

No. 677,912.

Patented July 9, 1901.

J. ALEXANDER.
EYEGASSES.

(Application filed Apr. 6, 1901.)

(No Model.)

Fig. 1.

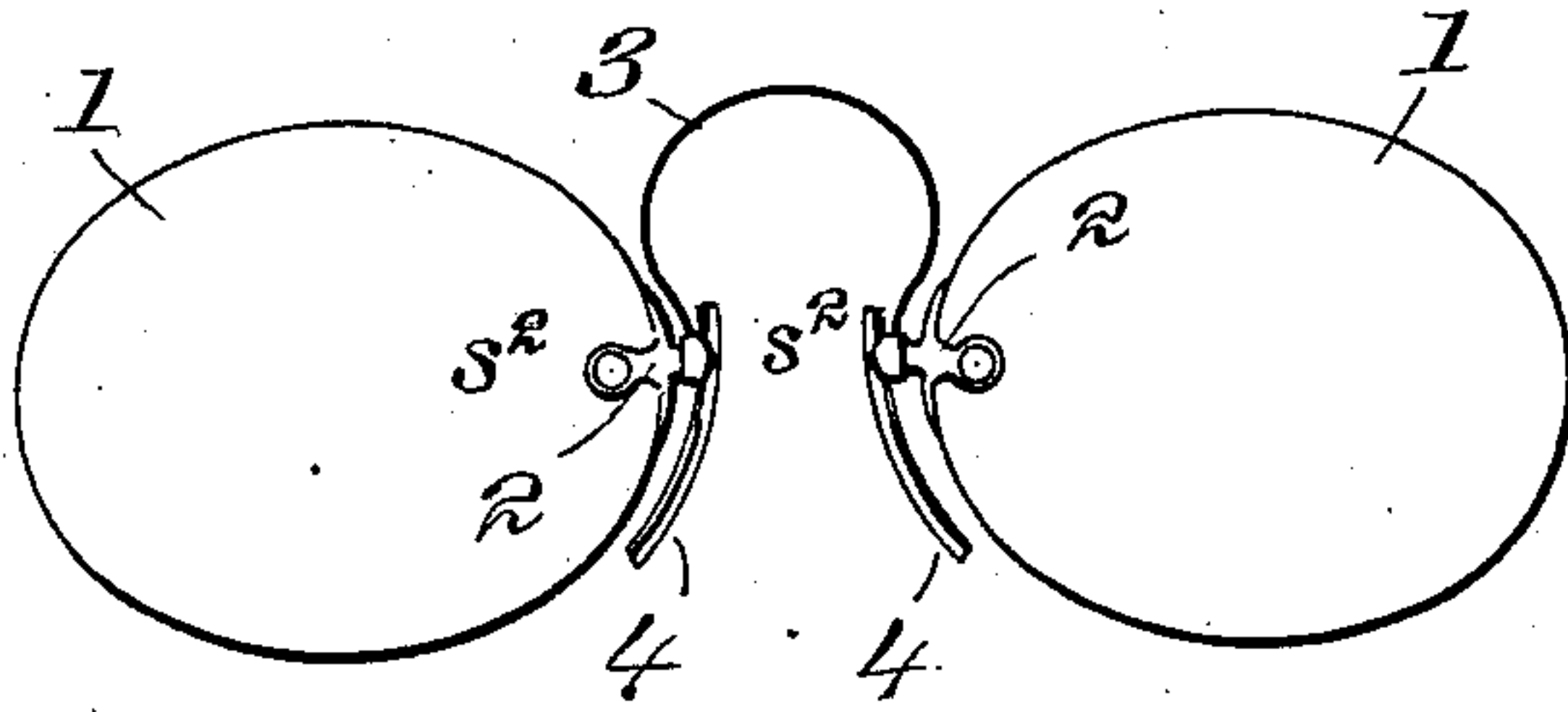


Fig. 2.

