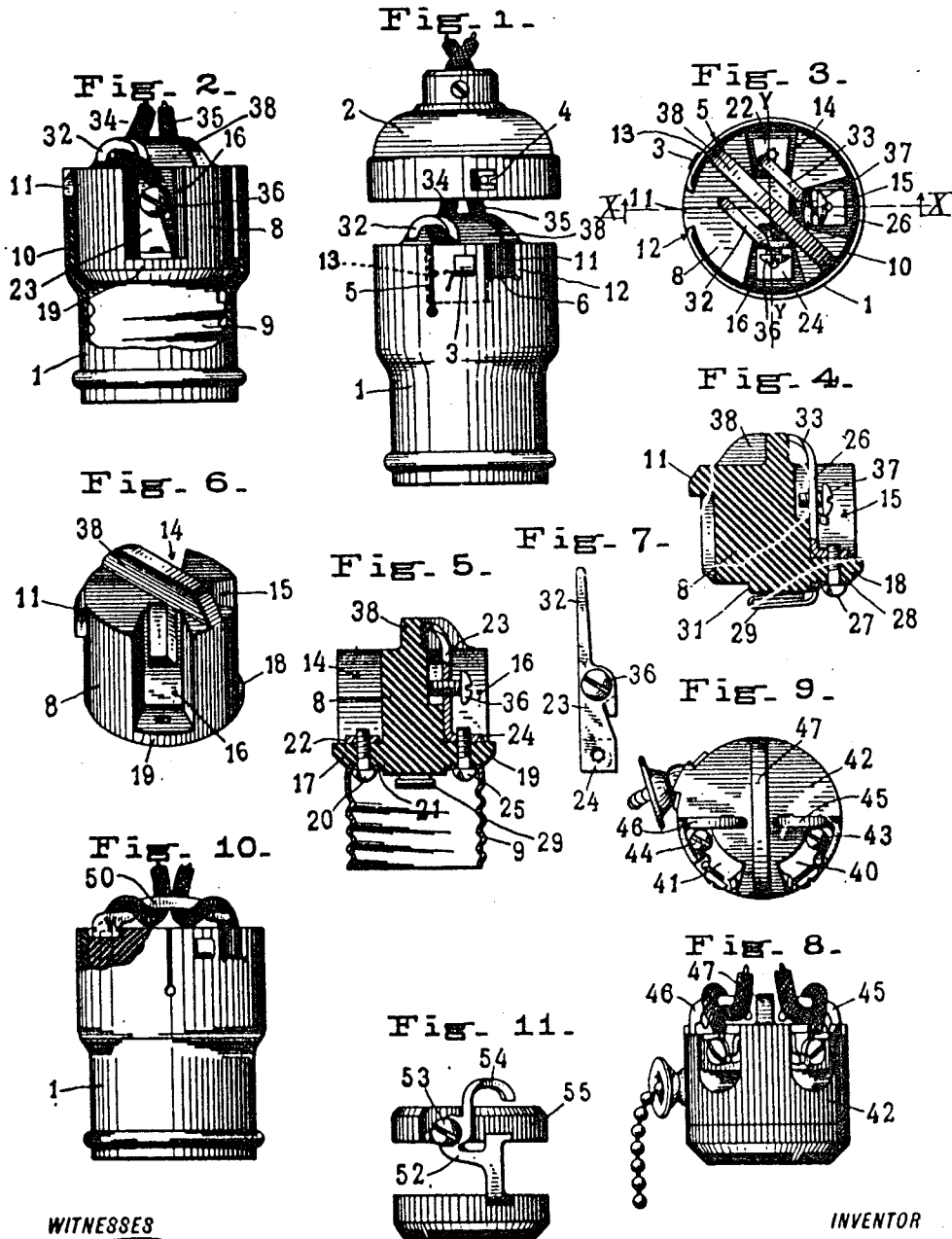


F. BARR.
ELECTRIC SOCKET.
APPLICATION FILED NOV. 9, 1912.

1,057,320.

Patented Mar. 25, 1913.



WITNESSES
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UNITED STATES PATENT OFFICE.

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ELECTRIC SOCKET.

1,057,320.

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To all whom it may concern:

Be it known that I, FREDERIC BARR, a citizen of the United States of America, and residing at New York, in the county of Kings and State of New York, have invented new and useful Improvements in Electric Sockets, of which the following is a specification.

My invention will be found to relate to two features of such a construction, namely;—a keyless socket and a strain relief device.

The object is to provide a construction which may be made and assembled economically and which is strong and safe.

