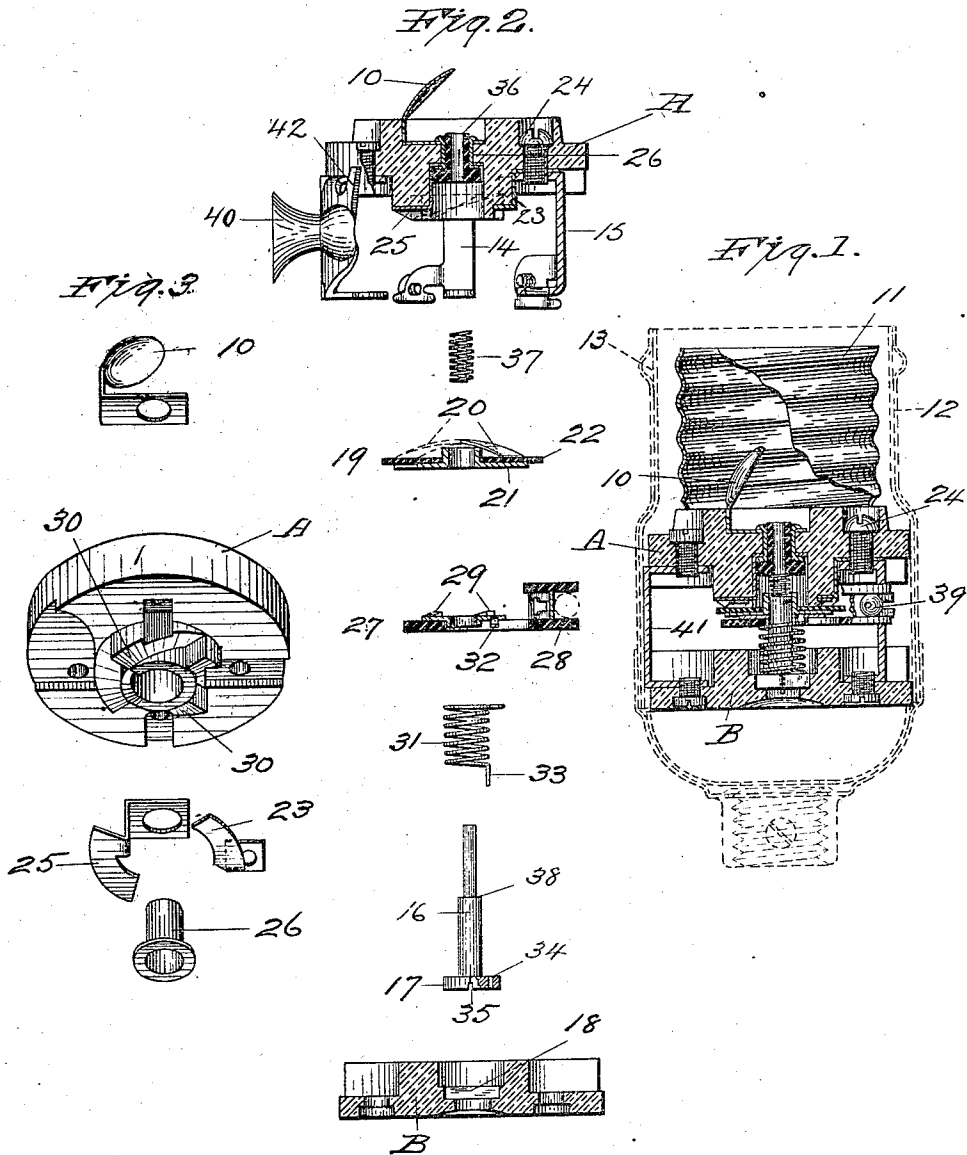


F. L. ROWNTREE.
PULL SOCKET.
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1,024,365.

Patented Apr. 23, 1912.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK L. ROWNTREE, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE ARROW ELECTRIC COMPANY, OF HARTFORD, CONNECTICUT. A CORPORATION OF CONNECTICUT.

PULL-SOCKET.

1,024,365.

Specification of Letters Patent.

Patented Apr. 23, 1912.

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To all whom it may concern:

Be it known that I, FRANK L. ROWNTREE, a citizen of the United States of America, and residing at Hartford, in the county of Hartford and State of Connecticut, have invented a certain new and useful Improvement in Pull-Sockets, of which the following is a specification.

My invention relates to electric lamp sockets and particularly to pull sockets, the object of my invention being to improve the same in certain features of construction illustrated in the accompanying drawing in which,

Figure 1 is a vertical section through a socket; Fig. 2 is a similar section through the socket body with the switch parts detached; and Fig. 3 is a perspective of the upper insulating button and certain parts related thereto.

