

No. 614,165.

Patented Nov. 15, 1898.

I. FOX.
EYEGGLASS OR SPECTACLE FRAME.

(Application filed Feb. 25, 1897.)

(No Model.)

4 Sheets—Sheet 1.

FIG. 1.

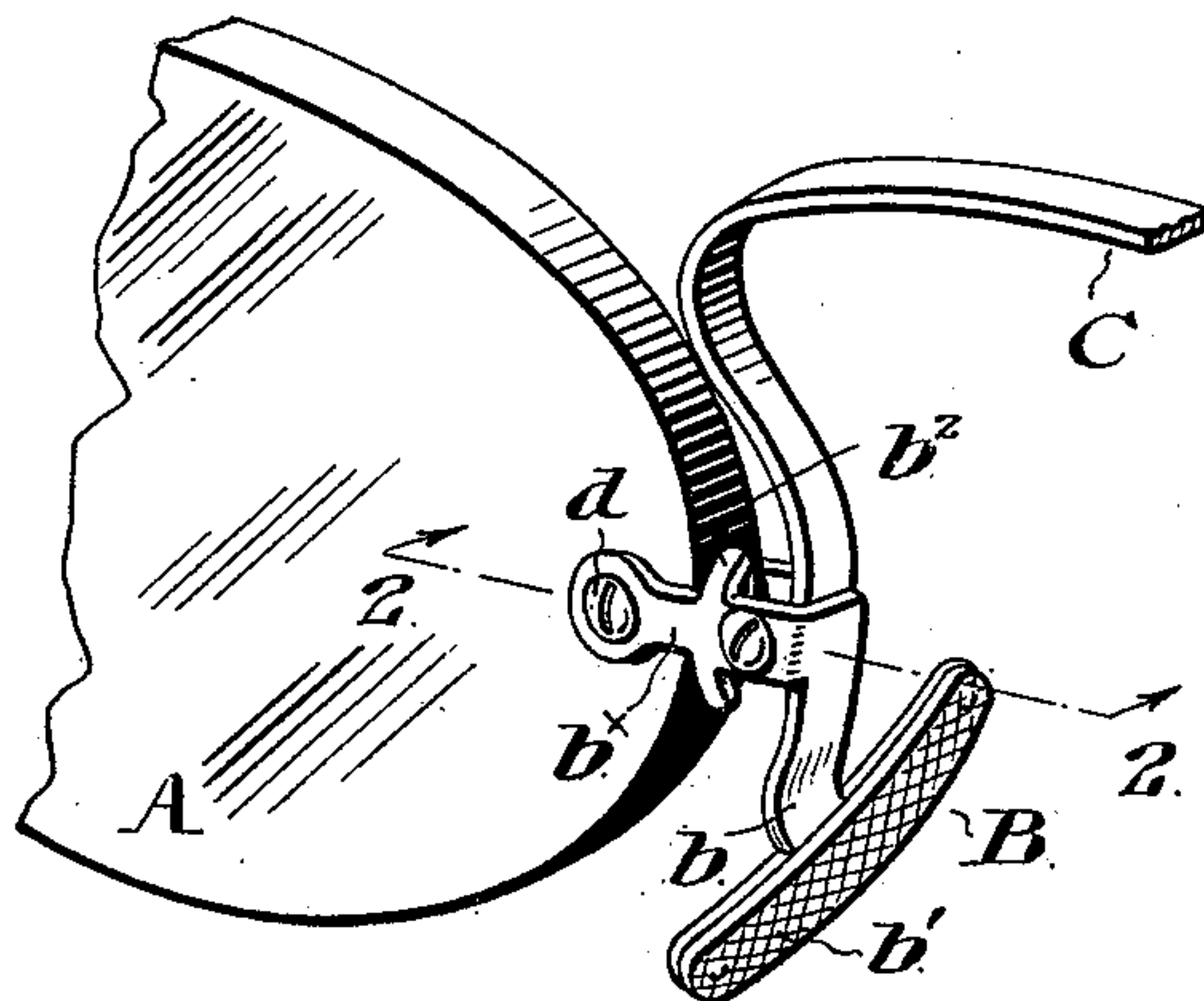


FIG. 5.

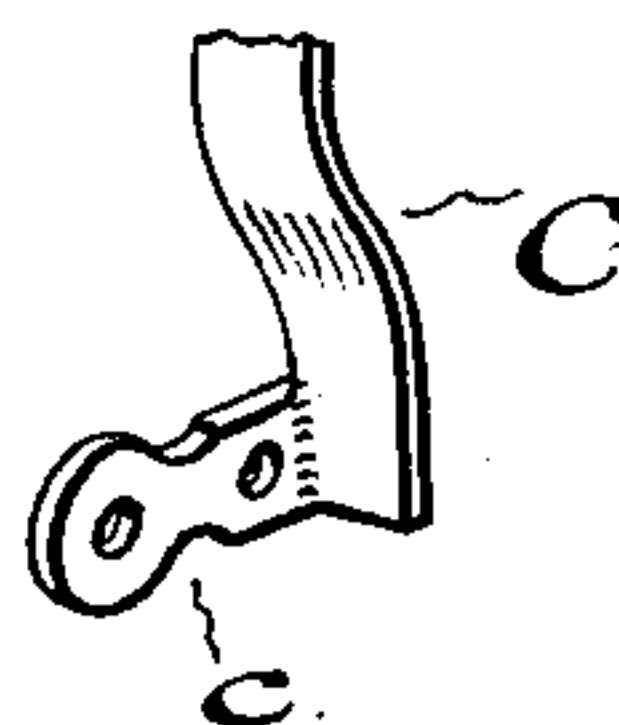


FIG. 2.

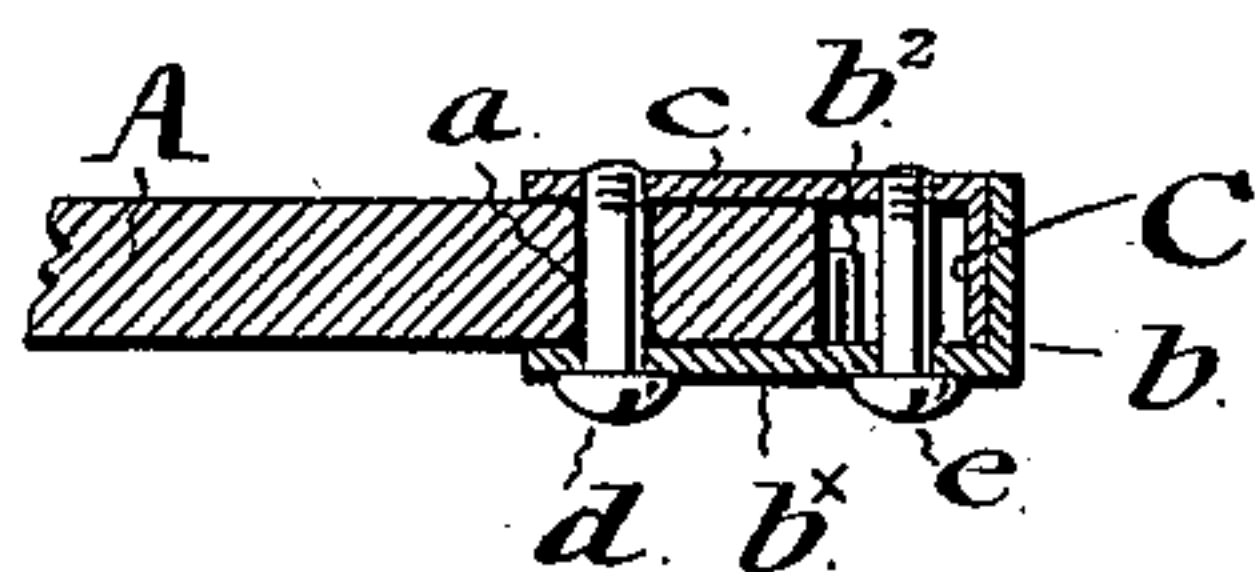


FIG. 3.

