

L. BUENDERT.
ADJUSTABLE ELECTRIC LIGHT HANGER.
APPLICATION FILED AUG. 12, 1907.

934,992.

Patented Sept. 28, 1909.

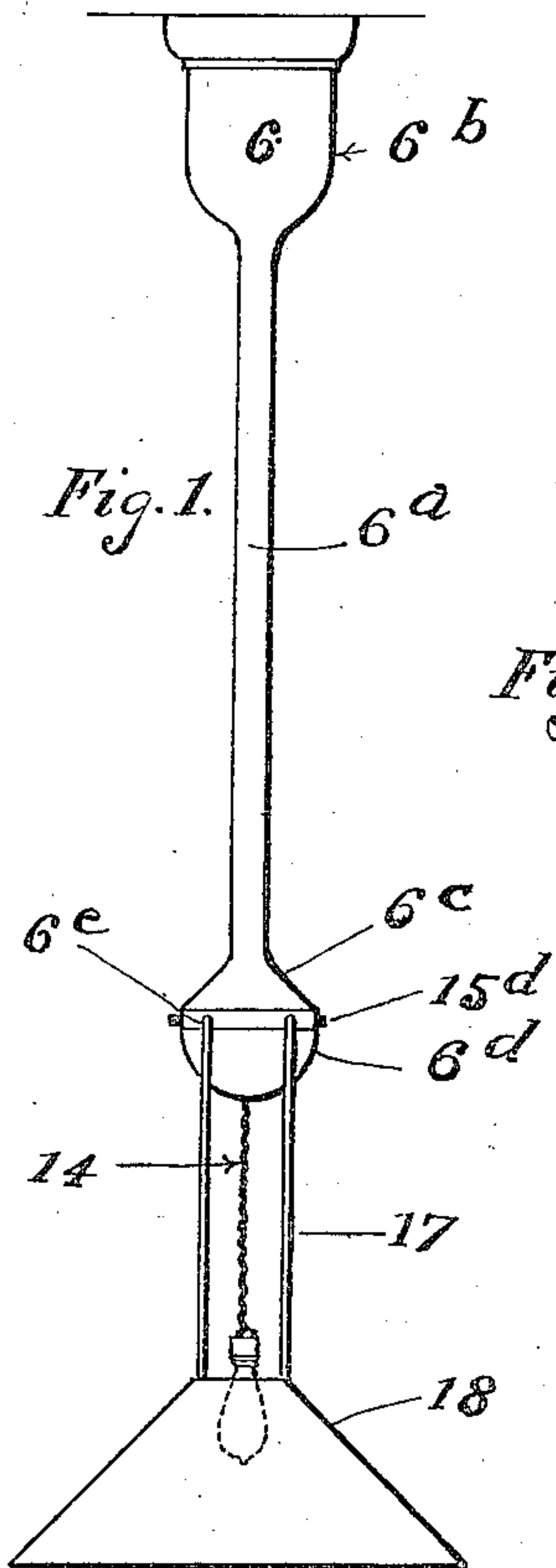


Fig. 2.

