

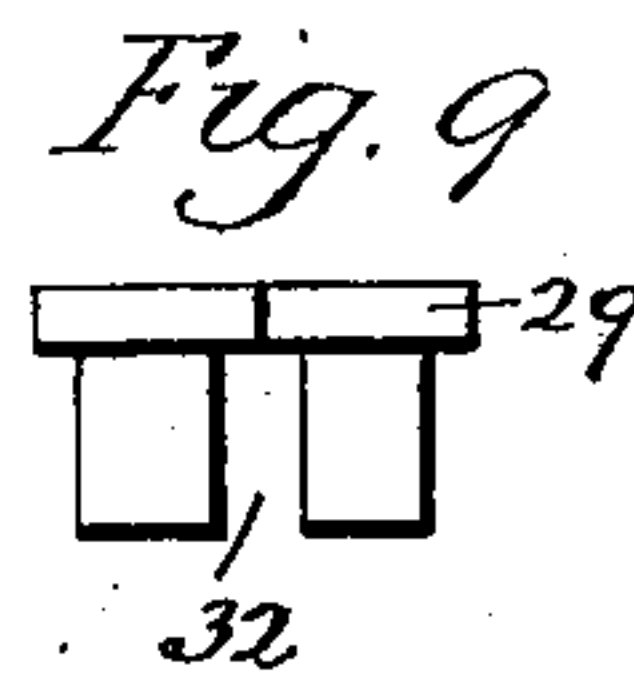
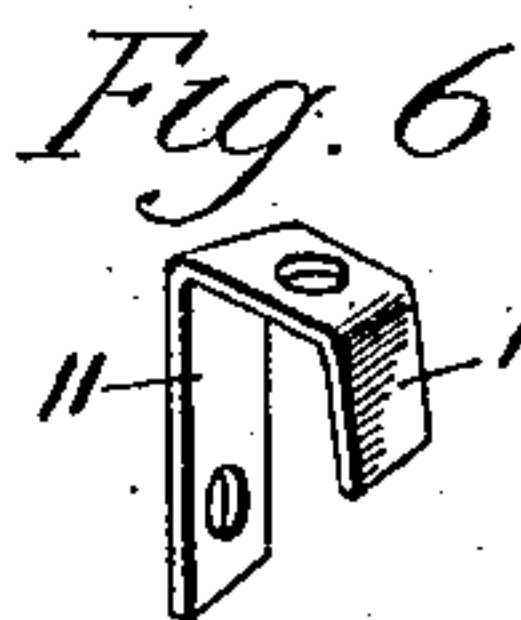
