

No. 842,301.

PATENTED JAN. 29, 1907.

F. B. COOK.
INSULATING RING AND BRACKET.
APPLICATION FILED DEC. 28, 1905.

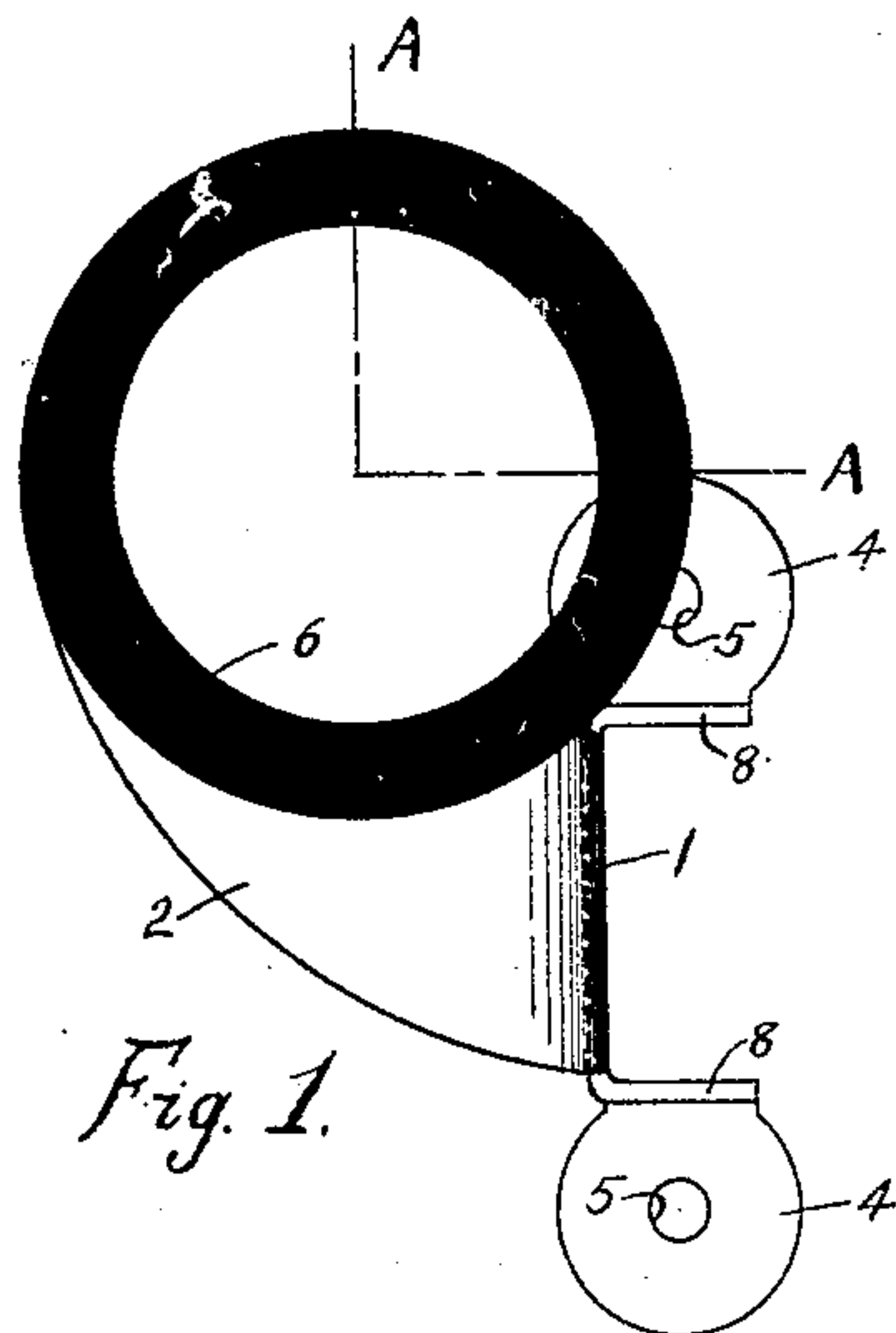


Fig. 1.