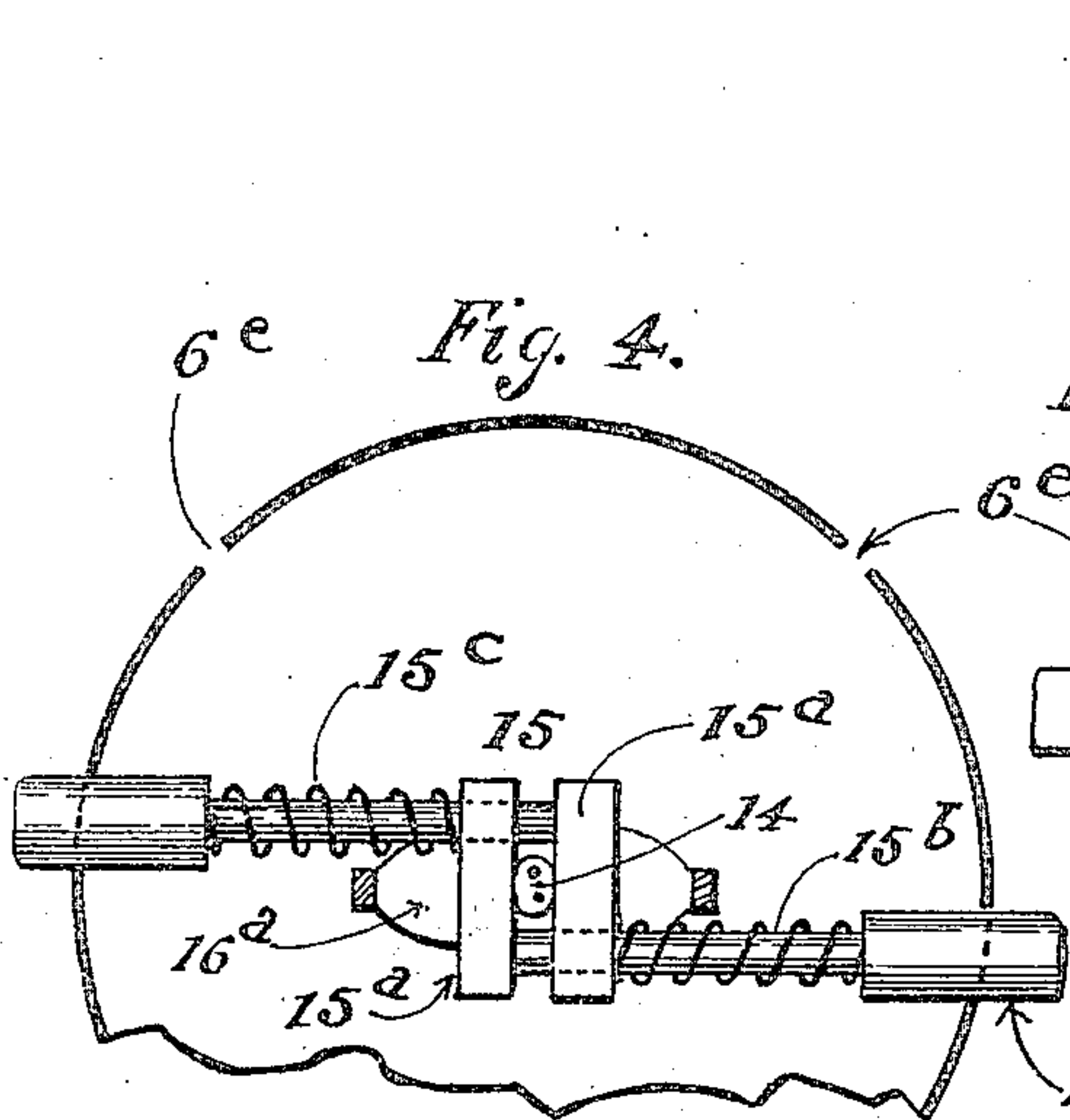
