

G. F. POWELL.
EYEGGLASS FASTENER.
APPLICATION FILED JAN. 27, 1908.

930,612.

Patented Aug. 10, 1909.

Fig. 1.

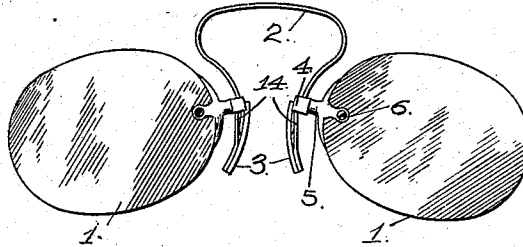


Fig. 2.

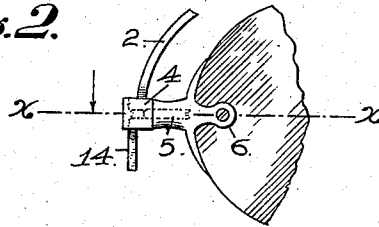
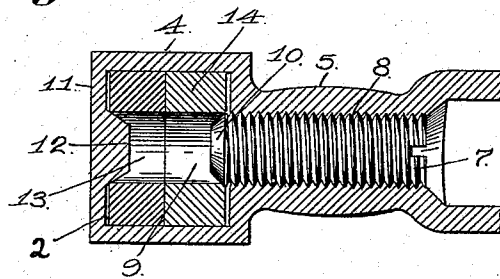


Fig. 3.



WITNESSES.

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EYEGLASS-FASTENER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE F. POWELL, a citizen of the United States, residing at Sacramento, in the county of Sacramento and State of California, have invented certain new and useful Improvements in Eyeglass-Fasteners, of which the following is a specification.

This invention relates to an improvement in eye glass fasteners used for securing the lenses of eye glasses or spectacles to the frame thereof, and more particularly to that class of fasteners in which the ends of the bow and grip guards are secured within boxes, which are in turn secured to the lenses.

The object of the present invention is the provision of a fastener of this type of such a construction that the various parts will be prevented from working loose while at the same time enhancing the appearance of the mounting generally.

Ordinarily the fastening screw enters the box of the fastener from the outer face thereof and, as it is screwed home to secure the different parts in the box, it compresses or draws together the end walls of the box thereby causing an expansion of the side walls thereof. The result is that the side walls of the box instead of bearing against the edges of the parts fitted therein, are forced therefrom, leaving only the compressing strain of the end walls of the box for securing and holding in place the members which fit therein. With this construction, the ends of the bow spring and the arms of the grip guards frequently become loose within the box, requiring constant adjustment of the fastening screw in order to maintain the lenses and frame of the glasses in their proper positions.

By the present invention, a reversal of the securing strains is effected, that is to say, the end walls of the box are forced apart or separated, and the side walls by reason of such separation are drawn inward or compressed so as to firmly grip the edges of the members fitted within the box, thereby securing the face surfaces of the members between the inner end of the fastening screw and the inner face of the outer wall of the box, and the edge surfaces thereof between the inner faces of the contracted side walls of the box, so that the members fitting within the box are held at all points and are prevented from working loose.

In the drawings, wherein a preferable em-

bodiment of the invention is shown and wherein like numerals of reference refer to similar parts in the several views, Figure 1 is a front view disclosing the application of the improved fastener to a pair of eye glasses, Fig. 2 is an enlarged detail view of one of the fasteners, and Fig. 3 is a sectional view taken on line $x-x$ of Fig. 2.

In the drawings, 1 designates the lenses, 2 the bow spring, and 3 the grip guards, which features are of the usual construction.

