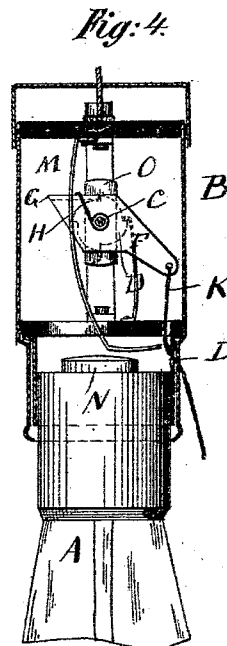
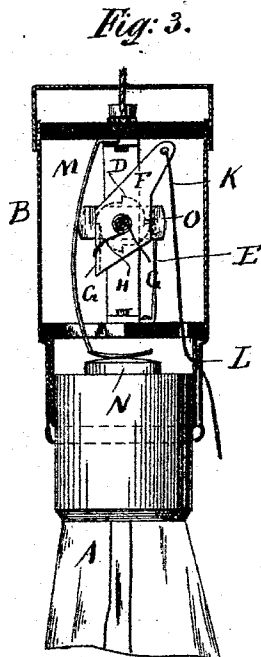
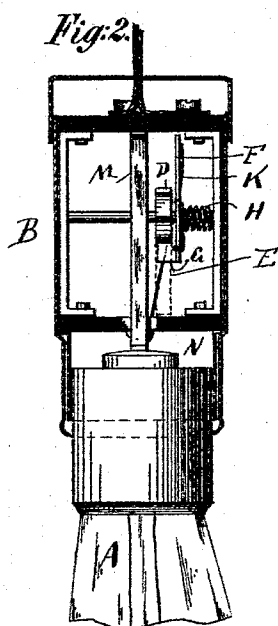
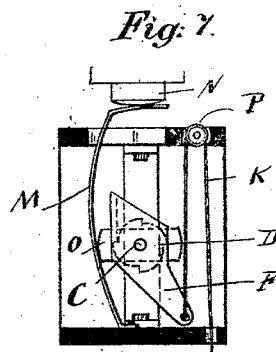
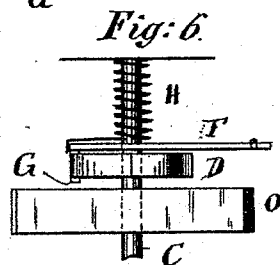
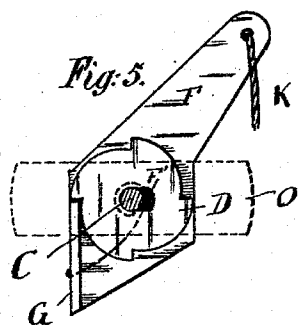
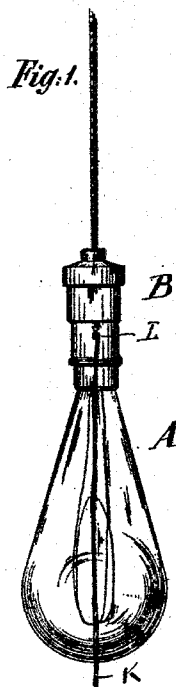


(No Model.)

L. STIRN.
SOCKET FOR INCANDESCENT LAMPS.

No. 515,484.

Patented Feb. 27, 1894.



WITNESSES:

Charles Schroeder
William Duhrm

INVENTOR
L. Stirn

BY *Charles Schroeder*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

LOUIS STIRN, OF NEW YORK, N. Y., ASSIGNOR OF TWO-THIRDS TO JULIUS SOMBORN, OF SAME PLACE.

SOCKET FOR INCANDESCENT LAMPS.

SPECIFICATION forming part of Letters Patent No. 515,484, dated February 27, 1894.

Application filed June 22, 1892. Serial No. 437,646. (No model.)

To all whom it may concern:

Be it known that I, LOUIS STIRN, a citizen of the United States, and a resident of New York city, in the county and State of New York, have invented certain new and useful Improvements in Sockets for Incandescent Electric Lamps, of which the following is a specification.

This invention relates to that class of sockets for incandescent lamps in which a switch is arranged for controlling the current.

The object of my invention is to provide a socket of this kind which has a switch that is so arranged as to alternately throw the lamp in or out of circuit, so that the lamp can easily be lighted or extinguished by slightly pulling a cord or chain connected with said switch.

The invention consists of a socket for incandescent lamps containing a shaft provided with a ratchet-wheel and carrying a swinging spring-actuated pawl-lever with which a suitable chain or cord is connected, and a check-pawl engages the ratchet-wheel. On said shaft a block of insulating material is fixed, which acts on the contact-spring and either holds the same in contact with the contact-piece of the lamp or permits the same to be out of contact.

