

No. 858,394.

PATENTED JULY 2, 1907.

A. HUTTON.
ADJUSTABLE CLASP FOR EYEGLASSES.
APPLICATION FILED NOV. 19, 1906.

Fig. 1.

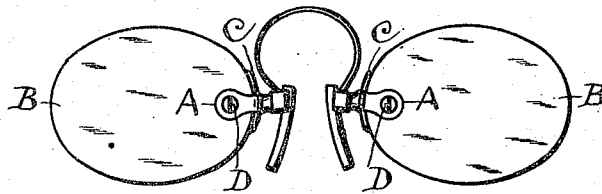


Fig. 2.

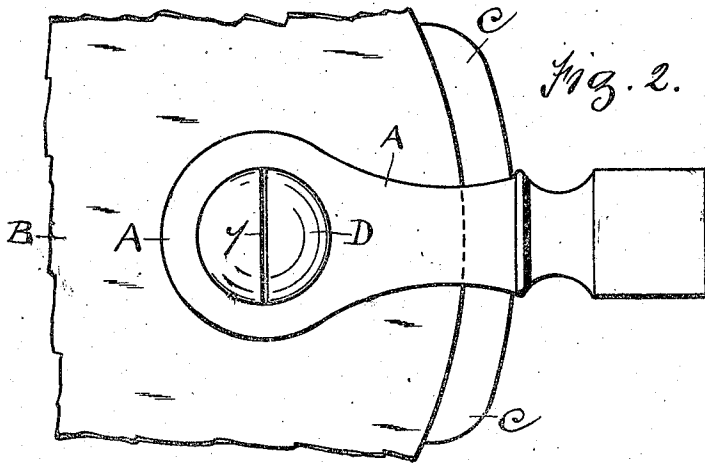


Fig. 3.

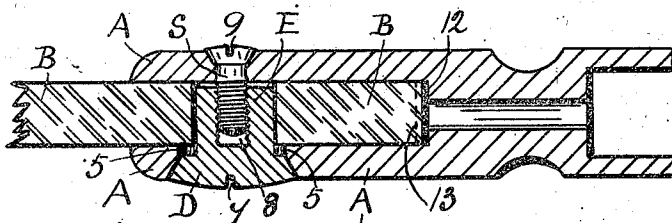


Fig. 4.

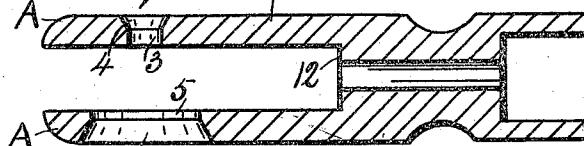


Fig. 5.



Fig. 6.

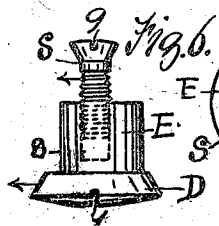
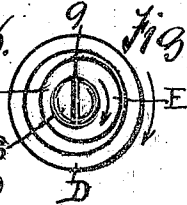


Fig. 7.



Witnesses.
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ADJUSTABLE CLASP FOR EYEGLASSES.

No. 858,394.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed November 19, 1906. Serial No. 343,975.

To all whom it may concern:

Be it known that I, AMOS HUTTON, a subject of the King of Great Britain, and a resident of Hamilton, in the county of Wentworth and Province of Ontario, Canada, have invented new and useful Improvements in Adjustable Clasps for Eyeglasses, of which the following is a specification.

My invention relates to improvements in clasps for eye glasses in which straps are rigidly fixed to the sides of a rimless eye glass and more especially the end of the glass, or lens, is rigidly fixed and locked to the base or root of said straps and to the concave of the arms of the straps, and locked thereto by means of an eccentric sleeve through the lens and a screw through a strap and into the sleeve.

The objects of my invention are, first, to provide means adapted to adjust the inner end edges of the glasses, or lens, to the closest possible contact with the base or root of the clasp, or side straps and consequently in rigid contact with the upper and lower flanges, or arms, of said clasp, and held permanently locked thereto, second, to provide means for drawing or adjusting the inner end of the lens to the base or root of the straps and to the said concave arms thereof, and for retaining the same together in rigid and locked position; third, to afford facilities for the easy rapid and convenient manner in which said adjustments are accomplished and permanently locked together, and fourth, to provide means for adjusting the strap and arms to the lens, without any screw or thread coming in contact with the lens or with any hole in the lens, thereby avoiding any possibility of breakage of the lens, or the breakage of the lens around the hole in the lens. I attain these objects by the mechanism illustrated in the accompanying drawing in which:—

Figure 1 is an elevation of an eye glass embodying my invention. Fig. 2 is an enlarged elevation of the left-hand part of the same, the upper, lower and outer end part of the lens being broken away. Fig. 3 is a sectional plan of Fig. 2 of the drawing. Fig. 4 is the same sectional plan of Fig. 3, of the drawing as seen with the eccentric sleeve, screw and lens removed therefrom. Fig. 5 is a sectional plan of the end part of the lens showing the round hole through the same, and as shown in Fig. 3 of the drawing. Fig. 6 is a detail plan of the eccentric sleeve with screw partially in the same; and as shown in Fig. 3 of the drawing, and Fig. 7 is a detail elevation of the eccentric sleeve, and screw, as shown in Fig. 6 of the drawing, and as viewed from the opposite side of the eye-glass.

