

C. J. KLEIN.
RECEPTACLE CLOSURE.
APPLICATION FILED NOV. 5, 1913.

1,191,192.

Patented July 18, 1916.

Fig. 1.

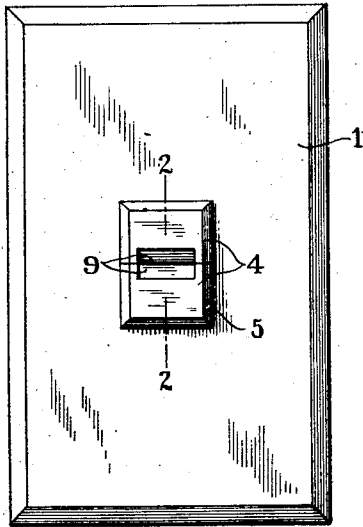


Fig. 2.

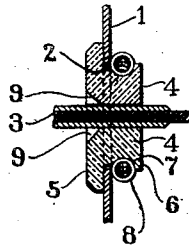


Fig. 3.

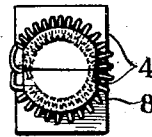


Fig. 4.

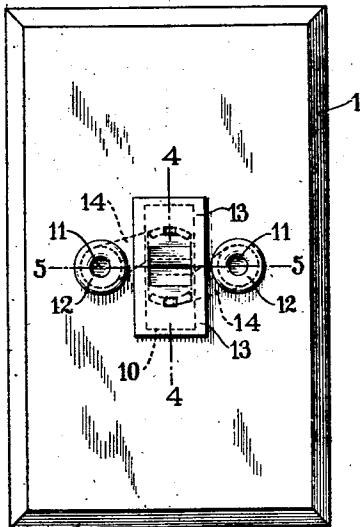


Fig. 5.

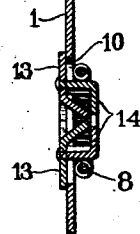
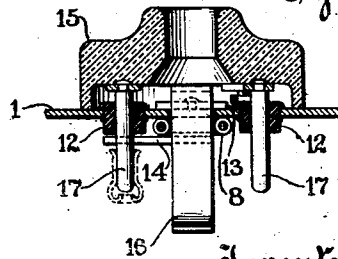


Fig. 6.



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UNITED STATES PATENT OFFICE.

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RECEPTACLE-CLOSURE.

1,191,192.

Specification of Letters Patent. Patented July 18, 1916.

Application filed November 5, 1913. Serial No. 799,352.

To all whom it may concern:

Be it known that I, CHARLES J. KLEIN, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Receptacle-Closures, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

This invention relates to closures for electric plug receptacles.

One of the objects of my invention is to provide simplified and more compact closures for the openings in face plates of such receptacles.

Other objects will appear hereinafter.

In order to more fully disclose my invention I have illustrated the preferred embodiment thereof in the accompanying drawing, which I shall now describe.

Figure 1 is a front view of a face plate and closure; Fig. 2 is a sectional view on the line 2—2 of Fig. 1, with the tip of a contact plug partially inserted through the closure; Fig. 3 is a rear view of the closure; Fig. 4 is a front view of a modified form of face-plate and closure; Fig. 5 is a sectional detail view on the line 4—4 of Fig. 4; and, Fig. 6 is a sectional view on the line 5—5 of Fig. 4, showing one form of plug for use with the modified closure.

Referring to Figs. 1, 2, and 3, a face-plate 1, of conventional design, is adapted to cover an electrical receptacle. An opening 2 is provided in the face-plate to give a plug member 3 access therethrough to the receptacle. The closure means for the opening 2 includes a pair of insulating members 4 having sliding engagement with the face plate. These members extend through the opening and are normally biased to close the same. The face portions 5 of the closure are of sufficient size to completely conceal the opening 2 in the face-plate. The inner portions 6 of the closure are of a size to permit the same to be readily inserted in the opening 2 and slide therein and the same may be provided with a circumferential groove 7 to receive a helical coil spring 8. When the closure is placed in the opening 2 the garter spring 8 may be snapped thereon and serves both to hold the parts of the closure together and to retain the same in position on the face plate.

