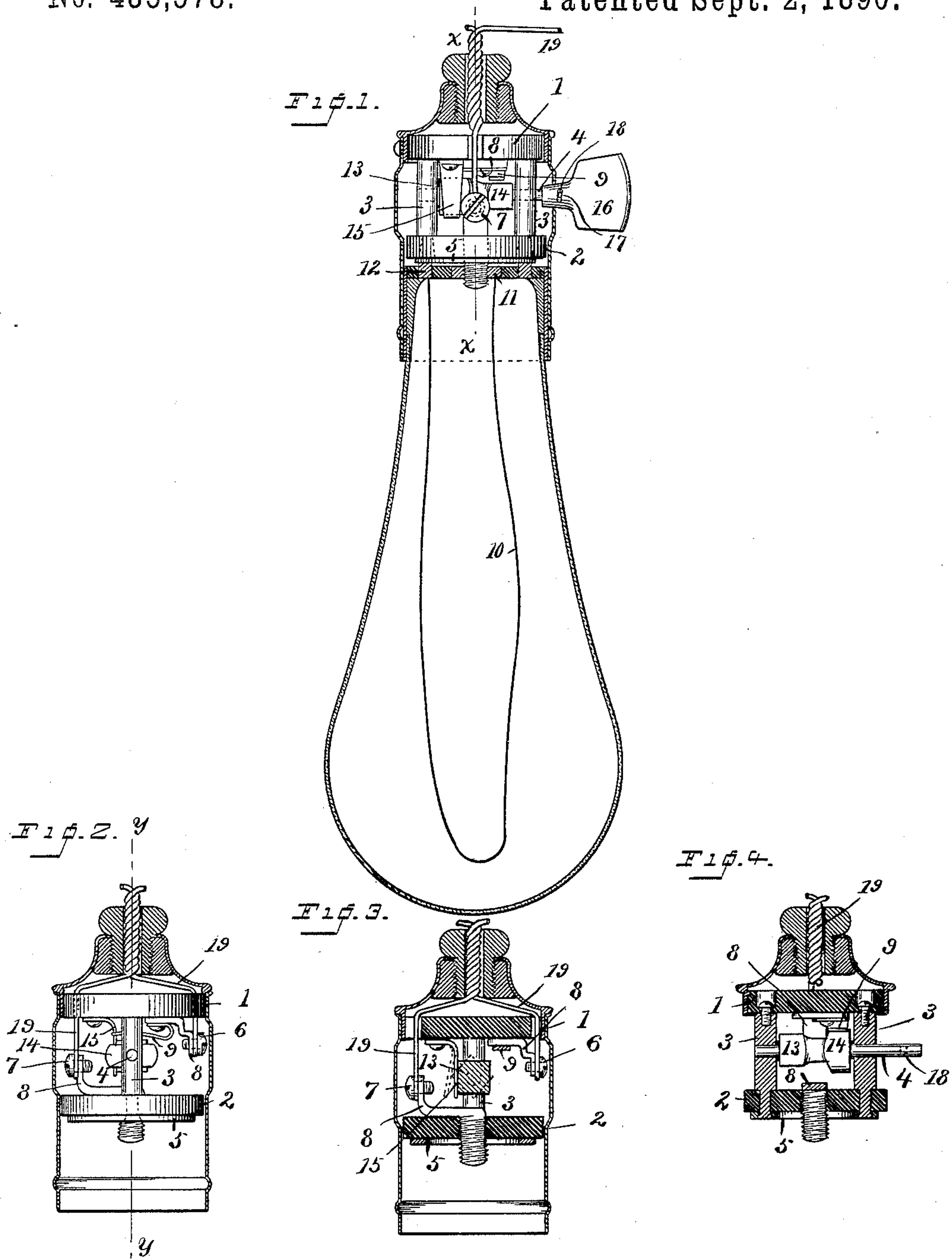


(No Model.)

W. C. BRYANT.  
SWITCH FOR INCANDESCENT LAMP SOCKETS.

No. 435,578.

Patented Sept. 2, 1890.



WITNESSES

C. M. Newman,  
G. E. Munson.

INVENTOR

Waldo C. Bryant  
By J. M. Wooster  
Atty.



# UNITED STATES PATENT OFFICE.

WALDO C. BRYANT, OF BRIDGEPORT, CONNECTICUT.

## SWITCH FOR INCANDESCENT-LAMP SOCKETS.

SPECIFICATION forming part of Letters Patent No. 435,578, dated September 2, 1890.

Application filed July 14, 1890. Serial No. 358,664. (No model.)