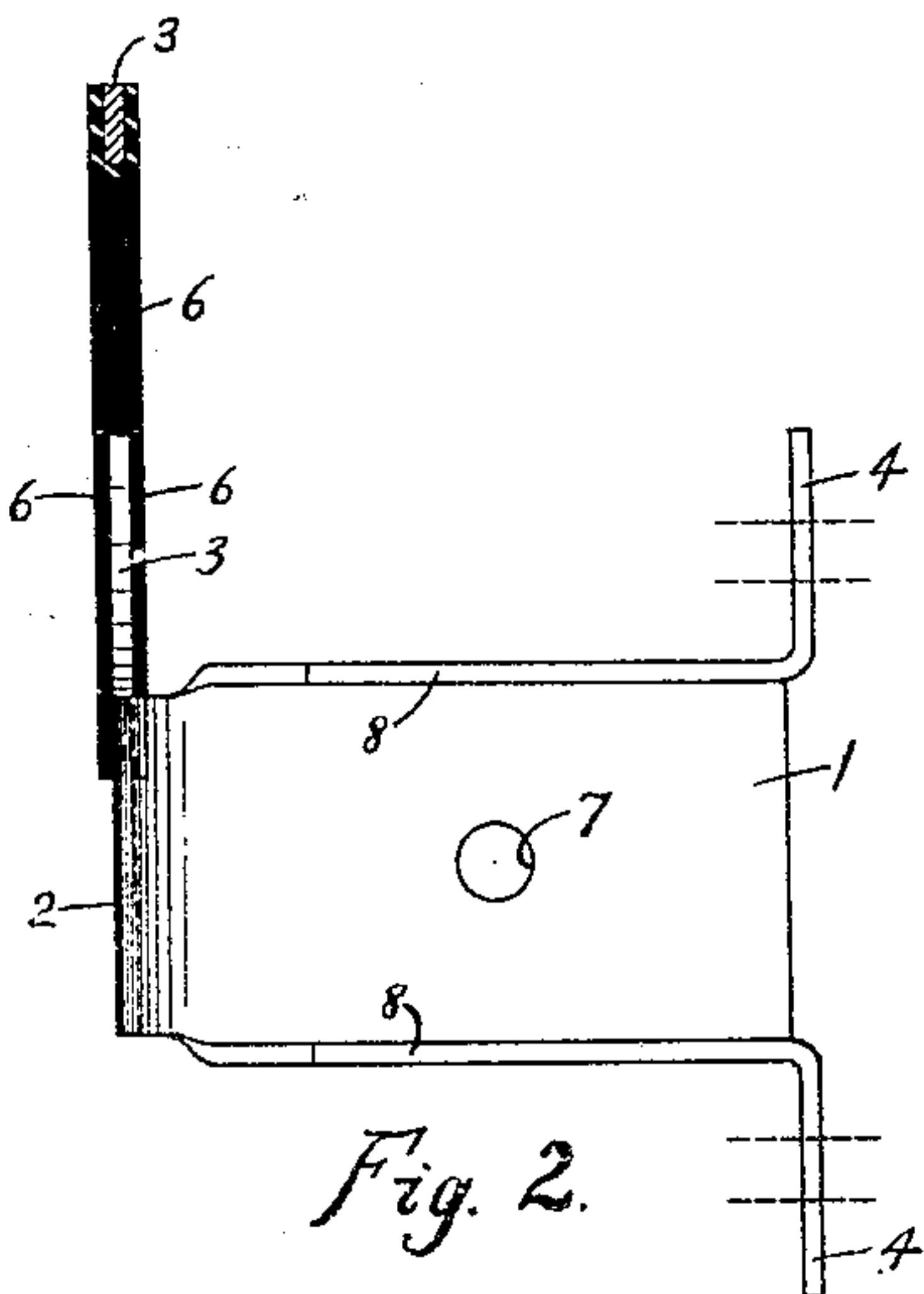


Fig. 2.