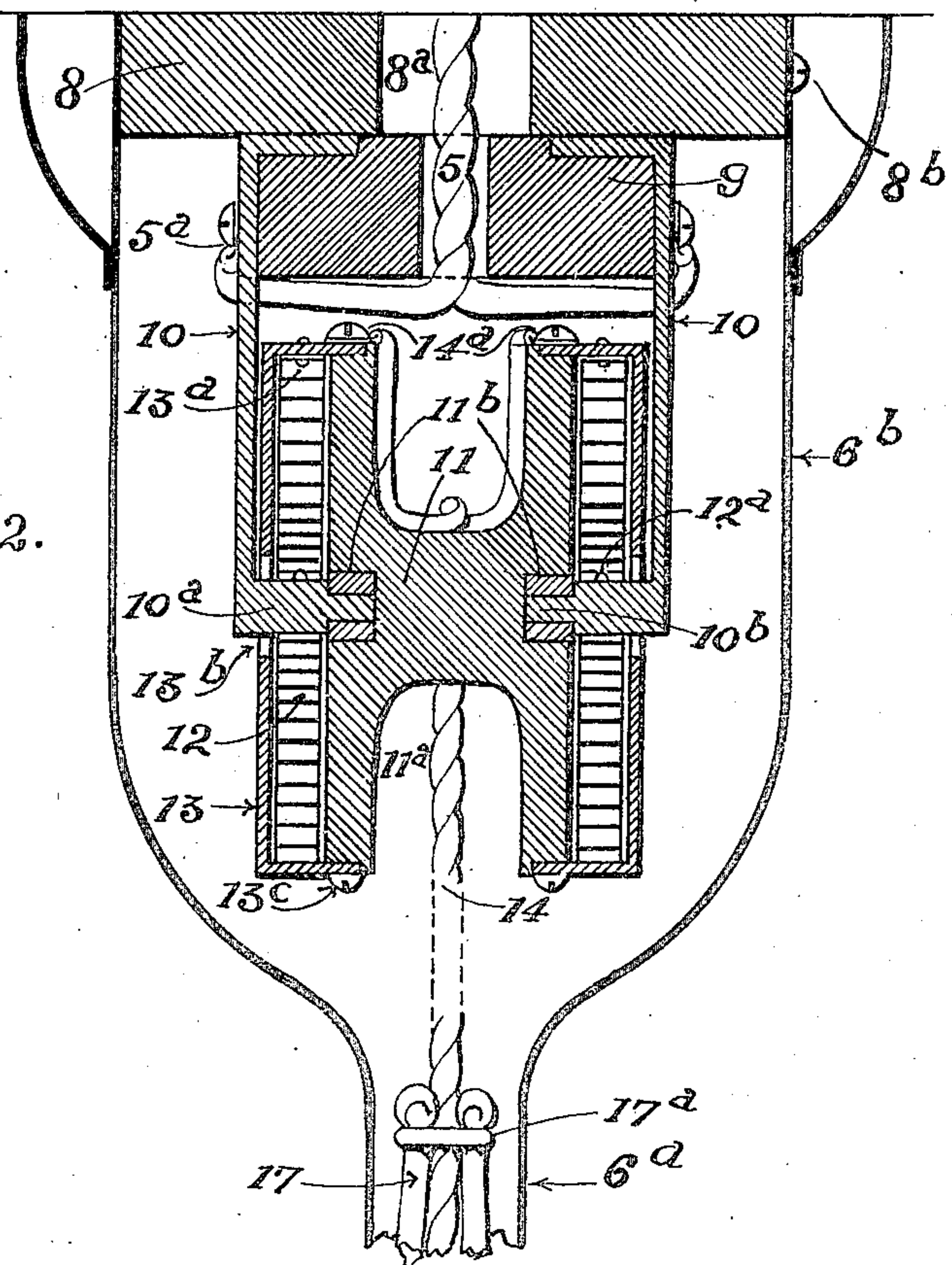