Similar characters refer to similar parts throughout the several views.

In the drawing the clasp, or straps is indicated by A, and fits close to the glass, or lens, B, of the eye-glass, the mechanism on each side of the glasses B, and which secure said glasses, or lens, are identical with each other

in every particular, therefore, by describing the mechanism of one lens, the mechanism of the second lens is also described.

C, are the upper and the lower concave arms, or branches, of the horizontal straps A, and form a part of the same, and the inner end of the lens fits closely to the concave part of the arms and to the root or beginning of the straps A. The lens B, has a round hole 2 near to the inner end thereof, as shown in Fig. 5 of the drawing. One part of the straps A, has a round hole 3 with an outer countersink 4, and the opposite strap has a larger and directly opposite round hole 5 with an outer countersink 6. The holes 3 and 5 have one common center.

D is a round beveled head with an outer slot 7, as means for rotating the same in the countersink 6, of the strap A. The head D is shown very fully in Fig. 3 of the drawing in position, and in Fig. 6 of the drawing, out of position.

E is a sleeve on the inner side of the round head D, and is positioned eccentric with the head D and forms a part of the same, and extends partially through the lens and adapted to rotate very loosely in the round hole 2, of the lens. The sleeve E has a round threaded hole 8 into which is screwed the screw S, and the hole 8 is out of center of the sleeve E, but always in center of the holes 3 and 5, together with the countersinks 4 and 6 of the strap A. The beveled head of the screw S, fits into the countersink 4 and is adapted to rotate therein, and has an outer slot 9, as means for rotating the same, and similar to the slot 7, in the head D, said slots being common to screws and the like. The head D and the screw S are always in central line one with the other, no matter how much or how little the head D is rotated, the same may be said concerning the screw S, in its relation to the head D.

It will be noticed in Fig. 5 of the drawing that the round hole 2 of the lens is not in central line with the round head D and the screw S. The lens is shown secured in position between the straps A and the inner end, or convex edge of the lens is in close contact with the base or root 12, of the straps and also in close contact with the concave side of the upper and the lower arms C of the straps, and locked.

In assembling the parts mentioned, the straps are placed on the lens, and the inner end of the lens may be a slight distance away from the base or root 12, and the concave arms C of the straps A, as shown in broken line 13, in Fig. 3, of the drawing. This non contact of the end of the lens with the base of the straps and arms allows the free insertion of the sleeve E, with the head D, together with the screw S, in their respective places and without the slightest difficulty. At this time the head D is rotated in the direction indicated by arrow in Fig. 6, of the drawing, together with the eccentric sleeve in the same direction as indicated by arrow in

Fig. 7 of the drawing, consequently the lens is drawn to close contact with the base 12, and the arms C, then the screw S is rotated in the same direction as the head D, and by this action the straps A together with the sleeve E are securely fastened and locked to the lens. The rotary movement of the sleeve draws the lens to its definite position, that is, to the base of the straps as previously mentioned, but it may also be said that the said rotary movement of the sleeve draws the base of the strap to the lens by means of the head or outer end parts of the screw S, and the head D operating in the straps. The feature of drawing the end of the lens to contact with the base of the straps, or drawing the base of the strap to the lens and locking the same to definite position is important. Again, when the rimless eye glass has been in more or less constant use for years and if the arms should possibly become loose from the end of the lens, as is very common in rimless eyeglasses now in use, then the screw S may be slightly loosened and the head D tightened by slightly rotating the same, as indicated, by arrow, the screw S may then be tightened to again lock the device for use again.

When assembling ordinary straps with arms and lens to form a rimless eye glass, as is common, it is almost impossible to assemble the same, without difficulty, and to retain the said parts together in rigid contact one with the other, and especially in contacting the end of the lens with the base of the straps without breaking the lens. This invention allows the strap to be adjusted to the lens and the arms and base of the straps to be brought to rigid position with the end of the lens, and there locked.

What I claim as my invention and desire to secure by Letters Patent, is:—

1. In a rimless eye glass, a lens with round hole, straps having holes of one center, on both sides of the lens, arms extending in opposite directions from the straps and adapted to fit the end of the lens, means extending through a hole in one side strap and into the hole in the lens and adapted to rotate therein and adjust the arms to the lens and means extending through the hole of the opposite side strap and into the first mentioned means to lock the straps to the lens.

2. In a rimless eye glass, a lens having a hole, straps having holes of one common center on each side of the lens, a head adapted to rotate in one said hole of the straps, an eccentric sleeve on said head extending into the hole of the lens and adapted to rotate therein by the rotary movement of the head to contact the base of the straps to the end of the lens.

3. In a rimless eye glass, straps having holes directly opposite to each other, arms extending in opposite directions on the straps, a lens between said straps and having a hole out of center with said opposite holes, means adapted to rotate in the hole of one said strap and extending into the hole of the lens, to adjust the arms to the lens, and means extending through the hole of the opposite strap and into the first said means adapted to rotate and lock the strap to the lens.

4. In a rimless eye glass, a lens having a hole, straps having countersunk holes opposite to each other, means extending through one said strap and into the hole in the lens adapted to adjust the base of the arms to and from the end of the lens, and means extending through the opposite said strap and into the first mentioned means adapted to lock the straps to the lens.

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Witnesses:

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