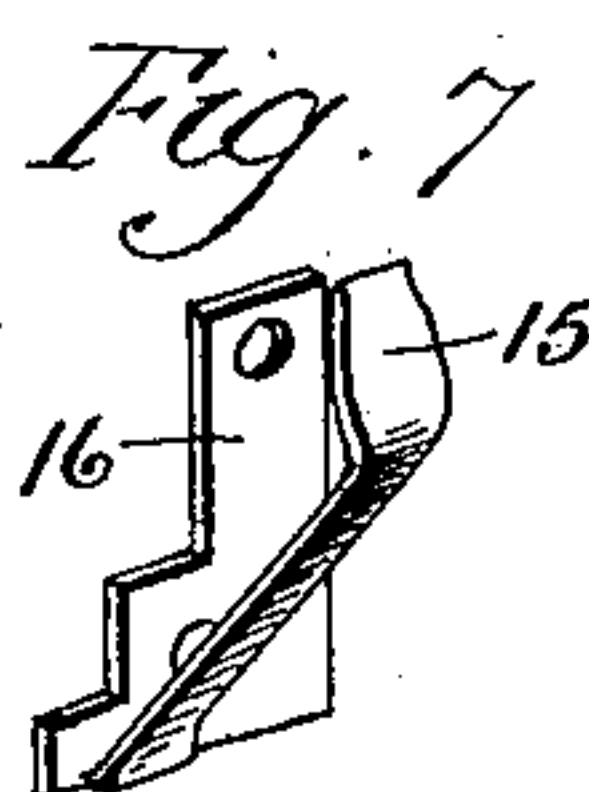