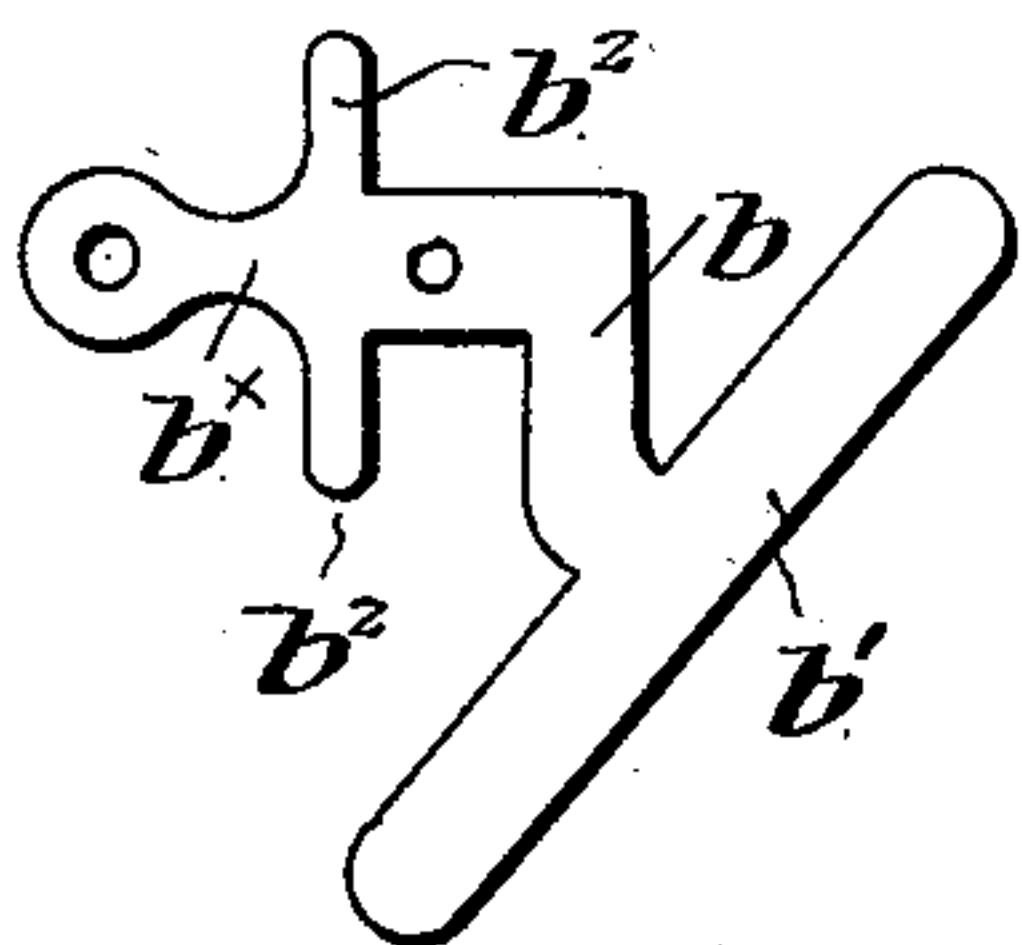
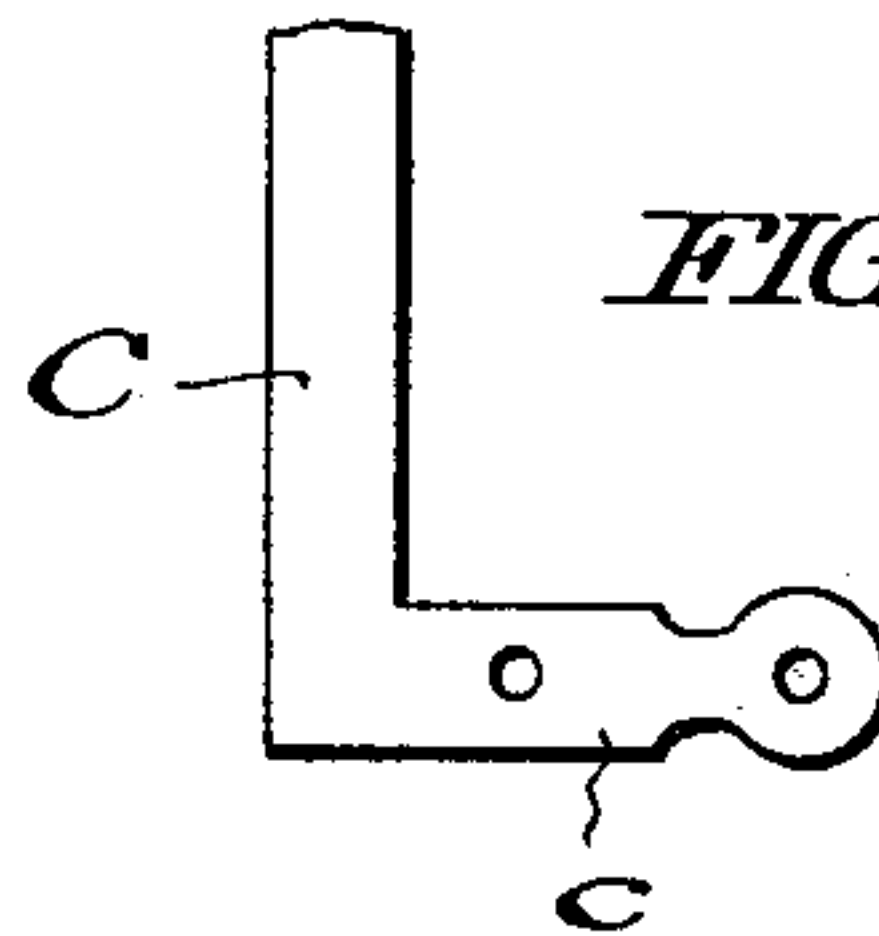


FIG. 4.



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FIG. 6.

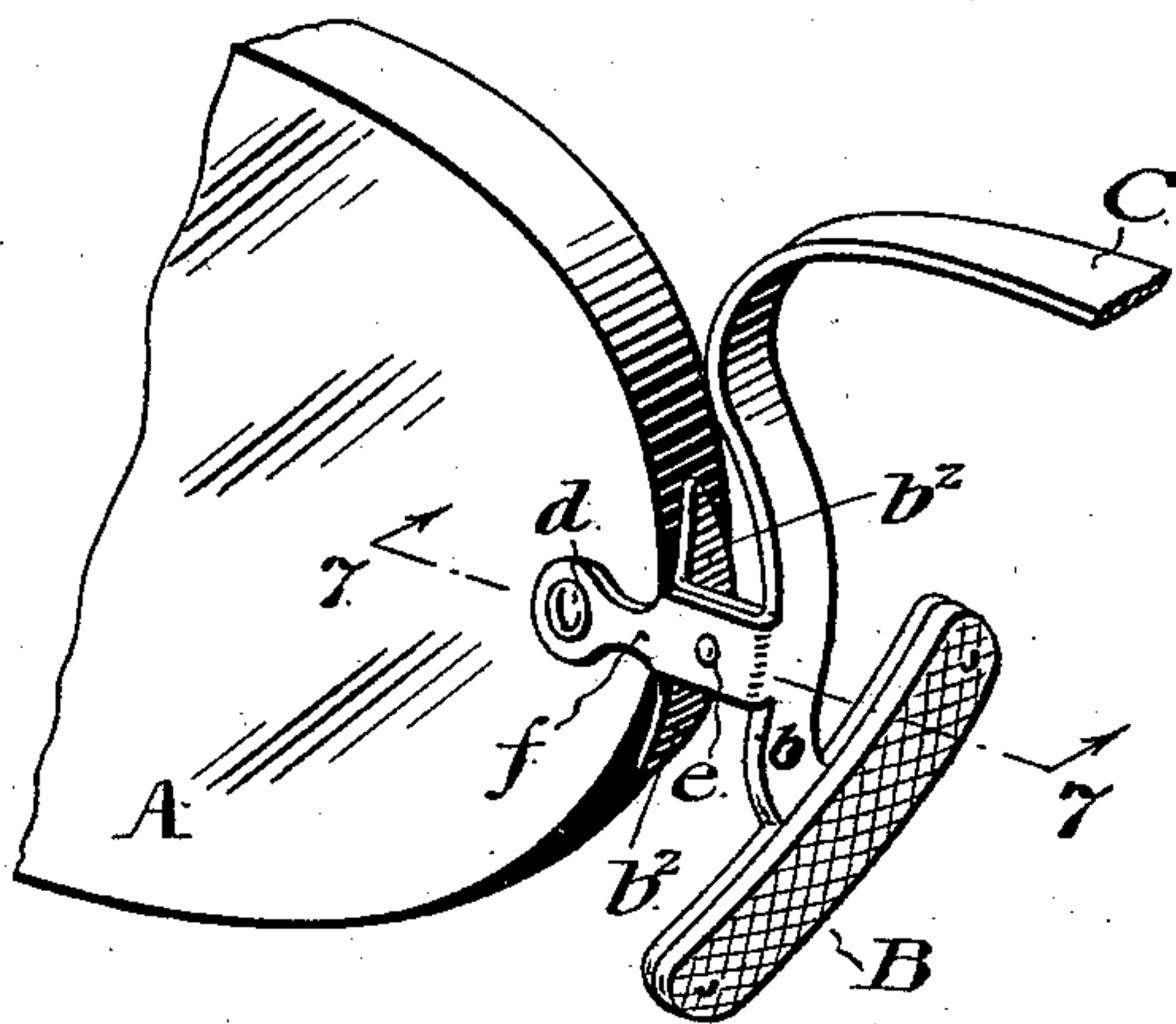


FIG. 10.

