F. P. GATES.

ELECTRIC SOCKET.

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1,255,152.

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Fig. 1.

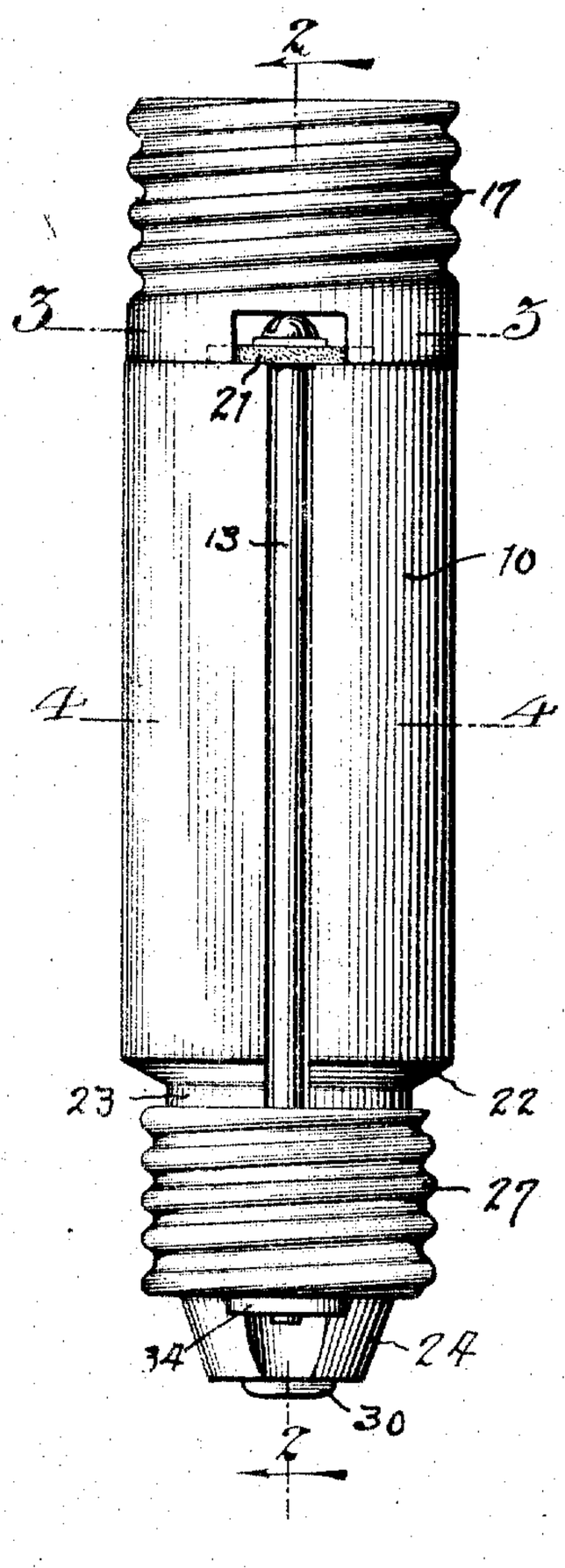


Fig. 3.

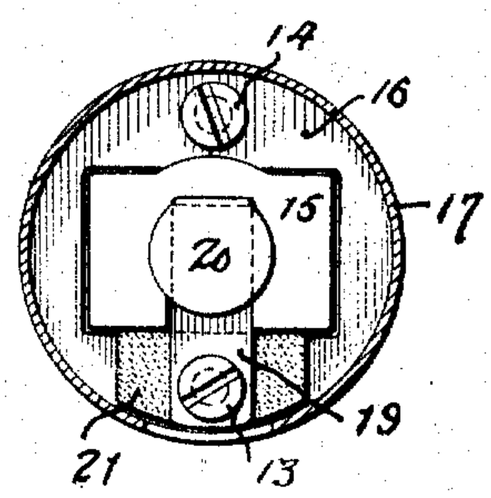


Fig. 4.

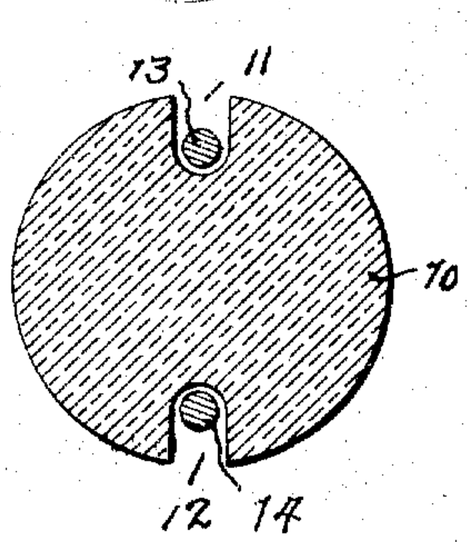


Fig. 2.