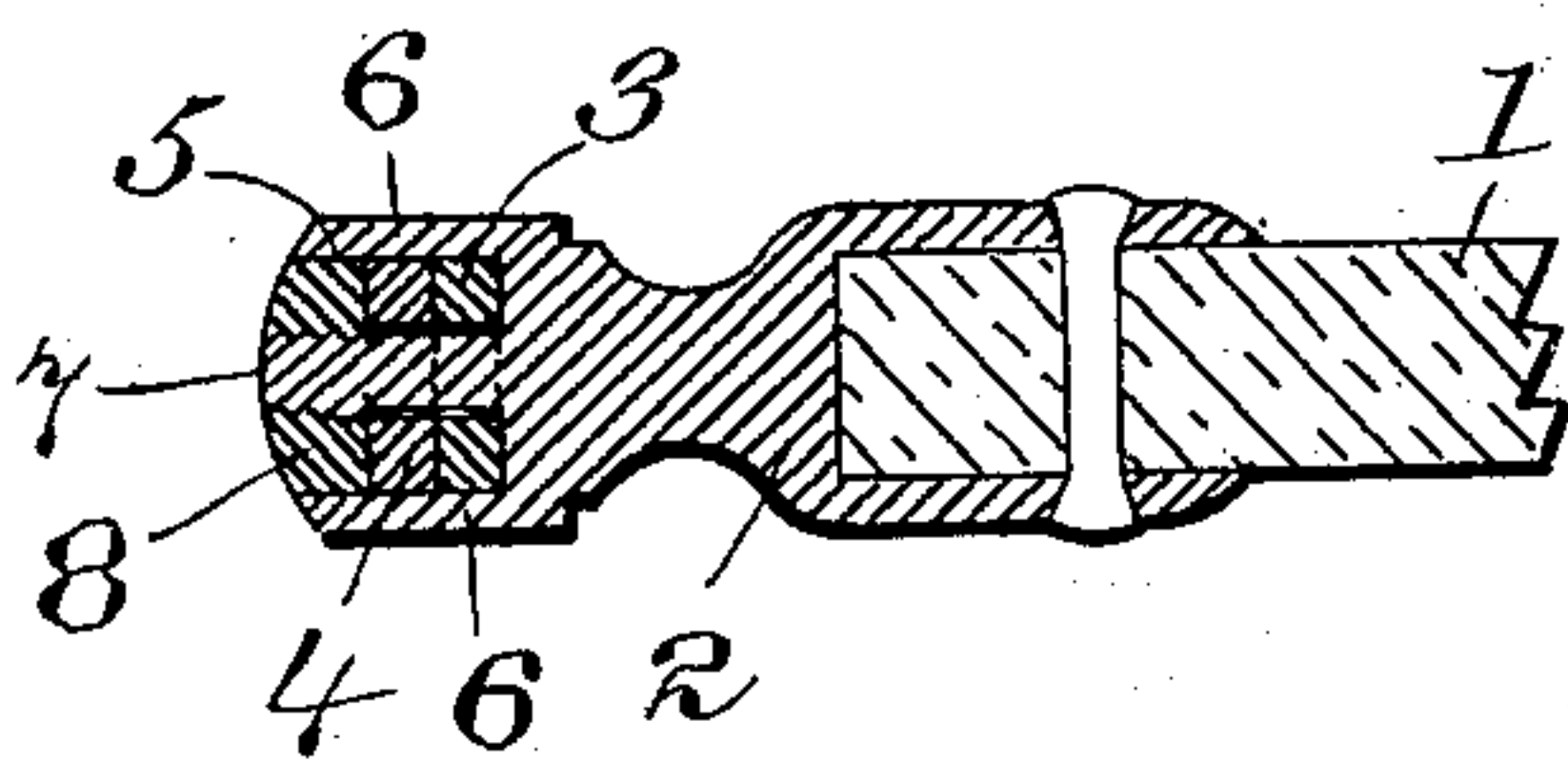


Fig. 3.

