

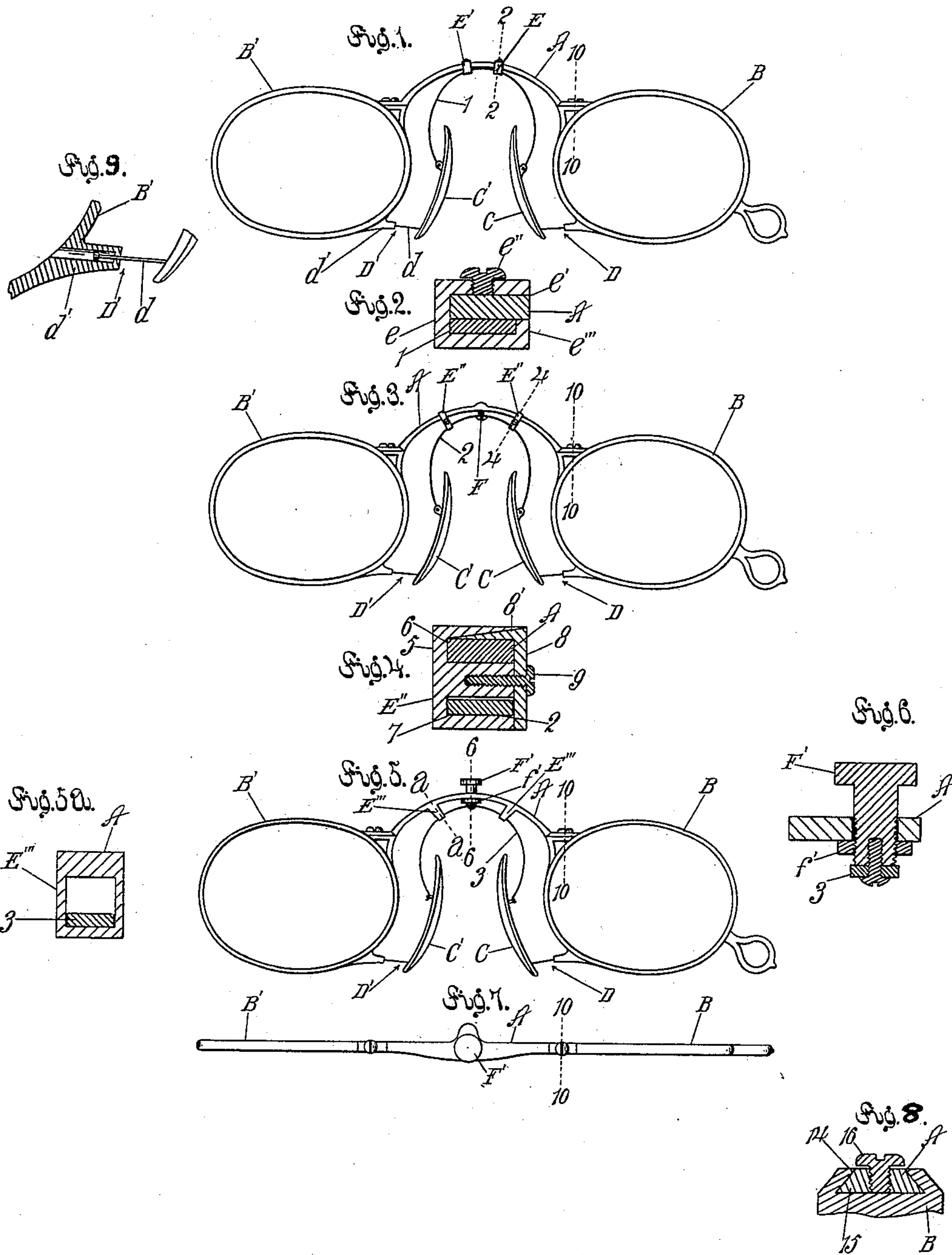
No. 614,422.

Patented Nov. 15, 1898.

C. C. DAVIS.
EYEGLOSS FRAME.

(Application filed Aug. 9, 1897.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES CASSAT DAVIS, OF LOS ANGELES, CALIFORNIA.

EYEGLOSS-FRAME.

SPECIFICATION forming part of Letters Patent No. 614,422, dated November 15, 1898.