The present socket is of the type in which an insulating base (here comprising buttons A and B) carrying center 10 and shell 11 lamp contacts is inclosed within a casing 12 with insulating lining 13. The shell contact 11 is continually in the line circuit through the combined spacing bar and wire terminal 14, while the center contact 10 is connected with the other line terminal 15 through a switch mechanism. This switch mechanism is mounted upon a stepped spindle 16 normally held against rotation by a rectangular head 17 seated in a rectangular recess 18 in the button B. The switch member 19 comprises oppositely angled contact wings 20 stamped up from the hubbed plate 21 and passing through an insulating disk 22. In the "on" position of the switch these contact wings 20 electrically engage on the one hand, the line terminal 23 (which is connected by screw 24 with wire terminal 15) and on the other hand, the center contact connecting strip 25 which is connected by rivet 26 with center contact 10. The switch member 19 is rotated step by step by the ratchet 27 fast with pull chain rail 28, the upwardly projecting ratchet teeth 29 engaging the radial edges of the plate 21 formed by striking up the contact wings 20. The inclined ledges 30 on the button A form a ratchet hub, over which the contact wings 20 of the switch piece 19 ride, and thus not only insure a sharp make and break of the circuit, but also prevent the

return of the switch piece with the ratchet 27 under the influence of the ratchet spring 31. The latter it will be noted is secured at one end to the ratchet 27 by the tongue 32, on the latter and at the other end to the head 17 of the spindle by the down turned end 33 of the spring which enters the perforation 34 in the head.

To adjust the tension of the spring 31, the head 17 of the spindle is engaged by a screw driver in the transverse slot 35 and longitudinally displaced until it is clear of recess 18, whereupon it may be turned and after the desired spring tension is secured the head is resealed. It will be noted that upon the longitudinal displacement of the spindle, the small upper end thereof passes up through the flanged insulating bushing 36 which lines the rivet 26 and at the same time the spring 37, which is engaged between the lower face of the bushing and the shoulder 38 of the spindle, is compressed and thus serves to return the spindle to its seat in the recess 18.

The chain 39 passes out of the casing 12 through the chain bell 40 which detachably engages the spacing bar 41 in customary manner. An upwardly projecting lug 42 on the bell engages the side of the button A and serves to properly position the bell with relation thereto. This arrangement of the lug 42 is of particular value where pull and key socket bodies are mounted interchangeably in the same shell.

The construction described presents several advantages, among which may be noted the facility with which the center contact 10 and conducting plate 25 are secured together by means of the rivet 26; the insulating bushing 36 which completely insulates the spindle 16 from the center contact and holding the spindle rigid; the arrangement of the stop lug on the detachable chain bell the return spring 37 for seating the switch spindle after the displacement for adjustment.

I claim as my invention:—

1. A pull socket having insulating buttons spaced apart, an interposed switch mechanism, a displaceable spindle upon which said switch mechanism is mounted, a center lamp contact with perforated base in the switch circuit, a hollow securing rivet passing through said base to hold said con-

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tact in position, and an insulating bushing lining said rivet and forming a bearing for the adjacent end of the switch spindle, substantially as described.

5 2. A pull socket having insulating buttons spaced apart, an interposed switch mechanism, a displaceable spindle upon which said switch mechanism is mounted,
10 a center lamp contact on the lamp side of one of said insulating buttons, a switch contact on the other side of said button, a hollow rivet passing through said lamp and switch contacts and serving to electrically connect the same and also to secure them to
15 said button, and an insulating bushing lining said rivet and forming a bearing for the adjacent end of the switch spindle.

3. In a pull socket, an insulating button recessed on opposite faces, a center lamp
20 contact having its base in the recess on one face thereof and a switch contact having its base in the recess on the opposite face of said button, in combination with a hollow rivet passing through said button and serving
25 not only to mechanically secure said contacts thereto but also to electrically connect said contacts, substantially as described.

4. In a pull socket, an insulating button, a center lamp contact on one face thereof
30 and a switch contact on the opposite face of said button, in combination with a hollow rivet passing through said button and serving not only to mechanically secure said contacts thereto but also to electrically connect
35 said contacts, together with an insulating bushing lining said rivet and a switch

spindle journaled in said bushing, for the purpose described.

5. In a pull socket, an insulating button, a center lamp contact on one face thereof
40 and a switch contact on the opposite face of said button, in combination with a hollow rivet passing through said button and serving not only to mechanically secure said contacts thereto but also to electrically connect
45 said contacts, together with a flanged bushing lining said rivet, a switch spindle passing through said bushing and a return spring on said spindle bearing against the flange of said bushing.

6. In a pull socket having insulating buttons spaced apart, an interposed switch mechanism, a displaceable stepped spindle
50 on the larger diameter of which said switch mechanism is mounted, a center lamp contact and a switch contact on opposite sides of one of said buttons, a hollow rivet uniting the same, an insulating bushing therefor
55 in which the reduced end of said spindle has its bearing, together with a return spring mounted on said reduced end of the spindle and abutting at one end against the larger diameter of the spindle and at the other end
60 against said bushing.

In testimony whereof I have signed my
65 name to this specification, in the presence of two subscribing witnesses.

FRANK L. ROWNTREE.

Witnesses:

BENJ. PERKINS;

H. M. SAUNDERS.