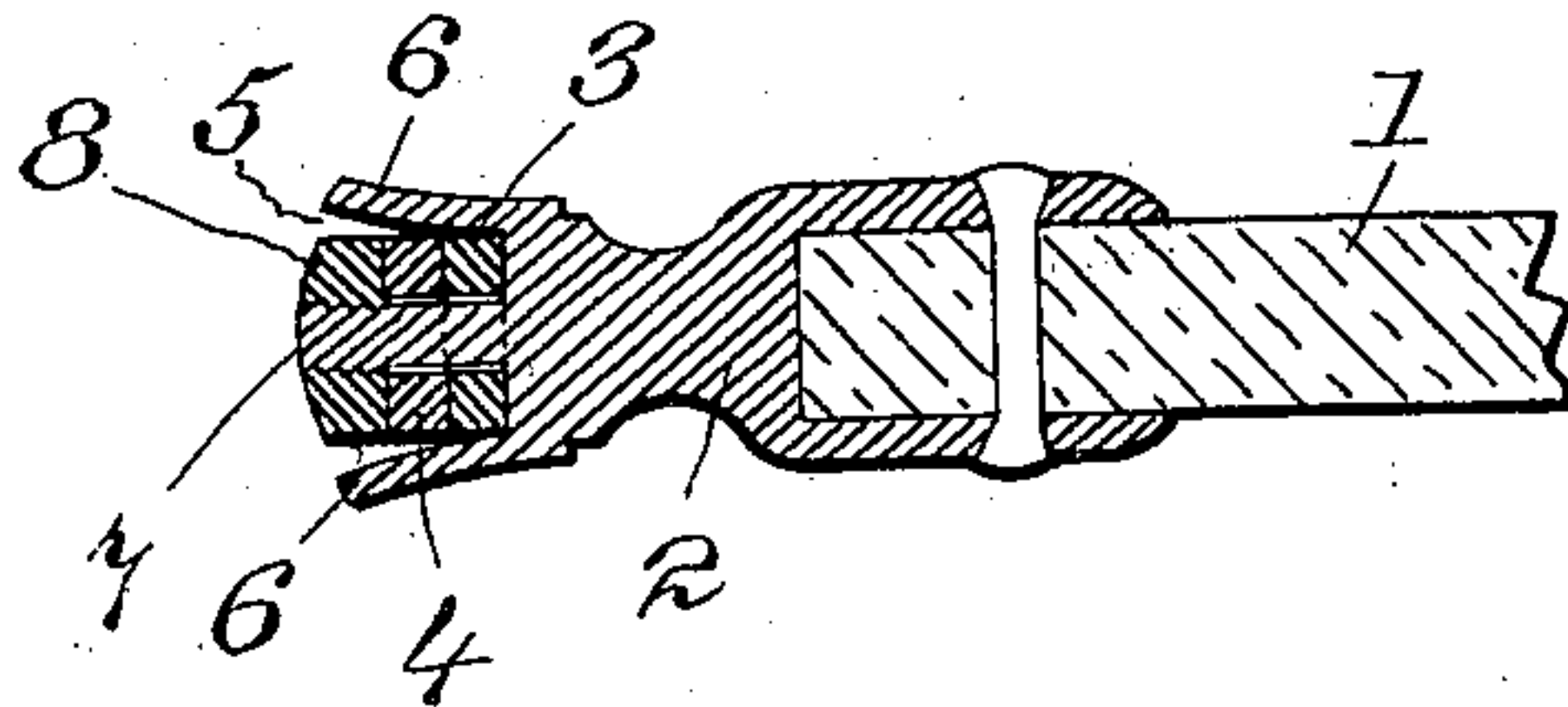


Fig. 4.

