J. G. PETERSON.

ELECTRIC SWITCH RECEPTACLE.

APPLICATION FILED MAR. 22, 1910.

998,119.

Patented July 18, 1911.

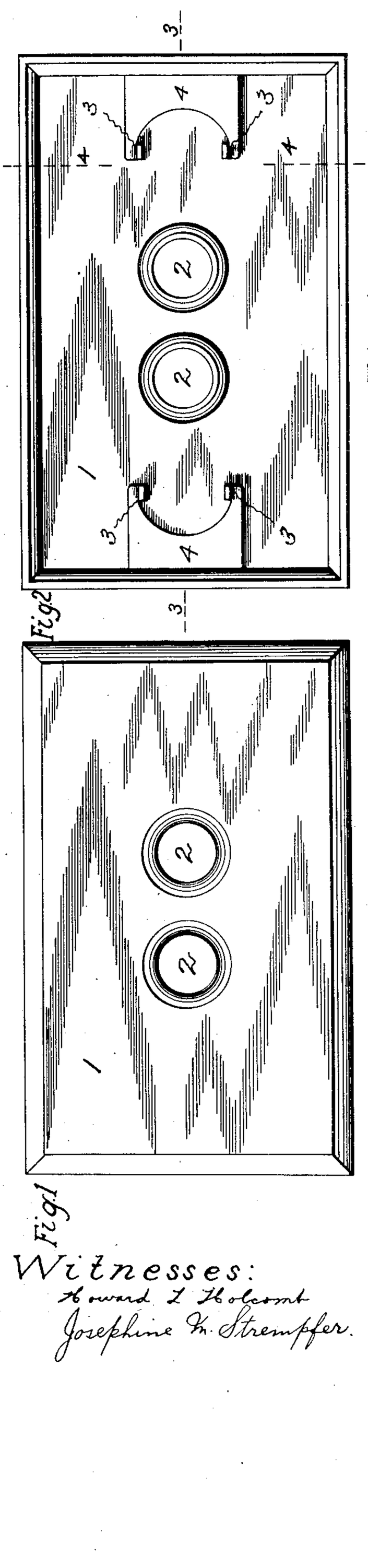

Fig. 2

Fig. 1

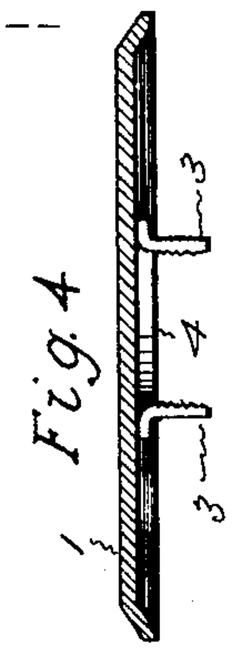

Fig. 4

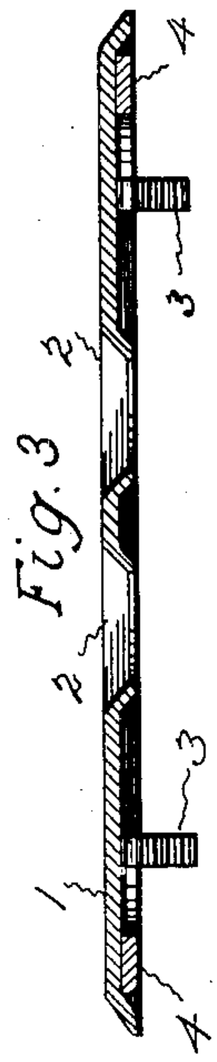

Fig. 3

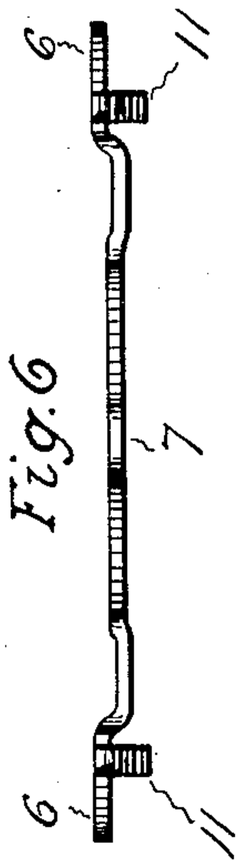

Fig. 6

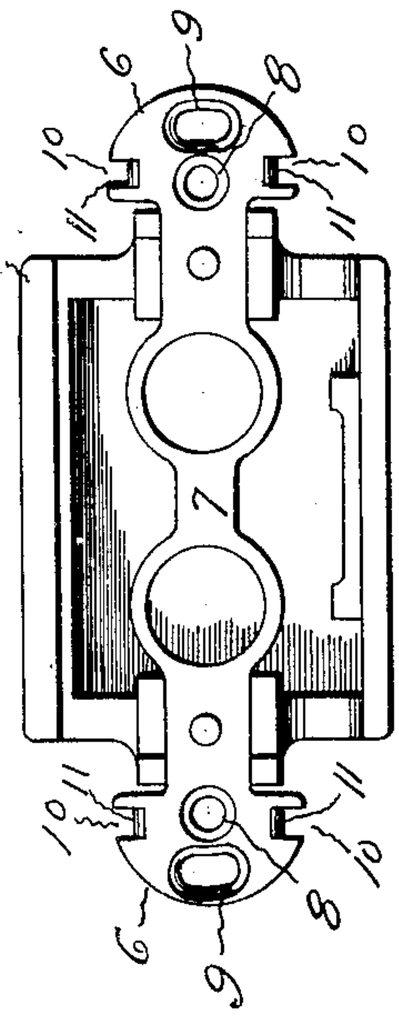

Fig. 5

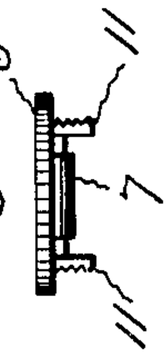

Fig. 7

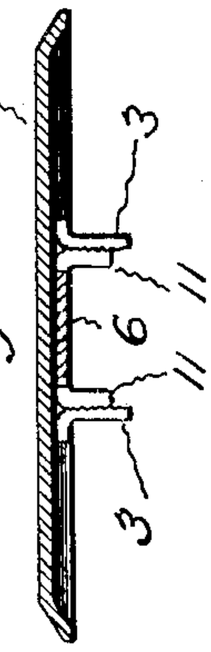

Fig. 8

Witnesses:

Howard L Holcomb

Josephine M. Strempfer.

Inventor:

Johann G. Peterson by

Harry D. Williams

atty.

UNITED STATES PATENT OFFICE.

JOHANN G. PETERSON, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE ARROW ELECTRIC COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ELECTRIC-SWITCH RECEPTACLE.

998,119. Specification of Letters Patent. Patented July 18, 1911.

Application filed March 22, 1910. Serial No. 550,892.

To all whom it may concern:

Be it known that I, JOHANN G. PETERSON, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Electric-Switch Receptacles, of which the following is a specification.

This invention relates to the means employed for attaching the cover, face or wall plates to electric snap switches. It has been customary to secure such plates of electric snap switches, particularly those of the push button type, in position by means of screws which pass from the front through the plates and into the lugs, bridges or other parts of the frame or mechanism receptacles. This method of attachment requires the provision of screws, which