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F. P. GATES

ATTACHMENT PLUG

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Fig. 1.

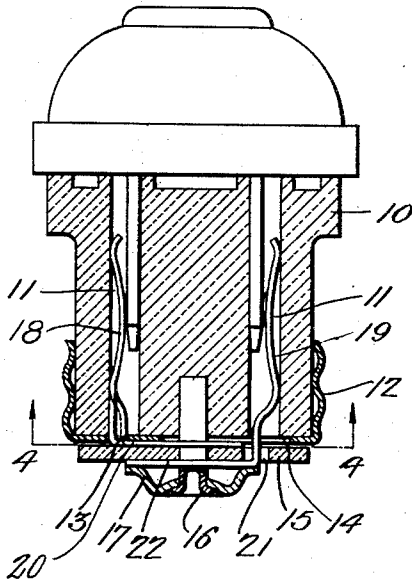


Fig. 2.

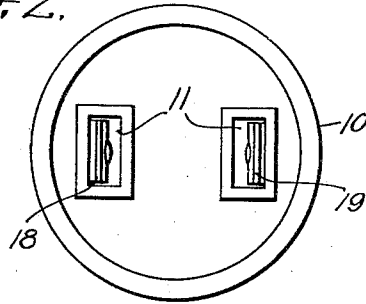


Fig. 3.

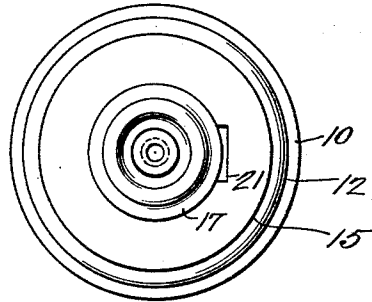


Fig. 4.

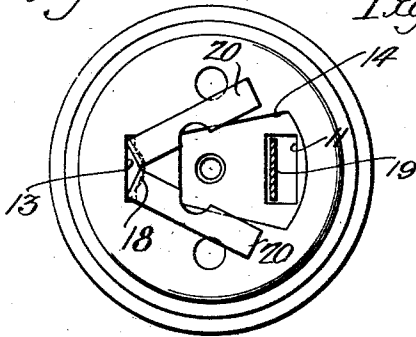


Fig. 5.

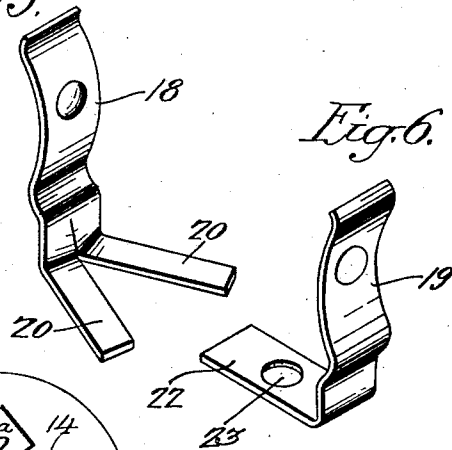


Fig. 6.

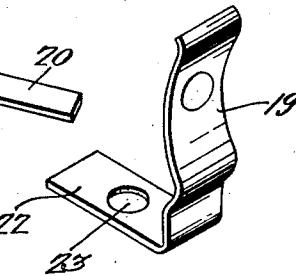


Fig. 7.

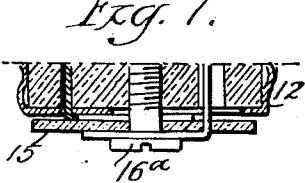
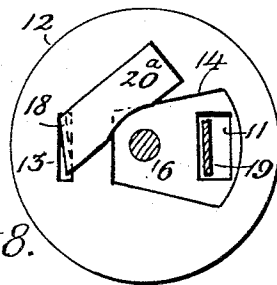


Fig. 8.



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## ATTACHMENT PLUG.

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One object of my invention is to so design an attachment plug that short circuiting of the two contact plates is avoided.

And a further object of the invention is to make one of the contact plates in such manner as to increase the bearing upon the screw-shell, insuring proper contact of the parts.

In the accompanying drawing:

Fig. 1 is a side view showing the attachment plug in section and the blades of the cap in position within the plug;

Fig. 2 is a plan view of the plug;

Fig. 3 is an inverted plan view;

Fig. 4 is an inverted sectional view on the line 4—4, Fig. 1;

Figs. 5 and 6 are detached perspective views of the two contact plates; and

Figs. 7 and 8 are views illustrating modifications of the invention.

The body 10 of the plug is made of hard rubber or other non-conducting material, and has two longitudinal passages 11—11 therein.

12 is a shell having a flange, in which is pressed a screw-thread adapted to a threaded opening in a socket (not shown). In the shell is a narrow slot 13 and an enlarged opening 14. Projecting from the body portion is a hollow stud 16, which with its washer forms a securing device for holding the several parts to the body portion.

The two contact plates 18 and 19 are made as shown in Figs. 5 and 6.

The plate 18 extends through the narrow slot 13 in the shell and into one of the passages 11, and is bifurcated at its lower end, forming two arms 20 as shown in Figs. 4 and 5, which pass on each side of the stud 16, the clearance being sufficient to prevent short circuiting.

The bifurcated portion of the plate forms a base and rests upon the underside of the shell 12, making an extended contact with said shell. A disk of insulating material 15 rests against the bifurcated base of the plate and holds the plate in position.

The disk 15 has a slot 21 therein which aligns with one of the passages in the body portion 10.

The contact plate 19 extends through this slot, through the opening 14 in the shell, and into the passage as shown in Fig. 1, and has a base 22 which is perforated at 23. The base 22 rests against the outer side of the washer.

The hollow stud 16 extends through the opening in the base of the plate, and its washer 17 rests upon the base 22 of the plate, and is held by a flange on the stud which is formed on the stud after the parts are in position, securing all the parts to the base.

In some instances a screw 16<sup>a</sup> may be substituted for the stud and washer as shown in Fig. 7.

In Fig. 8 is shown a modification, in which the base 20<sup>a</sup> of the plate is in the form of a single arm extending to one side of the securing device and clear thereof.

By this construction, the two contact plates are thoroughly insulated one from the other, and each plate has an extended bearing, one upon the cap and the other upon the washer.

I claim:—

1. The combination in an attachment plug, of a body portion having two passages therein; a centrally located device at one end of the body portion and located between the two passages for securing the several parts of the plug to the body portion; a contact plate in each passage, each plate having a base, the base of one of said plates being shaped to extend to one side of the central securing device and clear thereof, the other plate being arranged to contact with the securing device; and insulation located between the bases of the two plates.

2. The combination in an attachment plug, of a body portion having passages therein; a device at one end of the body portion for securing the several parts of the plug to the body portion; a contact plate in each passage, one of said plates having a bifurcated base extending on each side of the securing device and clear thereof, the other plate having a base in contact with the securing device; and an insulating washer located between the bases of the two plates.

3. The combination in an attachment plug, having a perforated base through which the stud extends; a disk of non-conducting material located between the two bases; and a washer secured to the stud and in contact with the outer base.

5 extending through the shell, each plate having a base, the base of one plate being bifurcated to clear the projecting stud, the other

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