

May 9, 1933.

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1,907,968

HOLDER FOR ELECTRICAL APPARATUS

Filed Aug. 1, 1928

2 Sheets-Sheet 1

Fig. 1

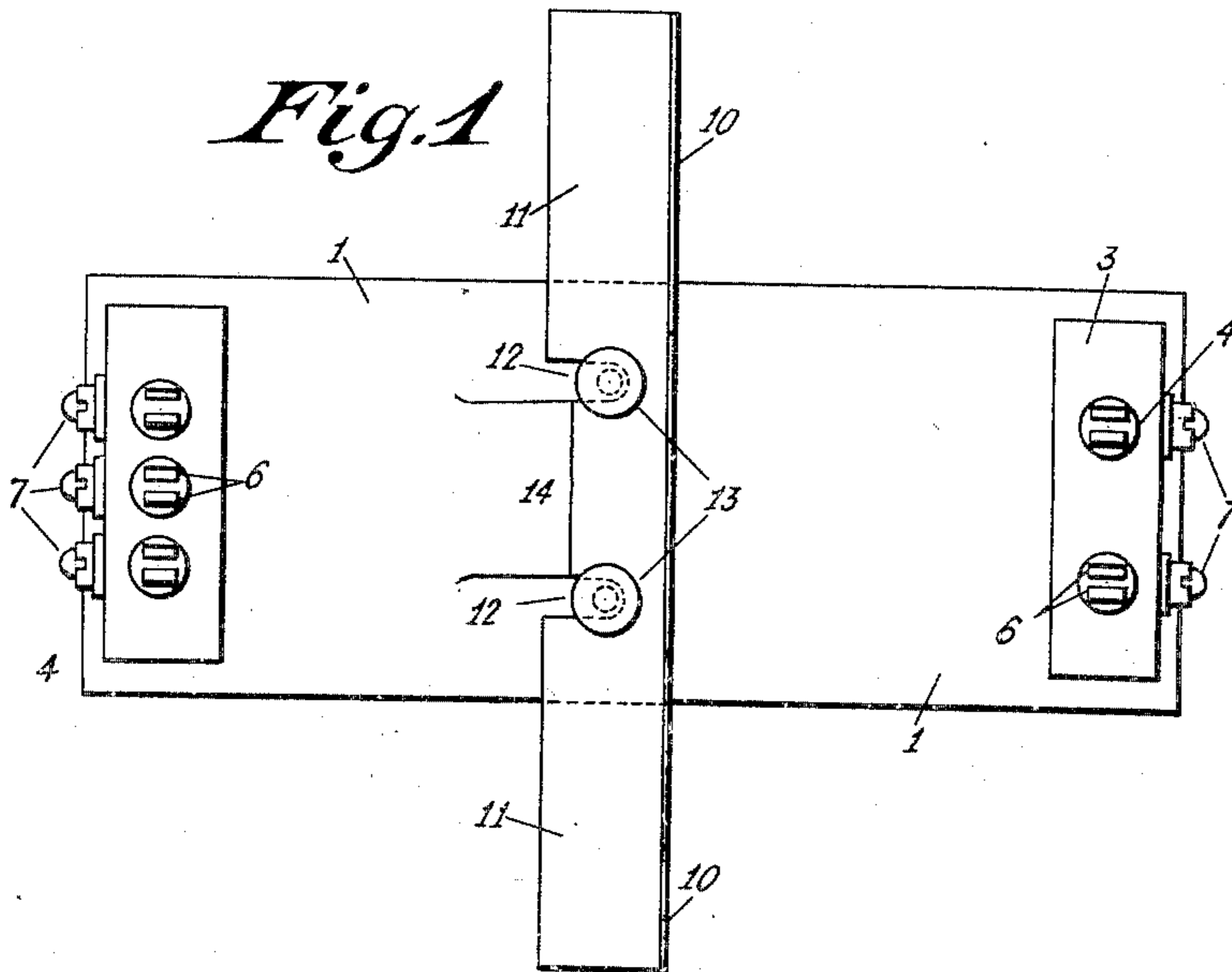