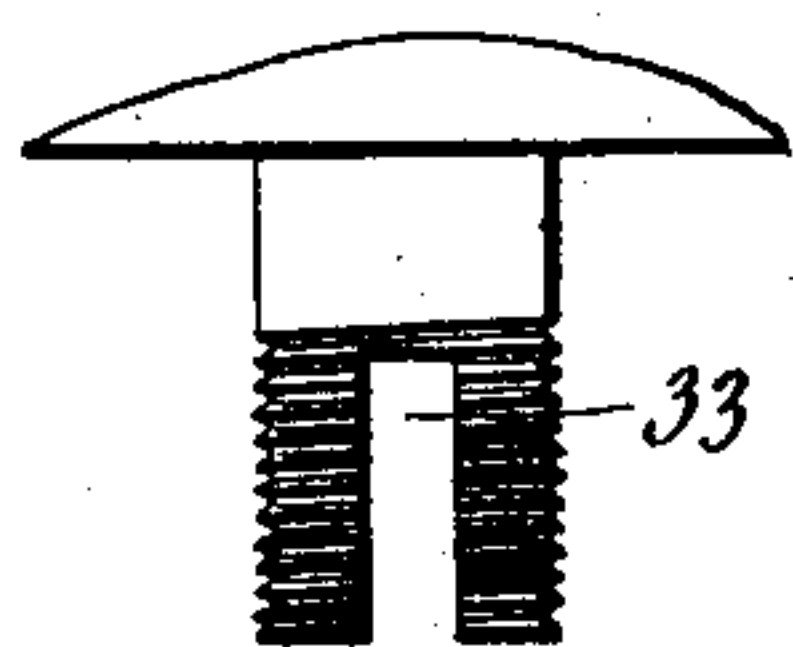
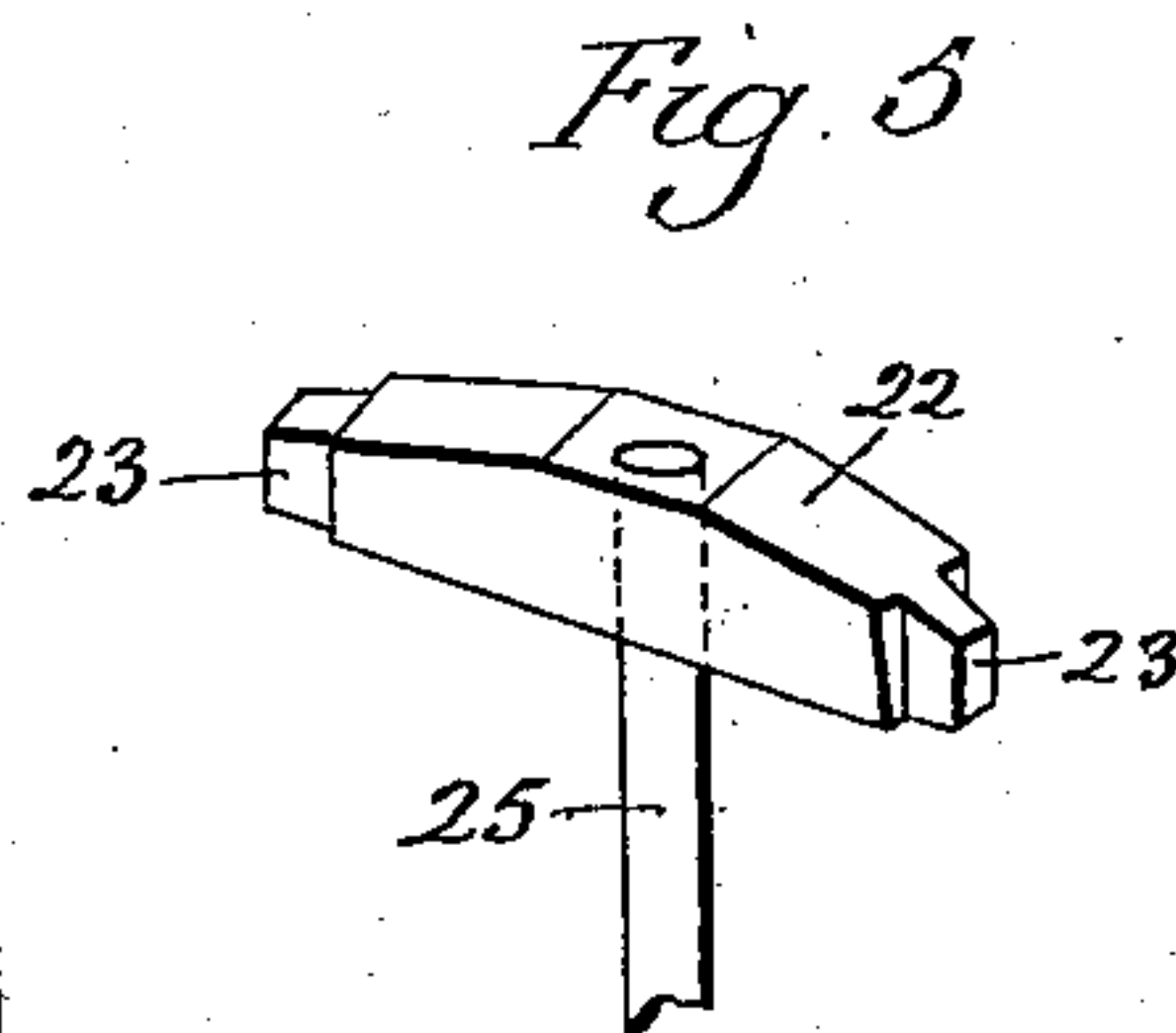