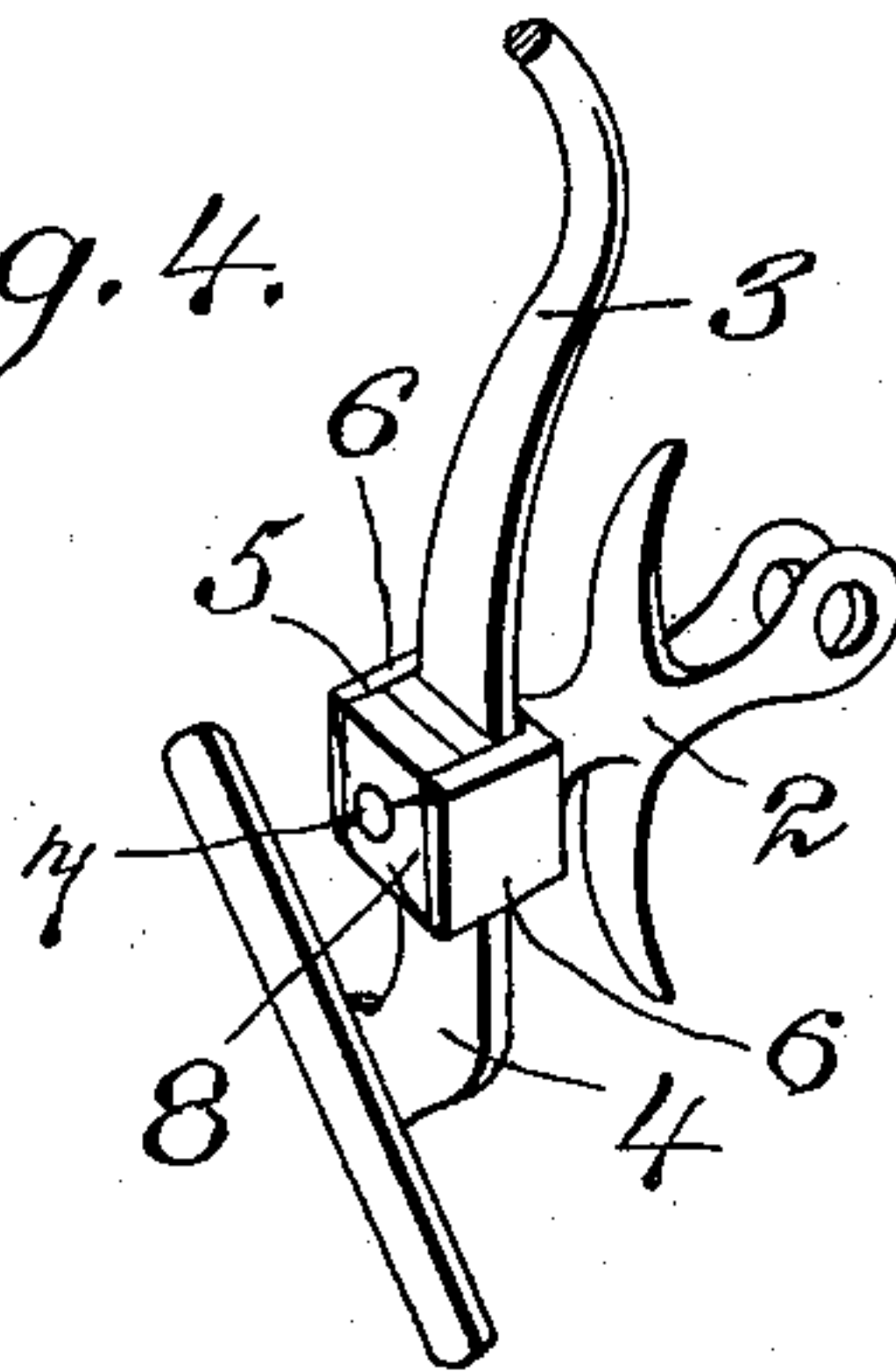


Fig. 5.

