

No. 764,101.

PATENTED JULY 5, 1904.

G. F. APPLEGATE.
EYEGLASSES OR SPECTACLES.
APPLICATION FILED DEC. 31, 1903.

NO MODEL.

FIG. I.

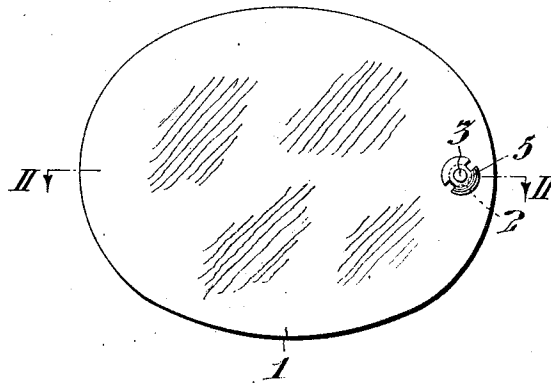


FIG. II.

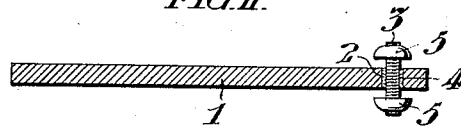


FIG. III.



FIG. IV.

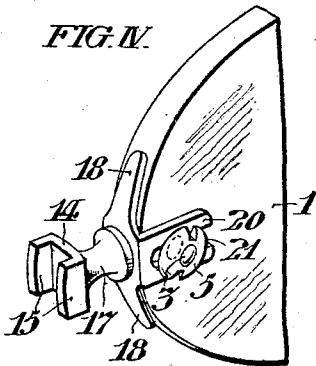


FIG. V.

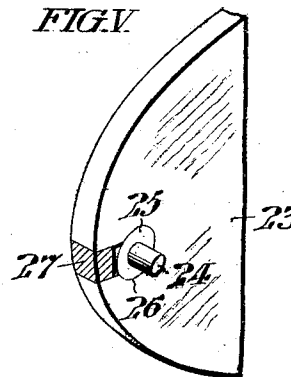
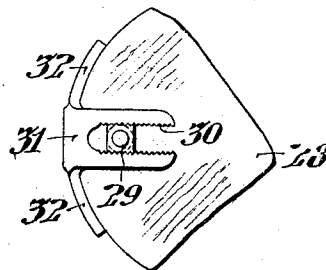


FIG. VI.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE F. APPLGATE, OF TRENTON, NEW JERSEY.

EYEGLASSES OR SPECTACLES.

SPECIFICATION forming part of Letters Patent No. 764,101, dated July 5, 1904.

Application filed December 31, 1903. Serial No. 187,301. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. APPLGATE, of Trenton, in the State of New Jersey, have invented certain new and useful Improvements in Eyeglasses or Spectacles, whereof the following is a specification, reference being had to the accompanying drawings.

My invention is particularly applicable to frameless or rimless lenses, and provides peculiar attaching means to maintain such lenses in proper relation with clamps or other frame members.

As hereinafter described, my invention comprises a lens of the class specified having an attaching member, preferably of metal, permanently secured in stationary position in a recess in the lens and comprising a projection which may be engaged in screw-threaded or riveted connection with a frame member without removal from the lens.

My improvements also provide a frame member arranged to engage such lens-attaching means regardless of such slight variations in the location of said stationary projection with respect to the edge of the lens as are incident to the rapid manufacture of such lenses.

My invention comprehends the various novel features of construction and arrangement hereinafter more definitely specified and claimed.

In the drawings, Figure I is a face view of a lens provided with attaching means comprising a screw-threaded bolt secured in stationary relation with the lens and nuts fitted to said bolt. Fig. II is a sectional view taken on the line II II in Fig. I. Fig. III is a sectional view of a lens, showing modified means for securing a projecting attaching member in stationary position. Fig. IV is a perspective view showing a fragment of a lens and a clamp connected therewith by the attaching means shown in Fig. I. Fig. V is a perspective view of a fragment of a lens provided with a peripheral notch to engage a projection on a frame member. Fig. VI shows a modified form of attaching means and a frame member adapted for engagement therewith.

Referring to Figs. I, II, and III, the lens 1 is provided with a recess or aperture 2, in

which the screw-bolt 3 is permanently secured by the bushing 4, (which may be of cement,) and said bolt is provided with nuts 5 on its opposite ends to engage similar opposite straps of a clamp or other frame member.

The lens 7 (shown in Fig. III) is provided with the screw-bolt 8, which is fixed in the aperture 10 by means of the bushing 11, which latter may be of metal or other material capable of being swaged to form shoulders 12 upon the opposite sides of the lens at right angles to the axis of said bolt 8, so that the straps of the frame member engaged with said bolt come in contact with the opposed parallel surfaces of said shoulders 12 instead of in contact with the converging opposite faces of said lens 7, thus insuring a more uniform distribution of the clamping pressure on the frame member.

Referring to Fig. IV, the lens-clamp 14 comprises the flanged seat 15 to receive the bridge and nose-guard members. Said seat is connected by the shank 17 with the plate which comprises the wings 18, arranged to engage the edge of the lens 1, and straps 20, extending on opposite sides of the lens. Said straps engage the bolt 3 and are secured by nuts 5. The similar straps 20 (only one of which is indicated in Fig. IV) are bifurcated by similar slots or notches 21, which terminate adjacent to the wing members 18 and extend to the free ends of the straps, being of such extent as to register with the projecting attaching member 3 regardless of such variations in the distance of said member from the edge of the lens as are incident to rapid production of such lenses.