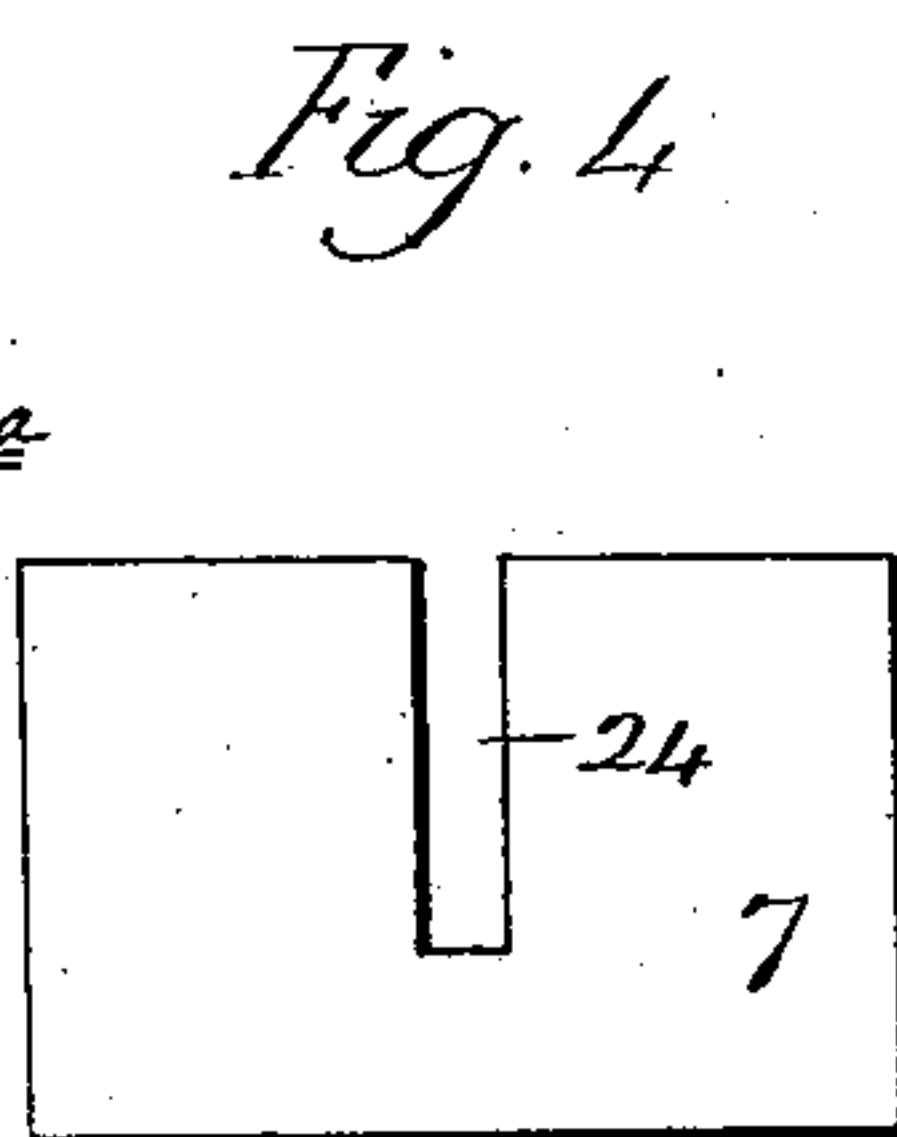
