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H. A. WITCHER

1,966,156

ATTACHMENT PLUG

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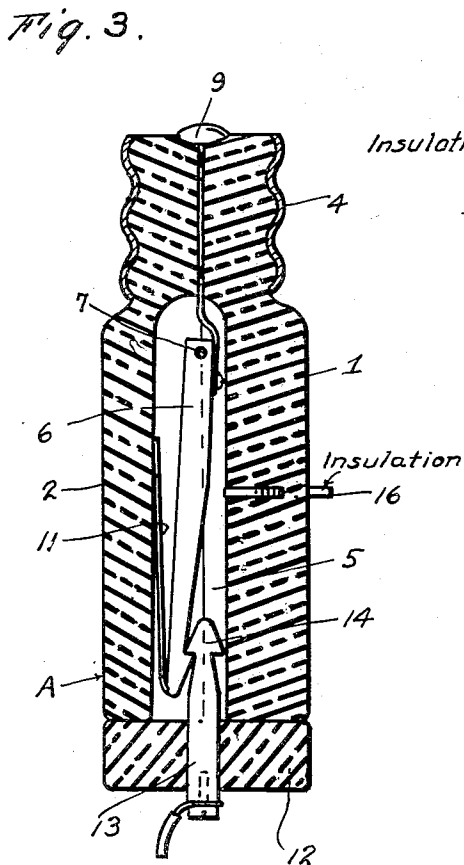
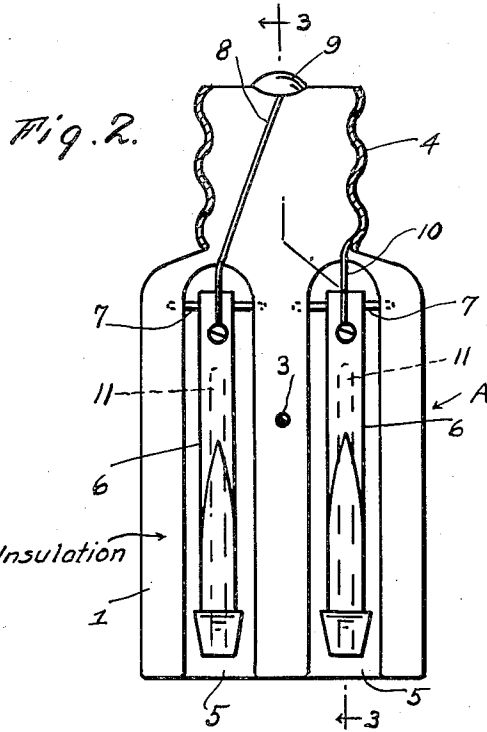
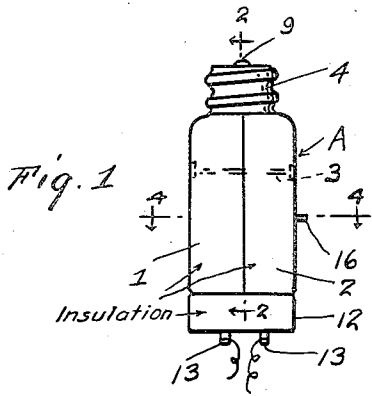
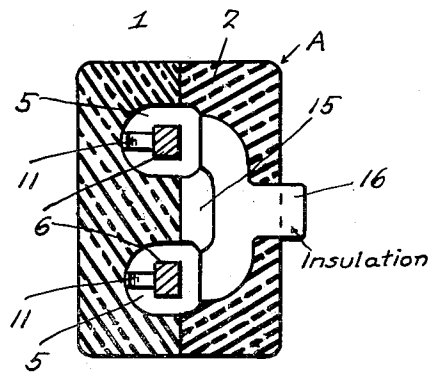


Fig. 4.



Inventor

H. A. Witcher

By *Clarence A. O'Brien*
Attorney

UNITED STATES PATENT OFFICE

1,966,156

ATTACHMENT PLUG

Horace A. Witcher, Amarillo, Tex.