take some time to turn in and out, and whose heads are exposed on the face of the plate, and besides being more or less unsightly, are apt to become more or less marred by the use of a screw driver which does not fit the particular slots of the screws. Furthermore the plates are frequently marred by the slipping of the screw driver from the slots when the screws are being tightened or loosened.

The object of this invention is to provide a face plate for a snap switch with concealed means for securing it in position, which are simple and cheap to construct, and which enable the plate to be quickly applied to, or removed from, the front of the switch mechanism, without the use of any tool.

Figure 1 of the accompanying drawings, which illustrate the invention as designed for use in connection with push button switches; shows a face view of such a switch with the plate attached by the improved concealed means. Fig. 2 shows a view of the back side of the plate. Fig. 3 shows a longitudinal section of the plate on the plane indicated by the dotted line 3—3 on Fig. 2. Fig. 4 shows a transverse section of the plate on the plane indicated by the dotted line 4—4 on Fig. 2. Fig. 5 shows a plan of a switch receptacle with a common form of bridge provided with the usual lugs for attaching it in position. Fig. 6 is an edge view of the bridge shown in Fig. 5. Fig. 7 is an end view of the bridge. Fig. 8 is a transverse section of the plate and bridge, showing the manner in which the parts are engaged for fastening the plate to the bridge.