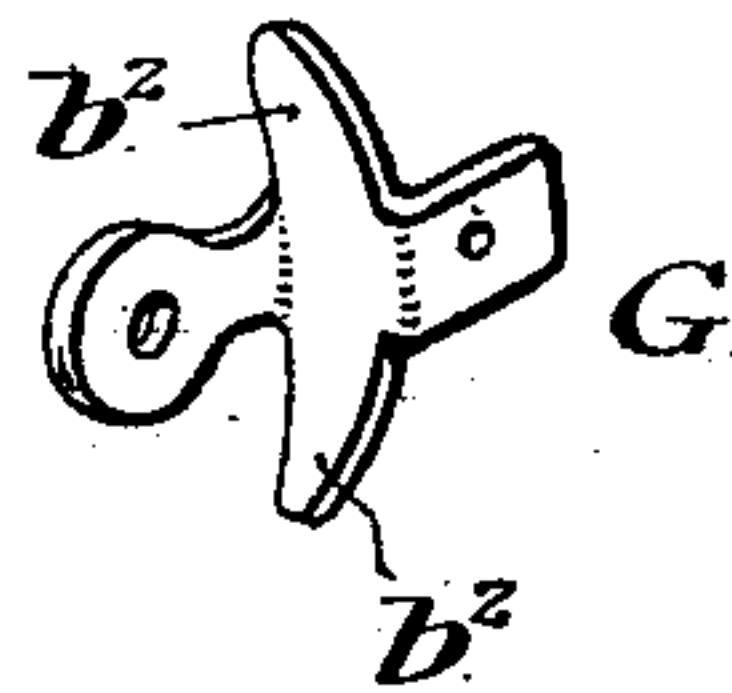


FIG. 7.

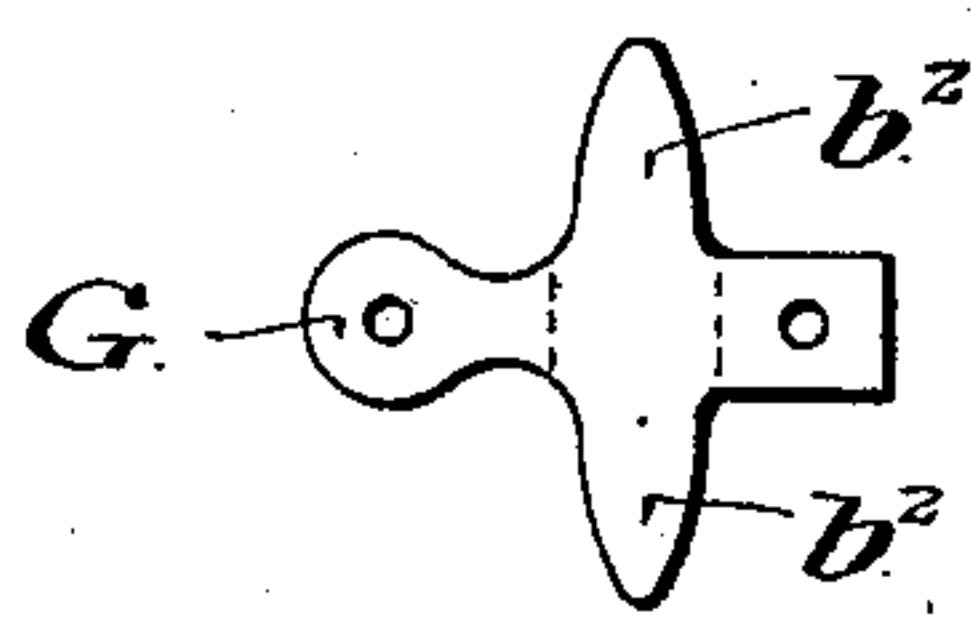
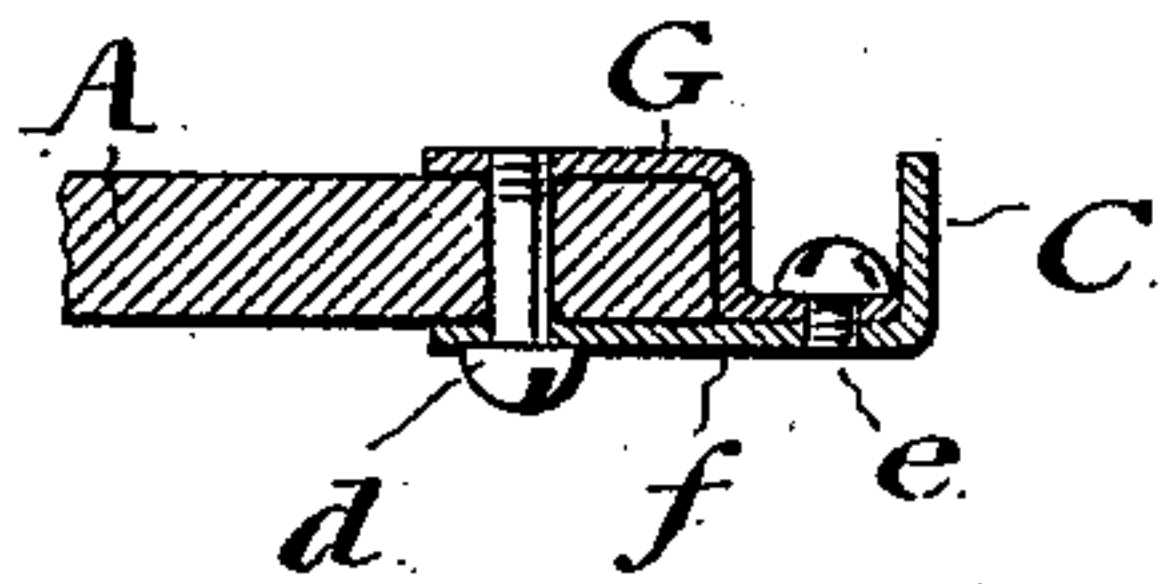
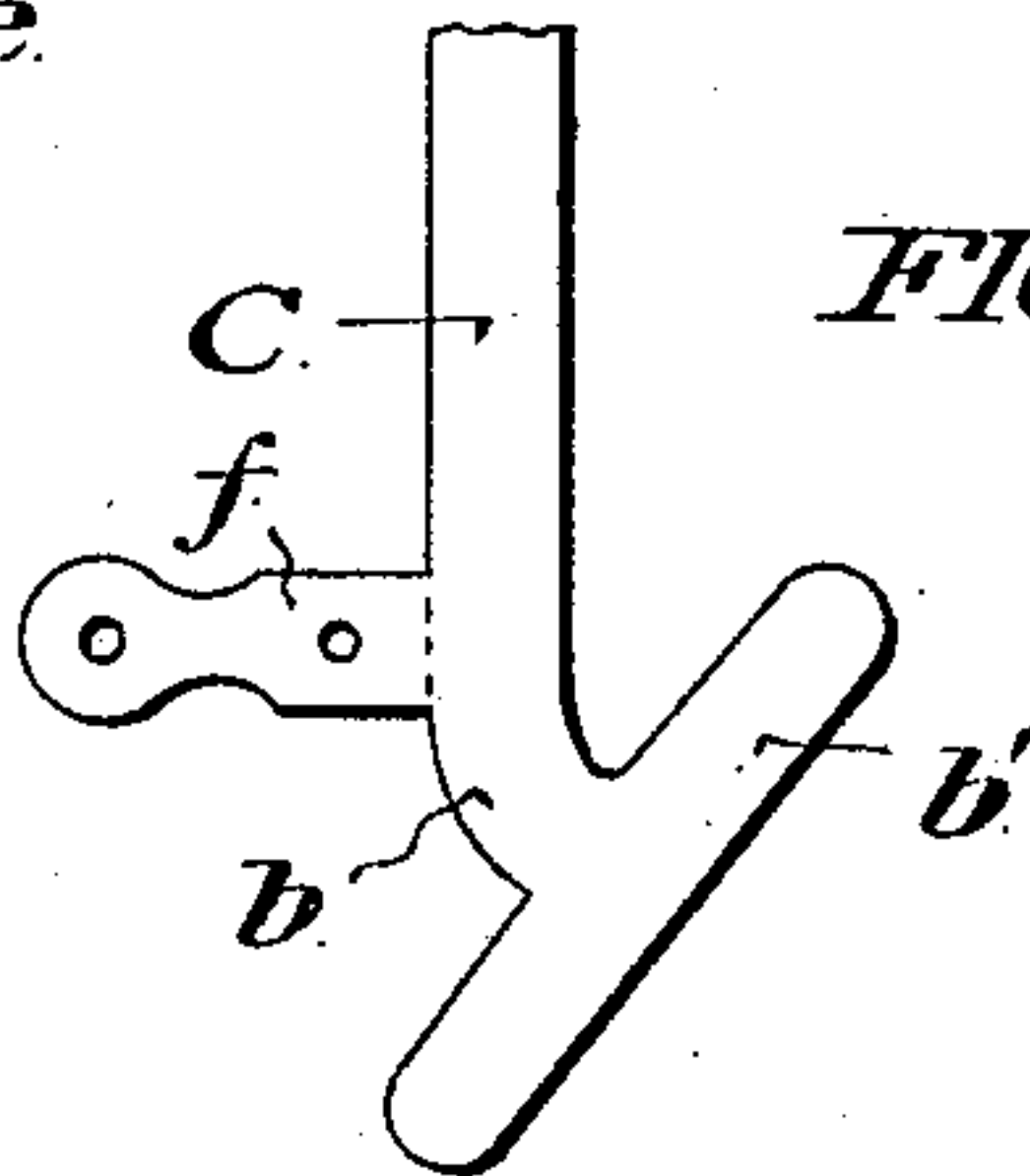


