L. F. ADT.

EYEGLASS MOUNTING.

APPLICATION FILED APR. 1, 1910.

1,040,100.

Patented Oct. 1, 1912.

Fig. 1.

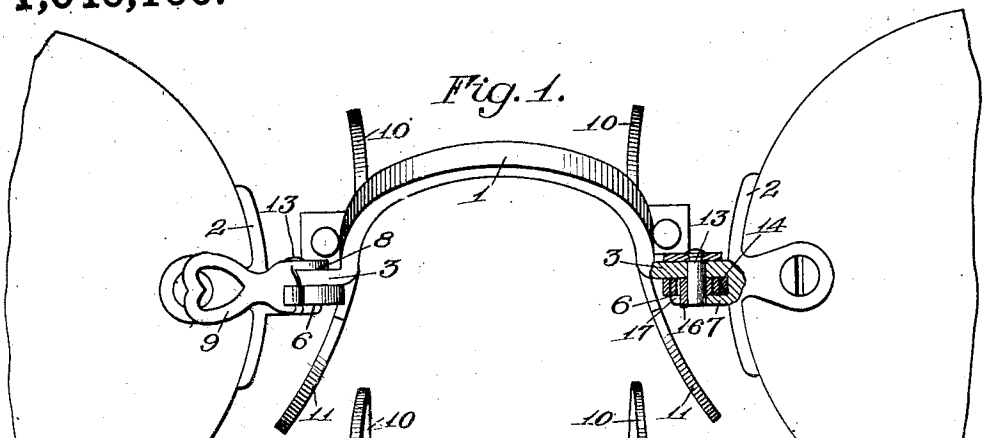


Fig. 2.

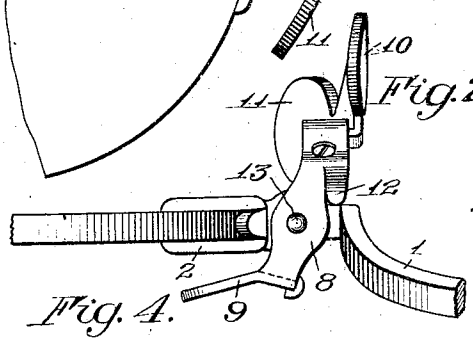


Fig. 3.

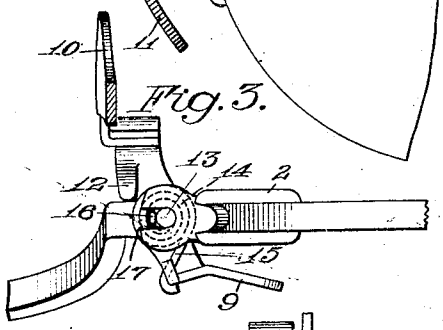


Fig. 4.

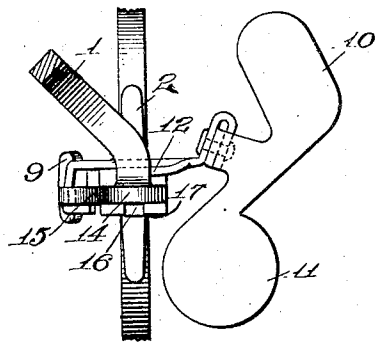


Fig. 5.

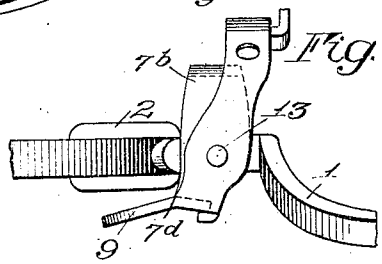


Fig. 6.

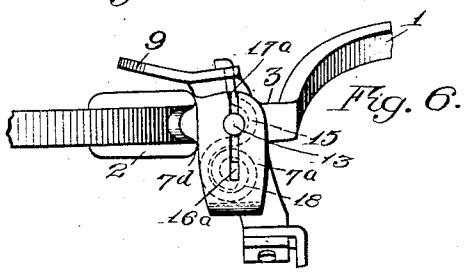
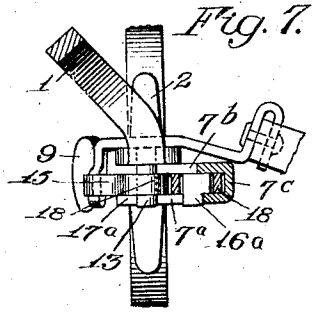


Fig. 7.