Fig. 2

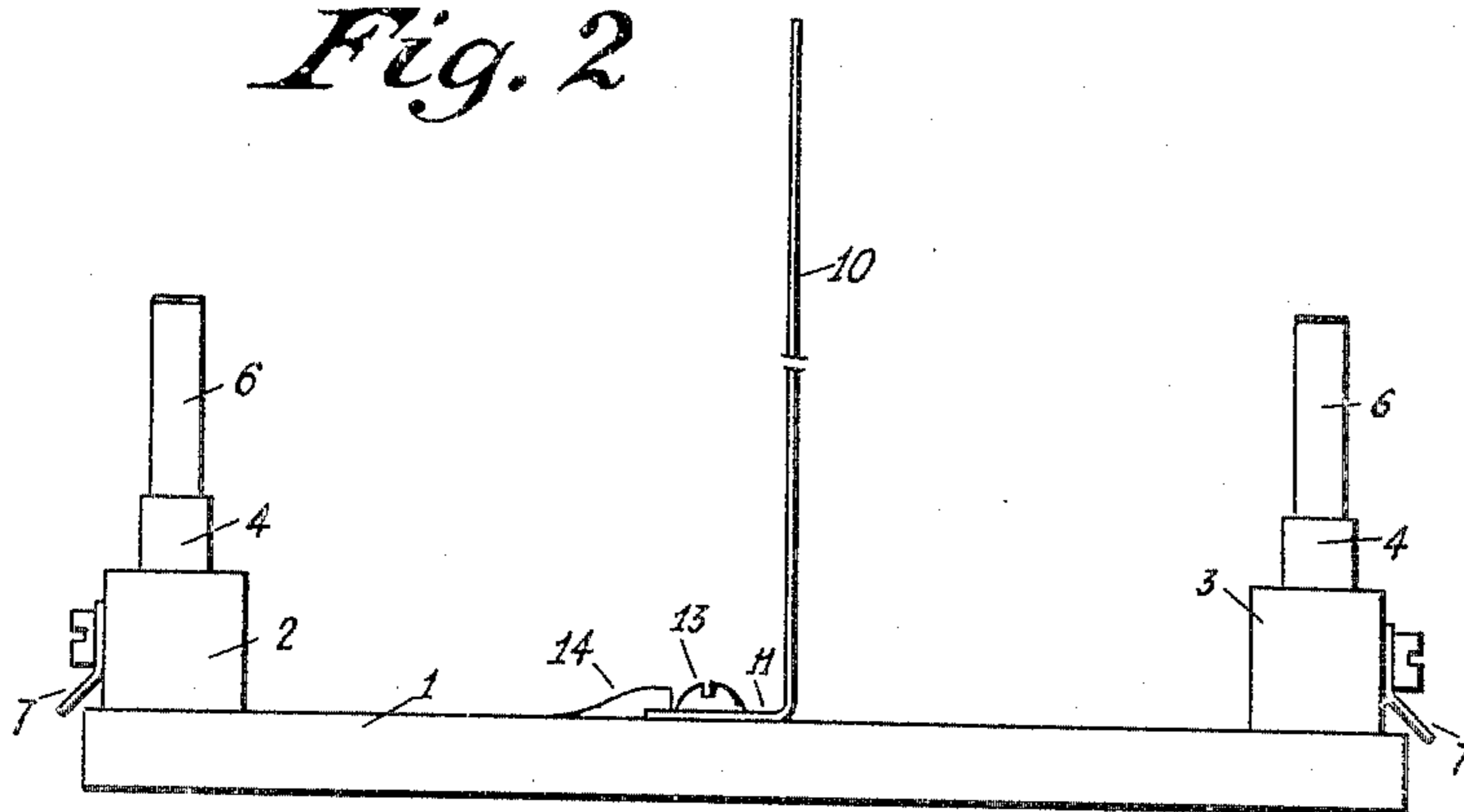
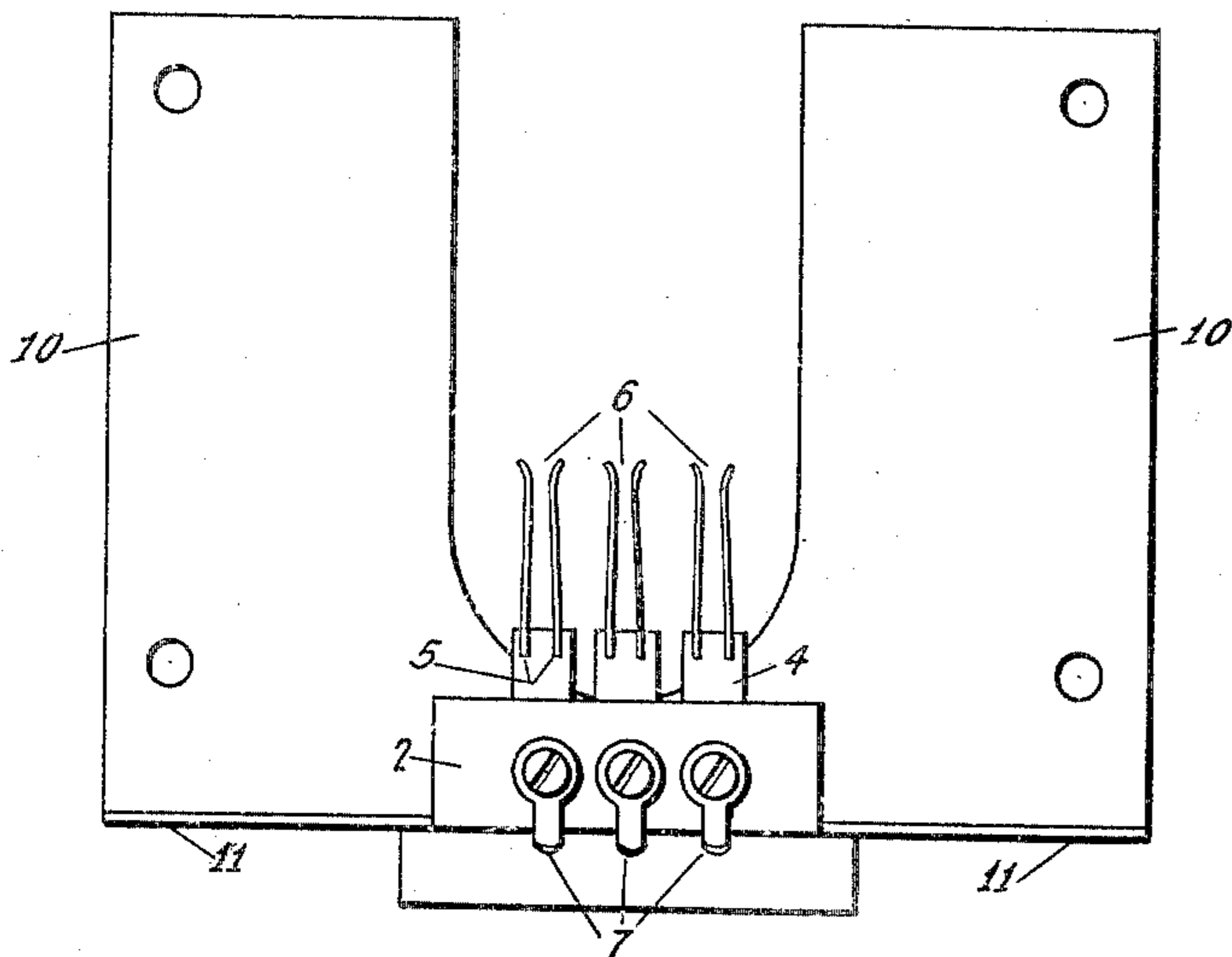


