

(No Model.)

T. C. SWINNERTON.  
CEILING BLOCK.

No. 592,482.

Patented Oct. 26, 1897.

Fig. 1.

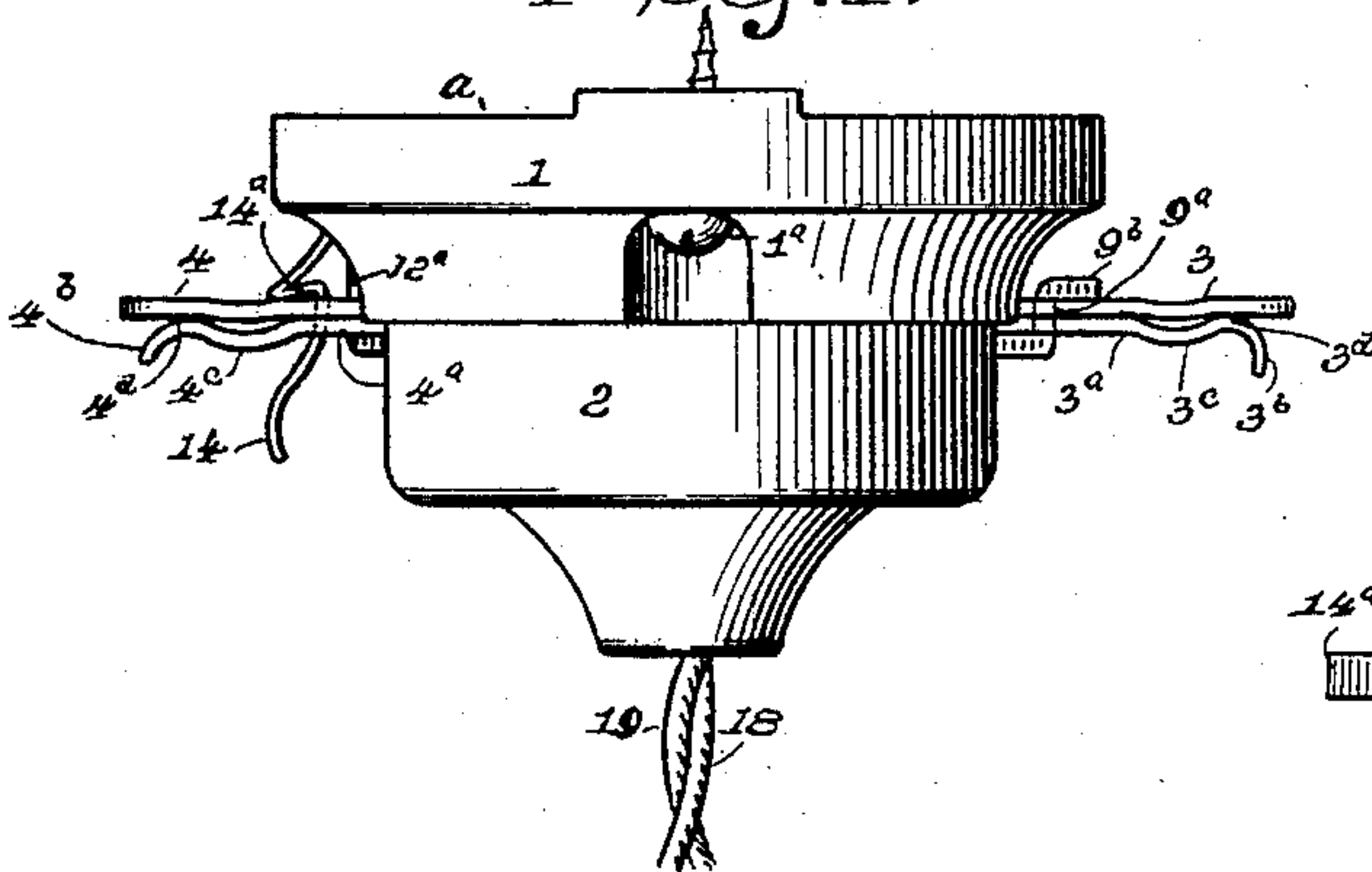


Fig. 2.

