No. 771,837. PATENTED OCT. 11, 1904.

J. A. SCHMID & F. X. GARTLAND.

EYEGLASSES.

APPLICATION FILED DEC. 3, 1903.

NO MODEL.

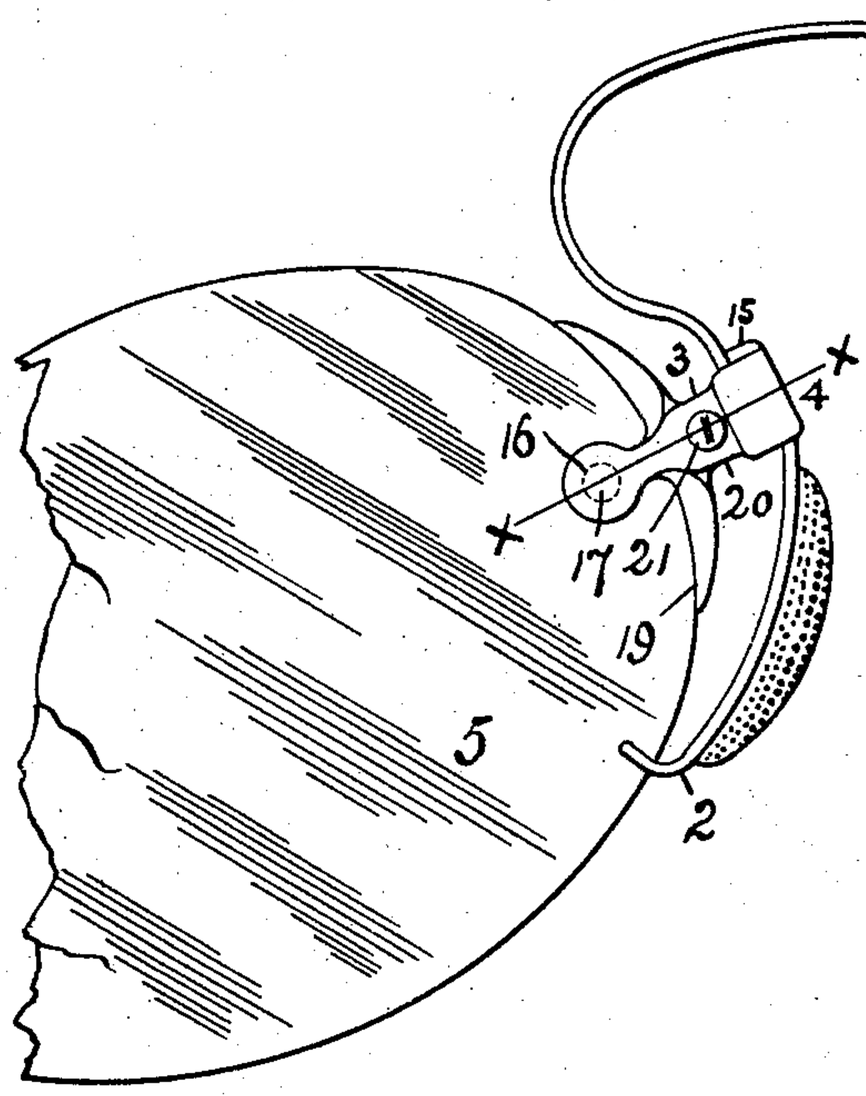


Fig. 1

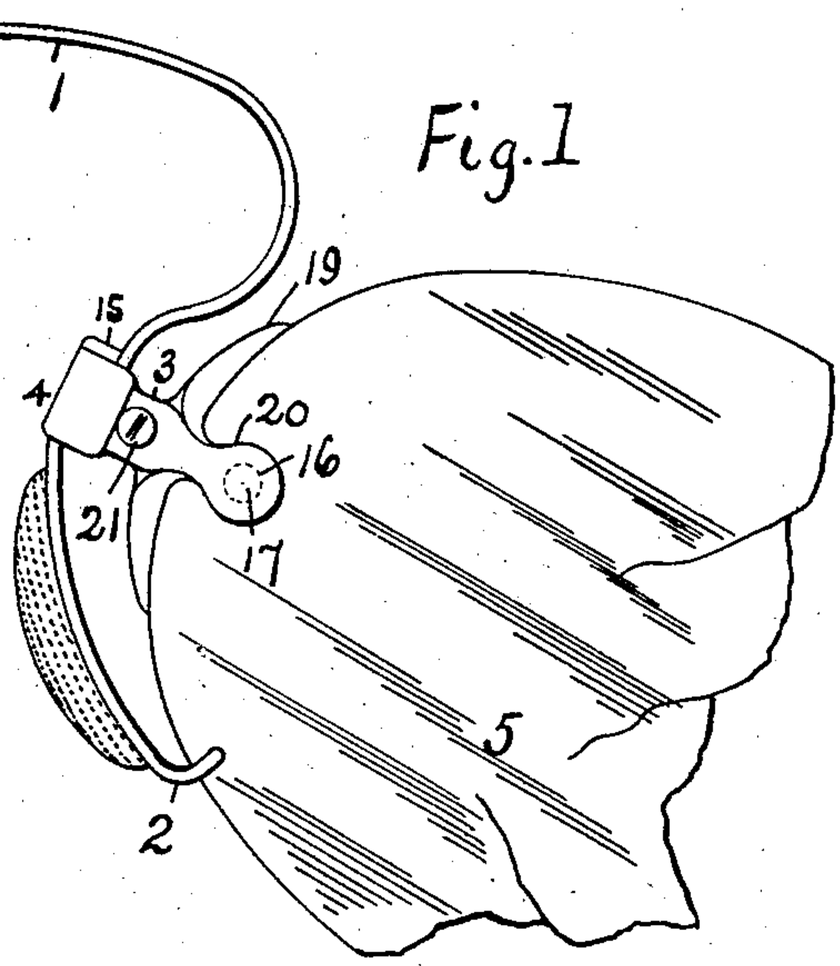


Fig. 2

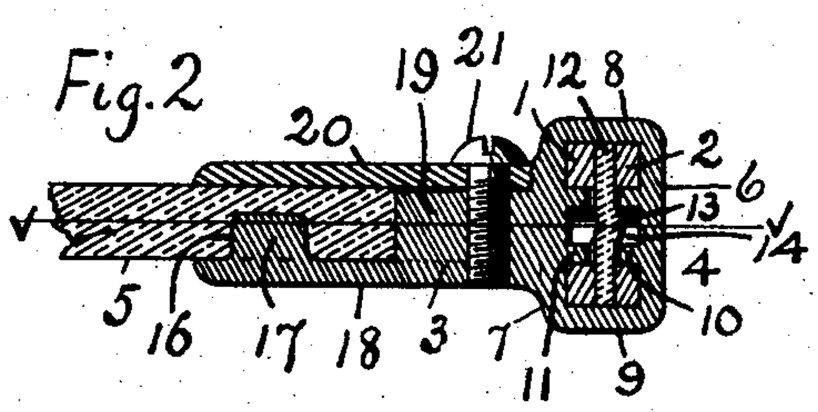


Fig. 3

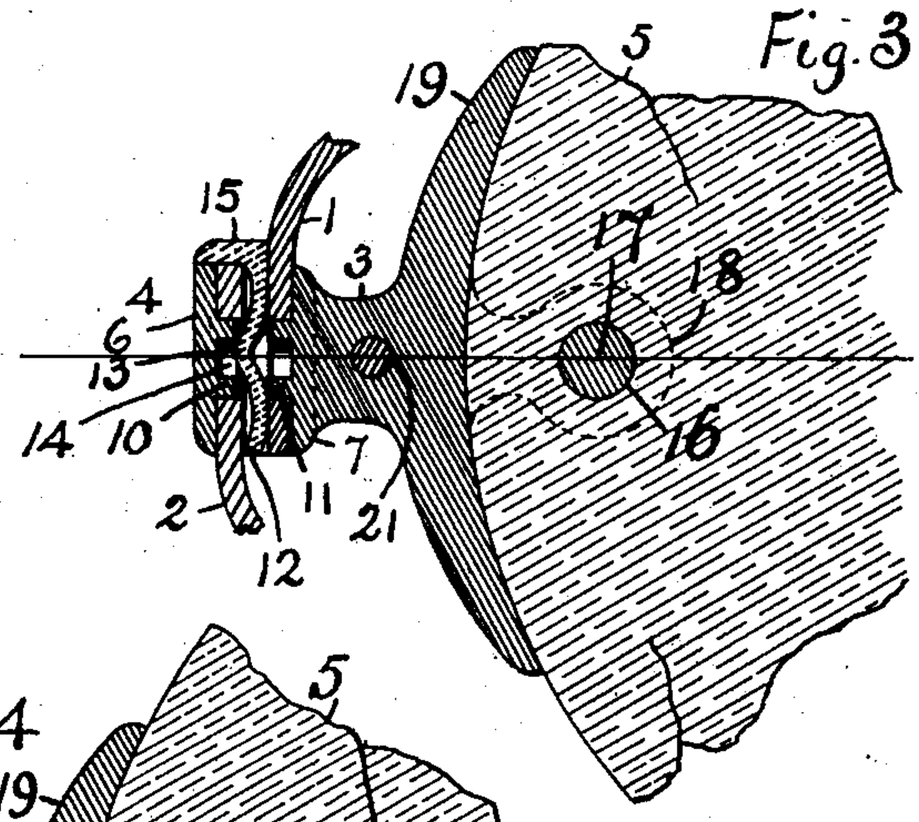
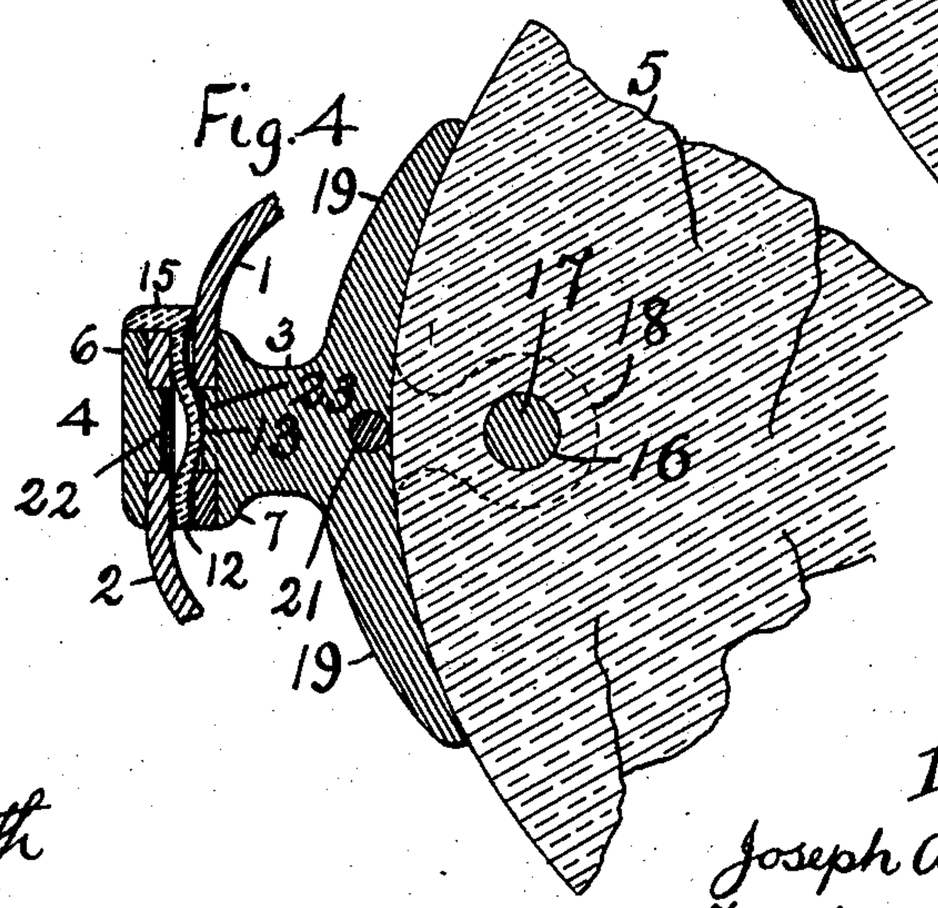


Fig. 4



Witnesses
Harry M. Smith
C. C. Clifford

Inventors.
Joseph A. Schmid.
Francis X. Gartland.
By R. C. Wright atty.

PHOTO-LITHOGRAPHED BY SACKETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 771,837. Patented October 11, 1904.

UNITED STATES PATENT OFFICE.

JOSEPH A. SCHMID AND FRANCIS X. GARTLAND, OF PHILADELPHIA, PENNSYLVANIA.

EYEGLASSES.

SPECIFICATION forming part of Letters Patent No. 771,837, dated October 11, 1904.

Application filed December 3, 1903. Serial No. 183,551. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH A. SCHMID and FRANCIS X. GARTLAND, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Eyeglasses, of which the following is a specification.

This invention relates to eyeglasses, and has for its objects the securing of the spring and guards in receptacles at the top of the posts without the use of screws and the securing of the lenses by projections inserted in cavities of less depth than the thickness of the lenses, thus doing away with the necessity of drilling holes entirely through the lenses for the passage of screws. In drilling entirely through lenses there is great liability of destroying them and the practice of fastening with screws heretofore employed by passing them through the lenses is also destructive, as the screws are apt to be turned too tight and they often crowd to one side of the hole in the lens and break it.

