Feb. 19, 1924. 1,484,360

E. H. POLZIEN

ELECTRIC SOCKET PLUG

Filed Sept. 13, 1922

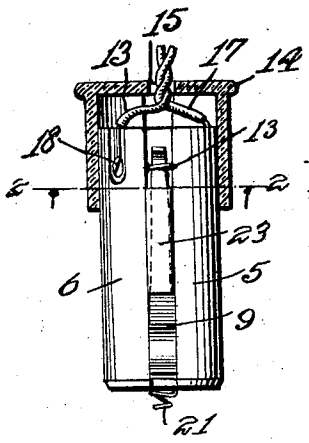


Fig. 1.

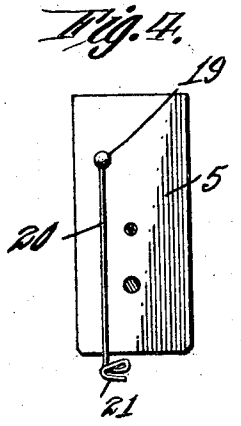


Fig. 4.

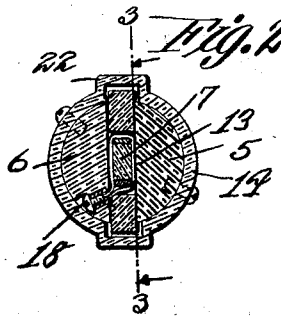


Fig. 2.

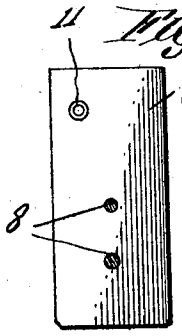


Fig. 5.

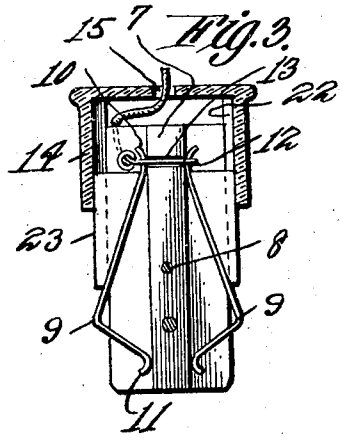


Fig. 3.

WITNESSES

Guy M. Spring

Chas. F. Smith

Inventor

ELMER H. POLZIEN

By Richard B. Owen Attorney

Patented Feb. 19, 1924. 1,484,360

UNITED STATES PATENT OFFICE.

ELMER H. POLZIEN, OF MANILLA, IOWA.

ELECTRIC SOCKET PLUG.

Application filed September 13, 1922. Serial No. 588,061.

To all whom it may concern:

Be it known that I, ELMER H. POLZIEN, a citizen of the United States, residing at Manilla, in the county of Crawford and State of Iowa, have invented certain new and useful Improvements in an Electric Socket Plug, of which the following is a specification.

The present invention relates to an electric socket plug and has for its principal object to provide a device of this nature which may be attached to practically any form of socket very readily and also easily disconnected therefrom.

Another object of the invention is to provide a plug of this nature which will be comparatively inexpensive to manufacture, durable, reliable, and capable of being dismantled and assembled with ease.

With the above and numerous other objects in view as will appear as the description progresses, the invention resides in certain novel features of construction, and the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:—

Figure 1 is an elevation of the device embodying my invention showing the cap thereof in section, and

Figure 2 is a transverse section taken substantially on the line 2—2 of Figure 1 looking in the direction of the arrows,

Figure 3 is a vertical section taken substantially on the line 3—3 of Figure 2 looking in the direction of the arrows, and

Figures 4 and 5 are detail elevations of the body blocks.