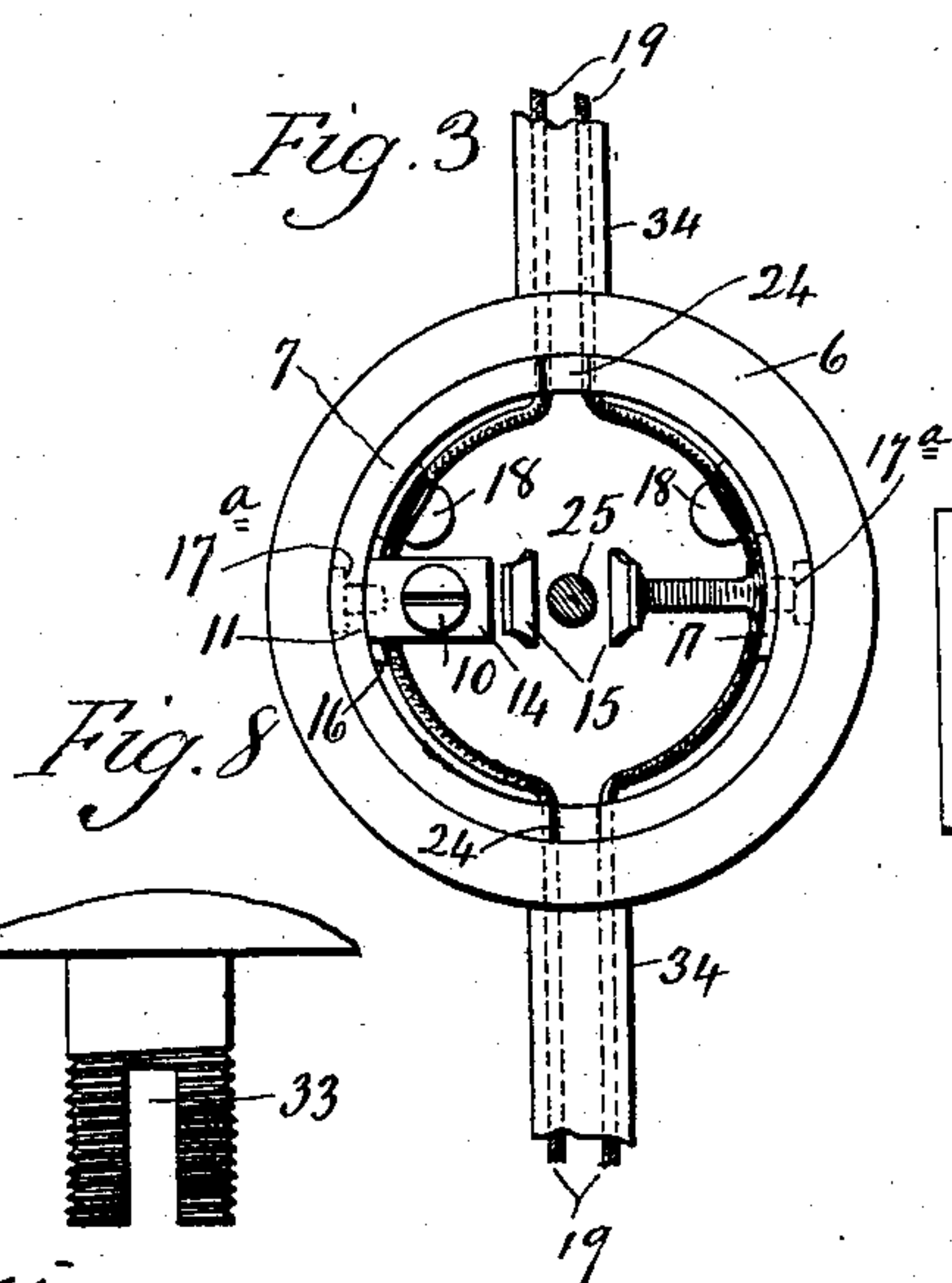
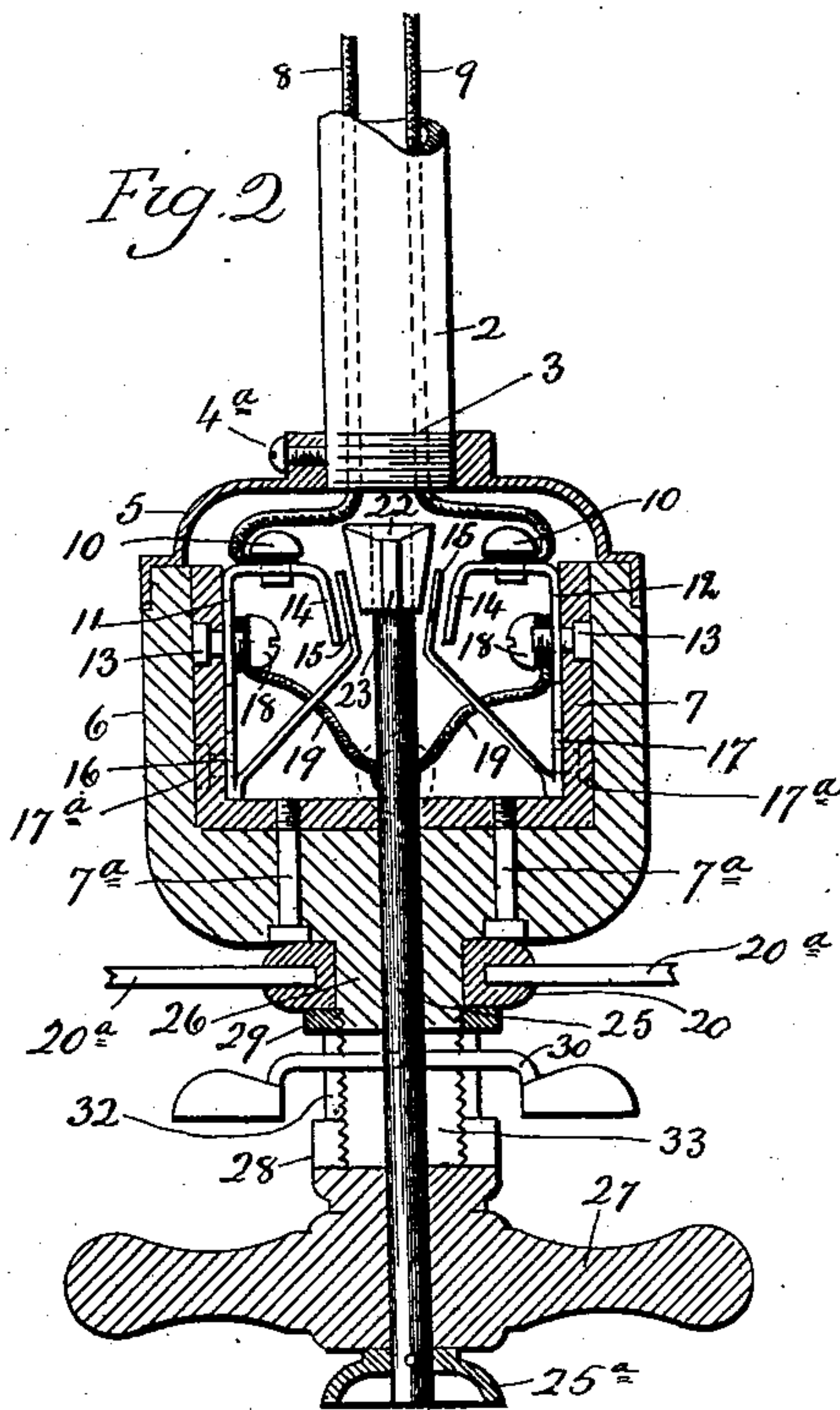