Witnesses

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EYEGLASS-MOUNTING.

1,040,100. Specification of Letters Patent. Patented Oct. 1, 1912.

Application filed April 1, 1910. Serial No. 552,861.

To all whom it may concern:

Be it known that I, LEO F. ADT, of Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Eyeglass-Mountings; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

The present invention relates to eyeglass mountings and more particularly to those of the finger-piece type in which the nose guards move toward the nose under the action of springs, and it has for its object to provide a construction in which the springs are so arranged that they may operate to best advantage within a small space and do not tend to render the mounting conspicuous.

Another object of the invention is to provide for holding the springs to the mounting without the use of separate fastening devices and to render the mounting generally convenient for the assembling or detachment of its parts.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a front view of one embodiment of the present invention, a portion of the mounting being shown in section; Fig. 2 is a plan view of a portion of the same mounting in proximity to one of the nose guards; Fig. 3 is a bottom view of a portion of the same mounting in proximity to one of the guards; Fig. 4 is a central transverse section of the same mounting; Fig. 5 is a plan view of a portion of another mounting embodying the present improvements; Fig. 6 is a bottom view of a portion of the latter embodiment, and Fig. 7 is a central transverse section of the mounting shown in Figs. 5 and 6.

In the embodiment of the invention illustrated in Figs. 1 to 4 there is employed a support for the lenses comprising preferably an arched or bridging portion 1 adapted to rest on the nose of the wearer, lens attaching devices 2 and horizontal portions 3 connecting the arched or bridging portions of the lens attaching devices. The support may also be provided with pockets 6 each closed at its top and bottom and opening horizontally, its top wall being formed by a connecting portion 3 and its bottom wall being formed by an arm 7 extended inwardly from a lens attaching device below and in spaced relation to a horizontal connecting portion 3. Arranged to swing on the support substantially in a horizontal plane preferably on the upper side are the nose guards embodying in this instance levers 8 extending transversely of the plane of the lenses. The forward end of each lever may have a vertical portion 9 depending downwardly and extending outwardly to provide a finger piece or operating portion and the rear end of the lever carries a nose engaging member which comprises an upper pad 10 and a lower pad 11. It is desirable, especially when the distances between the ends of the bridging portion and the lens bearing portions of the lens attaching devices are great, to provide each lever 8 with a stop 12 formed in this instance by cutting a tongue from the lever stock and bending such tongue downwardly so that it will engage the rear of the support. Preferably the lever 8 of each guard is formed from flat stock with its faces horizontally arranged and it carries permanently a pivot pin 13 depending from the under side thereof and turning in bearings in one of the connecting portions 3 and an arm 7. This arrangement gives a very long bearing for the pivot pin and prevents looseness of the guard. The springs for positioning the guards are arranged in this instance within the pockets 6 and as the latter open horizontally the introduction and the removal of the springs are facilitated while each spring is supported against vertical movement by the upper and the lower walls of the pocket. In this instance each spring is in the form of a flat volute or true spiral coil 14, the upper and lower faces of which engage respectively the proximate faces of the connecting portion 3 and the arms 7. The outer end of each coil may carry an arm 15 which extends forwardly through the open front of a pocket into engagement with a guard in front of the pivot of the latter, its forward end being interlocked with the inner vertical edge of the finger piece 9. In order to secure the other or inner end of each coil the latter is provided with a depending projection 16 adapted to enter a horizontally arranged slot 17 formed in

the lower wall 7 of the pocket. This slot holds the inner end of the spring against turning when the latter is coöperatively connected with the guard but upon removal of the guard and its pivot pin 13 the spring may be withdrawn horizontally from the pocket and separated from the mounting, it being apparent that the pivot pin 13, by passing through the coil, holds the lattter against removal from the pocket.

