

R. B. WOLCOTT.
ELECTRIC CONNECTION PLUG.
APPLICATION FILED FEB. 19, 1910.

1,008,879.

Patented Nov. 14, 1911.

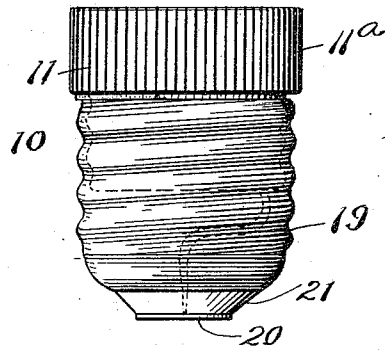


Fig. 1.

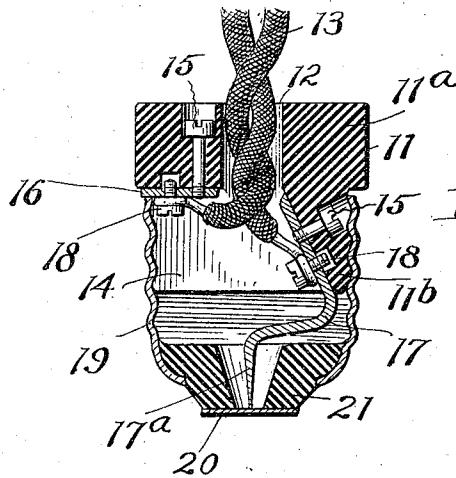


Fig. 2.

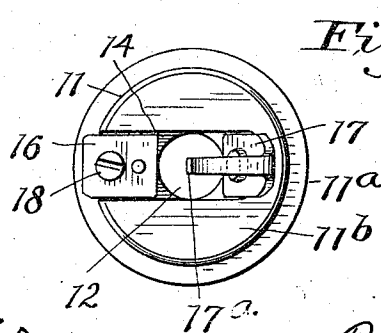


Fig. 3.

Witnesses.
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UNITED STATES PATENT OFFICE.

ROBESON B. WOLCOTT, OF EAST CLEVELAND, OHIO.

ELECTRIC CONNECTION-PLUG.

1,008,879.

Specification of Letters Patent. Patented Nov. 14, 1911.

Application filed February 19, 1910. Serial No. 544,913.

To all whom it may concern:

Be it known that I, ROBESON B. WOLCOTT, a citizen of the United States, residing at East Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Electric Connection-Plugs, of which the following is a full, clear, and exact description.

This invention relates to electric connection plugs such, for example, as are employed for connecting lamps, motors, etc., to ordinary lamp sockets in which the plugs are adapted to be inserted.

The object of my invention is to provide a connection plug which is inexpensive to manufacture, is simpler in construction, consists of fewer parts and can be more readily assembled, and taken apart, or disconnected than the plugs which have been in use heretofore.

In carrying out my invention, I provide a connection plug comprising an insulating base to which two contact members are secured, and a sleeve or shell which is adapted to be screwed or otherwise fitted onto the base, and to be brought into engagement with one of the contact members, the sleeve having at its outer end an insulated contact disk or plate which is brought into engagement with the other contact member when the sleeve is placed in normal position on the base.

More specifically considered, the invention consists of a connection plug comprising an insulating base having a flanged end portion provided with an opening extending therethrough for electric conductors and having a threaded shank portion provided with a recess in which are located and secured to the base two contact members adapted to be connected respectively to the two electric conductors, one of the contact members having a portion projecting laterally outward from the side of the recess and the other having a portion projecting in a substantially radial direction from the end of the recess, and a threaded sleeve or shell which is screwed onto the shank portion of the base and is provided at its outer end with an insulated disk which is preferably cemented to the sleeve, the parts being so arranged that when the sleeve is placed in normal position on the shank, the inner end of the sleeve engages the laterally projecting portion of one of the contact members, and the inner face of the insulated disk engages the

end of the outwardly projecting portion of the other contact member. The plug consists therefore of merely the base, the contact members which are secured to the base and the sleeve with its insulated plate or disk, and these parts can be very easily and cheaply manufactured and assembled, and at the same time the plug and all of its parts have a long life, particularly as the contact members are located in the recess of the shank portion of the base, which recess, together with the shell which is screwed on to the shank portion, forms a closed housing or casing for the ends of the conductors and for the contact members which are connected to the conductors, and are brought into engagement or in conductive relation with the sleeve and disk at the end of the sleeve.

My invention may be further briefly summarized as consisting in certain novel details of construction, and combinations and arrangements of parts which will be described in the specification and set forth in the appended claims.

For an understanding of my invention, reference is had to the accompanying sheet of drawings, wherein—

Figure 1 is a side elevation of a connection plug constructed in accordance with my invention, the plug being shown on a slightly enlarged scale; Fig. 2 is a longitudinal sectional view of the same; and Fig. 3 is a plan view of the plug with the sleeve or shell and the conductors removed.

Referring now to the figures of the drawings, 10 represents as a whole the electric connection plug which includes an insulating base 11 which may be formed of porcelain or other suitable insulating material and comprises a flanged end portion 11^a, which is preferably knurled on its cylindrical face, and a shank portion 11^b which is threaded on its exterior. The flanged end of the base has an opening 12 extending therethrough for the terminals of electric conductors 13 and the shank portion has a recess 14 which as shown communicates with the opening 12, and is open at the end and side of the shank, and has opposite the open side an inclined wall. Secured to the base in said recess by screws 15 are two contact strips or members 16 and 17 to which the ends of the electric conductors 13 which extend through the opening 12 may be connected in any suitable manner, but preferably, by screws 18. It

will be seen that the contact member 16 is secured to the base at the bottom of the recess and that its outer end projects outwardly or laterally a short distance beyond the open side of the recess. It will be seen also that the contact member 17 is secured to the face of the inclined wall and that this contact member has a portion 17^a in the form of a finger which projects outwardly from the open end of the recess, the end of this portion 17^a projecting in a radial direction centrally of the plug. This contact member 17 is made of material such that the finger 17^a has some elasticity or spring for a purpose to be seen presently.