The base or insulating block of the keyless type is molded in one piece and is so formed that it can be made by simple die action and the circuit terminals and lamp contacts may be readily attached and are fully insulated. The strain relief feature comprises a finger integral with a circuit terminal member and arched over the end of the base and around which the cord is twisted. When two strain relief fingers are provided, an insulating flange may extend from the end of the base between the fingers and the cords to completely separate and insulate them from each other.

Figure 1, is a side view of a lamp socket embodying my invention the cap being raised. Fig. 2, is a vertical section and side view, the cap being omitted. Fig. 3, is a plan view of the body of the shell and the insulating base. Fig. 4, is a vertical section on the plane of the line X X of Fig. 3 looking in the direction of the arrow. Fig. 5, is a vertical section on the plane of the line Y Y of Fig. 3 looking in the direction of the arrow. Fig. 6, is a perspective view of the insulating base. Fig. 7, is a detail view of one of the circuit terminals before it is formed for use. Fig. 8, is a side view of a pull socket base with the circuit terminals and my strain relief device. Fig. 9, is a plan view of the same. Fig. 10, is a side view of a socket showing a single finger for the strain relief. Fig. 11, is a side view of another form of my invention.

The body 1 of the shell and the cap 2 are adapted to be telescopically connected for instance by means of a loop 3 and a tongue 4. The body of the shell is slitted at 5 and slotted at 6 to form a spring or resilient portion 7 in which the loop 3 is located so

that the loop may be pressed inward to release it for rotating and separating the parts. The insulating block or base 8 formed for instance of porcelain carries the screw lamp terminal 9. Fiber insulation 10 is interposed between the shell and the base. A lug 11 integral with the base projects through the fiber and into the slot 6 in the shell to prevent the parts from relatively turning. To facilitate the interlocking of the base 8 with the shell 1, I may turn inwardly slightly the edges 12 of the shell adjacent the slot 6 to embrace the sides of the lug 11. The fiber lining 10 is cut away at 13 to permit compression of the shell adjacent the latch member 3. The base 8 has three recesses 14, 15 and 16 which open downwardly from the upper end of the base and have flanges 17, 18 and 19 respectively with perforations for the passage of screws. A screw 20 passes upward through a flange 21 of the screw lamp terminal and through the flange 17 of the insulating base and screws into a nut 22 which is located in the bottom of the recess 14 so that it cannot rotate. The circuit terminal has an upright portion 23 adapted to fit in the back of the recess 16 and a foot 24 adapted to be seated on the flange 19. A screw 25 passes up through a flange of the screw lamp terminal and screws into the foot 24. The circuit terminal and its foot and the recess 16 are so shaped that a single screw 25 suffices to hold the terminal in position. The other circuit terminal 26 is similarly secured in the recess 15 by a screw 27. The center lamp terminal has its base 28 secured by the screw 27 to the flange 18 and a contact portion 29 adapted to be engaged by the center lamp contact. The opposite end of the center lamp terminal 30 is reflexed beneath the contact portion 29 and adapted to press against the boss 31 on the bottom of the insulating block 8. By this construction the terminal may be made of thin material but have a very considerable resiliency.

The ends of the circuit terminals 23 and 26 are extended into the form of fingers 32 and 33 which project up over the end of the insulating block 8 leaving passages beneath them for the lamp cords 34 and 35. The bare ends of the lamp cord are secured to the circuit terminals by the binding screws 36 and 37 respectively. The flange 38 may be extended upwardly from the end of the

insulating base between the fingers 32 and 33 and their respective cords. To wire the socket the cords are threaded through the cap 2 and each cord is threaded beneath one of the strain relief fingers 32 or 33 and around the base of the finger and has the bare end attached to the corresponding binding screw. The cords are then pulled taut and the sharp bends of the cord under and around the fingers and into the recesses and under the binding screws will effectively prevent the cord from being pulled out.

In the form shown in Figs. 8 and 9 the circuit terminals 40 and 41 are secured to the insulating base 42 by screws such as 43 and 44 and these circuit terminals have the integral strain relief fingers 45 and 46 to receive the cord or cords. This construction also shows a flange 47 for separating the two fingers 45 and 46 and the cords attached thereto. In the form shown in Fig. 10 a single long finger 50 is provided connected to one of the circuit terminals and about it both of the lamp cord members may be twisted. In the form shown in Fig. 11 the circuit terminal 52 has a binding screw 53 and a strain relief finger 54 bent upward over the top of the insulating button or block 55. In all these forms of strain relief devices it will be noted that very little is added to the cost of construction and nothing is added to the cost of assembling the mechanism and the wiring of the socket as in fact it is more simple than the ordinary tie of a knot in the cord and is more effective.