Fig. 4.

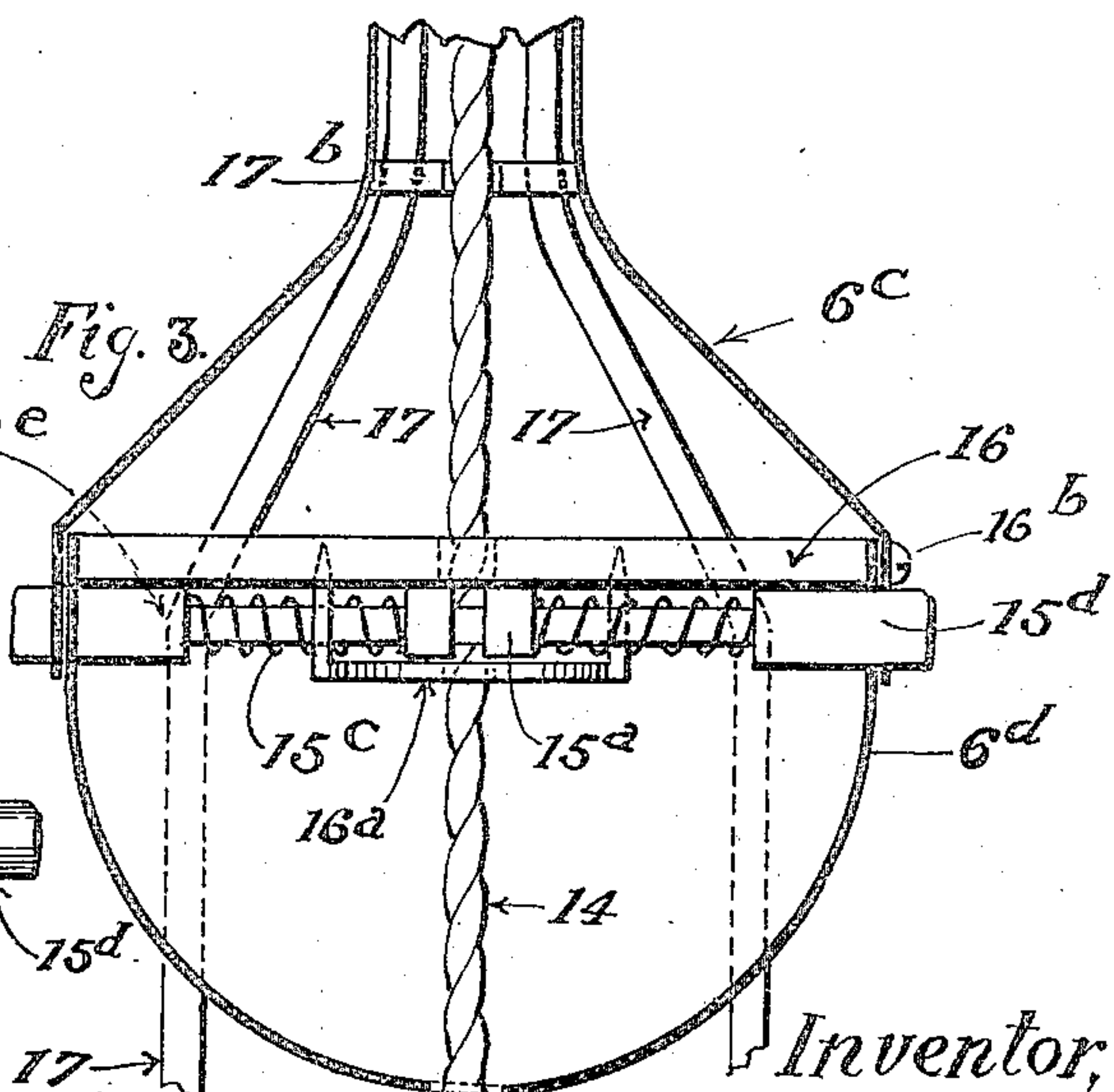


Fig. 3.

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ADJUSTABLE ELECTRIC-LIGHT HANGER.

934,992.

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To all whom it may concern:

Be it known that I, LOUIS BUENDERT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Adjustable Electric-Light Hangers, of which the following is a specification.

My improvement relates particularly to incandescent lamps having shades in connection with them, the objects being to provide a means whereby said lamps and their shades may be shifted to any desired vertical position, and to prevent the shades from responding to the turning movement of the twisted cables, by which means said lamps and their shades are usually suspended.