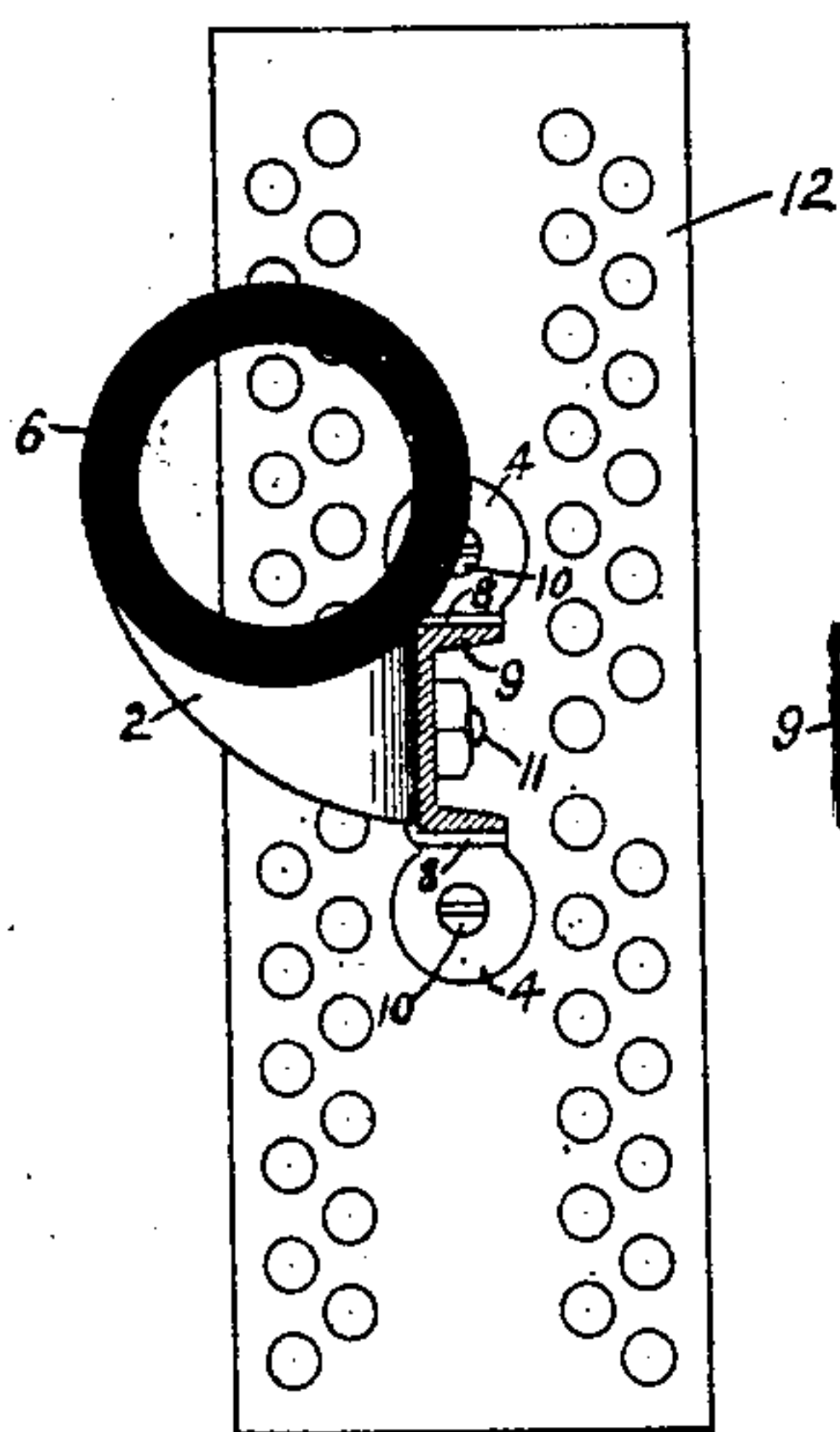


Fig. 3.