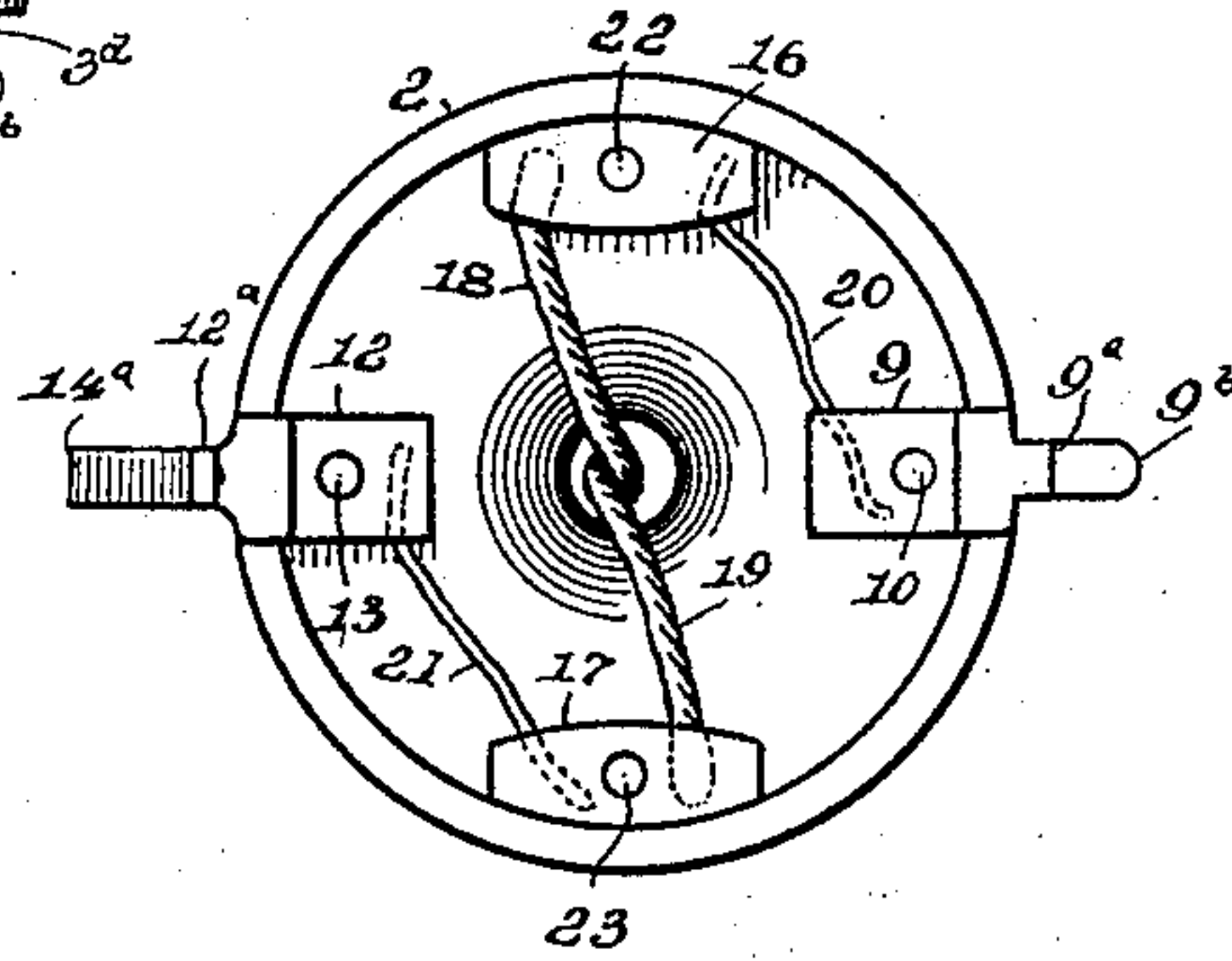


Fig. 3.