FIG. 8.

FIG. 9.



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FIG. 11.

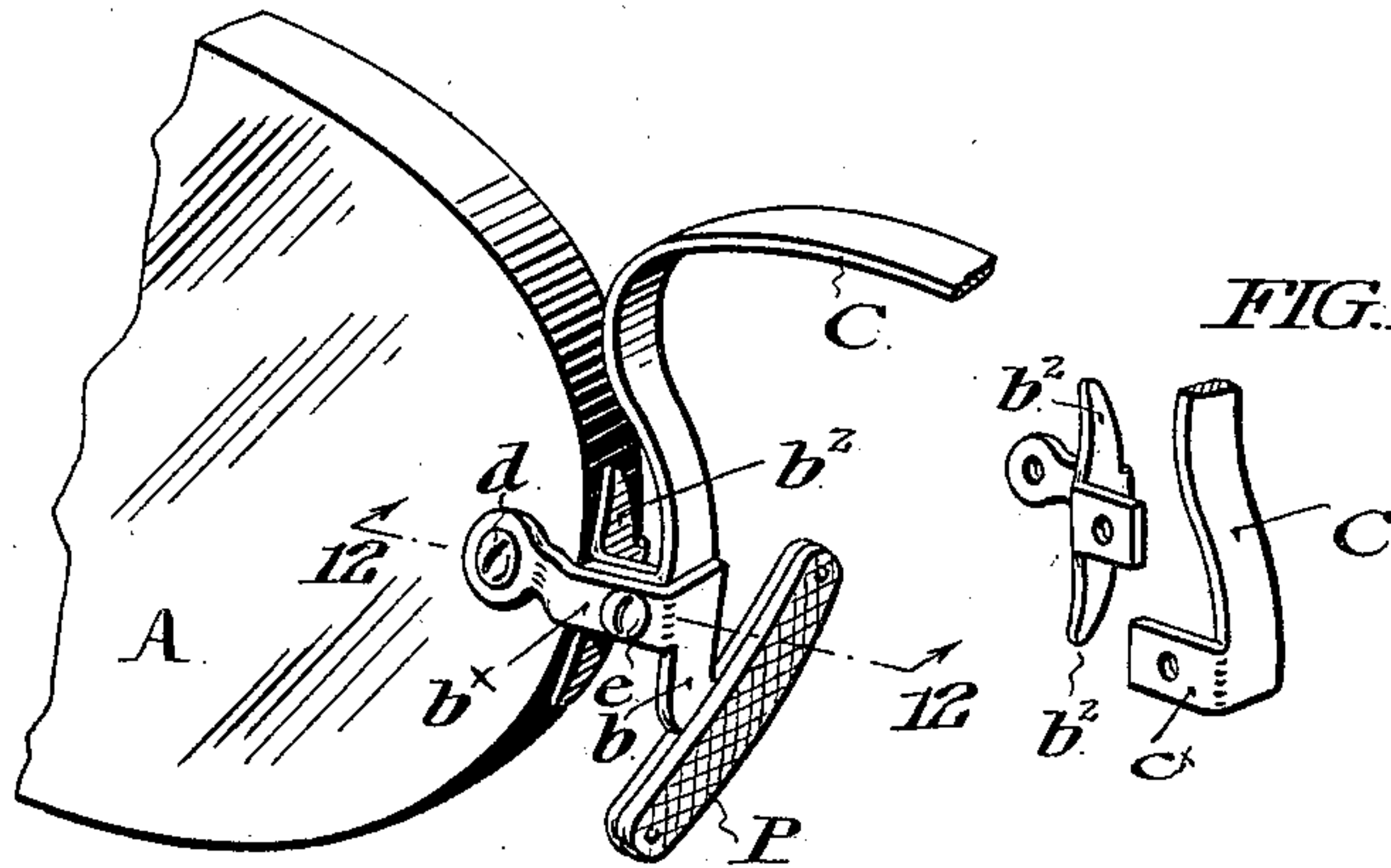


FIG. 16.

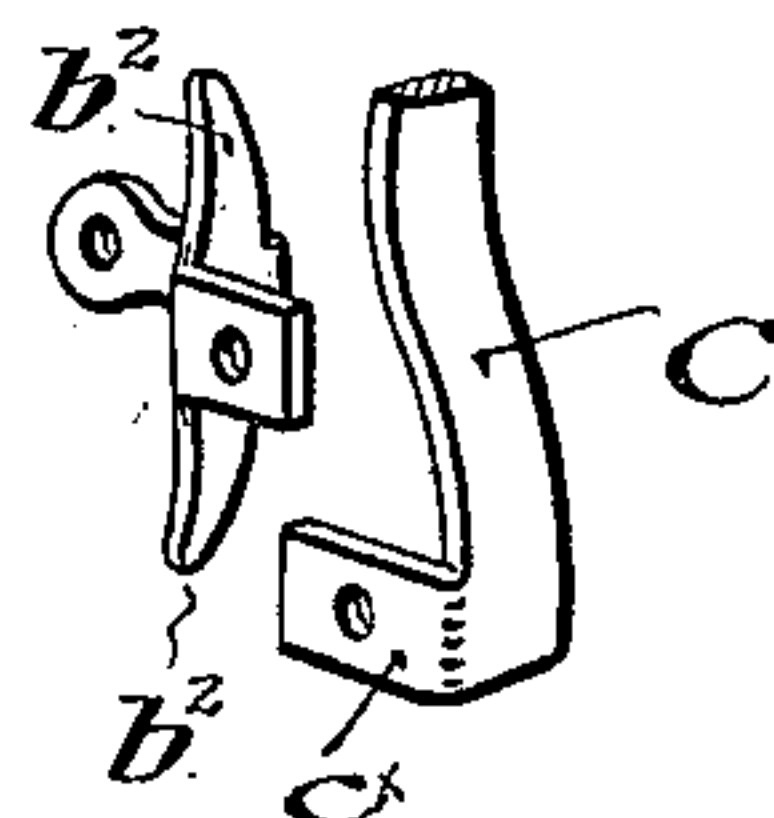


FIG. 12.