Fig. 3



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Fig. 4

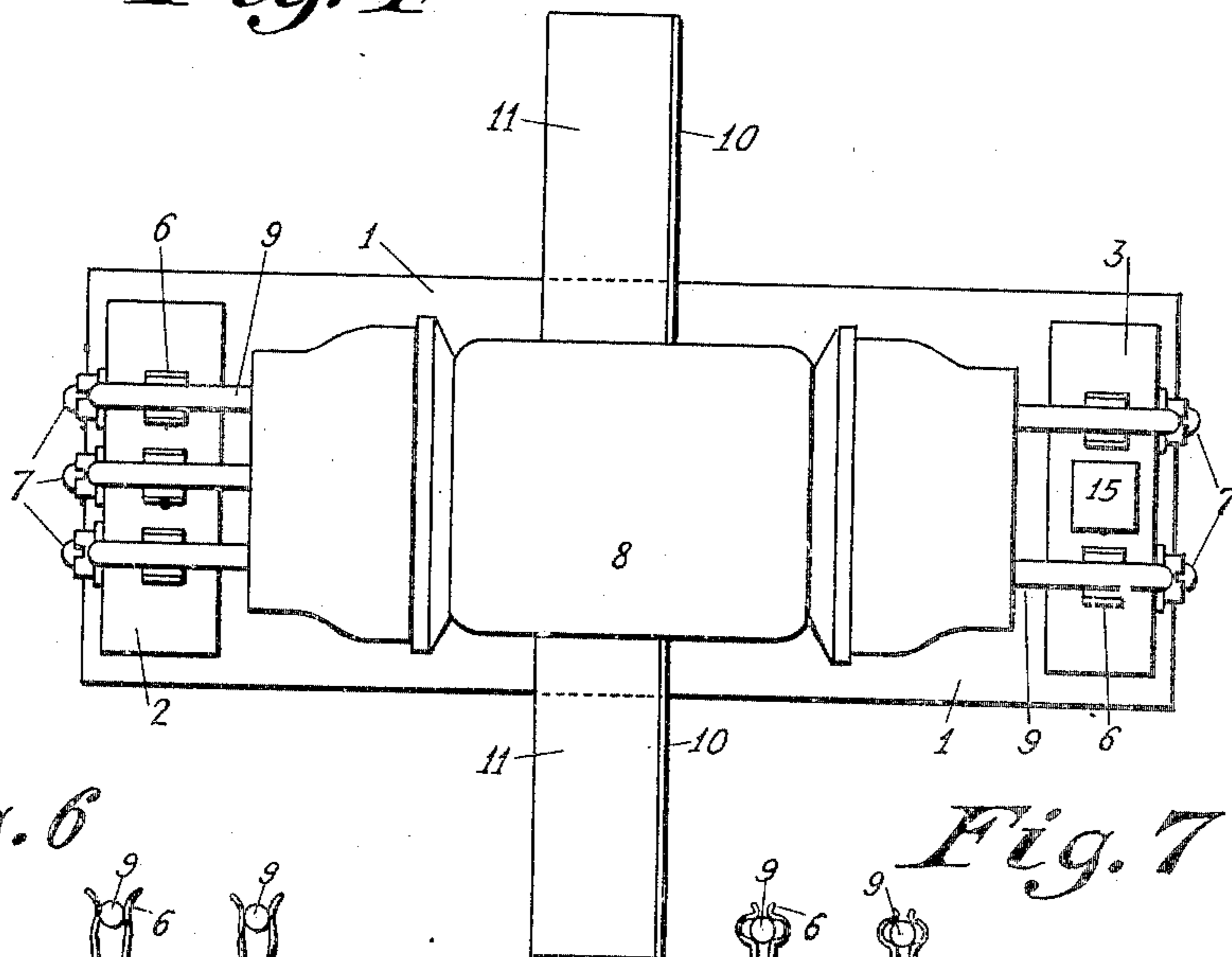


Fig. 6

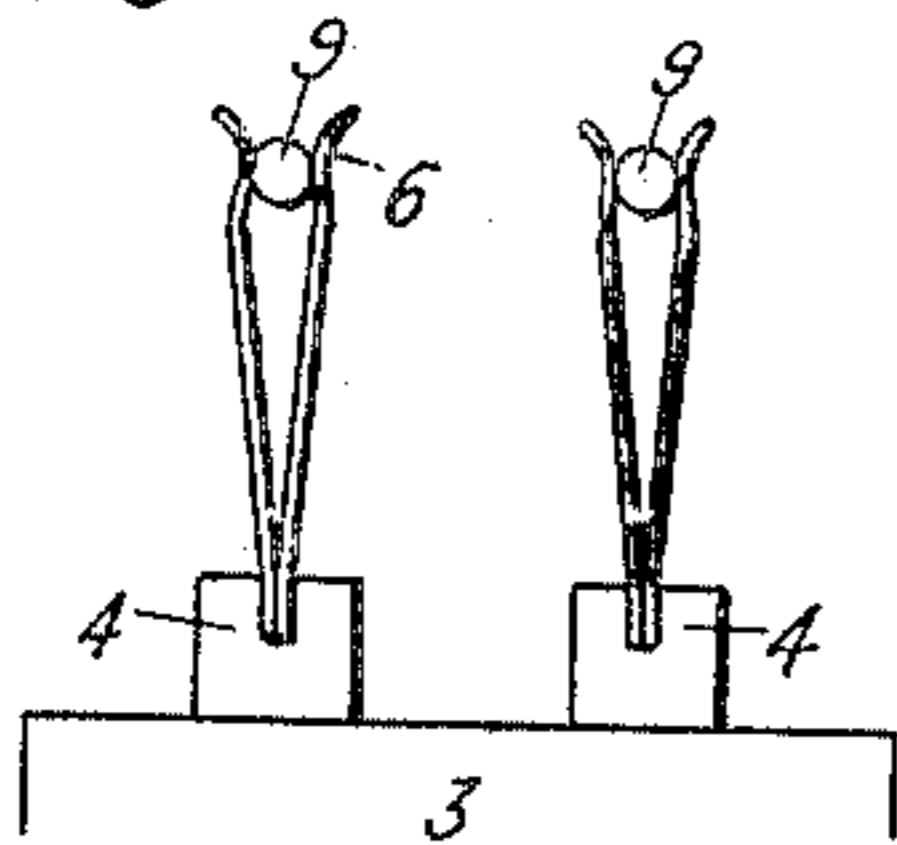


Fig. 7