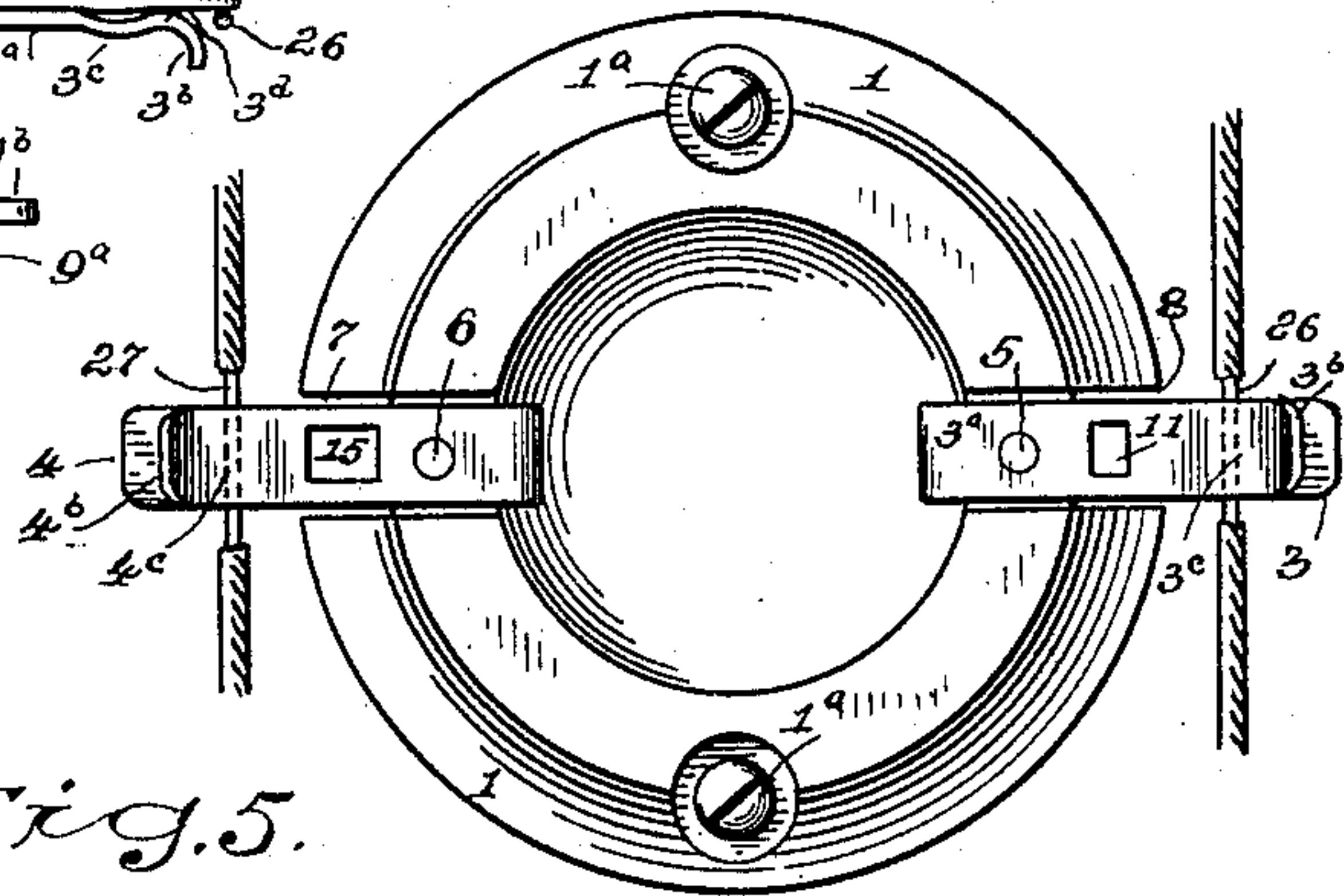


Fig. 5.