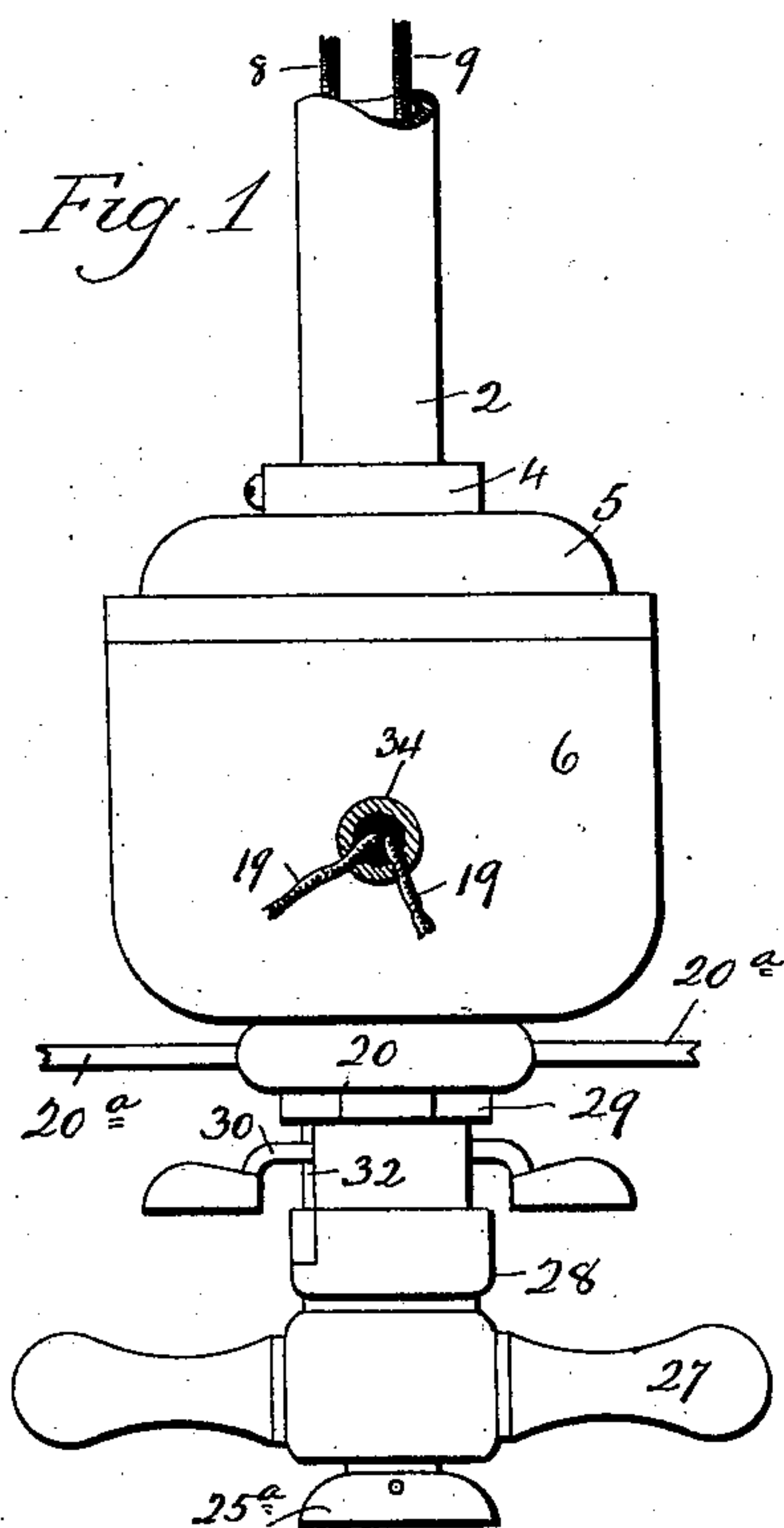
No. 756,049.