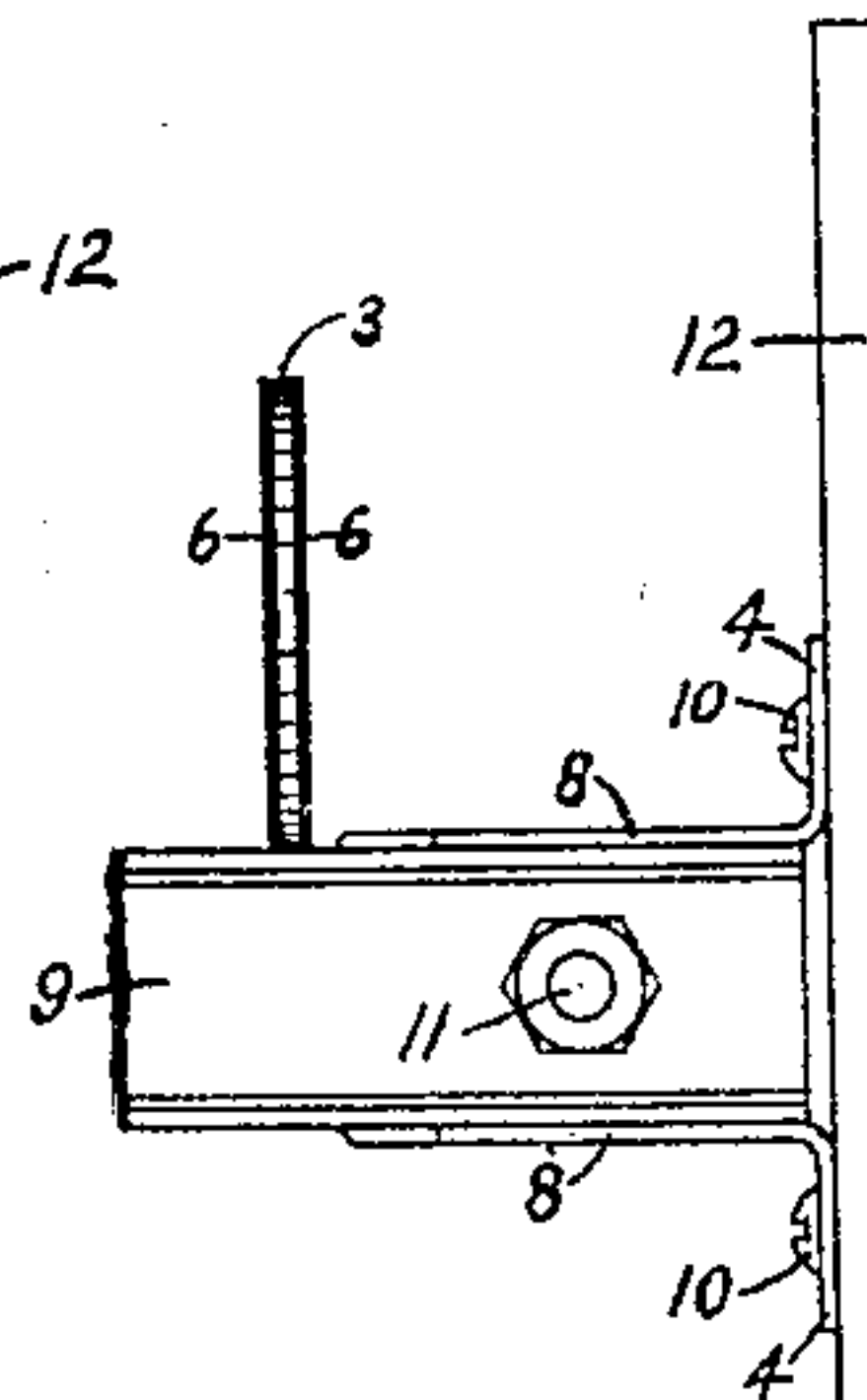


Fig. 4.