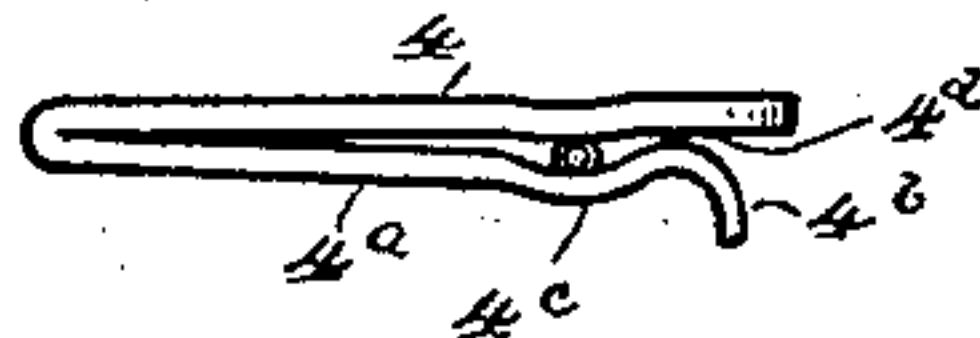


Fig. 6.

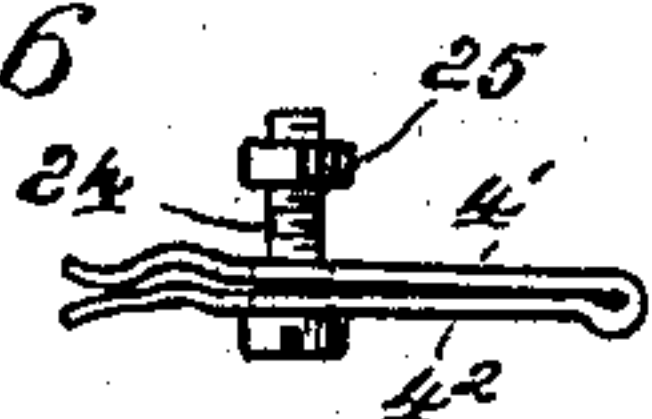


Fig. 7.

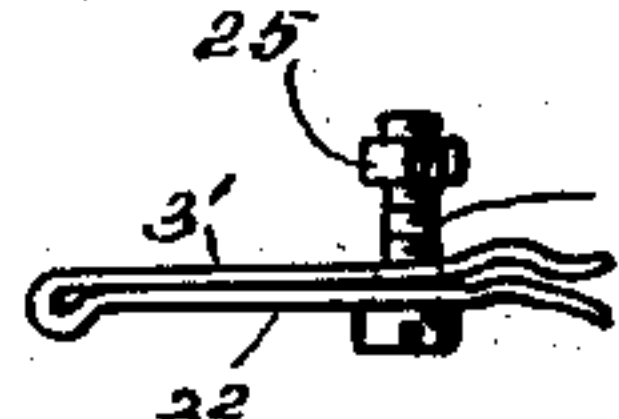


Fig. 8.



Fig. 9.

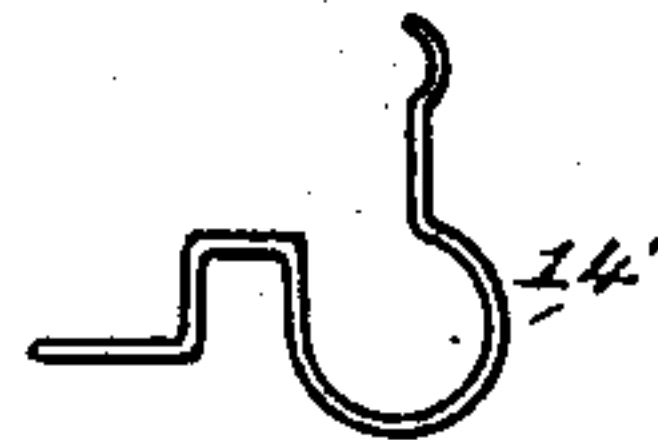


Fig. 10.