Application October 21, 1932, Serial No. 638,956

1 Claim. (Cl. 173—343)

This invention relates to an electric attachment plug, the general object of the invention being to provide means for locking the two parts of the plug together so that there is no danger of the two parts pulling apart, as often occurs in the plugs as now constructed, with simple means for unlocking the parts when desired.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an elevation of the plug.

Fig. 2 is a section on line 2—2 of Fig. 1.

Fig. 3 is a section on line 3—3 of Fig. 2.

Fig. 4 is a section on line 4—4 of Fig. 1.

As shown in these views, the plug A is composed of the two sections 1 and 2 which are held together by the bolt 3 and the corrugated metal sleeve 4 which is threaded on the reduced part of the two sections, this part, of course, being adapted to fit in the usual socket.

The inner face of each section is formed with a pair of elongated recesses 5 which are spaced apart and extend through that end of the plug which is opposite the reduced part thereof and a pair of latch-shaped member 6 are placed in the chambers formed by the recesses of the two sections, one member being placed in each chamber and each member 6 is hingedly supported at one end by a pin 7 passing through said end of the member 6 and having its ends entering the walls of the recess adjacent the closed end thereof. One of these members is connected by a conductor 8 to the center contact 9 at the end of the reduced part of the plug and the other member 6 is connected by the conductor 10 with the sleeve or shell 4.

A spring 11 is arranged in each chamber and presses upon the free end of each member 6 and tends to move it in a direction opposite the spring. The second part or cap of the plug is shown at 12 and carries the two members 13 passing through the cap, one of these members 13 entering one of the chambers and the other member the other chamber when the cap is placed on the plug, and each member 13 is formed with a double hook 14 at its inner end, either part of which is adapted to be engaged by the hook on a member 6, as shown

in Fig. 3. By making the hook 14 of double shape, the cap is reversible and it does not matter which chamber either member 13 enters.

The section 2 is formed with a recess 15 which passes through a side of the section and a substantially Y-shaped member 16 is slidably arranged in said recess with its stem projecting from the side of the section and with the ends of its limbs adapted to engage the members 6 when the member 16 is pushed inwardly.

Thus it will be seen that when the cap 12 is pushed up to the end of the plug, the members 13 will have their rounded ends engage the beveled parts of the members 6 so as to move these members against the action of the springs 11, so that the members 13 can pass the members 6 and then the springs 11 will push the members 6 to a position where the hooks on said members 6 will engage parts of the hooks 14, and thus the cap will be locked to the plug and the electrical connection between the parts of the plug and the members 13 of the cap will be completed.

Then when it is desired to release the cap from the plug, the member 16 is pressed inwardly so that its limbs will engage the members 6 and force them away from the members 13 so that said members 13 are free to move out of the chambers or recesses 5. Of course the wires connected with the cap 12 are connected to the members 13 as shown in Fig. 3.

Thus it will be seen that with this invention there is no danger of the parts of the plug being separated as they are firmly locked in position and cannot be separated until the member 16 is pushed inwardly to move the members 6 to releasing position.

When the device is used in a floor or wall plug suitable means may be provided for actuating the member 16 from a point at the exposed part of the plug such as by a push rod connected to a cam which engages the member 16 to actuate the same.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided that such changes fall within the scope of the appended claim.

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

A plug of the class described comprising a body having a pair of chambers therein opening out

through one end thereof, a cap fitting against said end, a pair of contact members passing through the cap and entering the chambers, each contact member having its inner end of arrow shape to provide a pair of oppositely arranged shoulders, a latch member pivotally arranged in each chamber, springs for moving the latch members into engagement with the contact members, a trans-

verse slide of substantially Y-shape located in one side of the plug and having its stem projecting from an exterior part thereof with the ends of its limbs adapted to engage the latch members when the slide is pushed inwardly, to free said latch members from the contact members.

HORACE A. WITCHER.

10	85
15	90
20	95
25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150