While the portion 7 of the body of the shell may be compressed to release the interlocking device, it will be noted that the lug 11 serves to prevent compression of the cap adjacent the interlocking device and this facilitates the release of the catch when desired but does not impair the locking function.

What I claim is:—

1. In a lamp socket, an insulating base having two recesses each opening at the same end of the base and also open at a side of the base and having perforated flanges at the bottoms of the recesses, a screw lamp terminal fitted to the opposite end of said base and having a flange beneath one of said base flanges, a center lamp terminal fitted to said base beneath the other flange of said base and circuit terminals fitting in said recesses and having screw-threaded feet fitting over the perforations in the flanges of the insulating base and screws respectively passing through said lamp terminals and through said flanges of said insulating base and screwed into the feet of said circuit terminals.

2. In a lamp socket, an insulating base having two recesses each open at the same end of the base and also open at a side of the base and having perforated flanges at

the bottoms of the recesses, a screw lamp terminal fitted to the opposite end of said base and having a flange beneath one of said base flanges, a center lamp terminal fitted to said base beneath the other flange of said base and circuit terminals fitting in said recesses and having screw-threaded feet fitting over the perforations in the flanges of the insulating base and screws respectively passing through said lamp terminals and through said flanges of said insulating base and screwed into the feet of said circuit terminals, said circuit terminals having hooked-shaped integral strain relief fingers extending from said recesses over the end of said insulating base and leaving passages between said fingers and the end of said base for the lamp cords.

3. In a lamp socket, an insulating base having two recesses each open at the same end of the base and also open at a side of the base and having perforated flanges at the bottoms of the recesses, a screw lamp terminal fitted to the opposite end of said base and having a flange beneath one of said base flanges, a center lamp terminal fitted to said base beneath the other flange of said base and circuit terminals fitting in said recesses and having screw-threaded feet fitting over the perforations in the flanges of the insulating base and screws respectively passing through said lamp terminals and through said flanges of said insulating base and screwed into the feet of said circuit terminals, said circuit terminals having hooked-shaped integral strain relief fingers extending from said recesses over the end of said insulating base and leaving passages between said fingers and the end of said base for the lamp cords, said insulating base having an integral insulating flange extending between said strain relieving fingers.

4. In a lamp socket, an insulating base having two recesses each opening at the same end of the base and also open at a side of the base and having perforated flanges at the bottoms of the recesses, a screw lamp terminal fitted to the opposite end of said base and having a flange beneath one of said base flanges, a center lamp terminal fitted to said base beneath the other flange of said base and circuit terminals fitting in said recesses and having screw-threaded feet fitting over the perforations in the flanges of the insulating base and screws respectively passing through said lamp terminals and through said flanges of said insulating base and screwed into the feet of said circuit terminals and said base having a third recess opening at the same end of said base with the first two mentioned recesses and also open at the side of said base and a perforated flange at the bottom of said third recess, a screw-threaded nut lo-

cated in said third recess and a screw passing through a flange of said screw lamp terminal and screwed into said nut.

5 5. As an article of manufacture, an insulating base for a keyless lamp socket having two recesses open at the sides and at one end for receiving circuit terminals, said base having two flanges forming the bottoms of said recesses, said flanges having
10 perforations for the passage of screws for securing the lamp terminals to the circuit terminals.

6. In a lamp socket, an insulating base, a circuit terminal secured in the side thereof and having a hooked-shaped finger extending around the end of said base and leaving an opening between said finger and said base for the passage of a lamp cord and a binding screw at the side of said terminal located adjacent the base of said hook
20 for securing the end of said cord.

7. In a lamp socket, an insulating base, having recesses in the sides, circuit terminals secured in said recesses, each of said
25 terminals having a hook-like strain relieving member extending over the end of said base and leaving passages between said members and the end of said base for the circuit cords and binding screws extending into the sides
30 of said circuit terminals within the periphery of said base.

8. In a lamp socket, an insulating base having recesses in the sides, circuit terminals secured in said recesses, each of said terminals having a hook-like strain relieving
35 member extending over the end of said base and leaving passages between said members and the end of said base for the circuit cords and binding screws extending into the sides of said circuit terminals within the
40 periphery of said base, and an insulating flange extending across the end of said base between said strain relieving members.

9. In a socket, a shell body having a slot in its upper end, a catch member in the edge
45 adjacent said slot, an insulating base within said body having a lug projecting into said slot for preventing the parts from relatively turning, a fiber lining between said base and said body having a part cut away to permit
50 the catch member to be pressed inwardly and a cap member telescoping outside of the upper end of said shell body and covering said lug and said slot and having a catch
55 member adapted to cooperate with the catch member on said shell body, said lug on said base member serving to prevent compression of said cap adjacent the catch members.

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Witnesses:

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