(No Model.)

E. L. SMITH & G. C. H. FOSTER.

SOCKET FOR INCANDESCENT LAMPS.

No. 477,786. Patented June 28, 1892.

Fig. 1.

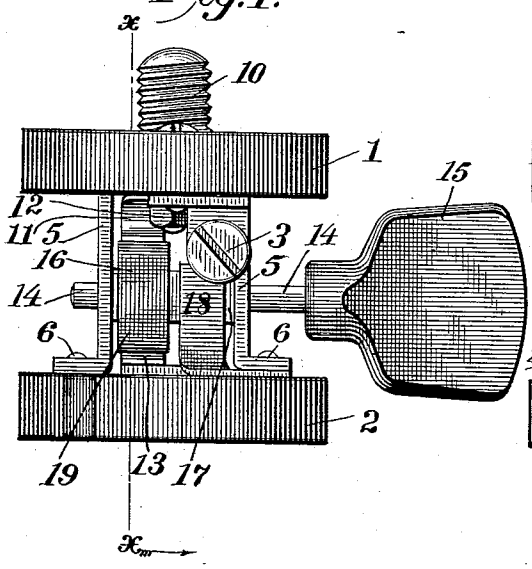


Fig. 2.

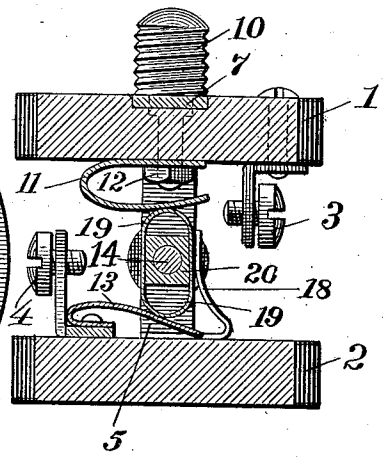


Fig. 3.

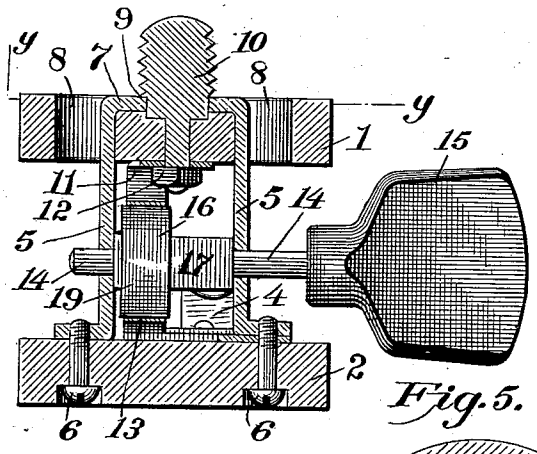


Fig. 4.

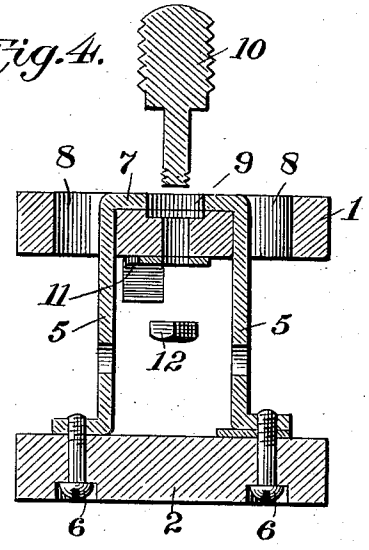
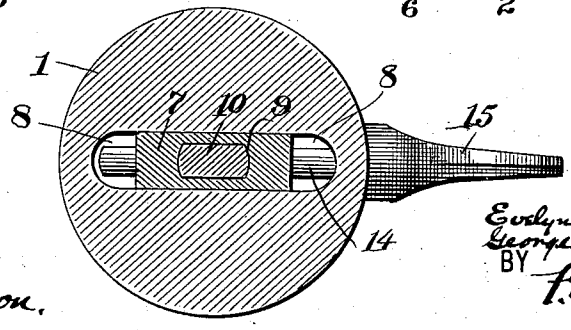


Fig. 5.



WITNESSES:

J. J. Finch.

S. S. Williamson.

INVENTORS;

Evelyn L. Smith

George C. H. Foster

BY

F. W. Smith & Co.

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EVELYN L. SMITH AND GEORGE C. H. FOSTER, OF BRIDGEPORT, CONNECTICUT, ASSIGNORS TO THE CROWN ELECTRIC MANUFACTURING COMPANY, OF SAME PLACE.