Fitted on and in this case screwed onto the shank portion 11^b of the base is a threaded sleeve 19 which forms one of the contact members adapted to cooperate with a suitable contact member in the socket with which my improved plug is adapted to be used. The sleeve 19 has at its outer end an insulated disk or plate 20 which forms a second contact member adapted to cooperate with another contact member in the socket with which the plug is adapted to be used. This disk 20 is preferably secured to the sleeve by means of an insulating cement shown at 21, the sleeve and disk being fastened together by the cement when the latter is in a plastic condition. A portion of the cement at the inner side of the disk and opposite or in line with the center of the plug is removed, as shown, so as to expose the central portion of the inner face of the disk.

When the sleeve is screwed to normal position onto the shank portion of the base, the inner end of the sleeve engages the outwardly projecting portion of the contact member 16, and at or about the same time the inner face of the disk 20 is brought into engagement with the end of the projecting portion 17^a of the contact member 17. As before stated, this contact member 17 has some elasticity or spring, so that when the sleeve is placed in normal position on the shank of the base, the end of the contact member 17 engages with considerable pressure the inner face of the disk 20. Thus, it will be seen that the shell is electrically connected to the contact member 16 and to one of the current carrying conductors 13, and that the disk 20 at the end of the plug is electrically connected to the contact member 17 and to the other current carrying conductor 13.

It will be apparent from an inspection of the figures of the drawing that my device is very simple in its construction, and that comparatively few parts are here employed. Not only is the construction which I have here shown much simpler in comparison with those which have been used heretofore, but it is considerably cheaper to manufac-

ture, the parts can be readily assembled or taken apart, the contact members 16 and 17 and conductor terminals are disclosed for inspection or repairs when the sleeve is removed, and the terminals of the conductors can be very easily connected or disconnected from the contact members. Furthermore, the recess in the shank portion of the base, together with the shell which is screwed on to the base, form a protecting casing for the conductor terminals, and for the contact members to which the conductors are secured.

I do not desire to be confined to the exact details shown, but aim in my claims to cover all modifications which do not involve a departure from the spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent is:

1. In a connection plug, an insulating base having secured thereto two contact members to which electric conductors may be connected, one of the contact members projecting laterally and the other having a portion projecting from the end of the base, a sleeve adapted to be fitted onto the base, said sleeve having at its end an insulated contact plate, the sleeve being brought into engagement with the laterally projecting contact member, and the inner side of the contact plate on the end of the sleeve being brought into engagement with the projecting end of the other contact member when the sleeve is placed in normal position on the base.

2. In a connection plug, an insulating base having secured thereto two contact members to which electric conductors may be connected, one of said members having a spring finger extending outwardly beyond the end of the base, a sleeve adapted to be fitted onto the base and provided at its end with an insulated contact disk, the sleeve engaging one of said contact members and the insulated contact disk engaging the end of the finger of the other contact member, when the sleeve is placed in normal position on the base.

3. In a connection plug, an insulating base having a threaded shank portion and provided with two contact members to which electric conductors may be connected, and a sleeve adapted to be screwed onto the threaded shank portion and provided at its outer end with an insulated contact plate, one of the contact members having a portion projecting laterally outward and the other having a portion projecting outward from the end of the shank portion, said portions being adapted to engage respectively the sleeve and the inner side of the insulated plate on the end of the sleeve when the latter is screwed to normal position on the shank portion of the base.

4. In a connection plug, an insulating base having a shank provided with a recess, a pair of contact members secured to the base in said recess, and adapted to have electric conductors connected thereto, a sleeve adapted to be fitted over the shank and provided at its end with an insulated contact plate, one of the contact members having a portion projecting outwardly from the side of the recess and the other a portion projecting outwardly from the end of the recess, said portions being adapted to engage the sleeve and the inner side of the insulated plate respectively when the sleeve is placed in normal position on the shank of the base.

5. In a connection plug, an insulating base having a flange portion provided with an opening for electric conductors and having a shank portion provided with a recess open at the end and at one side of the shank, a pair of contact members secured to the base in said recess and adapted to have electric conductors connected thereto, and a sleeve fitted over the shank portion and provided at its end with an insulated plate, one of the contact members secured to the base having a portion projecting from the side of the recess and engaging the inner end of the sleeve, and the other contact member having a portion projecting from the end of the recess and engaging the inner face of the insulated plate.

6. In a connection plug, an insulating base having a flange portion provided with an opening extending therethrough for electric conductors, and having a threaded shank

portion provided with a recess open at the end and at one side of the shank portion, a pair of contact members secured to the base in said recess and adapted to have the conductors connected thereto, one of the contact members having a portion projecting laterally outward from the side of the recess and the other having a portion projecting outwardly from the end of the recess, a threaded sleeve screwed onto the base and provided at its outer end with an insulated disk cemented thereto, said sleeve engaging at its inner end the laterally projecting portion of one of said contact members, and the inner face of the insulated disk engaging the end of the outwardly projecting portion of the other contact member.

7. In a connection plug, an insulating base having a threaded shank, a sleeve of conducting material screwed onto the shank and provided at its end with an insulated contact disk, said base having secured thereto two contact members to which electric conductors may be connected, one of said contact members being adapted to have electrical connection with the sleeve, and the other having a portion projecting outwardly from the end of the base and engaging the inner side of the disk when the sleeve is screwed onto the shank.

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

ROBESON B. WOLCOTT.

Witnesses:

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A. F. KWIS.