W. R. YOUNG.

HINGE PIN FASTENING.

APPLICATION FILED SEPT. 17, 1915.

1,161,573. Patented Nov. 23, 1915.

Fig. 1.

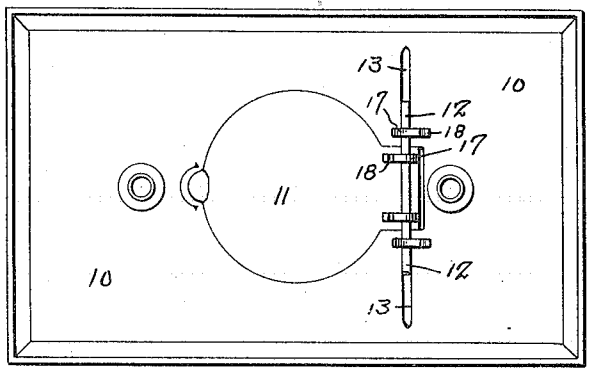


Fig. 2.

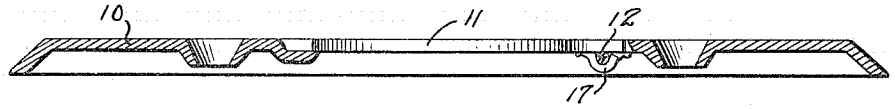


Fig. 3.

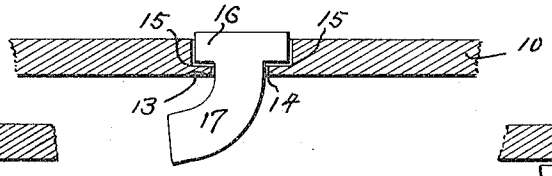


Fig. 6.

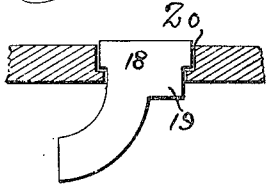


Fig. 7.

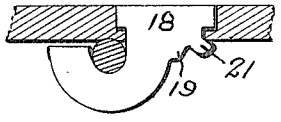


Fig. 4.

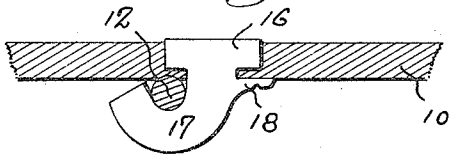
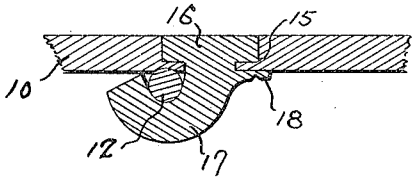


Fig. 5.



Witness:-

Fitz H. Irme.

Inventor

WILLIAM R. YOUNG

By his Attorneys

Howson and Howson

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UNITED STATES PATENT OFFICE.

WILLIAM R. YOUNG, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE PERKINS ELECTRIC SWITCH MANUFACTURING COMPANY, OF BRIDGEPORT, CONNECTICUT, A CORPORATION OF CONNECTICUT.

HINGE-PIN FASTENING.

1,161,573. Specification of Letters Patent. Patented Nov. 23, 1915.

Application filed September 17, 1915. Serial No. 51,229.

To all whom it may concern:

Be it known that I, WILLIAM R. YOUNG, a citizen of the United States of America, and residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented a certain new and useful Improvement in Hinge-Pin Fastenings, of which the following is a specification.

My invention relates to an improved hinge pin fastening particularly designed with reference to face plates for electric flush receptacles and the like.

The object of my invention is to provide an inexpensive and efficient fastening for a hinge pin of the type described.

In the accompanying drawings, Figure 1 is an inverted plan of a flush receptacle cover in which my invention is embodied in one form; Fig. 2 is a longitudinal section therethrough; Figs. 3, 4 and 5 are enlarged sections showing a method by which my improved fastening may be secured in position; Figs. 6 and 7 are similar views showing a modified construction.