In the embodiment of the invention shown in Figs. 5, 6, and 7 the bridging portion 1 and the lens attaching devices 2 are the same as in the other embodiment. Each connecting portion 3 carries the arm 7^a instead of the lens attaching device, said arm being formed in one piece with the connecting portion. This is effected in this instance by the provision of a rearward extension 7^b and a downward extension 7^c, the arm 7^a extending forwardly from the downward extension and the outer side of the forwardly extending arm being soldered or otherwise secured to the lens attaching device at 7^d. The guards are substantially the same as those shown in Figs. 1 to 4 and the pivot pins 13 turn both in the connecting portions and the horizontal arms 7^a. The springs of this embodiment differ from those of the first described embodiment and are in the form of coils 18 of flat volute or true spiral form, each arranged about a vertical axis in rear of the plane of the lenses and between the rearward extension 7^b of the connecting portion 3 and the horizontally arranged arm 7^a in rear of the proximate pivot pin 13, being provided with a forwardly extending arm 15 detachably interlocking at its free end with the vertically extending finger piece 9. The inner end of the spring is preferably held against movement by a projection 16^a thereon fitting within a horizontally arranged slot 17^a, the latter opening in this instance at the front of the mounting and permitting the removal of the spring. With this arrangement the arm of the spring is given increased length thus insuring more strength and the pivot pin being arranged in front of the coil 18 prevents the removal of the spring until the guard is removed.

In using both embodiments of the invention, the finger pieces 9 are pressed toward each other, thus effecting the separation of the nose bearing portions of the guards. Upon the release of the finger pieces the nose bearing portions move toward each other under the action of the springs.

An eyeglass mounting constructed in accordance with this invention has its springs located out of contact with the nose guard levers and mounted in pockets which protect them from dust and at the same time render them inconspicuous. The pockets open horizontally and thus permit the spring ends to be provided with arms which insure greater strength to the springs without unduly increasing the size of the latter. The connection of each spring with the support is such that separate fastening devices are not required while the removal of the spring may be effected after the removal of its guard. The guards are so arranged relatively to the pockets that the latter are hidden and the pivot pins also serve to retain the spring within the pockets.

It is particularly easy to assemble the mounting as the spring is held centered and in place by the walls of the pocket as soon as it is slipped between them and while the guard lever is being applied whereas in many mountings as hitherto made it is necessary that the minute spring be held in place by the operator's fingers alone during the manipulation of the other parts. After the parts are put together, the flat parallel surfaces formed by the top and bottom walls of the pocket support the flat end faces of the coil and hold the convolutions against displacement from their true plane so that they cannot become distorted or injured in such a way as to reduce their efficiency.

I claim as my invention:

1. In eyeglass mountings, or the like, the combination with a support for lenses having a pocket closed at its top and its bottom and opening horizontally, of a finger-piece nose guard mounted to swing on the support outside of the pocket, and a spring arranged in the pocket to operate in a plane between the top and bottom walls thereof and connected to the guard, said walls serving to support the spring on opposite sides.

2. In an eyeglass mounting, the combination with a support for lenses having a horizontally opening pocket closed at the top and bottom, of a finger piece nose guard mounted to swing on the support outside of the pocket but in vertical alinement therewith, a spring for positioning the guard arranged in the pocket to operate in a plane between the top and bottom walls thereof, the latter serving to support the spring on opposite sides, and a pivot for the guard supported in both the top and bottom walls of the pocket and extending through the latter to serve as a retaining means for the spring.

3. In an eyeglass mounting, the combination with a support for lenses having a horizontally opening pocket closed at the top and bottom, of a finger piece nose guard mounted to turn on the support outside of the pocket but in vertical alinement therewith, a flat spiral coil spring for positioning the guard arranged within the pocket to operate in a plane between the top and bottom walls thereof, the latter serving to support the spring on opposite sides and a removable pivot for the guard supported in

both the top and bottom walls of the pocket and extending through the latter and centrally through the coil of the spring to serve as a retaining means for the spring.

4. In an eyeglass mounting, the combination with a support and a guard arranged to turn thereon, of a pair of spaced bearing surfaces independent of the guard and a coil spring for positioning the guard wound in a flat spiral between said surfaces with one end engaging one of them and having its convolutions held by the surfaces against displacement from the general plane of the spiral coil.

5. In an eyeglass mounting, the combination with a support and a guard arranged to turn thereon, of a pair of spaced bearing surfaces independent of the guard and a coil spring for positioning the guard wound in a flat spiral between said surfaces with one end engaging one of them, each of the surfaces extending in parallelism across two or more convolutions of the spring to maintain them in the general plane of the coil.

6. In an eyeglass mounting, the combination with a support and a finger piece guard lever mounted to turn thereon, one of said parts being provided with two spaced rigidly connected bearing faces, of a coil spring for positioning the guard wound in a flat spiral between said surfaces and having its convolutions held by the surfaces against displacement from the general plane of the coil.