My improvement consists in the combination, with a cable suspending lamp and shades, of a spring actuated pulley or bobbin, to which said cable is at one end fastened, and around which a portion of said cable is wound. From this pulley the cable may be drawn; when the cable is released, the part of the cable drawn off, is in turn automatically wound around the pulley, without breaking the electrical connection. I contemplate further a means consisting of a clamp or like device for holding and releasing said cable at pleasure.

My improvement also consists in the adaptation thereto of a casing inclosing the mechanism and affording a means whereby the clamp may be brought to a convenient height, and whereby the cords, or like devices supporting the shades may be guided, so as to prevent the shades from turning, all as hereinafter described and shown in the accompanying drawing, of which—

Figure 1 is an elevation on a small scale, embodying my improvement. Fig. 2 is a vertical section through the spring actuated pulley. Fig. 3 shows one half of casing removed from part containing the clamp. Fig. 4 is a plan view of the clamp and horizontal section of part of casing.

The same letters and numerals of reference indicate corresponding parts in all figures.

Referring specifically to the drawings, 8 indicates a stationary piece, made of insulating material, having a hole 8^a through which the electrical conductor 5 is passed, the said block being fastened to wall or ceiling by means of screws or otherwise.

Fig. 9 indicates a block of insulating ma-

terial, said block having a hole through which the electrical conductor 5 may be extended. On two opposite sides of block 9, metal brackets 10, are fastened to suspend from said block. These brackets are provided with metal studs 10^a and pin axles 10^b, around these pin axles the pulley or bobbin 11 may rotate. This bobbin is made of insulating material preferably wood, is grooved as shown at 11^a, and may have metal bearings 11^b.

12 designates convolute springs, fastened on their ends to the studs as shown at 12^a, on their outer ends, said springs are fastened to the metal casings 13, as shown at 13^a. These casings are disk shaped, and have a hole 13^b in center to clear the studs; on their outer edges they are provided with a laterally extending flange. Within these casings the convolute springs are confined, the said casings being fastened to the pulley as shown at 13^c, and rotate with said pulley. It will be seen that the block 9 supports this mechanism; this block may now be fastened to the wall or ceiling piece 8, by means of screws or otherwise.

The electrical conductor 5 is composed of two cables, one containing the flow and the other containing the return wires, these cables are extended in opposite directions, each end being contacted with a metal bracket as shown at 5^a. The electrical conductor 14 also consists of two cords or strands containing the flow and return wires, these wires are contacted at one end with a metal casing on opposite sides of the pulley as shown at 14^a. The other end of the cable 14 supports an electric lamp or lamps.

A portion of cable 14 is wound around the pulley within its groove 11^a. This portion of the cable may be drawn off. When a portion of the cable is being drawn off, the convolute springs wind up, so that when the strain on the cable is released, the force of the convolute springs rotate the pulley in the opposite direction; this action rewinds the cable upon the pulley. It will be seen by this arrangement, that the electrical conditions are not disturbed when the pulley is rotating, the current passing from the flow wire of the conductor 5, down on one side of the pulley by means of metal bracket, stud, spring and casing, to the flow wire in the cable 14, from thence to the lamp or lamps, returning by means of return wire in cable 14 and metal parts on the opposite side of

pulley to the return wire of conductor 5, maintaining an even, uninterrupted flow of electricity regardless of the various positions the pulley may occupy when the cable 14 is being drawn from the pulley or wound up on it.

6 designates the outside casing. This casing may consist of a tube 6^a, terminating at the upper end in a bowl shaped part 6^b inclosing the spring actuated pulley, said casing being fastened to the wall or ceiling piece 8 as shown at 8^b. At the lower end the outside casing terminates in parts 6^c and 6^d inclosing the spring clamp 15. This clamp consists of two crossbars 15^a, each crossbar having near one end a stem 15^b extended at right angles; near the other end said crossbars have a hole through which the stem of each opposite crossbar may pass. Around the said stems, a spiral spring 15^c is placed, slightly compressed, and held in position by the buttons 15^d fastened to the ends of said stems, the said buttons projecting out from the casing.