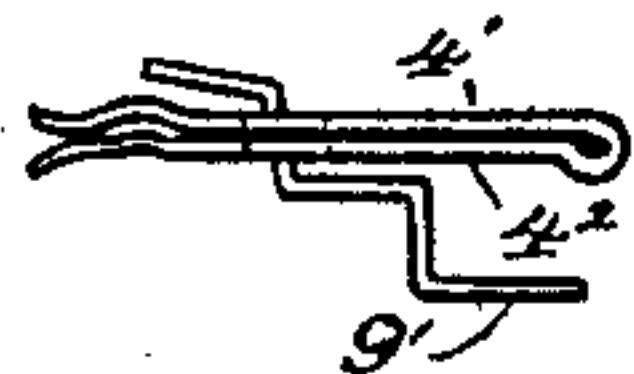
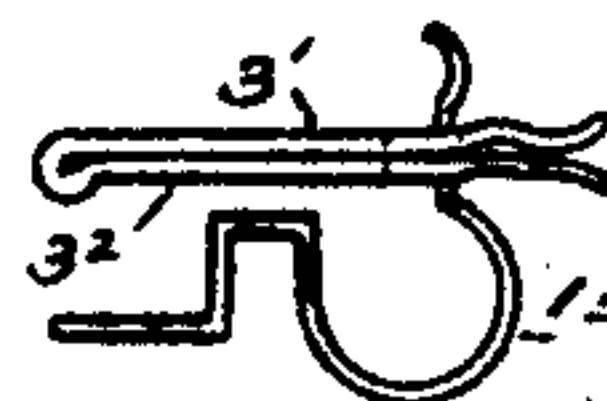


Fig. 11.



WITNESSES

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# UNITED STATES PATENT OFFICE.

THOMAS C. SWINNERTON, OF BRIDGEPORT, CONNECTICUT.

## CEILING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 592,482, dated October 26, 1897.

Application filed November 2, 1896. Serial No. 610,807. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS C. SWINNERTON, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Ceiling-Blocks, of which the following is a specification.

My invention relates to ceiling-blocks, embracing in its scope all manner of supports or insulators adapted to support electrical wires; and it consists in certain details of construction relating to the manner of wiring up, which will be more fully set forth in the following specification and such features as I believe to be new and novel particularly pointed out in the claims to follow.

To enable others to understand my invention, reference is had to the accompanying drawings, in which—

Figure 1 represents a common form of rosette in a position it will occupy when attached to the ceiling and broken view of the lamp-wires, also my improved spring-contact clamps and clamping device for the upper and lower parts of the rosette. Fig. 2 is an interior view of the lower or detachable half of the rosette-box. Fig. 3 is an interior view of the upper or stationary or fixed half of the rosette-box. Fig. 4 is a side elevation of the upper or fixed half of the rosette, showing the line-wires temporarily placed under the projecting overhanging portion of the contact-points in readiness to be inserted therein. Fig. 5 is a detail side elevation of one of the spring-contact clamps adapted to be secured to the fixed part of the rosette. Figs. 6 and 7 are detail side elevations of a modified form of the spring-contact clamps adapted to be secured to the fixed or upper half of the rosette. Figs. 8 and 9 are detail side elevations of a modified form of catches adapted to be attached to the lower or detachable part of the rosette. Figs. 10 and 11 represent the engagement of the modified devices shown at Figs. 6, 7, 8, and 9.

Its construction and operation are as follows:

1 represents the upper or fixed half of the rosette adapted to be secured to the ceiling by screws 1<sup>a</sup>, or, in fact, to any stationary

support, and 2 is the detachable part of the rosette.

