

E. D. McLEAN.

JOINTED ADJUSTABLE SUPPORT FOR TELEPHONE RECEIVERS.

APPLICATION FILED JAN. 9, 1904.

2 SHEETS—SHEET 1.

FIG. I

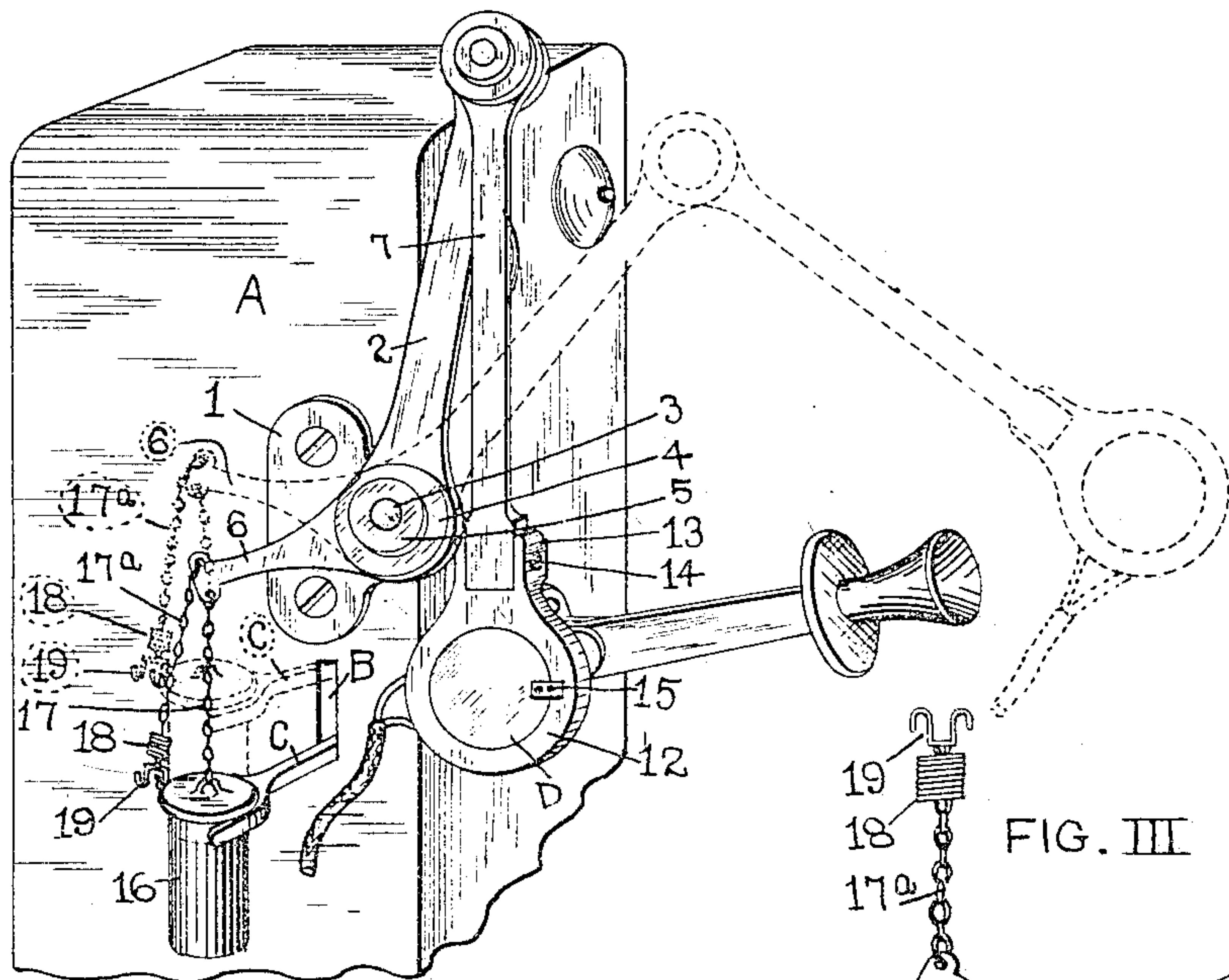


FIG. II.