The invention also consists in the construction and combination of parts and details which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a side-view of an incandescent electric-lamp provided with my improved socket. Fig. 2 is an enlarged longitudinal sectional-view through the socket. Figs. 3 and 4 are transverse-sectional views of the socket containing the contact-spring in different positions. Fig. 5 is an enlarged detail side-view of the switch-lever and ratchet-wheel. Fig. 6 is a plan-view. Fig. 7 is a detail-view of the switch-lever, showing a modified arrangement.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the incandescent electric-lamp and B the socket of the same, which socket may be made of

any well known construction. In the side-walls of the socket the shaft C is journaled on which is fixed a ratchet-wheel D having four teeth arranged a quarter of a circle from each other. The spring check-pawl E is fixed to the top or bottom of the socket, as may be desired, and engages said ratchet-wheel for the purpose of locking the same in place after each quarter turn. On said shaft C a pawl-lever F is mounted to swing, said pawl-lever having an aperture F' which is slightly elongated, that is, its length is greater than the diameter of the shaft, so as to give said pawl-lever a certain play on the shaft. The pawl-lever F is provided at its lower end with a laterally-projecting lug or flange g, the upper end of which is adapted to engage the teeth of the ratchet-wheel D. A helical spring H is wound on the shaft C and has one end fastened to the side of the socket and the other fastened to the lower end of the pawl-lever F, so as to throw said pawl-lever downward, that is, to hold the end provided with the flange G in the lower position. To the opposite end of the pawl-lever F a cord or chain K is fastened which passes through a suitable aperture L in the socket and extends downward and is provided at its lower end with a loop or handle. In the socket the contact-spring M is fastened, the free end of which can bear on the contact-piece N of the incandescent electric lamp, and when released, snaps from said contact-piece, as shown in Fig. 4.

On the shaft C a transverse block O of insulating material is fastened, which when in horizontal position acts on the spring M in such a manner as to press the lower end of the same against the contact-piece N of the lamp, and when in vertical position permits said spring to snap from the contact-piece.

In Figs. 1 to 7 the socket is shown as applied on a lamp, the bulb of which is below the socket, but in case the bulb is arranged above the socket, the same switch can be used and it is only necessary to pass the cord K over the pulley P in the top-plate of the socket and then downward.

The operation is as follows:—For example, as shown in Fig. 3 the circuit is closed as the

transverse-piece O bears on the spring M and keeps the same in contact with the contact-piece N of the lamp. If the cord K is now pulled downward the lever F gives the shaft C a quarter turn and the block O is brought into vertical position, as shown in Fig. 4, permitting the spring M to snap from the contact-piece N, whereby the circuit is broken and the light extinguished. When it is desired to bring the lamp in circuit again, all that is necessary is to pull downward on the cord K, whereby another quarter turn is given to the shaft C and the block O is brought in transverse position, as shown in Fig. 3, and presses the spring M in contact with the contact-piece N. It will be observed that, the lever F is not provided with a special pawl engaging the ratchet-wheel D, but has a laterally-projecting lug or flange which acts as a pawl. As the spring H is brought into tension by pulling down on the cord K and swings the lever F downward, the lever F must slide to the left, as the teeth of the ratchet-wheel E are cam-shaped and the distance from the edge of the same to the center of the shaft C gradually increases toward the end of the tooth. This compels the lever F while swinging downward under the action of the spring to move slightly to the left until the upper edge of the flange G arrives at the end of the tooth, whereupon the spring H throws the lever F to the right slightly, so that the upper edge of the flange G rests against the beginning of the next tooth. The elongated opening F' of the lever F permits of such movements of the lever. The switch is retained entirely within the socket and no parts of the same project from the socket and are thus not apt to be clogged by dust and present a much handsomer ap-

pearance than the switches having projecting parts.

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

1. The combination, with a socket provided with an electrical conductor, of a shaft mounted in the sides of said socket, a block fixed on said shaft and adapted to act on the electrical conductor, a pawl-lever mounted loosely on the shaft and provided with an elongated opening, through which the shaft passes, a helical spring surrounding said shaft and having one end fixed in said socket and the other end to the pawl-lever, a projection on said lever serving as a pawl, a ratchet-wheel fixed on the shaft, the teeth of which are engaged by said projection, a check-pawl engaging the ratchet-wheel and a cord attached to said lever and passing through an opening in the socket, substantially as set forth.

2. The combination, with a socket containing an electrical conductor, of a shaft in said socket, a block fixed on said shaft and adapted to act on the conductor, a ratchet-wheel on the shaft, a rocking pawl-lever mounted on the shaft and engaging the ratchet-wheel, a cord secured to the pawl-lever, a pulley on the socket over which the cord passes, said cord also passing through an opening in the socket, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

LOUIS STERN.

Witnesses:

OSCAR F. GUNZ,
CHARLES SCHROEDER.