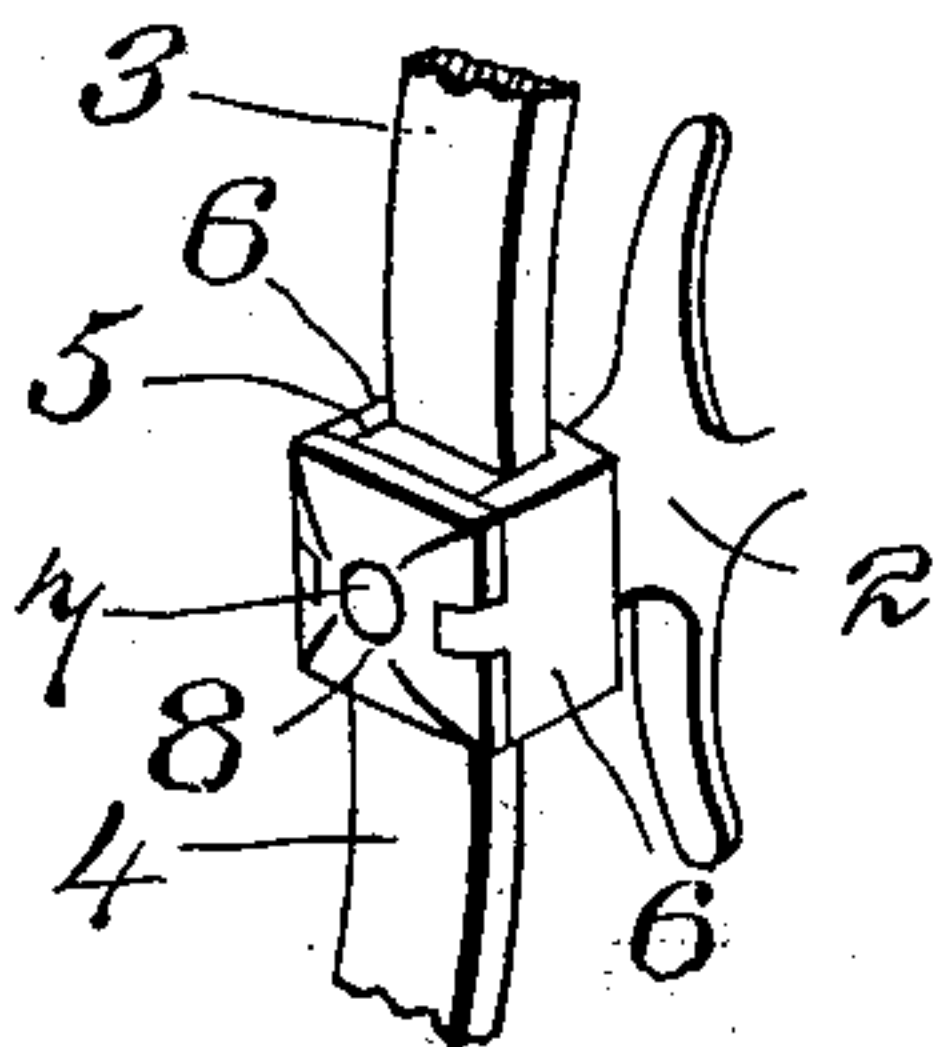


Fig. 6.