While the present invention is capable of use in various relationships, I have illustrated it in the accompanying drawing as applied to a face plate 10 for a flush receptacle. This face plate is provided with a door 11 closing an entrance aperture therethrough into a receptacle, not shown. The door is hinged to a pin 12 which may be set into a groove 13 in the under surface of the face plate.

My invention relates particularly to the means by which this hinge pin is secured on the one hand to the face plate 10, and on the other hand to the door 11. As will be noted from Fig. 3 in particular, the face plate 10 is apertured at 14 adjacent the slot 13 in which the hinge pin 12 is seated. This aperture 14 is shouldered at 15 to afford a seat for the head 16 of a stud 17, the body of which is passed through the aperture from the front of the face plate and the head 16 seated against the shoulders 15. The head of the stud substantially fills the aperture above the shoulders 15 and projects slightly above the upper surface of the face plate. The body 17 of the stud is preferably curved to overlie the pin 12 and hold it in position during the second step of the process of assembly, which consists in subjecting the stud to heavy pressure, with the result that the metal of the head 16 of the stud is expanded into the recess 14 and 15 completely filling the same and at the same time not only bending down the end of the stud body over the hinge pin 12, but simultaneously forming a shoulder 18 below the face plate and on the opposite side of the stud from the hinge pin 12. This shoulder 18 forms a locking flange which coöperates with the head 16 of the stud to very securely join the latter to the face plate.

While the head of the stud may now be substantially flush with the upper surface of the face plate, it commonly projects slightly above the latter. This projecting portion of the head is removed in the finishing operation of the plate which consists in planing the upper surface and applying the usual lacquer treatment thereto. In the finished article it is practically impossible to distinguish between the metal of the stud 17 and the metal of the face plate.

The same procedure is followed in attaching the studs to the door 11 of the face plate, save that in this instance it may be advisable to turn down the body of the stud over the hinge pin 12 with less force in order that the swinging of the door on the hinge pin may be relatively free.

In the modified construction shown in Figs. 6 and 7 the head 18 of the stud is stepped to form a shoulder 19 which projects through the enlarged stepped perforation 20. In the pressing operation a portion of this shoulder 19 is squeezed outward by a V-shaped projection on the die as indicated in Fig. 7. The flange 21 thus formed is somewhat more substantial and certain of formation than that made in the manner first described.

Obviously the precise shape of the stud 17 and the related parts may be modified in various ways without departing from what I claim as my invention.

I claim as my invention:—

1. A hinge pin fastening comprising a support having a shouldered perforation adjacent the hinge pin, a stud passing through said perforation and having a head seated against the shoulders thereof, the body of the stud overlying the hinge pin and retaining the latter, substantially as described.

2. A hinge pin fastening comprising a support having a shouldered perforation ad-

jacent the hinge pin, a stud passing through said perforation and having a head seated against the shoulders thereof, the body of the stud overlying the hinge pin and retaining the latter, said stud head completely filling the perforation and having its outer surface flush with the surface of the support in the finished fastening, substantially as described.

3. A hinge pin fastening comprising a support having a shouldered perforation adjacent the hinge pin, a stud passing through said perforation and having a head seated against the shoulders thereof, the body of the stud overlying the hinge pin and retaining the latter, said stud having a flange formed from the metal of the stud and engaging said support on the side opposite the stud head, substantially as described.

4. A hinge pin fastening comprising a support having a shouldered perforation adjacent the hinge pin, a stud passing through said perforation and having a shouldered head portion seated in the shouldered perforation, the body of the stud overlying the hinge pin and retaining the latter, said stud having a flange formed from the metal of the shouldered head of the stud and engaging the support on the side opposite the stud head, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

WILLIAM R. YOUNG.

Witnesses:
H. M. WICHERT,
GEORGE B. THOMAS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."