Referring to the drawing in detail it will be seen that the plug consists of a pair of body blocks 5 and 6 which are spaced from each other by a bar 7. These blocks 5 and 6 are provided with flat inner surfaces and curved outer surfaces and the bar 7 is situated between the central portions of the flat surfaces of the blocks 5 and 6 as is illustrated to advantage in Figure 2. The blocks and bar are held together securely by pins or screws 8 which extend transversely therethrough. A pair of spring fingers 9 are disposed one on each side of the bar 7 and between the body blocks 5 and 6. These spring fingers 9 each consist of a pair of diverging arms having curved terminations 10 and 11. The termination 10 is on the longer arm and is engaged by a wire 12 disposed about the bar 7 and so as to fit in the groove 13 therein for this purpose. These spring fingers 9 form one contact terminal for the plug. A cup-shaped cap 14 is disposed over the upper ends of the assembled blocks and bar and its closed end is provided with the aperture 15 through which the wires 13 and 17 extend. The wire 13 as is illustrated to advantage in Figures 2 and 3 is formed in two portions adapted to be connected together by the screw 18. The wire 17 engages the screw 19 that passes through the block 5 and a wire 20 is attached thereto and extends along its flat surface terminating in a contact coil spring 21 which forms the other contact of the plug.

The cup-shaped cap 14 is provided with the diametrically opposed longitudinally extending recessed enlargements 22 for receiving the triangular-shaped blocks and stops for the spring fingers 9 as indicated at 23. These blocks 23 are disposed so that their hypothenuse edge normally rests upon the longer arm of the spring fingers 9 as is illustrated to advantage in Figure 3, thereby securely holding the springs in place between the blocks 5 and 6 and the blocks 23. These blocks 23 are clamped between the blocks 5 and 6 by the pins or screws 8.

Although I have described the socket plug with some degree of particularity, it is to be understood that I have merely shown the preferred embodiment and that numerous changes in the details of construction and in the combination and arrangement of parts may be resorted to without departing from the spirit of the invention as hereinafter claimed.

Having thus described my invention what I claim as new is:—

1. A plug of the class described including a pair of non-conducting blocks, a non-conducting bar spacing the blocks from each other, a pair of spring fingers one on each edge of the bar and between the blocks, means for securely holding the blocks and bar together, a wire connecting the fingers, a contact on the bar, and a second wire connecting the contact.

2. A plug of the class described including a pair of non-conducting blocks, a non-conducting bar spacing the blocks from each other, a pair of spring fingers one on each edge of the bar and between the blocks, a

cup-shaped cap for receiving the upper ends of the blocks and the bar, a wire connecting the fingers, a contact on the bar, a second wire connecting the contact and both of said wires passing through an aperture in said cap.

3. A plug of the class described including a pair of non-conducting blocks, a non-conducting bar spacing the blocks from each other, a pair of spring fingers one on each edge of the bar and between the blocks, each spring finger including a pair of diverging arms having curved terminals, a wire engaging one set of the curved terminals for connecting the fingers to the bar, a contact on the bar, and a second wire connecting the contact.

4. A plug of the class described including a pair of non-conducting blocks, a non-conducting bar spacing the blocks from each other, a pair of spring fingers one on each edge of the bar and between the blocks, each spring finger including a pair of diverging arms having curved terminals, a wire connecting the fingers to the bar by engaging one set of the curved terminals, a pair of triangular stop blocks situated between the first mentioned blocks, each stop block being substantially triangular in shape having its hypothenuse edge normally disposed on the arm of the adjacent spring finger which has its terminal engaged by the wire, a contact on the bar, and a second wire connecting the contact.

5. A plug of the class described including a pair of non-conducting blocks, a non-conducting bar spacing the blocks from each other, a pair of spring fingers one on each edge of the bar and between the blocks, each spring finger including a pair of diverging arms having curved terminals, a wire connecting the fingers to the bar by engaging one set of the curved terminals, a pair of triangular stop blocks situated between the first mentioned blocks, each stop block being substantially triangular in shape having its hypothenuse edge normally disposed on the arm of the adjacent spring finger which has its terminal engaged by the wire, a contact on the bar, a second wire connecting the contact, and a cap having an aperture therein disposed over the upper ends of the first-mentioned blocks and provided with recesses for receiving the second mentioned blocks, said wires passing through the aperture of the cap in the manner and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

ELMER H. POLZIEN.

Witnesses:
W. A. MILLER,
FRANK E. PERRY.