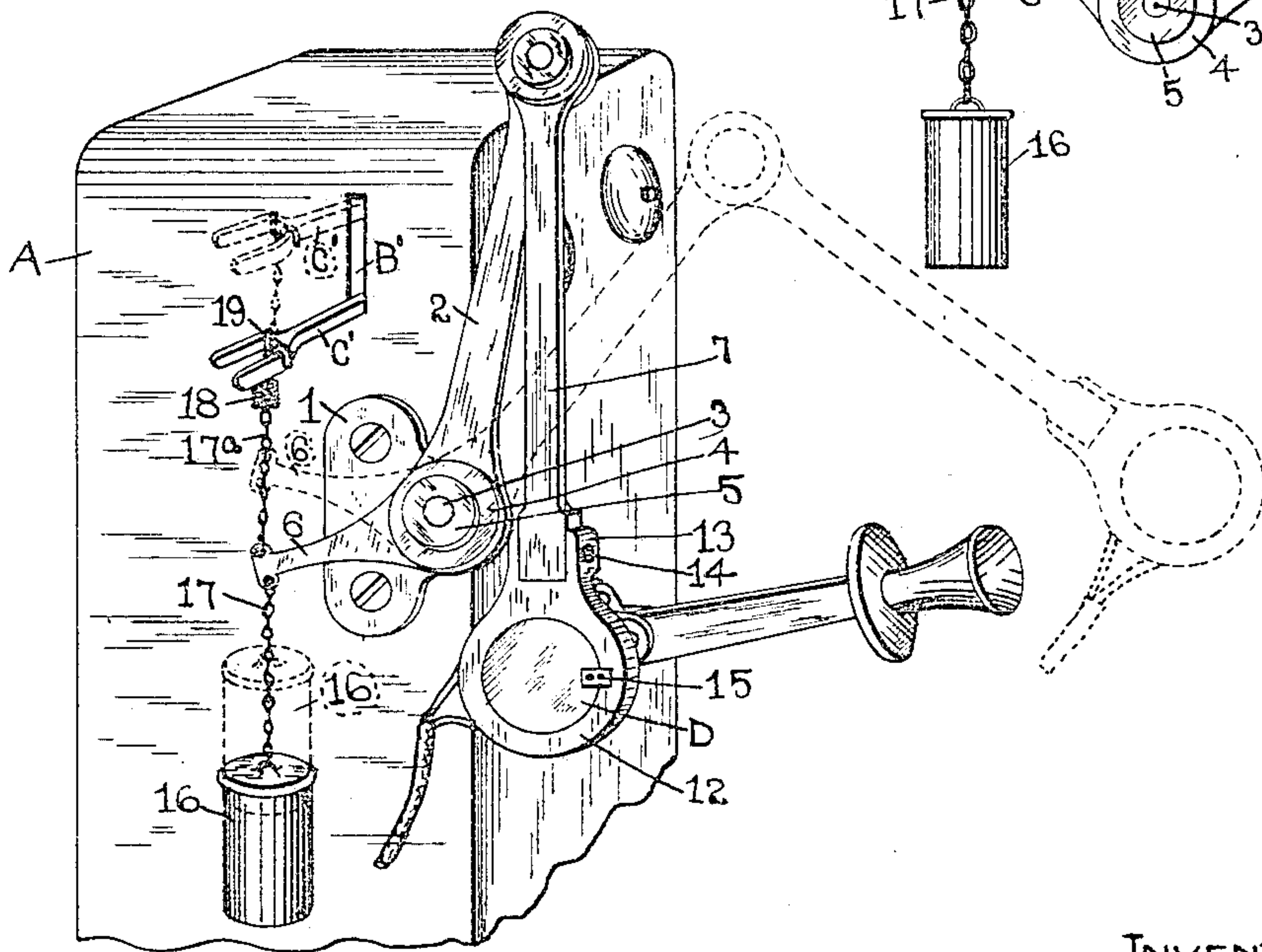
