904. Serial No. 187,553.

To all whom it may concern:

Be it known that we, SAMUEL BARTLEY and WILLIAM O. BARTLEY, citizens of the United States, residing at Calhoun, in the county of Richland and State of Illinois, have invented new and useful Improvements in Insulators, of which the following is a specification.

This invention relates to improvements in electric-wire supports and insulators of that class in which the insulator is divided or composed of sections held within a divided or sectional casing, the object of the invention being to provide an insulator of this character which is adapted for ready attachment to a telegraph-pole or other support and to hold the wires firmly in position and which embodies improved means for holding the sections of the casing connected and permitting of their ready disconnection when occasion requires.

In the accompanying drawings, Figure 1 is a front elevation of the insulator. Fig. 2 is an end elevation thereof. Fig. 3 is a cross-section on the line *a a* of Fig. 1. Fig. 4 is a perspective view of one end of the insulator-casing, showing the parts thereof separated. Fig. 5 is a top plan view of the insulator. Fig. 6 is an enlarged detail section on line *b b* of Fig. 1, showing the construction of the locking means. Fig. 7 is a detail view of the locking-plate.

Referring to the drawings, the numeral 1 designates a supporting-pin adapted to be passed through the cross-arm of a telegraph-pole or other support and threaded at its lower end for the reception of a nut 2 to fasten it in position. A lag-screw may be substituted for the supporting-pin, if desired. The pin 1 projects from a shank 3, provided with a bead or flange 4 to rest upon the top of the cross-arm and serve as a bearing-support for the insulator, and to the shank 3 is attached the lower half 5 of the insulator-casing 6, which is composed of two longitudinally-divided or semicircular sections. The bottom section 5 is formed on one side with a pair of receiving or keeper hooks 7, one located near each end thereof, which hooks are adapted to receive retaining-lugs 8, formed upon the contiguous side of the upper casing section or half 9. The opposite sides of the casing-sections 5 and 9 are respectively provided at an intermediate point with locking-lugs 10 and 11, adapted to be engaged by a

locking-plate 12 to secure the parts of the casing in closed condition.

The lug 10 is provided with a beveled or undercut surface 13, the forward half of said surface having an upward and inward inclination to reduce the thickness or distance between the upper and lower faces of said lug at a central point. The lug 11 is provided with a toothed or stepped upper surface 14, the teeth projecting on a bevel or upward inclination from the forward end of the lug and having their upper faces or engaging portions set at a downward and inward angle or obliquely to the plane of extension of the lug, the upper step 14' forming a rest for the locking-plate when the latter is engaged with the upper acting tooth, as shown in Fig. 6. The locking-plate 12 is provided with an oblong opening 15 to adapt it to receive and to be fitted over upon the lugs and terminates at its upper end in a finger-piece 16. The edges of the plate at the top and bottom of the opening are beveled or otherwise suitably formed to engage and interlock with the beveled and toothed surfaces of the lugs 10 and 11.

The casing is preferably cylindrical in form, and the ends of the sections thereof are respectively closed by semicircular heads 17 and 18, provided in their meeting edges with notches 19 for the passage of the wire. The insulating material, which may be of glass, porcelain, felt, rubber, or any other well-known non-conducting material, is placed within the casing and is composed of corresponding sections 20 and 21, provided in their meeting edges with grooves 22, cooperating to form a passage for the conductor-wire 23. The notches 19 in the heads 17 and 18 form openings of greater diameter than the wire to prevent contact of the latter with the casing.

In assembling the parts after the insulator has been secured to a pole or other support the lower section 20 of the insulating material is inserted within the lower section 5 of the casing 6. The conductor 23 is then dropped in the groove of said section of the insulating material and the upper section 21 of the insulating material placed over the wire. The retaining-lugs 8 on the upper section 9 of the casing are then inserted within the keeper-hooks 7 and said upper section forced down until it contacts, or nearly so, with the lower half of the casing. The locking-plate 12 is

then applied to the lugs 10 and 11 and interlocked with the beveled part of the former and one of the teeth of the latter.

By providing the upper lug 11 with a series of teeth 14, arranged in stepped order or relation, provision is made whereby the upper section 9 may be closed to force the upper half of the insulation with any desired degree of pressure against the wire and to adapt these parts to conform to variations in the size of the wire and insulation and to clamp the same under all conditions securely against movement. After the parts have been assembled the locking-plate is slipped over the lugs and pressure applied to the part 14' to force the lug 11 down as far as possible, allowing the upper beveled edge to be engaged with the proper tooth to retain the plate in position and hold the casing-section 9 closed. The upward pressure of the confined parts on the section 9 of the casing and inclined face of the tooth with which the plate is engaged serve to hold the toothed lug in interlocking engagement with the plate and to retain the latter from casual disconnection, while permitting said locking-plate to be disengaged at any time by exerting downward pressure on the lug 11 and tilting the plate out of contact with the tooth engaged thereby, after which the plate may be slipped off the lugs. The beveled surface 13 of the lug 11 permits the plate to assume an inclined position to engage the tooth and forms a forward shoulder to hold the lower end of the plate in place. The construction, therefore, is such as to

render the locking means adjustable to suit slight variations in the sizes of wires and sections of insulating material and to adapt the top section of the casing to be connected with or disconnected from the bottom section at any time without the time and trouble required in manipulating the fastening elements of insulators using screw and other similar couplings.

Having thus described the invention, what is claimed as new is—

An insulator comprising a two-part casing, said parts being provided at one side with interengaging retaining hooks and lugs and upon the opposite sides with locking-lugs, one of said locking-lugs being provided with a beveled portion and the other with a stepped series of inclined teeth, insulating material within the casing comprising sections having an opening for the passage of a conductor-wire therethrough, and a locking-plate having an opening adapting it to be fitted over upon the locking-lugs to cooperate with the said beveled and toothed surfaces, whereby the plate may be practically instantaneously engaged with and disengaged from the lugs to connect or release the casing-sections.

In testimony whereof we affix our signatures in presence of two witnesses.

SAMUEL BARTLEY.
WILLIAM O. BARTLEY.

Witnesses:

CHARLES H. WILSON,
JAMES LESTER.