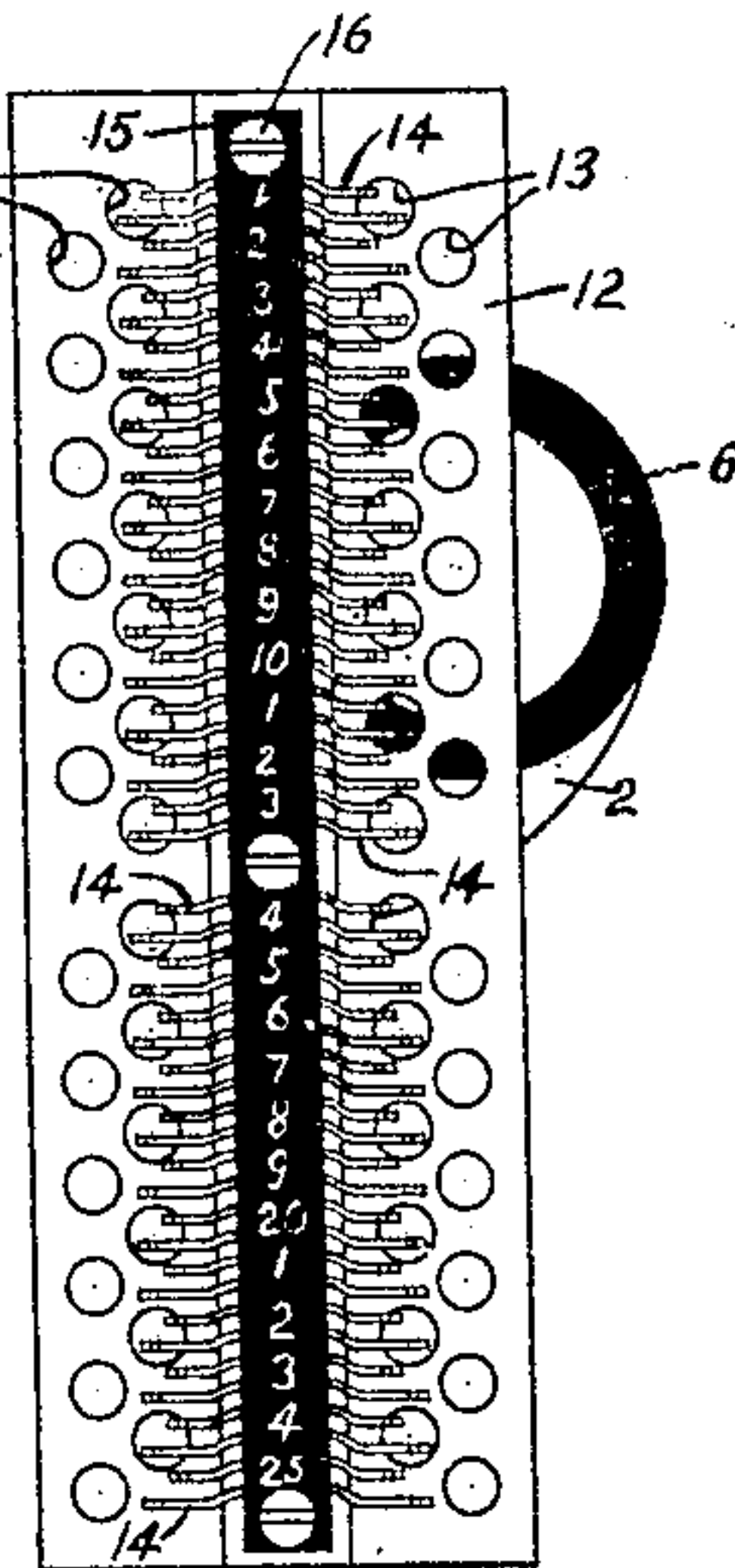


Fig. 5.

Witnesses:

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UNITED STATES PATENT OFFICE

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INSULATING-RING AND BRACKET.

No. 842,301.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed December 28, 1905. Serial No. 293,662.

To all whom it may concern:

Be it known that I, FRANK B. COOK, a citizen of the United States of America, and a resident of the city of Chicago, in the State of Illinois, have invented a new and useful Insulating-Ring and Bracket, of which the following is a specification, reference being had to the accompanying drawings, illustrating same.

My invention relates to insulating-rings or the like, such as are used for supporting or carrying electrical conductors, especially where the conductors are to be distributed, as in a cross-connecting board or the like for telephone-exchanges, my object being, first, to provide improved means for insulating the ring; second, to provide improved means for supporting the ring; third, to provide improved means for supporting the distributing strips, blocks, or the like in position on the cross-connecting board or the like, and, fourth, to embody simplicity and cheapness of manufacture in such a piece of apparatus.