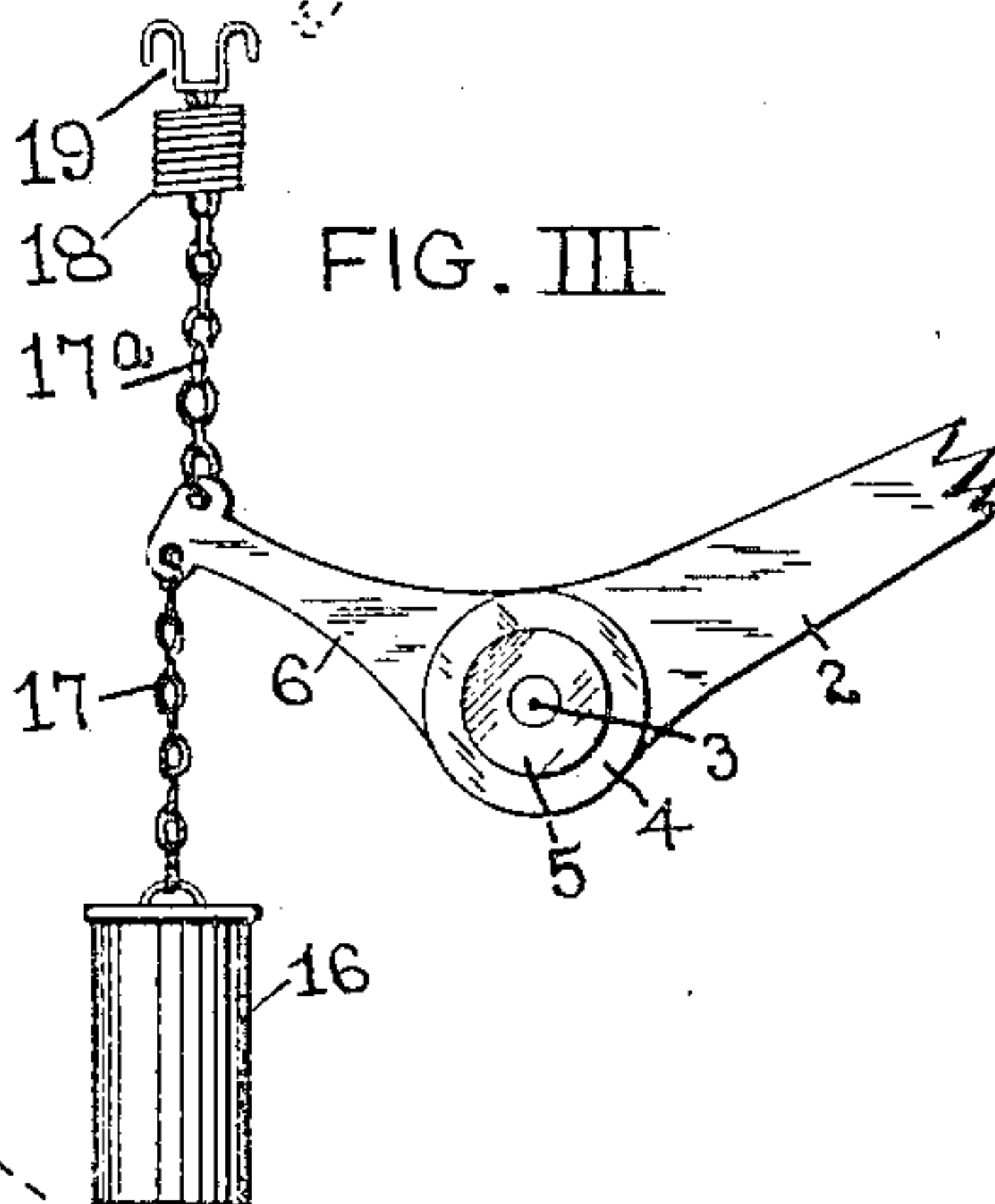