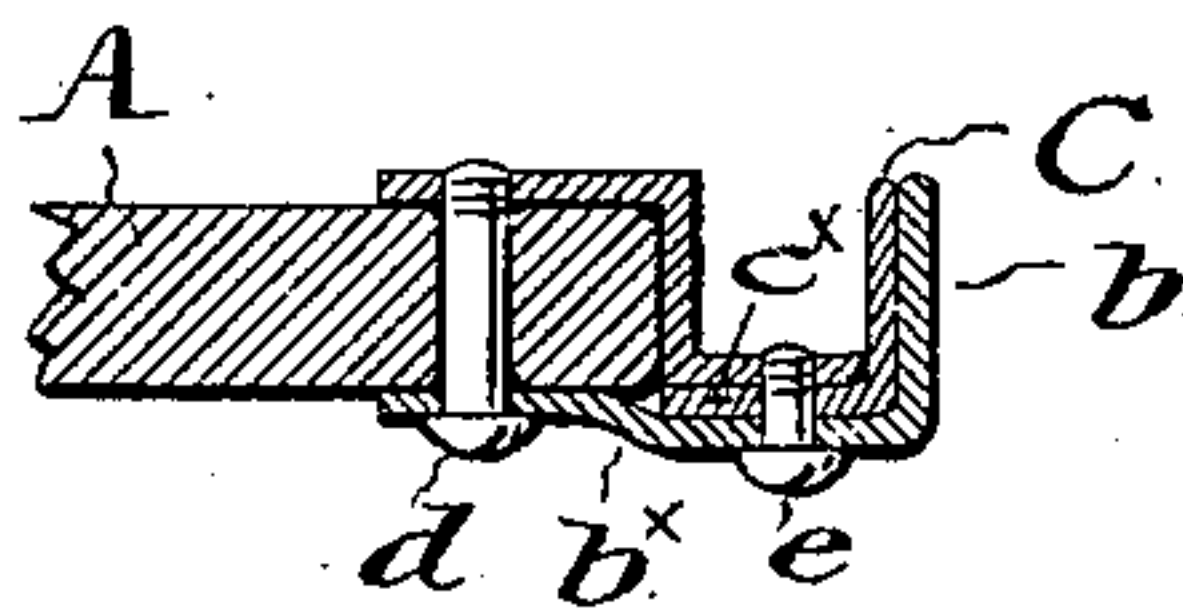


FIG. 13.

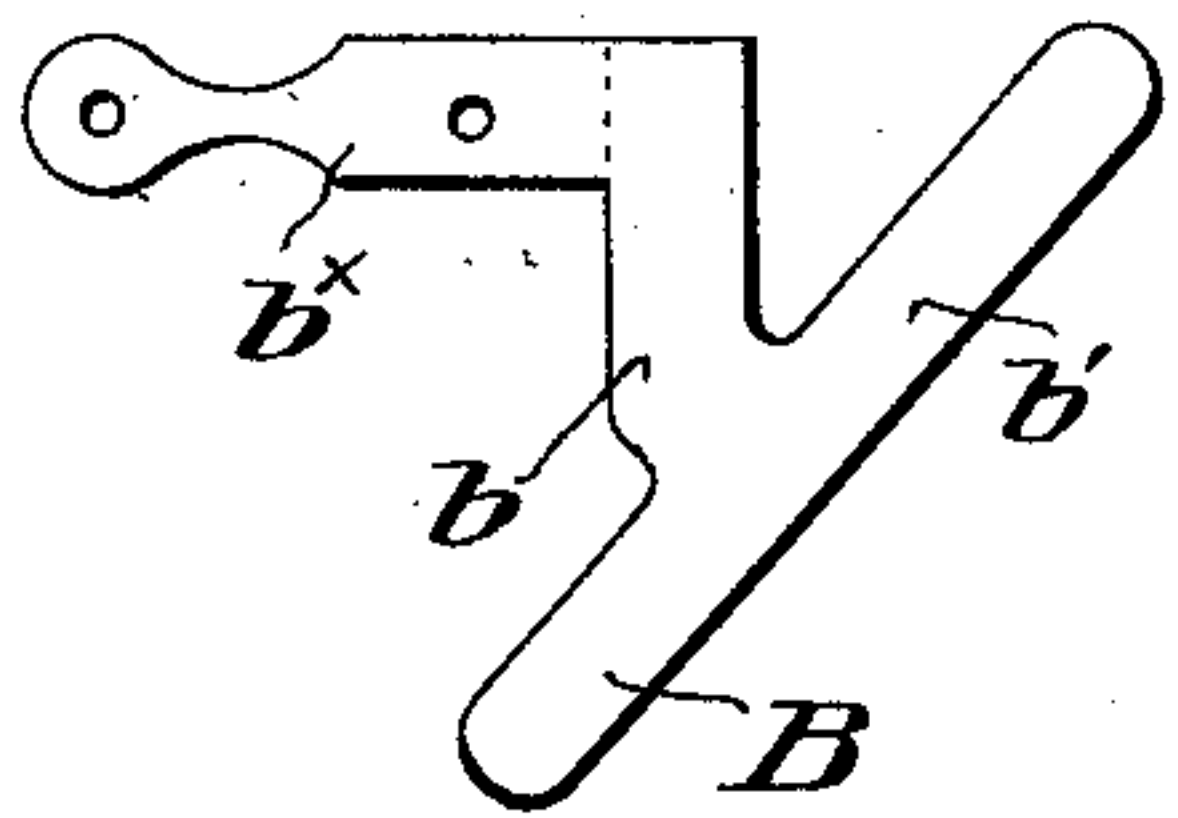
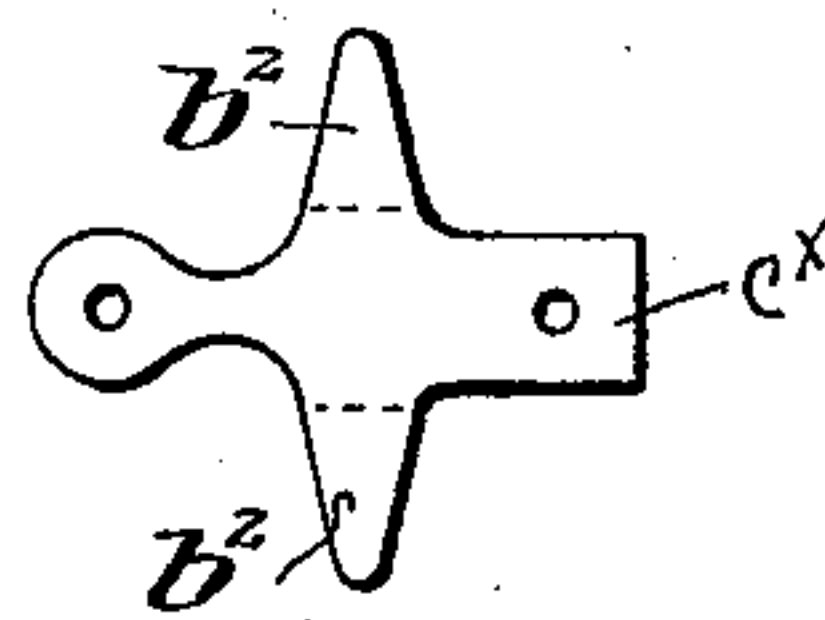


FIG. 14.

FIG. 15.



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4 Sheets—Sheet 4.

FIG. 17.