Referring to Fig. V, the lens 23 is provided with attaching means comprising the projecting stud 24, permanently secured in stationary position in the bushing 25 in the recess or notch 26 in said lens. Said notch is adapted to receive and engage the lug 27, projecting from the lens-clamp or other frame member, which latter is secured upon said lens by upsetting the projecting ends of said member 24 to form rivet-heads engaged therewith.

Referring to Fig. VI, the lens 28 is provided with attaching means comprising the member

29, having serrated edges adapted to fit anywhere in the series of corresponding serrations 30 along the frame member 31, so that the latter may be applied with its wings 32 in contact with the edge of the lens 28 regardless of slight variations in the location of said member 29 with respect to the edge of the lens.

I do not desire to limit myself to the precise details of construction and arrangement herein set forth, as it is obvious that various modifications may be made therein without departing from the essential features of my invention.

I claim—

1. An eyeglass or spectacle lens, provided with an attaching member seated in an aperture in said lens and projecting from one side thereof, and arranged to extend through a frame member; and, means permanently securing said member in said lens, substantially as set forth.

2. An eyeglass or spectacle lens, provided with an attaching member seated in an aperture in said lens and projecting from one side thereof; arranged to extend through a frame member; and, means surrounding said attaching member in said aperture, permanently securing said member in said lens, substantially as set forth.

3. In an eyeglass or spectacle, the combination with a lens; of an attaching-screw in an aperture in said lens; means permanently securing said screw in stationary relation to said lens; a frame member comprising a strap arranged to engage said screw; and, a nut engaged with the free end of said screw, substantially as set forth.

4. In an eyeglass or spectacle, the combination with a lens provided with an attaching member permanently secured therein; of a frame member having a strap comprising an aperture engaged with said attaching member; and, means at the outer end of said attaching member, securing said frame member to said lens, substantially as set forth.

5. In an eyeglass or spectacle, the combination with a screw-threaded bolt permanently secured therein and projecting from one side thereof; of a frame member having a strap comprising an aperture engaged with said attaching member; and, a nut at the outer end of said bolt, securing said frame member to said lens, substantially as set forth.

6. In an eyeglass or spectacle, the combination with a screw-threaded bolt entered through an aperture in said lens and projecting from the opposite sides thereof; of means permanently securing said bolt in stationary relation to said lens; a frame member having straps respectively comprising apertures engaged with said attaching member upon opposite sides of the lens; and, nuts at the outer ends of said bolt, securing said frame member to said lens, substantially as set forth.

7. In an eyeglass or spectacle, the combination with a lens provided with an attaching member permanently secured therein; of a frame member having a strap comprising an elongated slot arranged to engage said attaching means in different positions of adjustment with respect to the length of said slot, substantially as set forth.

8. In an eyeglass or spectacle, the combination with a lens provided with an attaching member permanently secured therein; of a frame member having a strap comprising an elongated slot with a serrated edge arranged to engage said attaching means in different positions of adjustment with respect to the length of said slot, substantially as set forth.

9. In an eyeglass or spectacle, the combination with a frame member having an elongated slot with a serrated edge; of an attaching member; means permanently securing said attaching member in said lens; and, means carried by said attaching member to engage the serrations in said frame member in different positions of adjustment with respect to the length of said slot, substantially as set forth.

10. In an eyeglass or spectacle, the combination with a lens; of a screw-threaded bolt entered through an aperture in said lens; means permanently securing said bolt in stationary relation to said lens; a frame member provided with opposed straps respectively comprising elongated slots arranged to engage said bolt upon opposite sides of said lens; and, nuts engaged with the respectively opposite ends of said bolt, arranged to clamp said straps in longitudinal adjustable relation on said lens, substantially as set forth.

11. In an eyeglass or spectacle, the combination with a lens; of a screw-threaded bolt entered through an aperture in said lens; means securing said screw in stationary relation to said lens; a frame member provided with opposed straps respectively comprising slots of greater area than the diameter of said bolt; and, nuts engaged with the respectively opposite ends of said bolt, whereby said clamp may be secured in stationary relation to said lens, in different positions of adjustment with respect to the edge thereof, substantially as set forth.

12. In an eyeglass or spectacle, the combination with a lens; of an attaching member entered through an aperture in said lens; means securing said member in stationary relation to said lens, comprising flanges projecting upon the opposite sides of said lens having respectively parallel plane faces; a frame member fitted to said plane faces and secured by said attaching means, substantially as set forth.

13. In an eyeglass or spectacle, the combination with a lens provided with attaching means permanently secured therein, and a notch in the edge of the lens adjacent to said means;

of a frame member, secured by said attaching means, and comprising a lug fitted to said notch, substantially as set forth.

14. An eyeglass or spectacle lens, provided
5 with a recess; attaching means permanently secured in said recess; and a notch in the edge of the lens adjacent to said attaching means, substantially as set forth.

In testimony whereof I have hereunto signed my name, at Philadelphia, in the State of 10 Pennsylvania, this 30th day of December, 1903.

GEORGE F. APPLGATE.

Witnesses:

ARTHUR E. PAIGE,
CLIFTON C. HALLOWELL.