FIG. III



ATTEST.

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2 SHEETS—SHEET 2.

FIG. IV

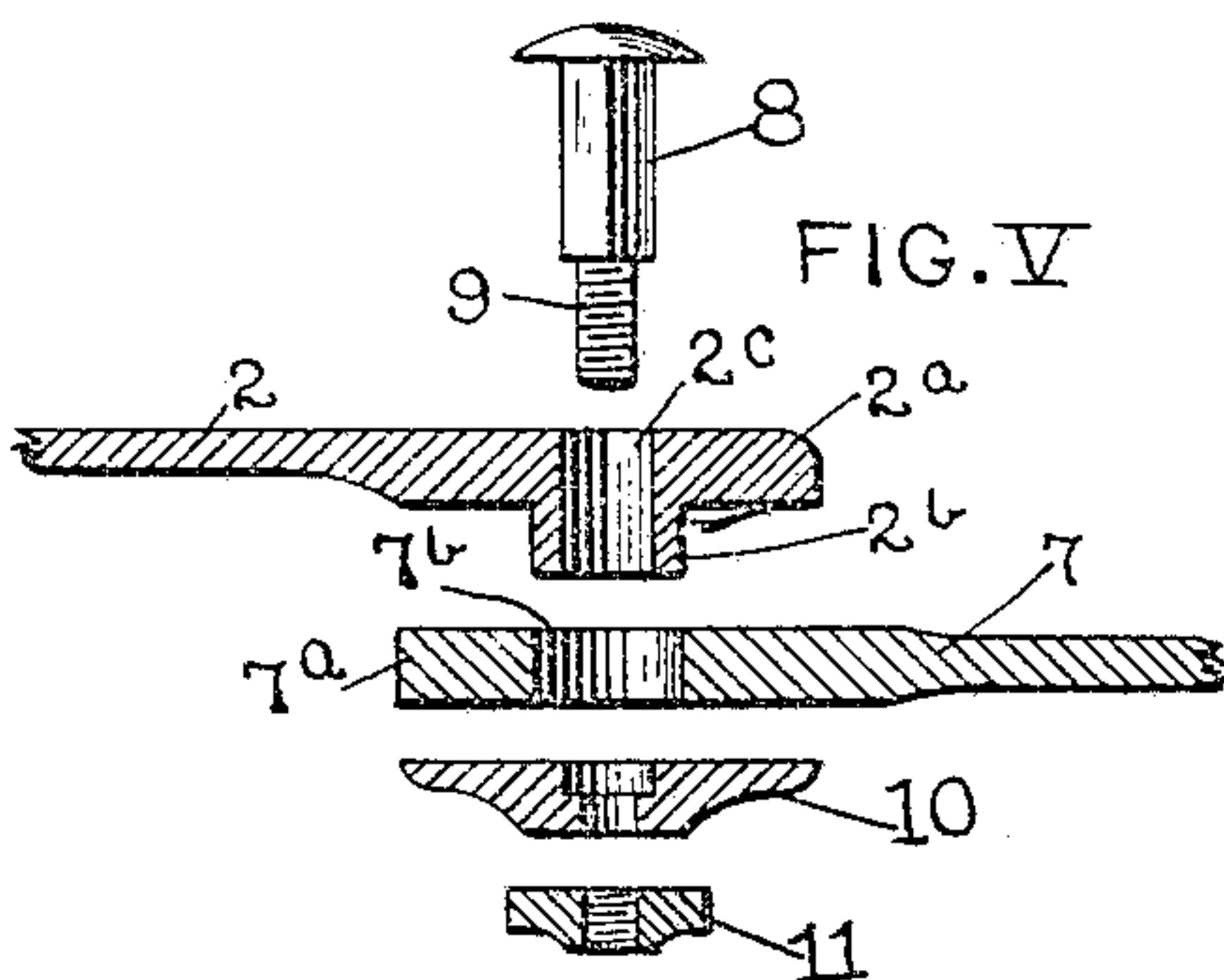
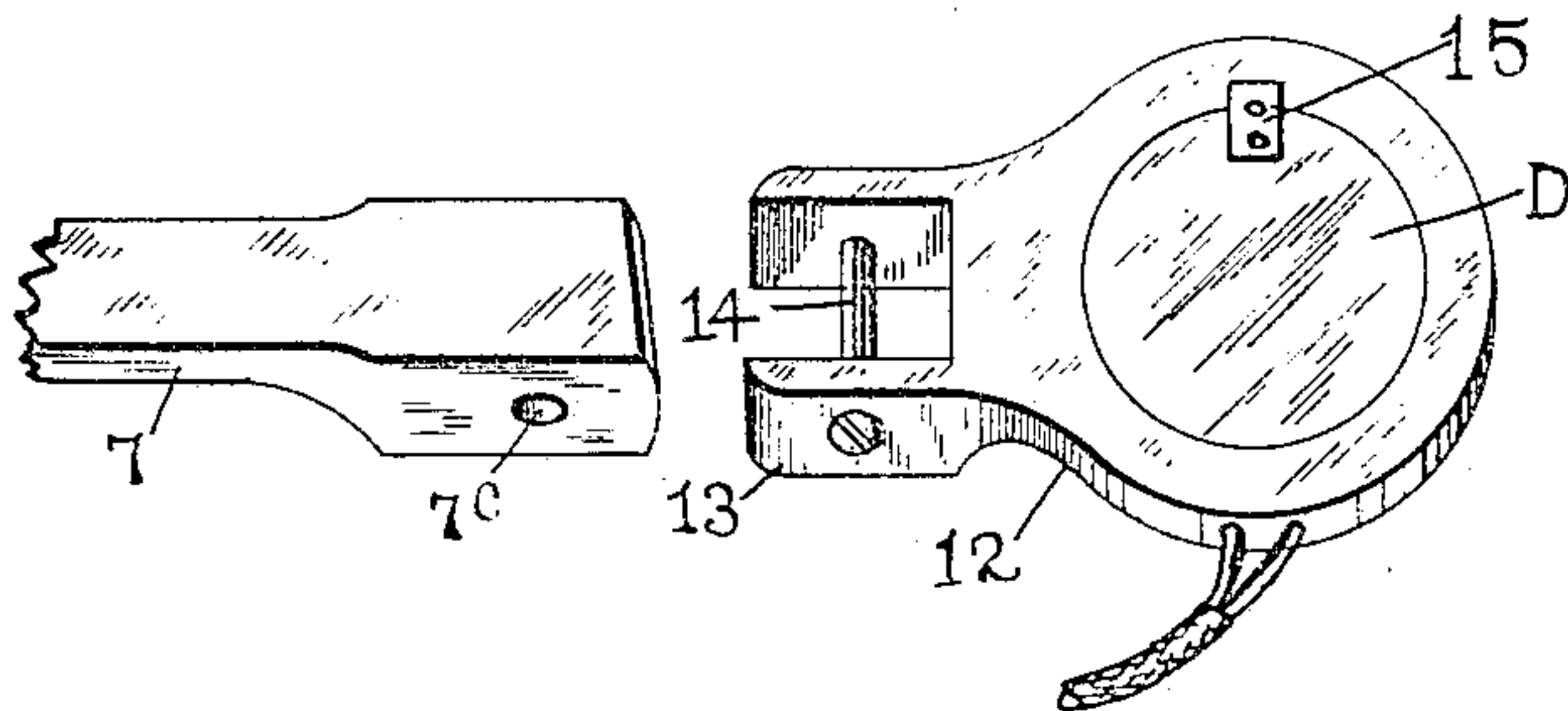