Heretofore in cross-connecting boards for telephone-exchanges it has been the practice to attach each distributing block or strip to the iron framework of the board by one or more cast-iron brackets, which were bolted to the said block or strip and to the horizontal arms of the board, and to provide one or more distributing-rings back of the said block or strip, which rings were entirely separate from the said brackets and which were supported by the said horizontal arms. It has also been the practice to insulate the distributing-rings by enameling them with a porcelain enamel or some like material in order to prevent the insulated wires from coming in contact with the metal of the rings.

In my present invention I preferably make the distributing-ring and the terminal-strip-supporting bracket out of a single sheet-metal punching and cover the ring with an insulating material, such as hard rubber or fiber, which is put on in a single piece, so as to cover the inner surface and both sides thereof, thus doing away with the separate pieces of the bracket and ring in the old construction and providing a bracket and ring which may be very cheaply manufactured and which is very substantial. The bracket may be readily secured to an arm of the cross-connecting board or the like, thus securing the ring in place and providing means for mounting the terminal block or strip.

In the drawings, Figure 1 is a rear view of the insulating-ring and bracket. Fig. 2 is a side view of the insulating-ring and bracket with a portion of the ring on line A A, Fig. 1, removed; and Figs. 3, 4, and 5 are rear, side, and front views, respectively, of a distributing-block with the insulating-ring and bracket secured thereto.

Like characters refer to like parts in the several figures.

The bracket 1 and ring 3 are formed up out of a single piece of sheet metal, preferably sheet-steel, preferably as shown in Figs. 1 and 2. The bracket is provided with ears 4 4 for securing the terminal block 12 thereto and is formed with side pieces 8 8, so as to fit around a channel-iron 9 of the cross-connecting board. The bracket is preferably secured to the channel-iron 9 by bolt 11, the side flanges 8 8 holding it securely in position. The terminal block 12, preferably of hard maple, is provided with a hard-rubber strip 15, secured to its face and carrying metallic terminal strips 14 14, forced through suitable holds in 15 and bent so as to securely hold them in place.

The rubber 6 before it is put on the ring 3 is a flat soft ring. This rubber ring is folded around the metal ring 3, as shown in the drawings, and is then heated and vulcanized on the metal ring 3 until it is hard, thus producing a hard-rubber covering for the ring 3. This hard-rubber covering 6 protects the wires or conductors carried by the ring from the metal part of the ring and affords the best of insulation for the ring 3. The thickness of the rubber 6 may be made as great as desired. The portion 2, connecting the bracket 1 with the ring 3, serves to support the insulating-ring very rigidly. The conductors in a cross-connecting board or the like extend through the insulating-ring 6 and the holes 13 13 in the distributing-block 12 to the terminal strips 14 14.

In making the ring 3 and bracket 1 the same is first punched out of suitable sheet metal and then formed as shown in Figs. 1 and 2. Then the ring 3 is covered with the rubber, fiber, or any suitable insulating material, as described above.

I do not wish to limit this invention to the particular details of construction as herein shown nor to the particular form of terminal block illustrated. Neither do I wish to limit the insulating-covering 6 for the ring 3 to hard rubber or fiber.

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

1. In combination, a distributing block or strip, a piece of sheet metal formed as a bracket and ring and attached to the said block, an insulating-covering for the ring, and a supporting-arm for the whole to which the bracket is attached.

2. A sheet-metal bracket formed as a channel to fit a supporting-arm and a ring for carrying electrical conductors, and insulation conformed to the ring to insulate the inner portion thereof.

3. A sheet-metal bracket formed as a channel and a ring at right angles to the channel, and a piece of hard rubber conformed to the ring so as to insulate the inner portion and each side thereof.

As inventor of the foregoing I hereunto subscribe my name, in the presence of two subscribing witnesses, this 26th day of December, 1905.

FRANK B. COOK.

Witnesses:

FREDERICK R. PARKER,
G. C. FRICKE.