It will be seen that when the buttons are pressed, the crossbars 15^a move in opposite directions away from the cable 14, which passes between them, thereby releasing the cable. When the pressure is removed, the force of the springs extending, will press the crossbars against the cable and hold it.

The clamp is held in position between a wooden bridge piece 16 and a metal bracket 16^a suspended from said bridge, said bracket and bridge having a hole through which the cable 14 may pass. The bridge 16 may be made of a narrow strip of wood and may be fastened to the part 6^d of casing, which said bridge spans, as shown at 16^b.

17 designates the shade supporters. These shade supporters consist of two or more, preferably four, cords, strands, chains or like devices, and are attached to cable 14 as shown at 17^a, said attachment being made at a point near the pulley, when the reserve wire is wound around it, so that the point of attachment may move between the pulley 11 and the clamp 15.

The shade supporters 17 are extended downward from their point of attachment on the inside of 6^a of casing, and each strand, cord, chain or like device is passed through an eyelet or hole fitted within the lower part of part 6^a of casing, as shown at 17^b, from thence is passed through an opening or aperture 6^e in part 6^c of casing, to the outside, from thence downward to the shade 18, or shades, and fastened thereto. The tube or part 6^a of casing may also terminate in branch tubes through which the shade supporters may be passed or be in like manner guided.

It will be noticed, by the arrangement, I have shown that the weight of the shade or shades is carried by the cable at a point be-

tween the clamp and the spring actuated pulley, and that therefore, the force of the springs fitted to the sides of said pulley must slightly preponderate over the weight of the shade or shades, and that the clamp must be of sufficient strength to support the lamp or lamps and to counter balance the preponderating force of the spring actuated pulley.

I am aware that spring actuated pulleys or bobbins have been used in connection with hangings for adjustable electric lamps to obtain an uninterrupted flow of electricity while the lamps are being adjusted, therefore, I do not claim that as my invention broadly.

What I do claim as my invention is:

1. In a fitting for adjustable electric lights, the combination of an insulating block having two metal brackets fastened thereto, said brackets being provided with metal studs and pin axles, an insulating pulley or bobbin mounted to rotate on the pin axles, metal casings fastened to the sides of the pulley and rotating therewith, convolute springs inclosed therein, said springs being fastened at one end to the said casings and on their other ends to the metal studs, electrical conductors contacted with the metal brackets, a cable containing two electrical conductors fastened to the insulating pulley and contacted with the metal casings fastened thereto, and in electrical connection with the electrical conductors connected with the metal brackets, a clamp 15 for holding or releasing the cable said clamp being fastened below the pulley and consisting of two cross bars having stems, each stem passing through the opposite cross bar, springs wound around the stems and push buttons fastened to their ends, the said push buttons affording a means whereby the clamp may be operated substantially as described.

2. A device of the kind described, comprising an insulating stationary piece, metal brackets depending therefrom, pin axles fastened to the said brackets, an insulating spring pulley mounted to rotate thereon, a globular casing having a detachable lower portion, the upper part of the lower portion and the lower part of the globular portion having flanges and registering apertures, a two part spring clamp secured within the lower portion, push buttons fastened to the clamp, said push buttons moving in the apertures within the flange of the lower portion and projecting therefrom and registering with the apertures within the flange of the globular portion, substantially as described.

3. In a hanger of the kind described, the combination with a spring operated pulley adapted to take up and pay off surplus lengths of a cable containing electrical conductors feeding a lamp or lamps, of a sectional casing inclosing the same, said casing

comprising an upper, middle and lower section, the middle and lower sections having telescoping flanges and registering apertures, a two part spring clamp comprising cross-
5 bars stems and push buttons, fitted within the lower section the said push buttons fitting into the apertures within the flange of the lower section and projecting therefrom

and slipping into the apertures within the flange of the middle section, substantially as 10 described.

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Witnesses:

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