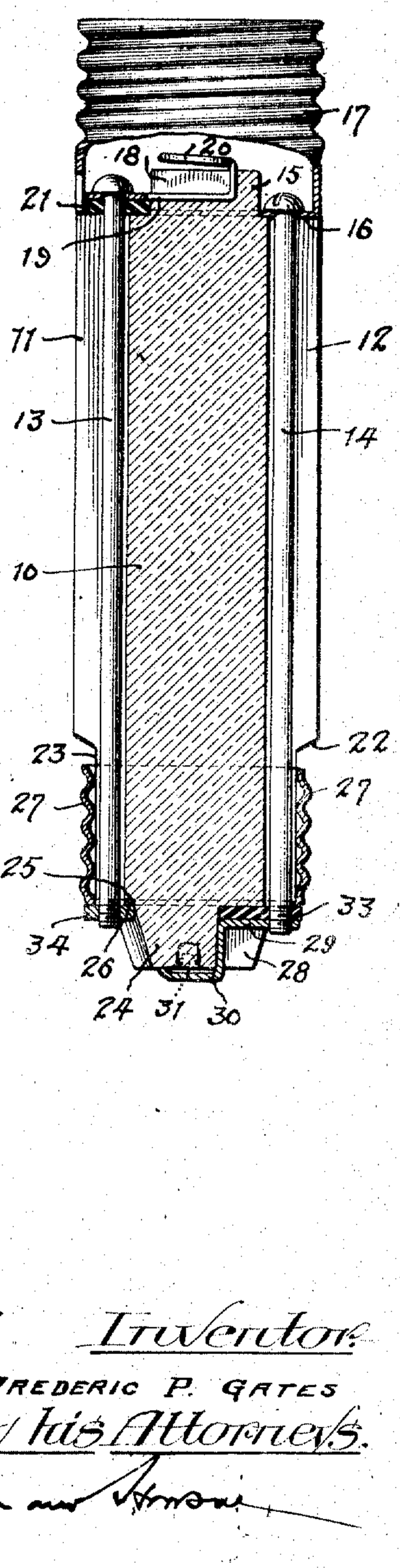
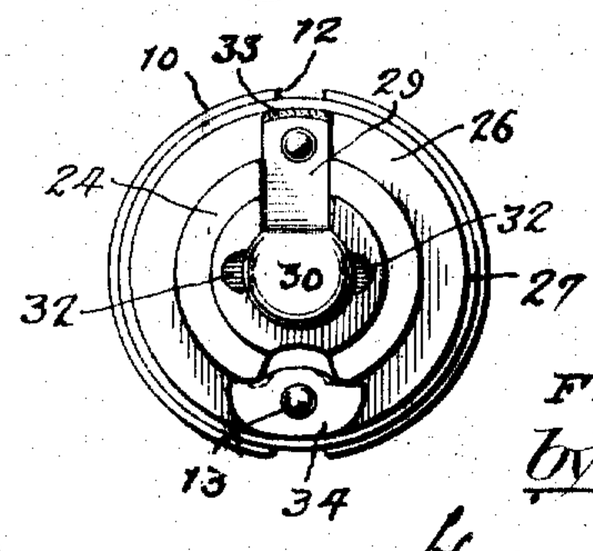


Fig. 5.



Witness:

Fitus K. Irons.

Inventor:

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by his Attorneys.

Storrow and Storrow

UNITED STATES PATENT OFFICE.

FREDERIC P. GATES, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE ARROW ELECTRIC COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ELECTRIC SOCKET.

1,255,152. Specification of Letters Patent. Patented Feb. 5, 1918.

Application filed April 7, 1917. Serial No. 160,456.

To all whom it may concern:

Be it known that I, FREDERIC P. GATES, a citizen of the United States of America, and residing in Hartford, in the county of Hartford and State of Connecticut, have invented a certain new and useful Improvement in Electric Sockets, of which the following is a specification.

My invention relates to electric lamp sockets and particularly to extension sockets for candle fittings, the object of my invention being to provide a simple, inexpensive and rugged structure for this purpose possessing the novel features hereinafter set forth or shown in the accompanying drawings in which—

Figure 1 is a side elevation of a socket in which my invention is embodied in one form;

Figs. 2, 3 and 4 are sections respectively on the lines 2—2, 3—3 and 4—4, Fig. 1; and

Fig. 5 is an inverted plan view thereof.