*To all whom it may concern:*

Be it known that I, WALDO C. BRYANT, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Switches for Incandescent-Lamp Sockets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to switches for incandescent-lamp sockets, and has for its object to produce a switch operating upon the single-pole principle with a snap, which will operate equally well when the thumb-key is turned in either direction, and in which the number of parts and cost of construction shall be reduced to the minimum and the durability and general operation in use shall be greatly improved.

With these ends in view I have devised the simple and novel construction, of which the following description, in connection with the accompanying drawings, is a specification, numerals being used to denote the several parts.

Figure 1 is a longitudinal section of an incandescent lamp, showing the switch in elevation in the open position; Fig. 2, a section of the socket, the lamp being removed, showing the switch in elevation in the open position, the point of view being from the right, as seen in Fig. 1, the finger-piece being removed; Fig. 3, a section on the line  $x x$  in Fig. 1; and Fig. 4 is a section on the line  $y y$  in Fig. 2, the shaft having been given a quarter-turn to close the switch.

My novel switch is ordinarily constructed as follows:

1 and 2 denote upper and lower plates made of suitable insulating material, ordinarily vulcanized fiber. These plates are connected by standards 3, in which a shaft 4 is journaled. Upon the under side of the lower plate and connecting with the standards is a plate 5, which is ordinarily a ring.

6 and 7 denote, respectively, the upper and lower binding-screws carried by brackets 8, which are secured, respectively, to plates 1 and 2.

9 denotes a contact-spring, which is secured to one of the brackets—the upper—as shown in the drawings.

I wish it distinctly understood that the special construction and arrangement of the parts of the socket are not of the essence of my invention.

In order to make the principle of my invention perfectly clear, I have illustrated it in connection with a well-known form of lamp-socket.

10 denotes the carbon filament, the ends of which in this form of lamp are connected, respectively, to plate 5 and the lower binding-screw. In the present instance I have shown one end of the filament as connected to a plate 11, which is itself connected to the threaded shank of the lower bracket, and the other end as connected to a ring 12, which in use is held closely in contact with plate 5.

13 denotes a four-sided block, and 14 a contact-bar, both of which are rigidly secured to the shaft, said block and contact-bar being ordinarily made in a single piece, as shown in the drawings.

15 denotes an independent spring, which is adapted to bear against the sides of block 13.

16 denotes a thumb-key, which is secured to the shaft in such a manner as to permit an eighth-turn, more or less, of either thumb-key or shaft independently of the other. In the drawings I have shown the thumb-key as held in place by a pin 17, which passes through an elongated opening 18 in the shaft. The shaft turns freely in either direction. It will be apparent (see dotted lines, Fig. 3) that when the shaft is turned in either direction the movement will be against the power of spring 15, which will yield, as shown, until the angle between two sides of the block has passed the central position, when the spring will act to complete the quarter-turn of the block, shaft, and contact-bar with a snap. The circuit is opened or closed as may be by the quarter-turn of the shaft. In Figs. 1 and 2 the circuit is open, and in Fig. 4 the circuit is closed.

The wires are denoted by 19. Suppose the wire connected with the upper binding-screw to be the incoming or positive wire. When the parts are in the position shown in Fig. 4, the current passes from the contact-spring

and the contact-bar through the shaft and standards to plate 5; from thence through the carbon filament and back through the lower bracket and binding-screw, to which  
5 the negative wire is connected. To open the circuit the shaft is given a quarter-turn in either direction, which changes the contact-bar from the position shown in Fig. 4 to that shown in Figs. 1 and 2, in which there is sufficient space between the contact-bar and the  
10 contact-spring to break the circuit.

Having thus described my invention, I claim—

1. A switch for incandescent-lamp sockets,  
15 consisting, essentially, of binding-screws, a contact-spring connected to one of the binding-screws, a shaft having a contact-bar and a four-sided block, with which the other binding-screw is connected, and an independent  
20 spring bearing against the block and acting

to hold the contact-bar in either the open or closed position.

2. In a switch, upper and lower insulating-plates, standards to which said plates are secured, brackets secured to said plates respectively and carrying binding-screws, and a  
25 plate 5, connected to the standards under the lower insulating-plate, in combination with a contact-spring connected to one binding-post, a shaft mounted in the standards and having  
30 a contact-bar and a four-sided plate, and an independent spring secured to one of the insulating-plates and engaging the block, substantially as described.

In testimony whereof I affix my signature 35 in presence of two witnesses.

WALDO C. BRYANT.

Witnesses:

A. M. WOOSTER,  
G. E. MUNSON.