PATENTED MAR. 29, 1904.

C. M. PITEL.  
SWITCH FOR INCANDESCENT ELECTRIC LAMPS.

APPLICATION FILED NOV. 23, 1903.

NO MODEL.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

CONRAD M. PITEL, OF MERIDEN, CONNECTICUT.

## SWITCH FOR INCANDESCENT ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 756,049, dated March 29, 1904.

Application filed November 23, 1903. Serial No. 182,254. (No model.)

*To all whom it may concern:*

Be it known that I, CONRAD M. PITEL, of Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Switches for Incandescent Electric Lamps; and I do hereby declare the following, when taken in connection with the accompanying drawings and the figures of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation of a hanging incandescent electric lamp containing my improved switch; Fig. 2, a view thereof partly in vertical section and partly in elevation; Fig. 3, a plan view of the distributor-case with the cap thereof removed, as well as one of the upper contact-plates 12; Fig. 4, a detached view, in side elevation, of the insulating receiving-cup; Fig. 5, a perspective view of the switch-block and the upper end of the operating-rod therefor; Fig. 6, a detached perspective view of one of the upper contact-plates; Fig. 7, a detached perspective view of one of the lower contact-plates 16, showing its contact-spring; Fig. 8, a detached broken view of the stem of the distributor-case, showing how it is slotted; Fig. 9, a detached view of the binding-nut, showing how it is slotted.

My invention relates to an improvement in switches for incandescent electric lamps, the object being to provide a simple, reliable, and convenient switch particularly designed for use in hanging lamps, but also applicable for use in stationary lamps.

With these ends in view my invention consists in an electric switch having certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

As herein shown, I have applied my improved switch to a hanging lamp, which may or may not be an extension hanging lamp. This has a pipe or tube 2, which constitutes the main stem of the lamp-fixture and the upper end of which is adapted to be connected with the ceiling either directly or through the medium of an extension device. This tube is threaded at its lower end, as at 3, for

insertion into the internally-threaded collar 4 of the removable hollow cap 5 of a distributor-case 6, the tube being secured in the collar by a set-screw 4<sup>a</sup>. The said case 6 contains a receiving-cup 7, made of insulating material, such as porcelain or rubber, and held in place by screws 7<sup>a</sup>, passing upward into it through the bottom of the case. Feed-wires 8 and 9, leading down through the tube 2, are respectively connected by binding-screws 10 with the upper ends of a pair of upper contact-plates 11 and 12, which are secured to the inside wall of the cup by screws 13. These upper contact-plates 11 and 12 are formed with contact-arms 14, located close to but not normally in contact with the upper ends of contact-springs 15, rising from the bottom of the cup and made integral with a pair of lower contact-plates 16 and 17, secured to the inside of the cup, by screws 17<sup>a</sup>. Binding-screws 18 in the lower contact-plates 16 and 17, are provided for the attachment of the wires 19, connecting the two plates 16 and 17 and leading to and from the lamps proper or bulbs. The upper ends of the springs 15 are inclined outwardly for the reception between them of a wedge-shaped switch-block 22, formed of insulating material—such as porcelain, rubber, or wood—and provided at its ends with guide-lugs 23, which move up and down in vertical slots 24, formed opposite each other in the cup 7. The said block 22 is mounted upon the upper end of a vertically-movable operating-rod 25, extending downwardly through the distributor-case 6, through the stem 26, depending therefrom, and through the fixed handle 27, which is furnished with an internally-threaded collar 28, adapting it to be screwed upon the externally-threaded lower end of said stem 26. The said stem carries the shade-ring collar 20, which is held in place by a binding-nut 29, located directly below it on the stem, the said collar having arms 20<sup>a</sup> leading to the shade-ring, which is not shown. The said rod 25 is provided with a movable handle or finger-piece 30, which passes through it at a point above the fixed handle 27, which is grasped in operating it. To permit the finger-piece to be moved up and down, the binding-nut 29 is formed with vertical slots 32 and the stem