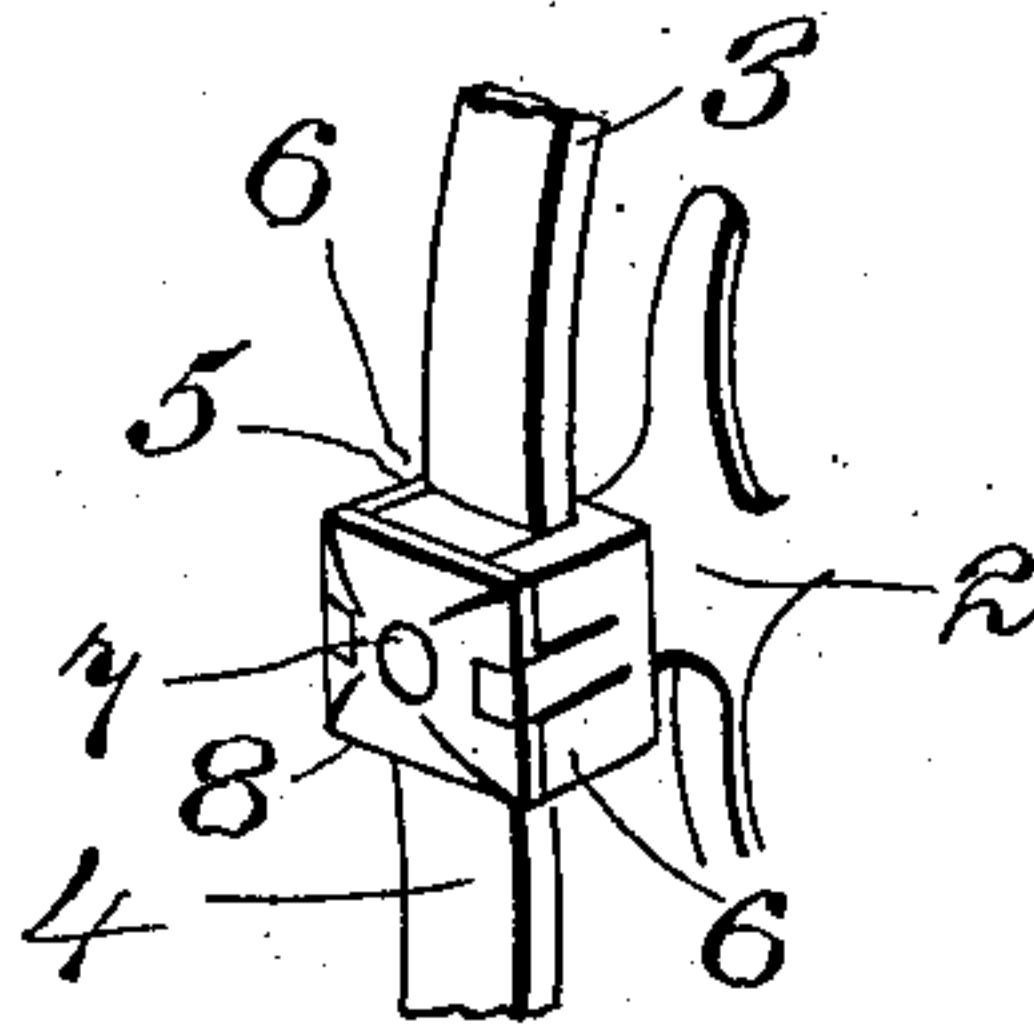
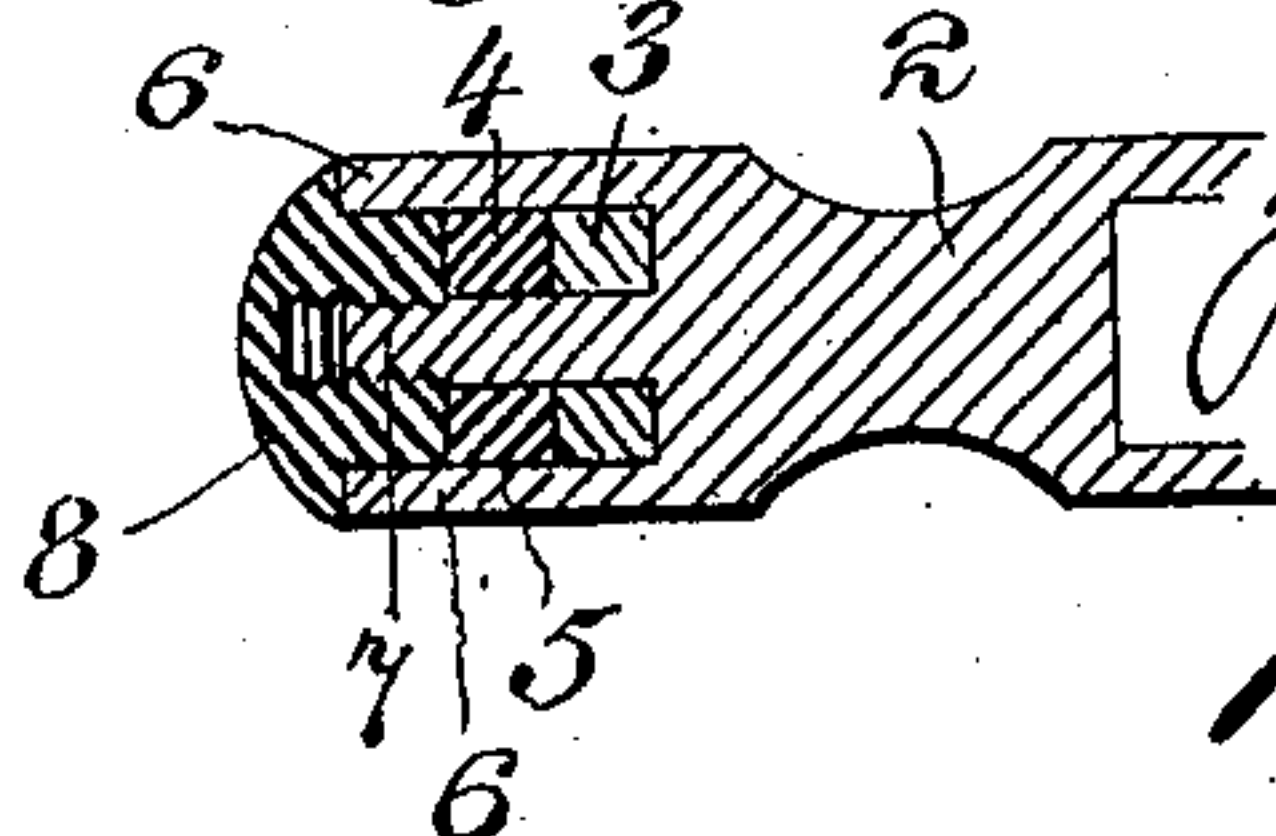