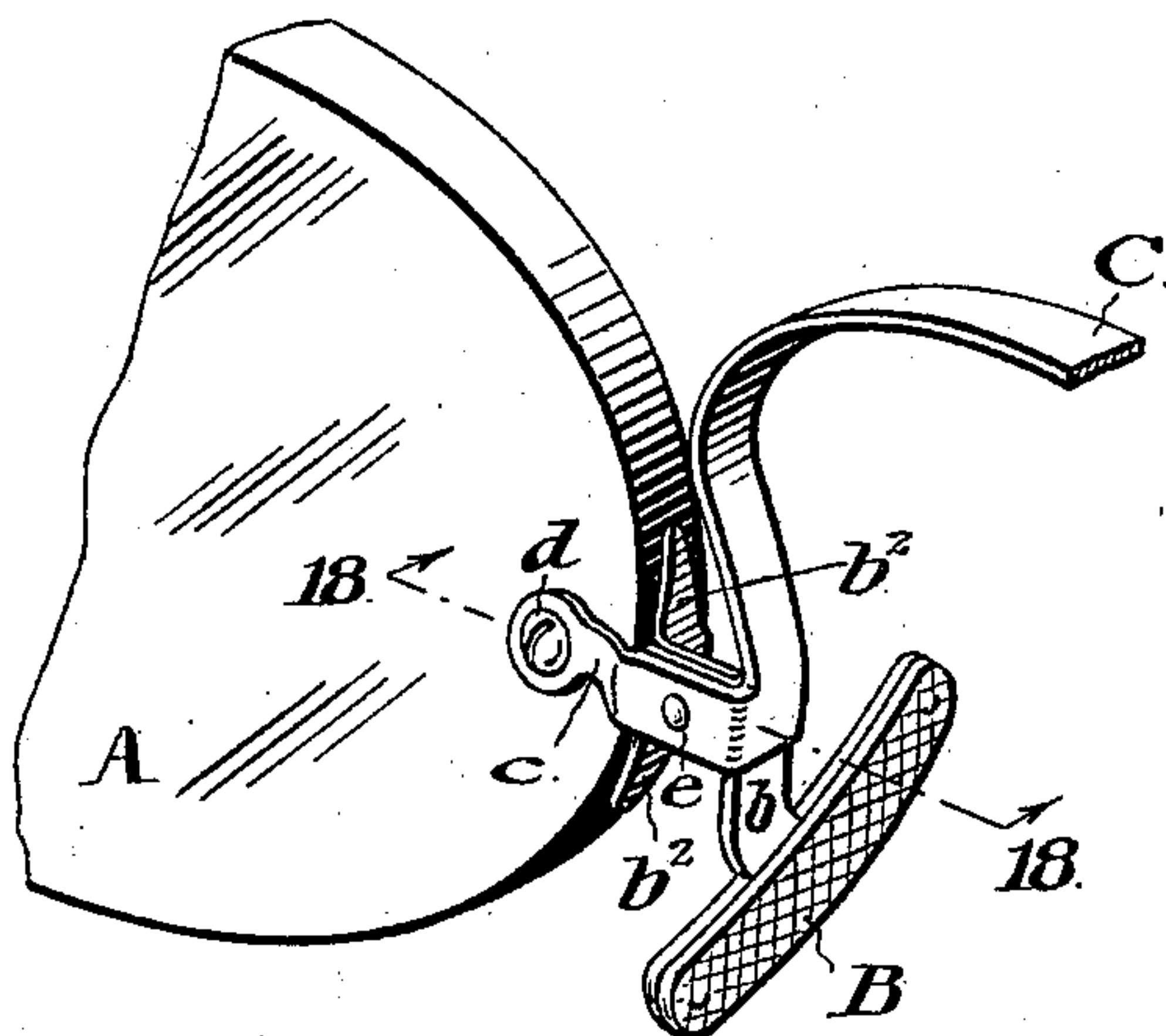


FIG. 22.

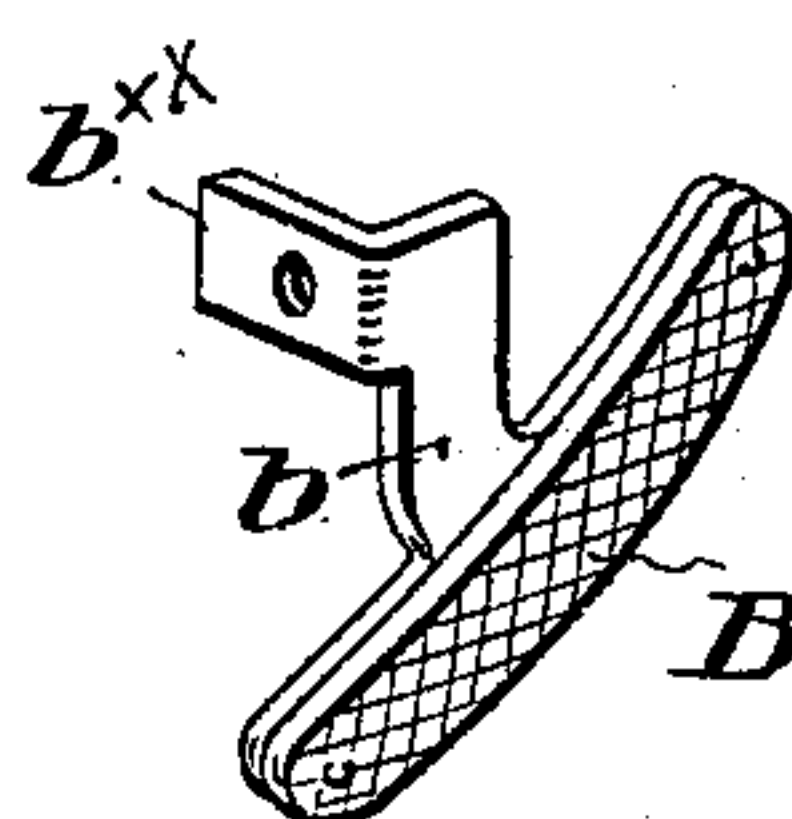


FIG. 18.

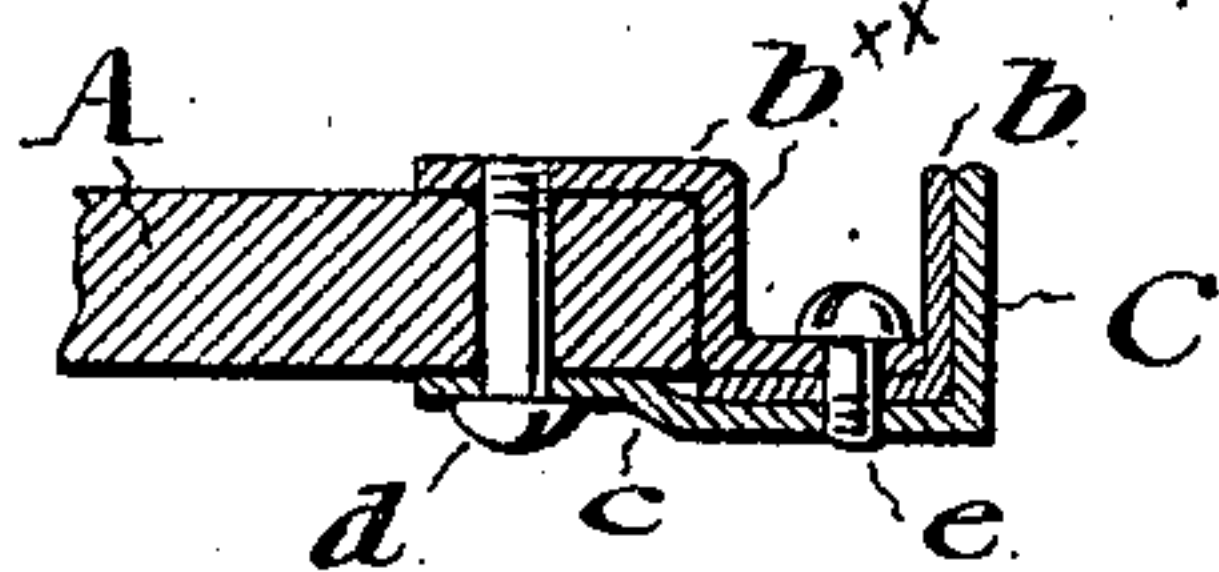


FIG. 19.

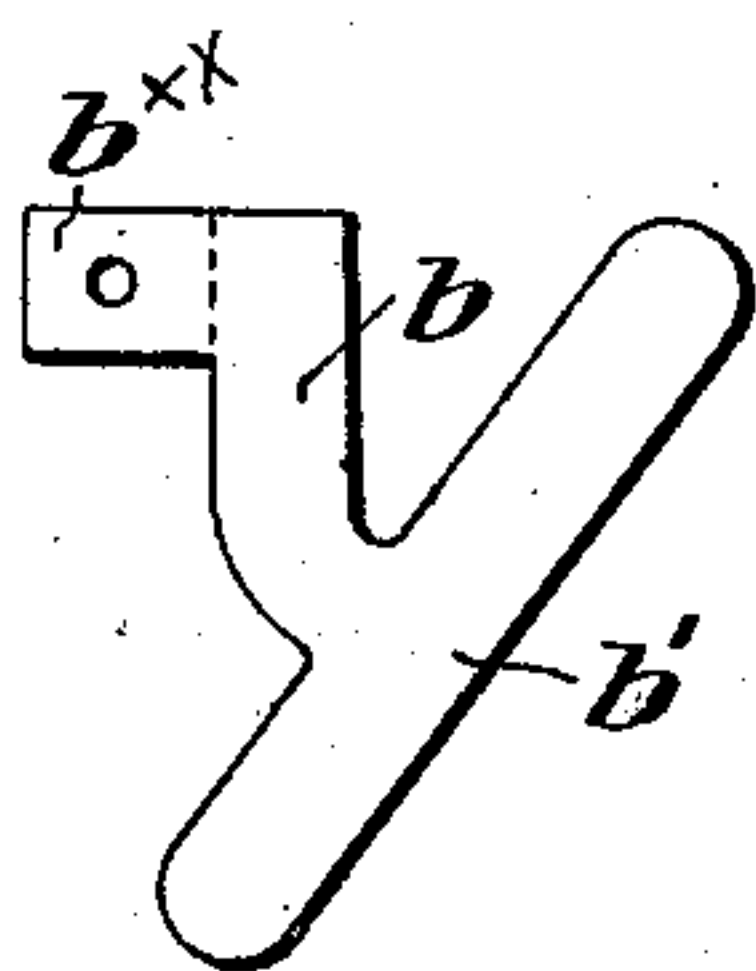


FIG. 20.