FIG. VI

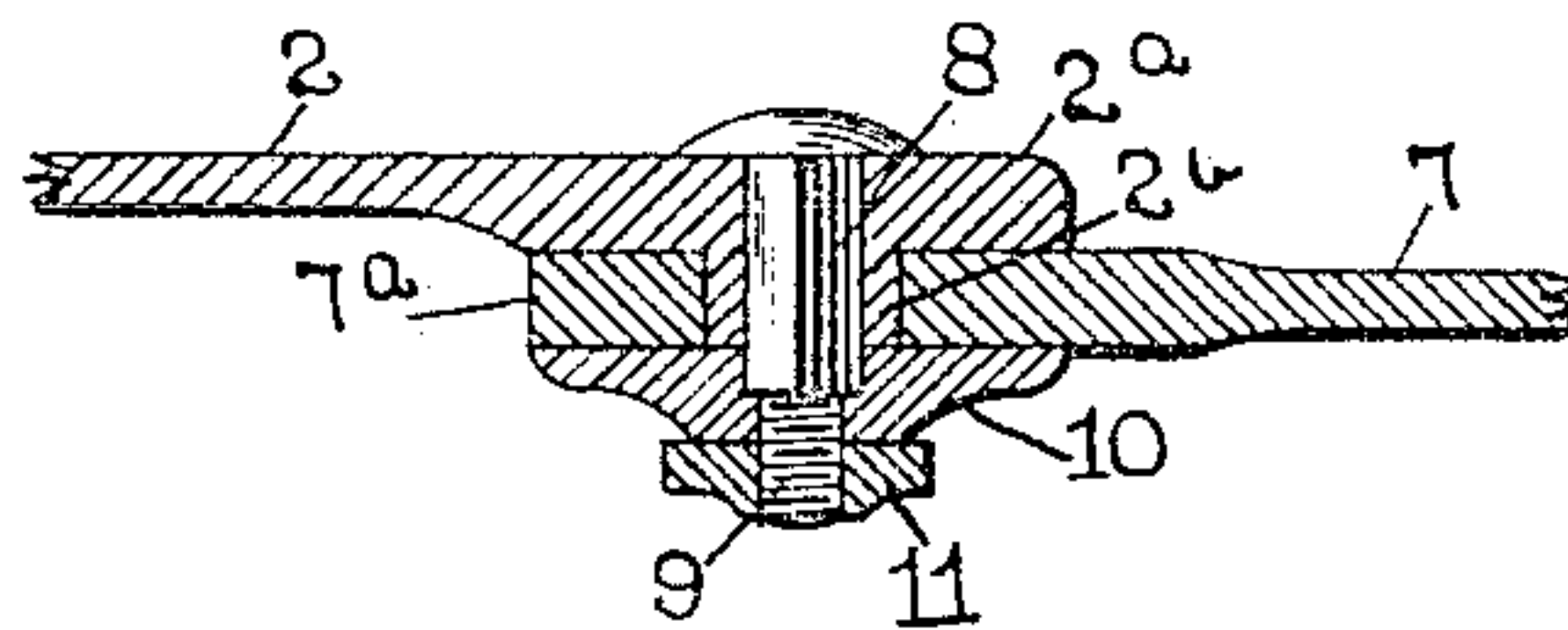
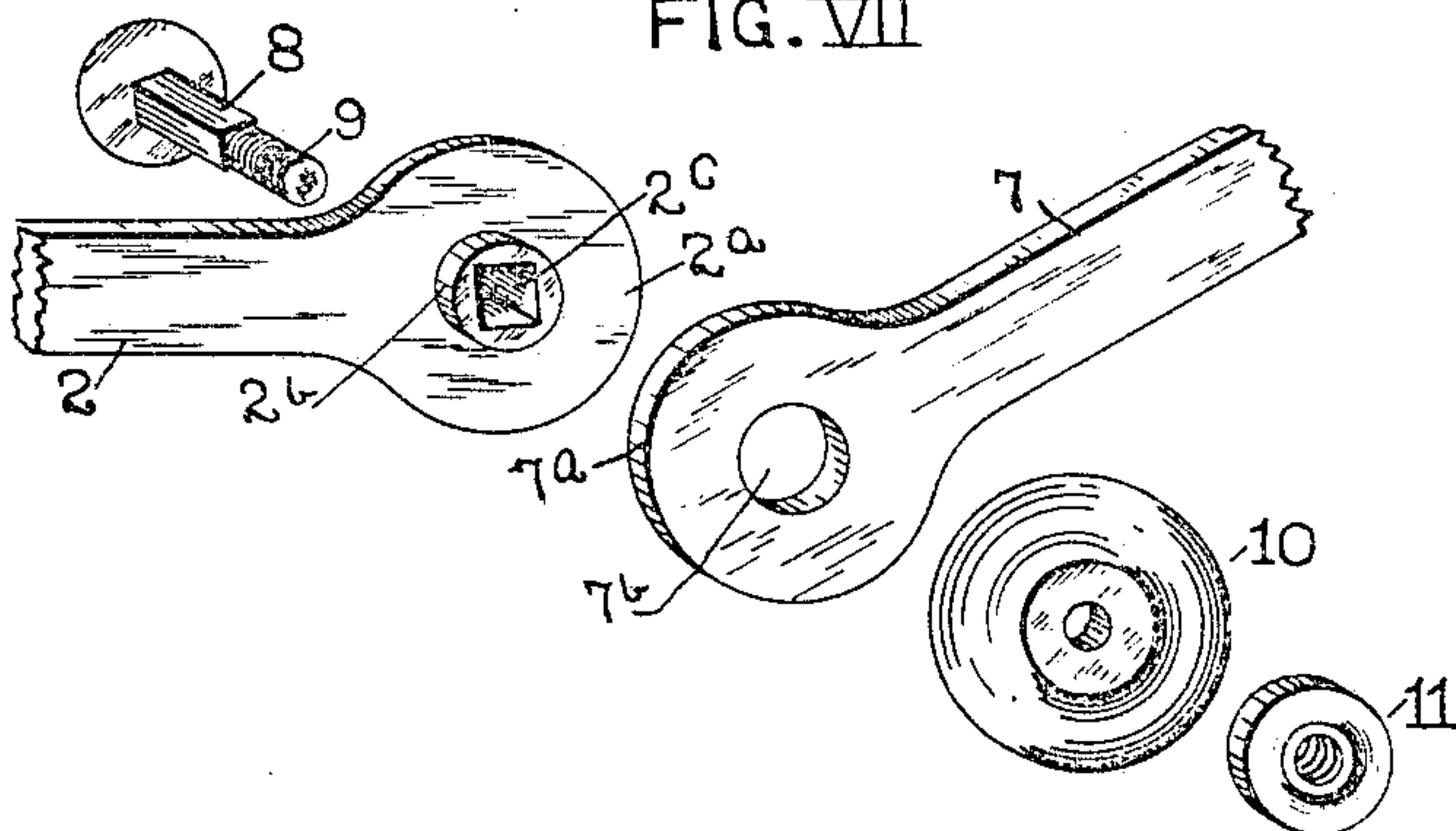


FIG. VII



ATTEST.

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# UNITED STATES PATENT OFFICE.

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## JOINTED ADJUSTABLE SUPPORT FOR TELEPHONE-RECEIVERS.

SPECIFICATION forming part of Letters Patent No. 787,307, dated April 11, 1905.