The objections above enumerated are overcome by this invention, wherein the lens has only a cavity at one side to receive a projection held in place by a clamp at the opposite side of the lens and exterior thereto. The manner of securing the usual constructions of springs and guards to the posts is simple and effective, does away with objections found in previous constructions, and will be more fully set forth in the specification.

The invention is illustrated in the accompanying drawings, wherein similar parts are designated by similar reference characters, in which—

Figure 1 is an elevation view of a pair of rimless eyeglasses. Fig. 2 is a section on line *x x* of Fig. 1. Fig. 3 is a section on line *v v*, Fig. 2. Fig. 4 is also a section on line *v v*, Fig. 2, showing a modification.

Referring to Fig. 1, 1 represents the usual spring, and 2 represents the guards, which may be of any suitable or preferable form. 3 represents the posts having receptacles 4 at their tops, in which the spring and guards are secured, and 5 represents the lenses.

By reference to Figs. 2, 3 the construction will be better seen. The receptacles 4 are composed of a top wall 6, a bottom wall 7, joined by side walls 8 9, forming open ends for the insertion of the spring and guard. From the inside of top wall 6 a hollow projection 10 extends into the receptacle, and from the inside of the bottom wall 7 a hollow projection 11 extends into the receptacle, the extension of these projections being for a less distance than the thickness of spring 1 and guards 2, which are formed to fit over them and be held by them. After the spring and guards are in place on their projections the keepers 12 are inserted between them, the keepers being of curvilinear form to be sprung into place, with a raised part 13, which passes into the hollow 14 of projection 10, (or 11,) which prevents the accidental removal or displacement of the keeper, the spring, and the guard, while head 15 of the keeper insures the engagement of part 13 in hollow 14 and makes a finish for the top of the receptacle. The manner of securing lenses 5 is also best seen in Figs. 2, 3. A cavity 16 is formed part way through the lens, and inserted therein is a projection 17, formed on arm 18, reaching from saddle 19. Oppositely to arm 18 is a separable clamp 20, having a screw 21, which secures it to post 3 (or saddle 19) and causes it to firmly grip the lens to arm 18. With this construction the lenses are firmly secured with a minimum liability of breakage in applying or after use, and renewal or substitution of lenses is readily and safely accomplished.

In Fig. 4 a modified form of the mechanism is shown and wherein the receptacle has internal projections of solid material 22 23 to secure the spring and guards instead of the hollow projections 10 11 of Figs. 2, 3. The screw 21 is also moved to the edge of the lens for the purpose of providing a stronger grip for the security of extra heavy lenses by the clamp 20.

We claim—

1. In eyeglasses, posts having receptacles for a spring and guards which are formed of top, bottom and side walls, with open ends, an in-

ward projection from the top wall, an inward projection from the bottom wall, a spring and guards each adapted to engage one of the aforesaid projections, and means to prevent the disengagement of the spring and guards from the projections.

2. In eyeglasses, posts having rectangular receptacles with open ends, projections within the receptacle, one of which engages the spring and the other engages a guard, and means to secure the spring and guards when so engaged.

3. In eyeglasses, posts having receptacles with open ends, and adapted to receive one end of a spring, and a guard, hollow projections within the receptacle, a spring and guard each being adapted to engage one of the projections, and a curvilinear spring-keeper formed to engage the hollow of a projection, to thereby retain the spring and guard on their projections.

4. In eyeglasses, posts having receptacles with open ends, and adapted to receive one end of a spring, and a guard, hollow projections within the receptacle, a spring and guard each being adapted to engage one of the projections, and a keeper introduced in the receptacle in manner to secure the spring and guard, having means for its retention within the receptacle and a head at the receptacle end.

5. In eyeglasses, a spring and guards, posts to which they are attached, a saddle for each post, an arm projecting from one side of the saddles and adapted to support one side of a lens, parallel-sided projections upon the arms, imperforate lenses having shallow parallel-sided cavities adapted to receive the projections, and means to secure the lenses to the arms, and the projections in the cavities.

6. In eyeglasses, the combination of posts with receptacles wherein a spring and guards are secured upon projections within the receptacles and securely locked, with imperforate lenses formed to receive a parallel-sided projection which enters for some distance in one side thereof, with means for the retention of the projection in the lens.

7. In eyeglasses, the combination of a spring and guards having means for their coöperative attachment, and one-sided supports for lenses whereon are parallel-sided projections from the lens' side; with imperforate lenses having cavities for the reception of the projections aforesaid, together with means to retain the projections in the cavities.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH A. SCHMID.
FRANCIS X. GARTLAND.

Witnesses:
R. C. WRIGHT,
LEWIS H. REDNER.