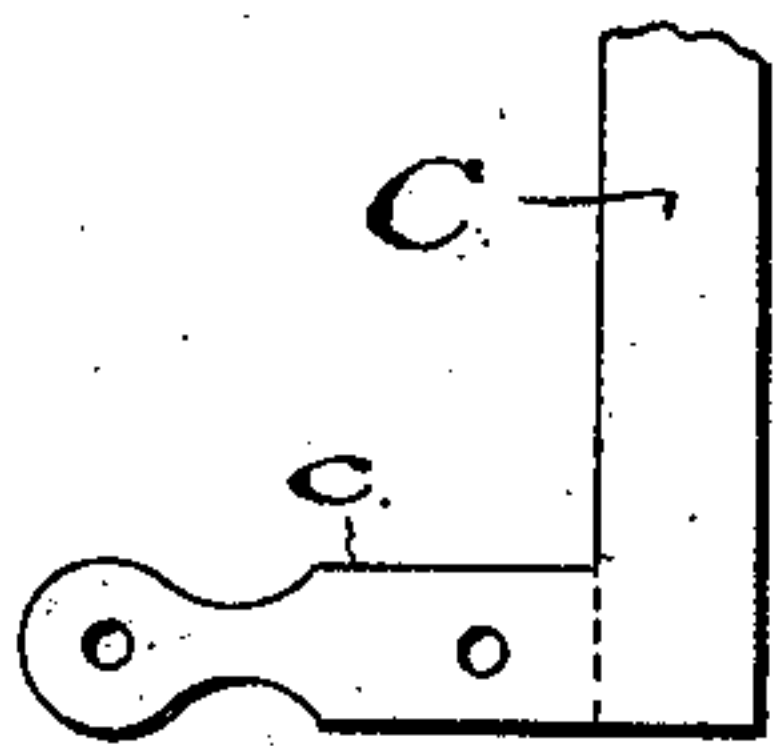
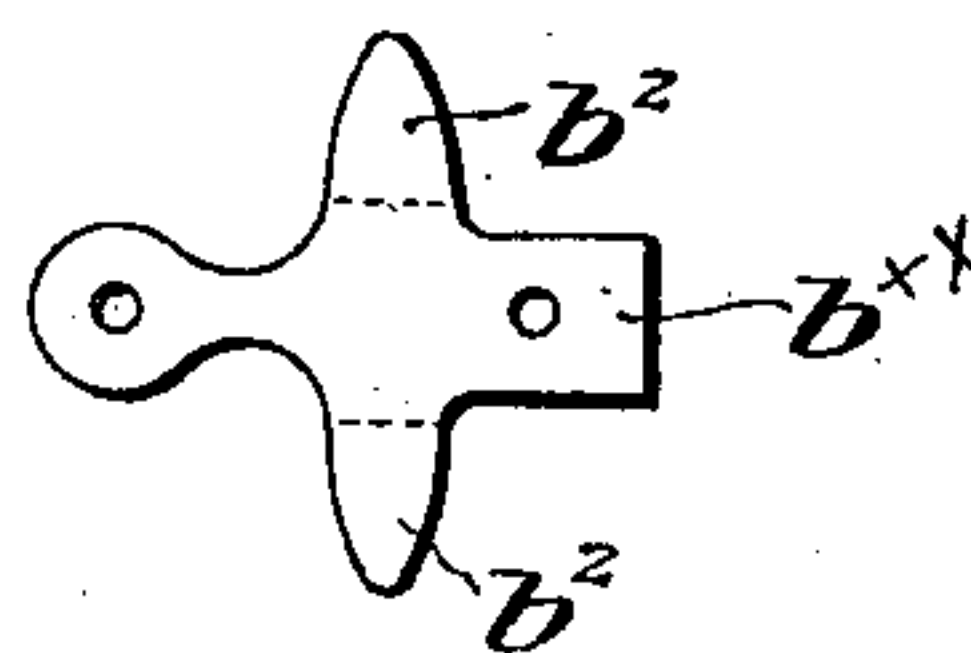


FIG. 21.



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UNITED STATES PATENT OFFICE.

IVAN FOX, OF PHILADELPHIA, PENNSYLVANIA.

EYEGLOSS OR SPECTACLE FRAME.

SPECIFICATION forming part of Letters Patent No. 614,165, dated November 15, 1898.

Application filed February 25, 1897. Serial No. 624,963. (No model.)

To all whom it may concern:

Be it known that I, IVAN FOX, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Eyeglass or Spectacle Frames, of which the following is a specification.

The object of my invention is to provide an eye glass or spectacle frame which shall be not only more comfortable, convenient, and sightly, but also less expensive in production, than the frames heretofore constructed.

In the accompanying drawings I show and herein I describe a good form of a preferred embodiment of my invention, and also several of the many possible modified forms of the same, the particular subject-matter claimed as novel being hereinafter definitely specified.

In the accompanying drawings,

Figure 1 is a view in perspective of a portion of a lens, showing in connection therewith so much of an eye glass frame as is necessary to exhibit the construction of the same.

Figure 2 is a sectional plan of the same on the line 2—2 of Figure 1.

Figures 3, 4, and 5, are views in detail of the parts of the frame of Figure 1 detached from each other.

Figure 6 is a view in perspective of a portion of a lens, showing in connection therewith so much of an eye glass frame as is necessary to exhibit the construction of the same.

Figure 7 is a sectional plan of the device of Figure 6, section being supposed on the line 7—7 of Figure 6.

Figures 8, 9, and 10, are views in detail of parts of the frame of Figure 6, detached from each other.

Figure 11 is a view in perspective of a portion of a lens, showing in connection therewith so much of an eye glass frame as is necessary to exhibit the construction of the same.

Figure 12 is a sectional plan of the device of Figure 11, section being supposed on the line 12—12 of Figure 11.

Figures 13, 14, 15, and 16, are views in detail of parts of the frame of Figure 11, detached from each other.

Figure 17 is a view in perspective of a por-

tion of a lens, showing in connection therewith so much of an eye glass frame as is necessary to exhibit the construction of the same.

Figure 18 is a sectional plan of the parts shown in Figure 17, section being supposed on the line 18—18 of Figure 17.

Figures 19, 20, 21, and 22, are views in detail of parts of the frame of Figure 17, detached from each other.

Similar letters of reference indicate corresponding parts.

In the drawings,

A indicates the lenses, C the bow springs, and B the nose pieces of the eye glasses depicted,—the nose pieces shown happening to be, in all instances, of the type of the well known "Fox" nose piece, invented by me and patented to me in and by United States Letters Patent No. 292,479, issued and dated January 29, 1884.

Heretofore, in the construction of eye glass frames, it has been usual to provide each lens or lens frame with a solid post, usually termed a lens post, turned or otherwise produced, the free or outer end of which has been provided with a socket or plate within or upon which have been fitted the inner end of the nose piece and the end of the bow spring, said nose piece and bow spring having been secured in position by a stud screw passing through suitable openings in their ends and into a tapped opening in the end of the post.

Incident to this construction have been the disadvantages, among others, that the lens posts required the presence of an undue amount of metal to render them sufficiently strong,—that much time of skilled workmen was consumed in producing said posts,—that the joint at the point where the several parts were united by the screw passing through the ends of the bow spring and nose piece and into the end of the lens post, being subjected to considerable strain, tended very readily to work loose,—and that, finally, in the use of the eye glass, the contact of the head of the screw which enters the end of the lens post with the wearer's nose has been to many persons annoying and uncomfortable.

My improved construction, which obviates all these objections, comprehends, in brief, a construction of eye glass frame in which

the turned lens post is dispensed with and the sheet metal members,—by which term in the present application I generically designate the nose piece and bow spring,—are connected with the lens by a sheet metal supporting extension or extensions, preferably stamped out by the same formative operation that produces said sheet metal member or members,—and bent to such an angle with relation to the adjacent portions of said sheet metal members that the free ends of such extension or extensions overlie the usual aperture and may be secured to the lens by a screw extending through said aperture in the usual manner.