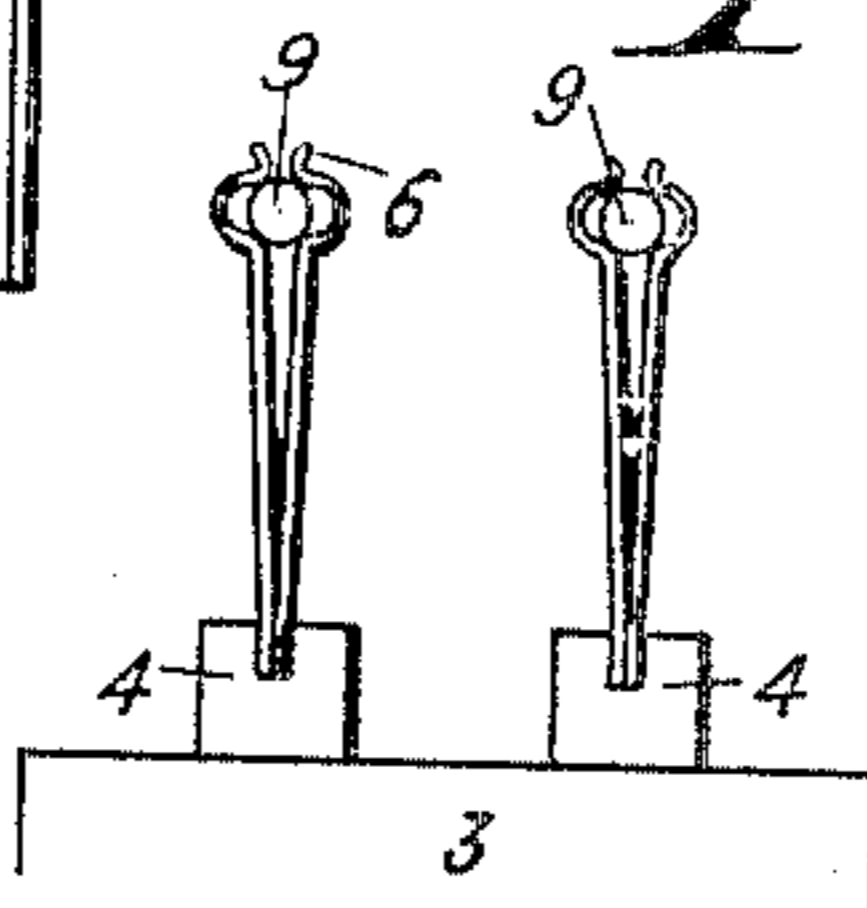
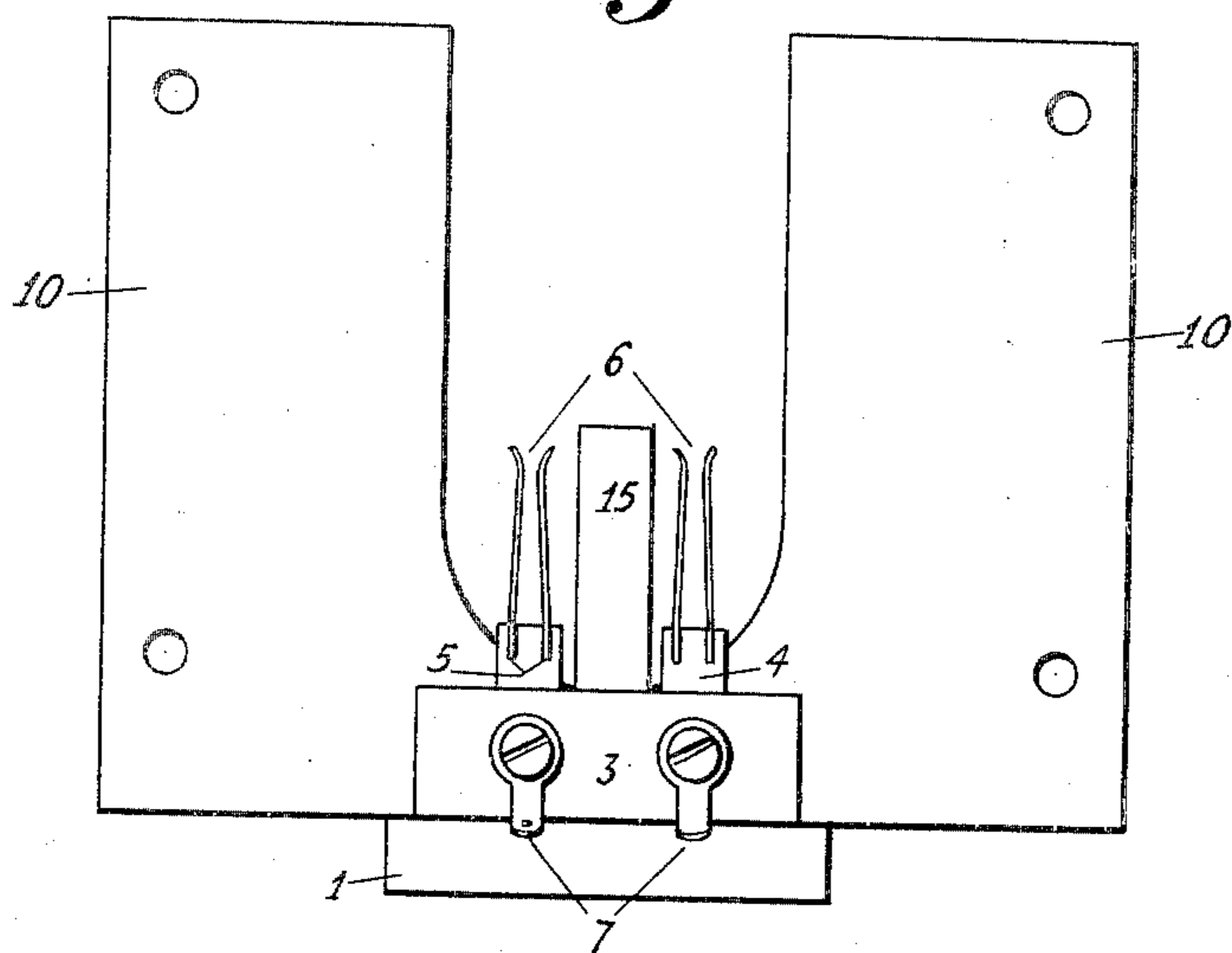


Fig. 5



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UNITED STATES PATENT OFFICE

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HOLDER FOR ELECTRICAL APPARATUS

Application filed August 1, 1928, Serial No. 296,804, and in Great Britain August 6, 1927.