3 and 4 are the spring-contact clamps secured to the half 1 by the screws 5 and 6, the heads of which screws are let into countersunk holes (not shown) in the upper surface *a* of the part 1. Recesses 7 and 8, Fig. 3, are formed in the lower face to receive the body of such spring-contact clamps and deep enough to place such clamps about flush with such lower face. These spring-contact clamps are each constructed of a single strip of metal doubled or folded together, as shown at Fig. 5. As each of these spring-contact clamps—viz., 3 and 4—are constructed alike, with the exception of such features hereinafter to be explained, a brief description of Fig. 5 will suffice to explain their construction. The part 4<sup>a</sup> being folded upon the part 4 will produce a spring-like clamp sufficient to firmly hold the line-wires. The outer open ends of these clamps are so provided that the wires can easily be inserted. This is done by forming the lip 4<sup>b</sup> on the end of the lower portion, leaving the extreme end of the part 4 substantially straight and projecting beyond the said lip, for the purpose to be hereinafter more fully explained. To assist in securing the wires when inserted, a slight swell 4<sup>c</sup> is provided back of the lip 4<sup>b</sup>, so that when the wire is inserted, as shown, the higher point 4<sup>d</sup> will prevent an accidental displacement of the wire. It will be understood the reference-figures—viz., 3<sup>a</sup>, 3<sup>b</sup>, 3<sup>c</sup>, and 3<sup>d</sup>—represent corresponding parts on the other contact-point 3.

The lower or detachable part of the rosette-box 2 is provided with the clamping-plate 9, which plate is secured to the interior of the cap 2 (see also Fig. 2) by the screw 10, the head and threadless body of which screw is located in said cap. This plate 9 acts also partially in the capacity of a hinge and is temporarily secured to the spring-contact clamp 3 by inserting the projecting right-angle bend 9<sup>a</sup> and overhanging lip 9<sup>b</sup> through the hole 11 of the contact-plates 3 3<sup>a</sup>, (see also Fig. 3,) which hole extends through both the upper and lower plates 3 and 3<sup>a</sup>, while the lip 9<sup>b</sup> engages with the upper surface of the plate 3.



12 is a clamping-plate similar to plate 9 and is secured in like manner to the cap 2 by the screw 13. This plate has the right-angle projection 12<sup>a</sup> extending outside of such cap, the free end of which carries the spring-catch 14. This catch, together with the projection or seat 14<sup>a</sup>, is, after the hinge portion has been inserted in the square hole 11 in the two plates 3 3<sup>a</sup> before mentioned, inserted in the large square hole 15, formed through the plates 4 4<sup>a</sup>. The lip 9<sup>b</sup> of the clamping-plate 9 will grip against the outer surface of the upper plate 3 and act as a leverage, while the seat 14<sup>a</sup> will engage with the upper surface of the plate 4, thus making a tight connection with the upper half 1 of the rosette-box, (see Fig. 1,) and from which it can readily be detached by simply compressing the spring-catch 14.

16 and 17, Fig. 2, represent independent contact-clamping plates for the lamp-wires 18 and 19 and the fuse-wires 20 and 21. 22 and 23 are the screws for regulating the tension on the plates 16 and 17, whose heads are located in the body portion of the cap 2.

In the modified form of the wire spring-contact clamps shown at Figs. 6 and 7 they are similar in construction to the plates 3 and 4, differing only as to the manner of attachment to the fixed half of the rosette-box. 24 are the clamping-screws whose heads compress the two sections 3', 3<sup>2</sup>, 4', and 4<sup>2</sup> together. The nuts 25 are anchored in the body of the stationary part of the rosette 1. 9' is the hinge, and 14' is the spring-catch, as shown at Figs. 8 and 9. In Figs. 10 and 11 the two parts are shown locked together.

Heretofore the two parts of rosettes, cut-out boxes, and all manner of ceiling-blocks have been connected together by screws, making it more difficult to connect and disconnect such parts. They have also been more expensive and difficult to assemble, owing to the multiplicity of the parts and the trouble of adjusting the screws. This is apparent in the manner of wiring up where it is the practice to turn the ends of the fuse and lamp wires around the body of their holding-screws and depend upon the heads of such screws to firmly hold said wires in place. When, therefore, the heads of the screws are brought in contact with said wires, the rotary movement of such heads will tend to displace the ends of the wires and break the electrical contact.