The cover, face or wall plate 1, may be cast, rolled or stamped from any desired metal to any required shape and size. The plate illustrated is one which is stamped from relatively thin metal, with a pair of perforations 2 for the passage of the actuating buttons of a push-button switch. These plates, as heretofore made, have been provided with two countersunk perforations for the passage of the screws used for securing them in position. With the present invention, these perforations are unnecessary. In place thereof, a pair of fingers 3 may be attached to the back side of the plate, near each end. These fingers can be bent from, or attached to plates 4, which may be soldered, brazed, or otherwise fastened to the inner surface of the cover plate. It is desirable that these fingers be yielding, and that their inner faces be toothed or otherwise roughened.

The receptacle 5 which is shown, is a porcelain cup designed to receive a common form of snap switch mechanism. As the mechanism forms no part of the invention, it is not illustrated. These receptacles are provided with ears 6, which may or may not be integral with the bridge 7. The ears are ordinarily provided with perforations 8 and slots 9 for the passage of the screws which are used to fasten the receptacles into the wall boxes in which they are usually placed. These ears are preferably notched on each side, as at 10, and it is desirable to turn sections of the edges of these notched portions backwardly so as to provide a pair of inwardly projecting lugs 11 at each end. It is desirable that these lugs be somewhat yielding, and that their outer faces be notched or otherwise roughened. The distance from the notches 10 at one end to the notches 10 at the other end is the same as the distance between the fingers 3 which project from near the ends of the face plate. The width of these notches is substantially the same as the width of the fingers 3, and the distance between the outer surfaces of each pair of the lugs that extend backward from the ears, is practically the same as the distance between the inner faces of each pair of fingers that project backward from the face plate.

With the construction described, after a

switch has been secured in the wall box, the face plate is placed over the front, with the fingers 3 in the notches 10, and then pushed backward. The inner faces of the pairs of fingers 3, on the back of the face plate, engage the outer faces of the pairs of lugs 11, that project backwardly from the ears, and hold the face plate firmly in position. As the fingers on the face plate extend through notches in the ears, the face plate always assumes the correct relation to the switch mechanism. The elasticity of the fingers and lugs causes them to bind together, and if they are roughened, they will bind and hold the plate firmly in position against a wall, regardless of the exact setting of the ears with relation to the plane of the surface of the wall.

When it is desired to remove the face plate from the switch, it is merely necessary to pry it off, the fingers yielding sufficiently to permit this, although they engage with sufficient firmness to hold the plate in proper position during all ordinary service.

By the employment of this invention, face plates are provided with concealed attaching means which permit the plates to be quickly placed in or removed from position, without the employment of any tool. Such plates are smooth on the front face and they are not liable to be marred by any tool when they are placed in position, as are plates which are fastened by screws.

The invention claimed is:

1. An electric switch receptacle, means for securing said receptacle in position, a face-plate covering the open end of the receptacle, a concealed means projecting from said plate and engaging parts of said securing means, said engagement of the parts being frictional, whereby the face-plate may be fastened over the receptacle by a push and released therefrom by a pull.

2. An electric switch receptacle having means for supporting it in position, a face-plate, and yielding means projecting from the inside of the face-plate and engaging with a spring grip parts of the said supporting means, and by such engagement holding the face-plate in position.

3. An electric switch receptacle having ears for securing it in position, a face-plate and concealed means projecting from the back of the face-plate and frictionally gripping portions of said ears, and by such frictional engagement constituting the sole fastening means for detachably holding the face-plate in position.

4. An electric switch receptacle having notched ears for supporting it in position, and a face plate having means projecting from its back into said notches in such manner as to position the face plate and hold it in place when the plate is applied to the switch receptacle.

5. An electric switch receptacle having ears for securing it in position, lugs projecting backward from said ears, a cover plate, and fingers projecting backward from said plate, said fingers being arranged to engage the lugs projecting from the ears, for securing the plate in position.

JOHANN G. PETERSON.

Witnesses:
JOSEPHINE M. STREMPFER,
HARRY R. WILLIAMS.