In the at present preferred form of my invention, being that depicted in Figures 1 to 5, inclusive, of the drawings, the nose piece B, composite of the offset arm b and guard b' , is provided with a supporting extension b^x , which is conveniently integral with the metal of the nose piece,—the nose piece, with its supporting extension, being in Figure 3, shown in the form in which it comes from the die, the supporting extension, as shown in said figure, lying in the same plane as the body of the nose piece, but being approximately perpendicular to the axis of the offset arm.

The bow spring C is also in the preferred embodiment of my invention shown as provided with a supporting extension c , which is conveniently integral with the metal of the spring;—the outline of the end portion of the bow spring, with its extension, being, in Figure 4, shown in the form in which it comes from the die, the extension, as shown in said figure, lying in the same plane as the body of the bow spring, but being approximately perpendicular to its axis.

The extensions b^x and c are each provided with two apertures.

To assemble and secure the parts, I bend the supporting extension b^x to a position in which it is perpendicular to the plane of the nose piece, and the extension c to a position in which it is perpendicular to the plane of the end of the bow spring, as shown respectively in Figures 1 and 5,—and place the end of the bow spring beneath the end of the nose piece, as shown in Figure 1, in which position the extensions will be opposite each other with their apertures in registry,—but distant from each other, owing to suitable predetermination of the proportions of the parts, a distance equal to the thickness of a lens.

The lens A, having the usual aperture a , is thereupon placed between said supporting extensions, a screw stud d passed through their respective outer apertures and the aperture a ,—and a second screw stud e , passed through their respective inner apertures, as shown clearly in Figure 2.

As thus formed and assembled, the parts will be very firmly united together, and each will reinforce the other, as may be understood by reference to Figure 2.

The lens may be further braced or secured by the provision of a pair of wings b^2 , formed as branches of one or the other of the supporting extensions, and located at such a point thereon that, when the parts are assembled, they will bear against the edge of the lens, as shown in Figure 2.

In Figures 1, 2, and 3, of the drawings, I have shown these wings, which may, of course, be of any desired outline, as formed integral with the supporting extension b^x .

In the modified embodiment of my invention shown in Figures 6 to 10, inclusive, the bow spring C and the nose piece B are shown as formed integral with each other, and provided with an integral supporting extension f similar to one of the supporting extensions of the preferred embodiment of my invention hereinbefore described.

The hold of the supporting extension f upon the lens is reinforced by a bracket piece G, one end of which is secured to the inner face of the supporting extension at a point between the edge of the lens and the sheet metal member or members B C, by the screw stud e ,—the intermediate portion of which extends across and overlies the edge of the lens,—and the other end of which lies upon the face of the lens in opposition to the securing extension f , to which it is further secured, to clamp the lens in position, by the screw stud d , which passed through the lens aperture a , as shown especially in Figure 7.

In this construction the wings b^2 are formed as the intermediate part of the bracket piece G.

In the modified embodiment of my invention shown in Figures 11, 12, 13, 14, 15, and 16, the nose piece B is provided with a supporting extension b^x substantially similar to that referred to in the description of the preferred embodiment of my invention illustrated in the first five figures of the drawings.

The supporting extension c^x , however, extends from the edge of the bow spring farthest from the eye of the wearer, instead of from the edge nearest the eye as in Figure 1, is made, for convenience in two pieces, and consequently, as shown in the figures now under discussion is bent backward or toward the eye of the wearer, across the edge of the lens, and then across the flat opposite or inside face of the lens, and the aperture a .

The supporting extension c^x being, as stated, in this embodiment, shown as preferably formed in two pieces, the meeting ends of the two members are both apertured so that the screw stud e , secures both members together in addition to fastening the supporting extension c^x as an entirety to the supporting extension b^x , as in Figure 1.

The wings b^2 , in this embodiment, are shown as forming a part of the two-part supporting extension c^x instead of the one-piece supporting extension b^x , as in Figures 1 to 5.

In the modified embodiment of my invention shown in Figures 17 to 22 inclusive, the

supporting extension c^x of the bow spring C, as in the embodiment of my invention last described, is disposed upon that edge of the bow spring farthest from the eye of the wearer,—
 5 but extends across the front face of the lens instead of across its rear face as in said last described embodiment.

The supporting extension of the nose piece, extends from that edge of the offset arm b of
 10 the nose piece farthest from the eye of the wearer, but instead of extending across the front face of the lens, as in the embodiments hereinbefore described, extends outwardly
 15 along the inner face of the supporting extension c , until it reaches the edge of the lens,—then, as a two-member structure, extends rearwardly across the edge of the lens, and then outwardly over the rear face of the lens, overlying the aperture a .

20 The supporting extension which is designated b^{xx} , in the embodiment referred to, being, as stated, formed in two pieces, the meeting ends of the pieces are, of course, both apertured, and so overlapped that the apertures
 25 register with each other and with the corresponding aperture of the supporting extension c , with the result that the stud screw e passes through all of the apertures and secures the parts or sections of the supporting
 30 extensions b^{xx} to each other and to the supporting extension c .

The reinforcing or bracing wings b^2 , in the embodiment of my invention now under discussion, are formed as a part of the supporting
 35 extension b^{xx} .

While I have herein in the description of the details of the preferred form of my invention, referred to the supporting extension b^x , as being "integral" with the nose piece B,—
 40 and described the supporting extension c as "integral" with the bow spring C,—the word "integral" is of course to be interpreted reasonably and so as to cover such obvious expedients of construction as, for instance,
 45 forming said supporting extension as separate sheet metal members, and securing them thereto by solder, by rivets, or in any other manner which will so firmly unite said component members that the united parts will
 50 become practically one part.

It is also to be understood that while I have described my invention as applying to eye glasses it is also applicable in connection with the frames of spectacles.

55 Furthermore, while I have described my present invention as employed in connection with an eye glass nose piece of the character heretofore invented by and patented to me, it is applicable to numerous other varieties
 60 of nose pieces, and its usefulness is by no means restricted to its employment in connection with the "Fox" nose piece.

Having thus described my invention, I claim—

65 1. In an eye glass or spectacle, a bridge the extremity of which is provided with a sup-

porting extension disposed at an angle to it and the inner end of which supporting extension is adapted to be secured to the lens in position to support the end of the bridge at a
 70 distance from said lens, in combination with a nose piece consisting of an offset arm and a nose guard and provided with a supporting extension disposed at an angle to said offset
 75 arm, and means for securing said supporting extension to the lens in position to support the nose piece at a distance from the lens,—substantially as set forth.

2. In an eye glass or spectacle, a bridge the extremity of which is provided with a sup-
 80 porting extension disposed at an angle to it and the inner end of which supporting extension is adapted to be secured to the lens in position to support the end of the bridge at a
 85 distance from said lens, in combination with a nose piece structurally independent of the bridge and consisting of an offset arm and a nose guard and provided with a supporting
 90 extension disposed at an angle to said offset arm, and means for securing said supporting extension to the lens in position to support the nose piece at a distance from the lens,—substantially as set forth.

3. In combination, an eye glass comprising a lens a bow spring, and a nose piece, the bow
 95 spring being provided with a supporting extension extending outwardly toward the lens, against one face of which it presents,—the nose piece having a supporting extension which extends from its end portion outwardly
 100 toward the lens against the opposite face of which it presents, the arrangement being such that when the parts are assembled the two supporting extensions face each other, and the adjacent ends of the bow spring and nose
 105 piece overlap each other, so that the edge of the under member presents against the inner face of the supporting extension of the overlying member, a screw or stud extending
 110 through the lens and the ends of the supporting extensions, and means for connecting the supporting extensions together at a point intermediate of their length, substantially as set forth.

4. In combination, an eyeglass comprising
 115 a lens, a bow spring, and a nose piece, the bow spring being provided with a supporting extension extending from one edge of its end portion outwardly toward the lens, against one face of which it presents,—the nose piece
 120 having a supporting extension extending from one edge of the end portion outwardly toward the lens against the opposite face of which it presents, the arrangement being such that when the parts are assembled the two
 125 supporting extensions face each other, and the adjacent ends of the nose piece and bow spring overlap each other, so that the edge of the under member presents against the inner face of the supporting extension of the over-
 130 lying member,—a screw or stud extending through the lens and the ends of the support-

ing extensions, means for connecting the supporting extensions together at a point intermediate of their length, and wings mounted on one of said supporting extensions and bearing against the edge of the lens, substantially as set forth.

In testimony that I claim the foregoing as

my invention I have hereunto signed my name this 18th day of February, A. D. 1897.

IVAN FOX.

In presence of—

J. BONSALE TAYLOR,

F. NORMAN DIXON.