Fig. 7.



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EYEGLASSES.

SPECIFICATION forming part of Letters Patent No. 677,912, dated July 9, 1901.

Application filed April 6, 1901. Serial No. 54,633. (No model.)

To all whom it may concern:

Be it known that I, JACOB ALEXANDER, a citizen of the United States of America, and a resident of the city of New York, county of New York, State of New York, have invented certain new and useful Improvements in Eyeglasses, of which the following is a specification.

My invention relates to eyeglasses, and more particularly to a clamp or fastening for removably securing the spring and guard to the post.

The novelty of the invention lies mainly in the form of clamp or fastening by which a flush-finished joint is formed; further, in the manner of removably locking the spring and guard to the post, and, finally, in various details to be hereinafter described.

The preferred forms embodying my invention are illustrated in the accompanying sheet of drawings, throughout the several views of which like reference-numerals indicate corresponding parts.

Referring to the drawings, Figure 1 is a view in elevation of a pair of eyeglasses with my invention applied. Fig. 2 is an enlarged sectional view taken on the line $s^2 s^2$ of Fig. 1. Fig. 3 is a similar view showing the clamp opened to permit the nut to be screwed on or off the threaded stem. Fig. 4 is an enlarged view in perspective of one of the posts, showing the spring and guard clamped in position. Fig. 5 is a perspective view of a modified form of clamp. Fig. 6 is a similar view of a second modification, and Fig. 7 is a sectional view of a third modification.

In the drawings, 1 1 represent the lenses, which are secured to the posts 2 2 in the usual manner.

3 represents the spring-bridge connecting the posts, and 4 4 are the shanks of the nose-guards.

The posts at their inner ends are notched, as indicated at 5, to provide a recess or seat between twin clamping jaws or lugs 6 6. In forming the recess the metal is cut away about a centrally-disposed stem 7, which forms practically a continuation of the post, having a more or less reduced diameter. This stem extends outwardly through openings in the spring and guard-shank when such parts

are seated in the recess and is threaded at its outer end to receive a nut 8, by means of which the several parts are secured together, said nut being approximately square, or having preferably four sides. The recess is preferably of a depth equal to the combined thickness of the spring, guard-shank, and nut, and the latter, as shown in Figs. 1 to 4, is preferably flush with the outer ends of the clamping jaws or ears of the post. This construction permits of the outer end of the post and nut being nicely rounded and finished and adds greatly to the appearance of the eyeglasses.

Considerable difficulty and annoyance are experienced ordinarily by a person using eyeglasses owing to the tendency of the various parts to work loose and frequently also to the loss of the screw or nut by which the spring and guard are secured to the post. An ordinary screw or bolt is also objected to by manufacturers as unfit and impractical, as the head is often twisted off or broken when the screw or bolt is given a final turn to clamp the various parts securely in position.

Experiments and practical tests have demonstrated that a removable nut as the clamping device gives the best results from every point of view in that it is readily and easily handled, it never breaks, it withstands the wear and tear both in being screwed hard and fast in position and in being removed, and there is little or no strain on the threaded stem with which it engages. Furthermore, when screwed home and properly locked it is impossible for the parts to work loose, and the nut in fitting snugly between the clamping-jaws may be nicely rounded and given an ornamental finish not possible with an exposed screw-head.