The box 4 is provided with continuous side and end walls and a post 5 extends outwardly from one thereof and is bifurcated to receive the edge of one of the lenses, which is held in place by the usual screw 6, passing transversely through the bifurcated portion of the post 5, and the usual opening in the lens. Instead of the fastening screw 7 passing into the box 4 through the outer face thereof, as is usual in such cases, said screw works within a screw threaded longitudinal bore 8 formed through the post 5. The fastening screw 7 is slightly greater in diameter than the opening 9 formed in the end portion of the arm of the grip guard which fits within the box and the end 10 of said fastening screw is tapered so as to fit within the opening 9 of the arm 14 of the grip guard 3.

On the inner face of the outer wall of the box 4 is formed a projecting cone boss or projection 12, which fits into an opening 13 in the end portion of the bow spring 2. The perforated end portion of the bow spring enters the box from the open top portion thereof, while the upwardly extended arm 14 of the grip guard enters the box from the bottom.

In positioning the parts, the end of the bow spring 2 is fitted within the box stud from the top and the arm of the grip guard inserted from the bottom, the two members being arranged parallel. The fastening screw 7 is then inserted through the screw threaded bore 8 of the post 5 until its reduced end 10 enters the perforation or opening 9 of the arm 14 of the grip guard. As the fastening screw 7 is tightened, its reduced end bearing within the opening of perforation 9 of the arm 14 forces said arm inwardly against the end of the bow spring, at the same time forcing the perforated portion of the bow spring onto the cone boss or projection 12. The continued tightening of the screw 7 exerts a strain on the outer

end wall of the box stud 4 sufficient to expand the same, causing the side walls of the said box stud to be contracted or drawn inwardly to firmly impinge into the side edges of the bow spring and arm of the grip guard, and thus securely hold the same against lateral displacement. The arm of the grip guard is held against vertical movement by reason of the engagement of the fastening screw therewith, while the bow spring is prevented from vertical play by the engagement therewith of the cone boss or projection 12, which fits into the opening therein, the parts being held thus positioned by the tension of the fastening screw 7.

It will be noted that the fastening screw 7 is entirely hidden from view and hence an unbroken or uniform appearance is given to the outer surface of the fastener, thus greatly enhancing the looks thereof.

As stated, the gripping of the side edges of the members fitted within the box, is due to the longitudinal expanding of the face wall of said box, which causes a compression or a contraction of the side walls thereof, sufficient to firmly grip the side edges of the members to be held and to hold the same against lateral play or movement, which is the end sought to be accomplished by the invention.

The cone boss or projection 12 is described and illustrated as being formed integral with the outer face of the box, and such is the preferred construction, but it is obvious that said cone boss may be loosely fitted within the box and held against the inner face of the outer wall of the box by the pressure of the fastening screw 7, when suitably tightened.

Having thus described the invention, what is claimed as new and desired to be protected by Letters Patent is—

1. In a fastener of the described character, the combination with the hollow box having an open top and bottom, of a shank extended therefrom for receiving the edge portion of a lens, and having a screw-threaded

longitudinal bore communicating with the interior of the box of the box-stud, a cone within the box for engagement with the end portion of a member extended within the box, and a post screw entering the said box through the bore of the shank, said post screw as tightened acting against the member fitted within the box-stud to extend the outer face wall of the box thereof and contract the side walls of the same to impinge onto the edges of the member held therein.

2. In a fastener of the character described, a box having continuous side and end walls and an open top and bottom, a member projecting into said box and closely fitting the side walls thereof, an interiorly threaded post extending from one end of said box for receiving the edge of the lens and a screw threaded in said post from the lens side thereof, extending into the box and bearing against the member therein so as to positively force said member into contact with the end wall of the box and to force said end wall outwardly and thereby cause the side walls of the box to tightly engage the edges of said member.

3. In a fastener of the class described, a box having continuous end and side walls and an open top and bottom, one of said end walls being provided on its interior with a conical boss, an interiorly threaded post extended outwardly from the other end wall, apertured bow and guard members projecting into said box, the aperture in one of said members fitting over the conical boss on the interior of the box, and a screw threaded in the shank and provided with a conical end adapted to engage the aperture in the other of said members.

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

GEORGE F. POWELL.

Witnesses:

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