Application filed January 9, 1904. Serial No. 188,383.

*To all whom it may concern:*

Be it known that I, EDWIN D. McLEAN, a citizen of the United States, residing in Marissa, in the county of St. Clair and State of Illinois, have invented certain new and useful Improvements in Jointed Adjustable Supports for Telephone-Receivers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to provide a means whereby the receiver of a telephone instrument may be mechanically held in desired position to user's best advantage and hearing, thereby leaving the user's hands free.

My invention relates to a jointed adjustable arm provided with a receptacle at its outer end to hold a telephone-receiver and having its inner end attached to a suitable bracket on telephone instrument and the provision of means to automatically switch receiver-hook to open and close the circuit of a telephone instrument through the medium of the jointed adjustable arm that is drawn out by the telephone user and folded back in connection with a telephone instrument in which the switch or receiver-hook is located either above or below the place of attachment of receiver-supporting arm.

The invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is a perspective view of my receiver-arm shown applied to a telephone instrument in which the switch or receiver-hook is located below the point of connection of the receiver-support. Fig. II is a perspective view of my receiver-arm shown applied to a telephone instrument in which the switch or receiver-hook is located above the point of connection of the receiver-support. Fig. III is an enlarged side view of the rear portion of the rear receiver-supporting arm,

showing in detail the finger-like projection forming a part of said arm at an angle thereto and the weight and chain used in connection with said projection for association with the receiver-hook of a telephone instrument. Fig. IV is a perspective view of the forward end of the forward receiver-supporting arm and the receiver-receptacle shown disconnected from said arm. Fig. V is a longitudinal section taken through the receiver-supporting arms at their joints, showing the parts at the joint in unassembled condition. Fig. VI is a longitudinal section taken through the receiver-supporting arms at their joint with the parts assembled. Fig. VII is a perspective view of the joint parts of the receiver-supporting arms in unassembled condition.

A designates the transmitter-box of a telephone instrument, which, as shown in Fig. I, is provided with a slot B, in which operates the switch or receiver-hook C. As shown in Fig. II, the transmitter-box is provided with a slot B', located at a greater elevation than the slot B and in which operates the switch or receiver-hook C'. The receiver-hooks of telephone instruments are different in different kinds or makes of telephones, and in the construction of my receiver-support I furnish an arrangement by which the support may be applied to and used in connection with either an instrument in which the switch or receiver-hook is located above or below the point of attachment of the receiver-support to the transmitter-box, as illustrated in Figs. I and II.

1 designates a bracket that is fixed to the transmitter-box A above the receiver-hook C, as seen in Fig. I, and beneath the receiver-hook C', as seen in Fig. II. This bracket is provided with a boss to which is rockingly fitted a rear supporting-arm 2, that is rockingly held to the bracket by a bolt 3 passing through the bracket-boss and a washer 4 and nut 5 applied to said bolt to complete the



pivotal joint that permits swinging of the arm. The arm 2 carries a finger-like projection 6, that extends at an angle to said arm and the utility of which will be hereinafter set forth.

7 designates a forward supporting-arm that is jointed to the rear arm 2 through the medium of a male and female connection, of which 2<sup>a</sup> is the male member carried by the arm 2 and provided with a boss 2<sup>b</sup> and through which extends a square hole 2<sup>c</sup>. (See Fig. V.) 7<sup>a</sup> is a female member of the joint through which extends a circular hole 7<sup>b</sup>, that receives the boss 2<sup>b</sup>. 8 is a bolt having a square shank that fits within the square hole 2<sup>c</sup> and the threaded end 9 of which extends through the joint members and has applied to it a washer or cap 10. The threaded end of the bolt receives a nut 11, by which the washer 10 may be clamped to the joint member 7<sup>a</sup> to tighten the joint. In forming the joint the female member 7<sup>a</sup> is placed against the male member 2<sup>a</sup>, so that the boss 2<sup>b</sup> will pass through the circular hole 7<sup>b</sup>. The bolt 8 is then introduced into the joint, and its shank is passed through the square hole 2<sup>c</sup>, and the washer is applied to the bolt and secured in position by the tension-nut 11. When this nut is screwed home, the female member of the joint is clamped by the male member on one side and the washer or cap on the other side and held in place and from turning by the square shank of the bolt, so that the parts of the joint move under friction from both sides. The joint at the connection between the rear arm 2 and the bracket 1 is similar to that at the point just fully described, so that the same frictional action at that point is secured. In the forward end of the forward arm 7 is a bolt-hole 7<sup>c</sup>. 12 is a receiver-receptacle that is furnished with a fork 13, which straddles the forward end of the forward arm 7 and through which passes a bolt or screw 14 for insertion through the bolt-hole 7<sup>c</sup> to swingingly connect the receiver-receptacle to the forward arm of the receiver-support. The bolt or screw 14 is so positioned in the fork 13 that some degree of tension may be furnished between the fork and the arm 7 to hold the receptacle in any position into which it may be moved and in which it is desired to use the receiver.