I am aware that it has been attempted to clamp the spring and guard in a recess of the post by means of a nut threaded upon a projecting stem, the nut being locked by expanding or spreading the outer end of the stem; but such a construction is not practical, as these parts must be frequently separated to permit repair or the substitution of a new spring or guard, and in order to effect such separation the end of the stem must be filed off before the nut can be removed, and it

would therefore be impossible after thus reducing the length of the stem several times to reassemble the parts.

To avoid the objections above described, I employ a post having a central stem and side clamping-jaws, walls, or ears, together with a nut adapted to be threaded upon the outer end of the stem and clamped between such jaws or ears. In this construction the nut is securely locked against rotation and may be placed in position or removed by merely spreading the clamping-jaws slightly, as indicated in Fig. 3, to permit the nut to rotate between the same. These jaws are formed of sufficient thickness to withstand repeated spreading or bending to such a slight extent without breaking or becoming weakened.

I am also aware that a bolt having a polygonal head has been employed for securing the spring and guard-shank in a recess of the post and that the bolt is locked against rotation by having its head clamped between the side ears of the post; but, as above described, objection is made to the use of a screw or bolt, owing to the tendency of the head to break or twist off as the final turn is given the same to clamp the members in position, and, furthermore, on removing the screw or bolt the several members may fly apart and be lost, as there is nothing to hold them in the notch.

In the modification illustrated in Fig. 5 the nut is notched upon opposite sides, and into these notches lugs or projections of the clamping-jaws fit.

In the modification illustrated in Fig. 6 the lugs or projections of the ears are of greater length and may be termed "spring-tongues," the same being adapted to engage notches of the nut. By reason of the spring action of these tongues they will yield sufficiently to allow for the rotation of the nut, thereby avoiding the necessity of spreading the ears when screwing the nut on or off the stem.

In the modification illustrated in Fig. 7 a flanged nut is employed, which is provided with a threaded socket instead of a through-opening, and when clamped in position the flange overlaps the ends of the side ears of the post and is rounded off nicely or ornamented in any suitable manner and by completely capping or covering the outer end of the post adds to the finish and appearance by concealing the joints.

In assembling the parts of the frame of the eyeglasses the jaws or ears of the post are first spread, as shown in Fig. 3, and after the spring and guard-shank have been properly placed in position the nut is screwed on the stem, and all parts are then securely locked by pinching the jaws or ears together until they clamp the nut, as shown in Fig. 2. To remove or separate the parts, the operation is reversed.

It will be understood that I do not wish to limit myself to the exact form and details of construction herein shown and described, as various changes might be made without departing from the spirit and scope of my invention. Other forms of post might be employed having clamping-jaws of different shape or differently arranged. The cross-sectional form of the threaded stem might be polygonal or elliptical to engage similarly-formed openings of the spring and guard, or the stem might be in the form of a bolt having its head soldered in the post-notch; but all such modifications I consider obvious variations of form and not of substance and still within the meaning of the present invention.

Having, therefore, described my invention, I claim—

1. The combination of the post and the clamping-jaws in part therewith, the spring and guard seated between the jaws, the fixed stem projecting through openings of the spring and guard, and the nut threaded upon the outer end of the stem, the jaws having means to lock the nut in operative position.

2. The combination of the post and the clamping-jaws in part therewith, the spring and guard seated between the jaws, the fixed stem projecting through openings of the spring and guard, and the nut threaded upon the outer end of the stem and bearing directly against one of the clamped members, the jaws having means to lock the nut in operative position.

3. The combination of the post and the clamping-jaws in part therewith, the spring and guard seated between the jaws, the axially-disposed stem equaling the length of the jaws, said stem being fixed to the post and projecting through openings of the spring and guard and the removable square nut threaded upon the outer end of the stem, the jaws having means to lock the nut in operative position.

4. The combination of the post and the clamping-jaws in part therewith, the spring and guard seated between the jaws, the axially-disposed stem equaling the length of the jaws, said stem being integral with the post and projecting through openings of the spring and guard and the removable square nut threaded upon the outer end of the stem and lying wholly within the recess between the jaws, said jaws having means to lock the nut in operative position.

Signed at New York, N. Y., this 3d day of April, 1901.

JACOB ALEXANDER.

Witnesses:

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J. E. PEARSON.