Application filed August 9, 1897. Serial No. 647,635. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CASSAT DAVIS, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Eyeglass-Frames, of which the following is a specification.

My invention is capable of embodiment in numerous forms, and in the accompanying drawings I have illustrated the ways which I deem preferable for carrying it out.

My invention relates to eyeglass-frames in which provision is made for the adjustment of the lenses to the pupillary distance of the wearer, at the same time holding the two lenses against rotation relative to each other.

I provide for adjusting the tension of the springs which hold the nose-guards, so as to allow for fitting different sizes of noses or for adjustable tension. At the same time provision is made for the adjustment of the nose-guards at any desirable point between the lenses.

The accompanying drawings illustrate my invention.

Figure 1 shows a simple form in which the nose-guard springs are formed of the opposite ends of a U-shaped spring. At present I regard this to be the preferred form. Fig. 2 is an enlarged section on line 2 2, Fig. 1. Fig. 3 is a view of another form, with U-shaped spring and with an adjusting-screw at the middle of the bow for adjusting the tension of the spring. Fig. 4 is an enlarged section on line 4 4, Fig. 3, showing the connection between the spring and the bow. Fig. 5 is a modification in which the adjusting-screw plays through the bow and is provided with a set-nut between the bow and spring and is adapted to be pressed to throw the ends of the springs apart, and thus to spread the nose-guards when the wearer wishes to place the glasses upon the nose. Fig. 5^a is a section on line *a a*, Fig. 5. Fig. 6 is an enlarged sectional detail on line 6 6, Fig. 5. Fig. 7 is a plan of the form shown in Fig. 5. Fig. 8 is an enlarged section on line 10 10, Figs. 1, 3, 5, and 7. Fig. 9 is an enlarged sectional detail of the connection D of Fig. 1.

A indicates the bow. B B' are the lens-frames adjustably fastened to the ends thereof.

C C' are the nose-guards hinged to nose-

guard springs which are fastened to and depend from the bow.

In the different views, 1 2 3 indicate the nose-guard springs depending from the bow and hinged or pivoted to the nose-guards, respectively.

D D' indicate connections by which the nose-guards are connected at their lower ends with the lens-frames. These connections are extensible to allow play of the lower ends of the guards toward and from the lens-frames, but are rigid sidewise to prevent lateral movement of the lower ends of the nose-guards. The connections may be of any desirable form. In Fig. 1 they are composed of a guide-rod *d*, working in a socket *d'*. The nose-guard springs are formed of a single U-spring, the free ends of which respectively form the springs for the respective nose-guards. Said spring is adjustably fastened to the bow by tension-adjusting means at the middle of the spring for varying the tension of the spring. In Fig. 1 the nose-guards are pivoted, respectively, to the opposite ends of the U-spring, and two connecting devices, comprising movable clamp-arms E E', one on each side of the middle of said U-spring, connect said spring with the bow. In the form shown in Figs. 1 and 2 the connecting devices, are clamps formed of a clip or clasp *e*, having three closed sides and one side provided with an opening *e'*, through which to receive the spring and the bow one at a time—that is to say, in assembling the parts the spring will first be passed in through the opening *e'* and brought to the bottom of the clasp, and the bow is then passed through the opening *e'*. A set-screw *e''* is screwed against the bow to clamp the bow in place on top of the spring, the spring being held by the portion *e'''* of the side of the clasp below the opening *e'*.

In the form shown in Fig. 1 the tension of either of the nose-guard springs formed by the ends of the U-shaped spring 1 can be increased or diminished by sliding the appropriate clamp E or E' along the bow and spring toward or away from the middle of the bow, and if it is desired to fit the glasses to pupils which are disposed at unequal distances from the nose the adjustment may be made by sliding both clasps and spring toward one of the lenses, thus shifting both nose-guards toward one side, or the lens-frames may be adjusted

on the bow, and in addition to this the position of the spring may be changed, if desired, by sliding both clasps and spring along the bow. If the nose is wide, the clasps will be
5 set farther apart than if the nose is narrow.