In the receiver-receptacle is shown a receiver D, that illustrated being what is known as a "pony" or "watch-case" receiver; but the receptacle may be used as a holder for various kinds of receivers, being shaped to suit. In the support of the receiver of the kind shown and referred to the receiver is held in place by its bead at the front side and at its rear side it is secured in place by a finger or catch 15. It is also held by the wire connections which pass through the receptacle and into the receiver.

16 designates a weight that is suspended from the finger-like projection 6 of the rear support-arm 2 by a chain or other flexible connection 17. This weight is designed to rest in the switch or receiver-hook C, as seen in Fig. I.

17<sup>a</sup> is a chain or other flexible connection united to the finger-like projection 6 and having connected thereto a spring 18, that carries a hook 19, the spring being interposed between said chain and hook, as most clearly seen in Fig. III. The hook 19 is designed to be applied to the switch or receiver-hook C' where said hook is located above the point of attachment of the receiver-support to the transmitter-box of a telephone instrument, as seen in Fig. II.

The weight 16 is intended to be of such form that it will hang in and slip up and down in the receiver-hook when said hook is below the place of attachment of the receiver-support, and it has a shoulder at the top to engage with the receiver-hook when the receiver-support is folded back and the weight slips down in the hook to depress it, as shown by full lines in Fig. I. When the receiver-support is drawn out for use, the weight is lifted and the receiver rises, thus relieving said hook automatically. Where the receiver-hook is located above the point of attachment of the receiver-support and the support is connected to said hook by the hook 19, the weight 16 serves as a counterbalance for the receiver-support in order that the friction-joint connecting the support to the bracket 1 need not be so tight as would otherwise be necessary. In the instance of the receiver-hook located above the point of attachment of the receiver-support and having connection with said support through the medium of the finger-like projection 6, chain 17, and spring and hook 18 19 the spring 18 serves to relieve undue strain when the hook is drawn to the bottom of the slot in which it operates, as shown by full lines, Fig. II.

In the practical use of my receiver-support the parts normally occupy the positions seen in full lines, Figs. I and II, whether the switch or receiver-hook be below or above the place of attachment of the receiver-support. When the receiver is to be used, the operator takes hold of the receiver end of the jointed adjustable receiver-arm and draws it toward him to the most desirable position for hearing. In the act of drawing said support into the desired position the central joint between the rear and forward arms is moved down and the finger on the rear end of the rear support-arm is drawn up, thereby lifting the weight to allow the receiver-hook, if below, to rise and open the telephone-circuit. If the receiver-hook is above said finger, as seen in Fig. II, the chain and spring connection between the finger and receiver-hook is slack-



ened by the upward movement of the finger and the receiver-hook thus allowed to rise and open the circuit. After the telephone user is through with the telephone he grasps the receiver-support at the receiver end and pushes it backwardly, thereby folding the receiver end down into normal position, as seen in Figs. I and II. This act lowers the finger at the rear end of the support and allows the weight to be moved down to the receiver-hook if said hook is below it and draws the receiver-hook down through the medium of the chain 17<sup>a</sup>, spring 18, and hook 19 if the receiver-hook is above said finger. The telephone-circuit is thereby automatically opened and closed in the movement of the receiver-support. After the telephone user has drawn the support out into the desired position he may swing the receiver-receptacle into a position best suited for his hearing, it not being necessary to him to apply the ear directly to

the receiver, as is usually done where the receiver is held by the hand.

I claim as my invention—

The combination with a transmitter-box, 25 of a telephone instrument and a receiver-hook movable therein, of an arm swingingly connected to said box by a friction-joint, a finger carried by said arm, a weight suspended from said finger for engagement with said receiver-hook, a receiver-supporting arm swingingly connected to the outer end of said first-named arm by a friction-joint, and a receiver connected to said supporting-arm to swing around an axis perpendicular to the swinging axis of its supporting-arm, substantially as set forth. 30 35

EDWIN D. McLEAN.

In presence of—

A. J. MEEK,  
W. E. MEEK.