At the adjacent front edges of the mem-

bers 4 the same may be provided with complementary beveled recesses 9 to facilitate the insertion of the plug tip 3 therethrough. Upon such insertion the members 4 are separated against the tension of the spring 8 and slide apart until the opening 2 is clear. The flat faces of the closure thereupon engage the extension of the plug member therebetween and grip the same against accidental withdrawal. When the plug is pulled from the receptacle the spring 8 contracts and snaps the members 4 together to again close the opening.

The modified form of closure shown in Figs. 4, 5 and 6 is designed more particularly for use with receptacles and plugs having separated contacts. The face plate 1, in this form, is provided with a closure opening 10 and spaced contact openings 11 at opposite sides. The contact openings 11 may be lined with insulating bushings 12. The closure comprises complementary members 13, which may be of metal, adapted to slide apart over the face-plate. Each of these members carries a wing or plate 14 extending to one side and beneath the opening 11. The plate 14 may be riveted to the members 13, or otherwise secured thereto. The coil spring 8 encircles the closure means and normally presses the members 13 and plates 14 together to close all the openings in the face-plate. The adjacent edges of the members 13 may be beveled to facilitate insertion of the plug, as described in the previous embodiment. The plug 15 for use with the modified closure described is provided with a central operating extension 16 and spaced contact fingers 17. The extension 16 is of greater length than the contacts 17 so that the closure is opened in advance of the insertion of the contacts 17 and remains open until after withdrawal of the same from the receptacle.

It is to be noted that my improved closure is exceedingly simple, cheap to manufacture, capable of ready assembly, and not likely to get out of order.

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

1. A face plate for electrical receptacles having an opening therein and a sliding closure for said opening, said closure having parts engaging the opposed faces of said plate to utilize said plate as a guide.

2. A face plate for electrical receptacles having an opening therein and a sliding

closure for said opening, said closure bearing against the front face of said plate and being provided with parts projecting through said opening and overlapping the rear face of said plate whereby said closure is slidable upon said plate as a guide.

3. A face plate for electrical receptacles having an opening therein, a sliding closure for said opening and common means for securing said closure to said plate and biasing the same to close said opening.

4. A face plate for electrical receptacles having an opening therein, a sliding closure for said opening bearing against the outer face of said plate and projecting through said opening and a spring on the opposite side of said plate to engage and secure said closure to said plate and to bias the same to close said opening.

5. A face plate for electrical receptacles having an opening therein, a sliding closure comprising a plurality of spreading sections and a single spring biasing said sections together.

6. A face plate for electrical receptacles having an opening therein, a closure for said opening comprising a plurality of spreading sections and a circular spring surrounding parts of said sections to bias the same together.

7. A face plate for electrical receptacles having an opening therein, a sliding closure comprising a plurality of spreading sections each having a part bearing against the outer face of said plate and a part projecting through said opening and a circular spring adjacent to the inner face of said plate and surrounding the projecting parts of said

sections to bias the same together and to secure said sections to said plate.

8. A face plate for electrical receptacles having an opening therein and a closure for said opening flanged to overlap the front face of said plate entirely around said opening, said closure comprising a plurality of sections each slidably mounted on said plate.

9. A face-plate for electrical outlet boxes having an opening therein, and a spring-pressed closure for said opening movable in a plane parallel to the plane of said face-plate.

10. A face plate having spaced plug openings and an auxiliary opening therein and movable closure members for said plug openings, both of said members having actuating parts registering with said auxiliary opening.

11. A face plate having an opening therein, a closure for said opening comprising a plurality of sliding sections, other openings and an extension on each of said sections serving as a closure for one of said last mentioned openings.

12. A face plate having spaced plug openings and an auxiliary opening therein and sliding closure plates for said plug openings, both of said plates having actuating extensions registering with said auxiliary opening.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

CHARLES J. KLEIN.

Witnesses:

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F. H. HUBBARD.