SOCKET FOR INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 477,786, dated June 28, 1892.

Application filed September 7, 1891. Serial No. 405,006. (No model.)

To all whom it may concern:

Be it known that we, EVELYN L. SMITH and GEORGE C. H. FOSTER, both citizens of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Sockets for Incandescent Lamps; and we 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.

Our invention relates to certain new and useful improvements in sockets for incandescent lamps, and has for its objects to simplify and cheapen the construction of such devices, to reduce to a minimum the resistance which the device itself offers to the electric current, and to secure the socket-screw as against any independent axial rotation.

With these ends in view our invention consists in the details of construction and combination of elements such as will be hereinafter fully set forth, and specifically designated by the claims.

In the accompanying drawings, Figure 1 is a side elevation of our improvement; Fig. 2, a section at the line x x of Fig. 1; Fig. 3, a section taken at a right angle to the section shown at Fig. 2; Fig. 4, a section similar to Fig. 3, but showing the socket-screw, upper contact-spring, and securing-nut disconnected, the lower spring-terminal and the stem and parts carried thereby being omitted; and Fig. 5 a section at the line y y of Fig. 3.

Similar numbers denote like parts in the several figures.

1 2 are the upper and lower insulating-disks, respectively.

3 4 are the upper and lower terminals, secured to the disks 1 2, respectively, and to which are secured the conducting-wires in the usual manner.

5 is a yoke secured to the disk 2 by screws 6 and extending through openings 8 in the disk 1, the bridge 7 of said yoke being countersunk within the disk 1, so that the latter is rigidly held as against rotary movement. 9 is a slot in said bridge, and 10 is the socket-screw, which is cut away, as shown at Fig. 5, so as to fit snugly within said slot, whereby said screw can have no independent axial rotation.

11 is the upper contact-spring, secured directly to the bottom of the screw 10 by the nut 12, the latter also serving to secure the screw in position, as shown at Fig. 3.

13 is the lower contact-spring, secured to the binding-post 4.

14 is a stem journaled within the yoke 5, and 15 a suitable key rigid with said stem, whereby the latter may be conveniently manipulated. On this stem are secured the switch-cam 16 and rectangular controlling-block 17.

18 is a flat spring secured to the disk 2 and bearing against the block 17, the function of said spring being (as is usual in such instances) to prevent the overthrow of the stem at the end of each quarter-revolution thereof.

The switch-cam 16 comprises a skeleton frame 19, secured to a body 20, which latter is rigid on the stem 14. This frame is made from thin highly-tempered metal and by its resiliency affords a contact with the springs 11 13 far superior to the contact between a solid cam and springs. The yoke 5 is not in the electrical circuit, the body 20 being made from any non-conducting material, and the current flows directly from the lower contact-spring to the socket-screw, to which latter the upper contact-spring is secured. In the majority of devices of this character the yoke (or "pillars," as termed) is in the circuit, and for this reason the resistance offered by the socket itself to the electro-motive force is so great that the light is materially lessened thereby. In our improvement the yoke is not in circuit, but the current flows directly from the lower terminal to the socket-screw without any deviation, and to these facts we attribute the superior results effected by our improvement. Again, in all prior devices of this description the socket-screw has caused a most vexatious trouble, owing to the fact that it has been imperfectly secured. It is absolutely necessary that said screw should have no independent axial rotation, and by utilizing a yoke in our improvement, as hereinbefore set forth, we are enabled to secure

this screw firmly and immovably within the bridge of said yoke.

We claim—

1. In a socket for incandescent lamps, the combination of the upper and lower insulating-disks having secured thereto, respectively, the usual terminals, the yoke to which said disks are secured, the socket-screw secured to the bridge of said yoke, the contact-springs secured, respectively, to said screw and the lower terminal, the rotatory stem journaled in said yoke, and the cam carried by said stem, substantially as set forth.

2. The combination of the upper insulating-disk, the yoke-bridge having a slot therein, the socket-screw shank fitted closely within said slot, the upper contact-spring, and the nut whereby said screw and spring are secured together and to said disk, substantially as shown and described.

3. The combination of the upper insulating-disk having openings therein, as described, the yoke extending through said openings and having a bridge which is countersunk within said disk, the socket-screw extending through said yoke and disk, and the nut on the lower end of said screw, whereby said disk is secured between said bridge and nut, substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

EVELYN L. SMITH.
GEORGE C. H. FOSTER.

Witnesses:
F. W. SMITH, Jr.,
J. S. FINCH.