7. In an eyeglass mounting, the combination with a support and a finger piece guard lever mounted to turn thereon, of a pair of flat rigidly connected spaced bearing surfaces on the support and a spring for positioning the guard wound in a flat spiral between said surfaces with the latter acting upon its convolutions to hold them in the general plane of the coil, said spring coil being removable from between the surfaces in a direction laterally of its axis.

8. In eyeglass mountings or the like the combination with a support for the lenses having a pocket closed at its top and its bottom and opening horizontally, of a nose guard mounted to turn on the support outside the pocket, a pivot pin permanently carried by the guard and turning in the upper and the lower wall of the pocket, and a spring for positioning the guard arranged within the pocket and connected with the latter.

9. In eyeglass mountings or the like the combination with a support for the lenses having a pocket closed at its top and its bottom and opening horizontally, of a coil spring arranged in the pocket, a nose guard mounted to swing on the support outside of the pocket connected with the spring, and a pivot pin permanently carried by the guard, turning in the upper and lower wall of the pocket, and extending through the coil spring.

10. In eyeglass mountings or the like the combination with a support for the lenses comprising a bridging portion, lens attaching devices, portions connecting the lens attaching devices with the bridging portions, and arms extending from the support in spaced relation to the connecting portions, of nose guards mounted to swing on the support, pivot pins permanently carried by the guards and turning in the connecting portions and the arms, and springs for positioning the guards connected to the latter and arranged between the connecting portions and the arms.

11. In eyeglass mountings or the like the combination with a support for the lenses comprising a bridging portion, lens attaching devices, horizontal portions connecting the lens attaching devices with the bridging portion, and arms lying in spaced relation to the horizontal connecting portions, of nose guards mounted to turn on the upper surfaces of the connecting portions, coil springs for positioning the guards connected therewith and arranged between the arms and the connecting portions, and pivot pins permanently carried by the guards, turning in the connecting portions and the arms and extending through the coil springs.

12. In eyeglass mountings or the like the combination with a support for the lenses having pockets formed therein, opening horizontally, one of the walls of each pocket being provided with a horizontally extending slot, of nose guards mounted to turn on the support, and springs having portions fitted in and interlocking with the slots and portions connected to the guards.

13. In eyeglass mountings or the like the combination with a support for the lenses having pockets formed therein opening horizontally below the upper surface of the support, one of the walls of each pocket being provided with a horizontally arranged slot, of nose guards mounted to turn on the support, detachable springs having portions fitted in and interlocking with the slots and portions connected to the guards, and pivot pins permanently carried by the guards and coöperating with the springs to retain the latter in the pockets.

14. In eyeglass mountings or the like the combination with a support for the lenses comprising a bridging portion, lens attaching devices, horizontal portions connecting the lens attaching devices with the bridging portion and arms arranged in spaced relation to the connecting portions and provided with horizontal slots, of guards each mounted to turn on the support, springs arranged between the connecting portions and the arms and having ends arranged in and interlocking with the slots and ends con-

nected to the guards, and pivot pins for the guards extending through the connecting portions, the arms and the springs.

15. In eyeglass mountings or the like the combination with a support for the lenses comprising a bridging portion, lens attaching devices, horizontal portions connecting the lens attaching devices with the bridging portion and arms arranged in spaced relation to the connecting portions and provided with horizontal slots, of guards each mounted to turn on the upper surface of a connecting portion, springs arranged between the latter and the arms and having ends arranged in the slots and ends connected to the guards, and pivot pins permanently carried by the guards turning in the connecting portions and the arms and extending through the springs.

16. In eyeglass mountings or the like the combination with a support for the lenses having a pocket closed at its top and its bottom and opening horizontally, of a nose guard mounted to swing on the support substantially in a horizontal plane, and a flat spiral coil spring having its upper and lower sides engaging respectively the upper and lower walls of the pocket and having an arm extending through the opening into engagement with the guard.

17. In an eyeglass mounting or the like, the combination with a lens attaching portion and a bridging portion, of two parallel, spaced supporting portions each joined to the lens attaching portion at one end and one of which is joined to one end of the bridging portion at its other end to form a pocket closed at its top and bottom and opening horizontally, of a nose guard mounted to swing on one supporting member exteriorly of the pocket, a spring arranged in the pocket and detachably interlocked with a supporting member at one end, a pivot pin rigidly connected to and detachable with the guard extending through the spring and both walls of the pocket to turn freely in the latter and an extension on the other end of the spring detachably interlocked with the guard to normally prevent axial movement of the pivot pin.

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Witnesses:
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