In the forms shown in Figs. 3 and 5 the connecting devices or clamp-arms E'' E''' are normally set farther from the middle of the bow than in the form shown in Fig. 1 and are arranged so as to hold the spring at a distance
10 from the bow, and an adjusting-screw is provided to adjust the tension of the U-spring. In Fig. 3 the adjusting-screw F is connected with the bow and screws into the same and
15 acts upon the middle of the spring to draw the spring toward or release it from the bow. Preferably the screw passes through a hole in the middle of the spring. The spring slides freely in the clamps or connecting de-
20 vices E''.

It is to be understood that in any of these forms where the U-spring is used the spring will be bent so as to approximately fit the nose, and the adjusting-screw is for the purpose of securing and maintaining an accurate
25 and comfortable fit. When the spring annoys or relaxes, the wearer can adjust the screw, and thus maintain an accurate and comfortable fit.

In Fig. 4 the clamp-arm E'' is detailed. In this the clamp-arm is composed of a block 5, having two seats 6 7, one for the bow and one for the spring. 8 is a clasp, preferably having a wedge-shaped arm 8' to enter the bow-
35 seat in the block to wedge against the bow. 9 indicates a screw to hold the clamp on the block.

In Figs. 5 and 6 the screw F' plays through a hole in the bow and is fastened to the spring.
40 f' is a set-nut on the screw between the bow and the spring to be screwed against the bow, thus to press and hold the bow and spring apart and throw and hold the ends of the U-spring apart to obtain the proper fit. In
45 this form the wearer can press the screw F' in to press on the middle of the U-spring 3 to throw the ends of such spring apart to spread apart the nose-guards when the glasses are being placed on the nose. When the
50 pressure on the screw is relieved, the nose-guards will assume the normal position allowed by the set-nut.

In all of the views the lens-frames are adjustably connected with the ends of the bows, so that the lenses can be moved toward and
55 from the middle of the bow. In Fig. 8, 14 indicates a dovetailed socket in the lens-frames, and 15 the dovetailed end of the bow fitted in the socket. 16 indicates a screw passing
60 through the bow and pressing against the lens-frame. To adjust the lenses to the proper distance apart, the screws 16 will be loosened and the lens-frames slid upon the ends of the bow to the proper position and the screws
65 then tightened.

The lenses are independently adjustable with relation to the nose-guard springs, and the nose-guards are independently adjustable with relation to each other and with relation to their position between the lenses. In all
70 of these adjustments and in every position which may be assumed by the parts the lenses are not rotated with relation to each other, so that when the lenses are properly placed in their frames the adjustment as to width of
75 nose or for the purpose of fitting as to pupillary distance will not disarrange the adjustment of the axes of the two lenses with relation to each other.

The form of the bow, nose-guards, and other
80 parts may be changed without departing from the spirit of my invention.

Now, having described my invention, what I claim as new, and desire to secure by Letters
85 Patent, is—

1. An eyeglass-frame comprising a bow; lens-frames adjustably secured, at their upper portion, to the ends of the bow respectively; a U-shaped spring fastened to the bow and depending therefrom; tension-adjusting
90 means at the middle of the spring for varying the tension thereof; the nose-guards hinged to the lower ends of such spring; and connecting devices between the lens-frames and the lower ends of the nose-guards, respectively, to hold the nose-guards against lateral
95 displacement and allow them to play toward and from the lens-frames.

2. The combination of the bow; a U-shaped spring to the ends of which the nose-guards
100 are hinged respectively; and a tension-adjusting device at the middle of the U-spring for varying the tension of said spring, and connecting said spring with the bow.

3. The combination of the bow; a U-shaped
105 spring to the ends of which the nose-guards are hinged respectively; two arms one on each side of the middle of said spring, connecting said spring with the bow; and an adjusting-screw connected with the bow and acting on
110 the spring between said arms.

4. The combination of the bow; a U-shaped spring to the ends of which the nose-guards are pivoted respectively; and two arms one on each side of the middle of said spring, connecting
115 said spring with the bow; an adjusting-screw inserted through the bow and fastened to the spring; and a set-nut on the adjusting-screw between the spring and bow.

5. The combination of the bow; two arms
120 on the bow with spring-seats therein to hold a spring away from the bow; a U-spring passed through the seats and carrying the nose-guards at its ends; and an adjusting-screw connecting the spring and the bow be-
125 tween the arms.

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Witnesses:

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