The growing popularity of candle-like fittings has made it desirable to provide a device by which an ordinary lamp socket may be converted into a fitting of candle type. Various devices for this purpose have been provided but have proven objectionable for one reason or another. The present device provides a candle extension fitting which while inexpensive to manufacture is rugged and serviceable and well adapted for the service required.

In the form here shown the present fitting comprises an elongated candle-like block of insulation 10 grooved on its opposite sides at 11 and 12 to receive longitudinally extending screw rods 13 and 14. At the outer end of the block a raised non-circular boss 15 is formed thereby providing a shoulder 16 against which the base flange of the screw shell 17 is seated. A channel 18 formed in the boss 15 receives the base 19 of the center contact 20. The extended portion of the base 19 overlies a filler block of insulation 21 bridging the groove 11 and extending between opposite margins of the base flange 16 of the screw shell which is cut away at this point.

At its opposite or inner end the block 10 is shouldered at 22 into a slightly reduced area 23 terminating in a conical boss 24, the base of which is slightly offset to afford a shoulder 25. Seated against the latter is the base flange 26 of the screw shell 27 which surrounds the area 23 of the candle tube 10. A bay 28 let into the conical boss 24 receives the base 29 of the center contact 30 which overlies the boss 24 and is provided with a pair of inwardly extending wings 31 taking into shallow walls 32 formed in the outer end of the boss 24. A piece of insulation 33 is interposed between the base 29 of the center contact and the screw shell 27, the base flange of which is cut away at this point.

It is obvious that the screw shell 27 and center contact 30, form a plug element, while the screw shell 17 and center contact 20 form a socket element at the opposite end of the candle body 10. These plug and socket contacts are not only electrically connected but also held upon the candle body 10 by the two screw bolts 13 and 14. The screw bolt 13 passes through the base 19 of the center contact 20 and extends downward into the groove 11 within the screw shell 27 and through the base flange thereof into engagement with a heavy washer 34 which is tapped to receive it and forms in effect a securing nut. The screw bolt 14 overlies the base flange 16 of the screw shell 17 passing down within the groove 12 and screw shell 27 takes into the tapped base 29 of the center contact 30. It will be noted that the groove 12 extends into the reduced area 23 of the candle body 10 so that the bolt 14 is well spaced from the screw shell 27 and is in no danger of contact therewith.

It is readily seen that the device may be economically manufactured since the one-piece insulating body is easily molded from porcelain, while the metal parts closely approximate standard types and may be readily struck to shape.

Various modifications and details of construction, contour and arrangement of parts will readily occur to those skilled in the art without departing from what I claim as my invention. Thus longitudinal perforations of the body 10 may be substituted for the grooves 11 and 12 and in the following claims I use the word "grooves" in a sense broad enough to include any suitable aperture for the reception of the screw bolts 13 and 14 and the insulation of the latter.

I claim:—

1. An extension socket comprising an elongated candle-like block of insulating ma-

terial grooved on its opposite sides, center and shell contacts at each end thereof and screw bolts lying in said grooves and respectively engaging the terminal pairs to not only electrically connect the coördinated contacts, but to mechanically secure the same in position at opposite ends of the insulating block.

2. An extension socket comprising an elongated candle-like block of insulating material grooved on its opposite sides, center and shell contacts at each end thereof and screw bolts lying in said grooves within the area of said screw shells and serving to electrically connect said screw shells and center contacts respectively and to secure the same in position on the block.

3. An extension socket comprising an elongated candle-like block of insulating material grooved on its opposite sides, and having at one end a reduced area through which said grooves extend, socket terminals at one end of said block and plug terminals at the reduced area end of said block, screw bolts lying in said grooves within the area of said screw shells and serving to electrically connect the terminal pairs and secure the same in position on the block.

4. An extension socket comprising an elongated candle-like block of insulating material grooved on its opposite sides, shell and center contacts arranged on said block at opposite ends thereof, said screw shell contacts having inwardly projecting base flanges and the center contacts having bases extending outwardly to the area of said base flanges for the screw shells, but insulated therefrom, together with bolts lying in said grooves and passing through said base flanges of the screw shells and the bases of the center contacts, and serving to electrically connect said terminal pairs and mechanically secure them on said insulating block, substantially as described.

In testimony whereof I have signed my name to this specification.

FREDERIC P. GATES.