In my improved construction the ends of the lamp and fuse wires are simply placed under the clamping-plates 16 and 17, while the opposite ends of the fuse-wires are placed under the plates 9 and 12, so that simply tightening the two screws of the plates will not only hold the wires more firmly than a screw-head could do, but such wires cannot be displaced when clamped. Wiring up the main line is also a very simple and easy matter, as all that is necessary is simply to catch the main-line wires 26 and 27 under the projecting ends of the upper contact-plates 3 and 4,

as seen at Fig. 4, in readiness for such wires to be forced to their seats within the meeting faces of the contact-plates, as shown at Fig. 3, which can be easily done with one hand. The readiness and facility of wiring up, connecting and disconnecting the two parts of the rosette or block, as well as the cheapness of construction, render the invention a valuable acquisition in devices of the character and for the purpose described.

It can readily be seen that the contact-points as constructed should be employed on other electrical devices where contact-points or binding-posts are employed. So, too, could the clamping-plates for securing the ends of the wires for electrical contact. Therefore I do not wish to be confined in their use to the device shown. Neither are the exact form and configuration of the meeting faces of the contact-points whereby the wires are held in place of importance. It may also be readily seen that these contact-plates can be made separate or in two pieces instead of a single strip of metal and folded together, as shown. It would, however, be more trouble to assemble two plates than the single plate folded upon itself; but there are many places where a single spring-contact clamp would be available, and therefore I hold it to be an important feature of my invention to employ a spring-contact clamp, whether single or double, whereby electrical contact is maintained by means of the elastic properties of such clamp instead of a screw or screw and rigid plate.

In wiring up blocks for large line-wires it would be advisable to form a depression in the clamping-plates 16 and 17 to partially encircle the wires, so that such plates will not require as much adjustment in inserting such wires.

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

1. The combination, in an electrical device, of the character described, of a two-part box supporting the line-wires and lamp-wires, consisting of a fixed block, spring-contact clamps secured thereto and projecting without the same to receive the line-wires, a cap carrying the lamp-wires, said cap detachably secured to said fixed block by means of a lug or projection detachably secured to one of the said spring-contact clamps, and a spring-catch secured to the other of said contact-points, substantially as set forth.

2. The combination, in an electrical device, of the character described, consisting of a fixed block and a removable cap therefor, spring-contact clamps secured to the fixed block and projecting from the sides thereof to receive the line-wires between the meeting faces of such spring-contact clamps, said cap carrying a lug or projection to operate as a hinge to engage with one of the spring-contact clamps and be detachably secured thereto, a spring-catch adapted to engage the other spring-con-



tact clamp so that when the cap is attached to said block electrical connection is made with the lamp-wires, for the purpose set forth.

3. In an electrical device, of the character  
5 described, comprising a fixed block, self-acting  
spring-contact plates adapted to hold the line-  
wires, a detachable cap carrying the lamp-  
wires, and a hinge member detachably secured  
to one of the said spring-contact plates and a  
10 self-acting spring-catch adapted to engage  
with the other of said spring-contact plates,  
for the purpose set forth.

4. The combination, in an electrical device,  
of the character described, of a fixed block  
15 and a removable cap carrying the lamp-wires,  
spring-contact clamps projecting without the  
said block to receive the line-wires, each of said

clamps secured thereto by a single screw, the  
said removable cap-carrying hinge and spring-  
catch members to engage with the said spring- 20  
contact clamps, each member secured to the  
cap by a single screw, clamping-plates inter-  
mediate of such members and also secured  
to the cap by a single screw, the ends of the  
fuse and lamp wires adapted to be held be- 25  
neath said clamps and hinge and catch mem-  
bers, for the purpose set forth.

Signed at Bridgeport, in the county of  
Fairfield and State of Connecticut, this 21st  
day of October, A. D. 1896.

THOMAS C. SWINNERTON.

Witnesses:

LEWIS F. PELTON,  
HENRY SCHADT.