26 with a vertical slot 33, these slots being sufficiently long to permit the operating-rod to be drawn down sufficiently to draw the switch-block 22 downward between the inclined upper ends of the contact-springs 15, so as to force them outward into engagement with the arms 14 of the upper contact-plates 12, as well as to permit the block to be lifted sufficiently to clear the contact-springs 15 and permit them to break contact with the arms 14. For the purpose of lifting the switch-block, so as to cut off the electric current, I locate a push-button 25<sup>a</sup> at the lower end of the rod 25. By simply pushing upward on this button the switch-block is lifted above the contact-springs 15 of the plates 16 and 17.

The devices above described afford very simple and convenient means for cutting the lamps into and out of the circuit. It will be understood, of course, that the lamps are located at the ends of tubular arms 34, springing from the distributor-case. Under my improved construction all of the parts in the distributor are exposed for inspection when the cap thereof is removed.

It is apparent that in carrying out my invention certain changes in the construction herein shown and described may be made. I therefore do not wish to be understood as limiting myself to such construction, but hold myself at liberty to make such changes therein as fairly fall within the spirit and scope of my invention.

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

1. In a switch for incandescent electric lamps, the combination with a distributor-case, of a receiving-cup made of insulating material located therein, contact means located within the case, a switch-block located in the case in position to operate the said contact means so as to close the circuit through the lamps, an operating-rod carrying the switch-block at its upper end and extending downwardly through the case, and means for manually raising and lowering the said rod, whereby the switch-block is brought into and carried out of play.

2. In a switch for incandescent electric lamps, the combination with a distributor-case, of an insulating receiving-cup located therein, a pair of upper contact-plates having contact-arms, a pair of lower contact-plates having contact-springs arranged in proximity to the said contact-arms, a switch-block located between the said springs and arms and operable for forcing them into contact, a vertically-movable operating-rod having the switch-block mounted at its upper end and extending downwardly through the said case, and a finger-piece and a push-button carried by the said rod for drawing it downward and moving it upward.

3. In a switch for incandescent electric

lamps, the combination with a distributor-case, of an insulating receiving-cup located therein and formed in its side walls with vertical slots, contact means located in the said cup, a switch-block located in the said cup and provided at its ends with guide-ribs entering the said slots, a vertically-movable operating-rod carrying the switch-block at its upper end, and means for manually operating the said rod, whereby it is caused to coact with the said contact means to break and close the circuit through the same.

4. In a switch for incandescent electric lamps, the combination with a distributor-case, of an insulating receiving-cup located therein, contact means located in the said cup, a switch-block coacting with the said contact means, a vertically-movable operating-rod carrying the said switch-block and extending downwardly through the case, a fixed handle connected with the case and having the said operating-rod extended downward through it, a movable handle or finger-piece connected with the rod at a point above the fixed handle, and a push-button located at the lower end of the said rod and below the said fixed handle.

5. In a switch for incandescent electric lamps, the combination with a distributor-case provided with a depending externally-threaded vertically-slotted stem, of an insulating receiving-cup located in the said case, contact means located within the said cup, a switch-block coacting with the said contact means, an operating-rod carrying the said block and extending downwardly through the said case and the stem thereof, a fixed handle applied to the said stem and having the said operating-rod extended downward through it, a movable handle or finger-piece applied to the rod at a point above the said fixed handle and passing through the slot in the said stem, a shade-ring collar applied to the stem, and a binding-nut also applied to the stem and holding the shade-ring collar in place.

6. In a switch for hanging incandescent electric lamps, the combination with a tube through which the feed-wires pass, a distributor-case, a cap therefor having the lower end of the tube entered into it, an insulating receiving-cup located within the case, a pair of lower and a pair of upper contact-plates located within the said cup and secured thereto, a switch-block coacting with the said plates, a vertically-movable operating-rod carrying the said switch-block and extending downwardly through the case, a fixed handle for the case, and means for manually operating the said rod.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CONRAD M. PITEL.

Witnesses:

JOHN M. KINDER,  
LUIS KEME.