This invention relates to holders for electrical apparatus having a plurality of prongs or contact pins so arranged that the apparatus must be inserted or withdrawn in a plane substantially at right angles to the axes of the prongs, and is particularly suitable for use with multi-electrode valves or tubes having prongs at both ends of the tube.

According to the present invention the sockets for receiving the contact pins comprise a pair of jaws formed of springy material.

In one form of construction the jaws of each pair are spaced apart at the ends remote from the mouth in substantially parallel planes by a distance slightly less than the diameter of the prong so as to clamp the prong securely.

With such a construction a simple means is provided for ensuring that the jaws of each pair are approximately parallel, so that good contact is made between the socket and the prongs, and these latter can also readily be inserted and withdrawn.

In one embodiment of the invention, the holder comprises a base of insulating material having at each end a block also of insulating material, in which are positioned metal brackets corresponding in number to the number of valve pins or prongs. Each metal bracket is formed with two parallel slits in which are secured jaws formed of springy material.

Preferably the ends of the jaws are splayed outwardly to facilitate the insertion of the pins.

When the holder is used in connection with a thermionic valve or tube, in which the contact pins or prongs at one end of the valve differ in number or in their positioning from the contact pins at the other end of the valve, as is the case, for example, in a four-electrode tube having five prongs, one or both of the blocks of insulating material may be provided with a projection or spacer adapted to prevent the valve from being inserted in the holder except in its proper position.

A further feature of the invention relates to a shield which can readily be attached to the holder. According to this feature of the

invention the shield comprises a plate, one end of which is slotted to allow electrical apparatus, such as a tube or valve, to be inserted in the holder or removed therefrom, while the other end is provided with a flange having slots through which pass screws for securing it to the base.

In the accompanying drawings, which illustrate the invention, Figure 1 is a plan; Figure 2 is a side elevation; Figure 3 is an end elevation; Figure 4 is a plan with a valve in position; and Figures 5, 6, and 7 are end views of modifications.

In said figures, 1 is a base of insulating material provided at its ends with blocks 2, 3 which are also of insulating material. Secured in the blocks 2, 3 are metal brackets 4, having parallel slits 5 in which are located jaws 6 of brass or other springy material. The brackets 4 are provided with terminals 7 to which the wires are connected. In Figure 4, a valve 8 is shown having contact pins or prongs 9 engaged by the jaws 6. It will be seen that these jaws are spaced apart at the ends remote from the mouth thereof, a distance which is slightly less than the diameter of the contact pins 9. This ensures a firm grip on the prongs 9.

A shield 10 is shown having at its lower end a flange 11 provided with slots 12 to enable the shield to be slid into the position shown in Figure 1 and clamped by screws 13 which engage the flange 11. A projection 14 on the base 1, is adapted to position the shield 10.

The shield 10, of metal or similar material, shields one part of the tube from any electromagnetic effects in the other part. For example, if the two contact pins 9 at the right hand portion of the tube 8 carry the filament current, the shield 10 will shield the lead-ins for the anode, the grid and (if a heater type cathode is employed) the cathode from the electro-static effects around the lead-ins for the filament current. The shield 10 has a similar function if apparatus other than a tube is used.

The blocks 2, 3 may obviously, if desired, be formed as separate units, adapted to be secured to any panel or base.

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In the modification shown in Figures 4 and 5, the block 3 is provided with a projection or spacer 15 which prevents the contact pins 9 of the valve 8 from engaging the jaws 6, if it be attempted to insert the valve in the holder in its wrong position, that is, with the three contact pins 9 in engagement with the two jaws 6 on the block 3.

Figures 6 and 7 show alternative forms of construction of the jaws 6.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

In a holder for electrical apparatus, the combination of a base, a block of insulating material at each end of said base, and a plurality of sockets on each block, one of the blocks being provided with a projection adapted to prevent the electrical apparatus from being incorrectly inserted in position and an electrostatic shield mounted on said base intermediate said two blocks.

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