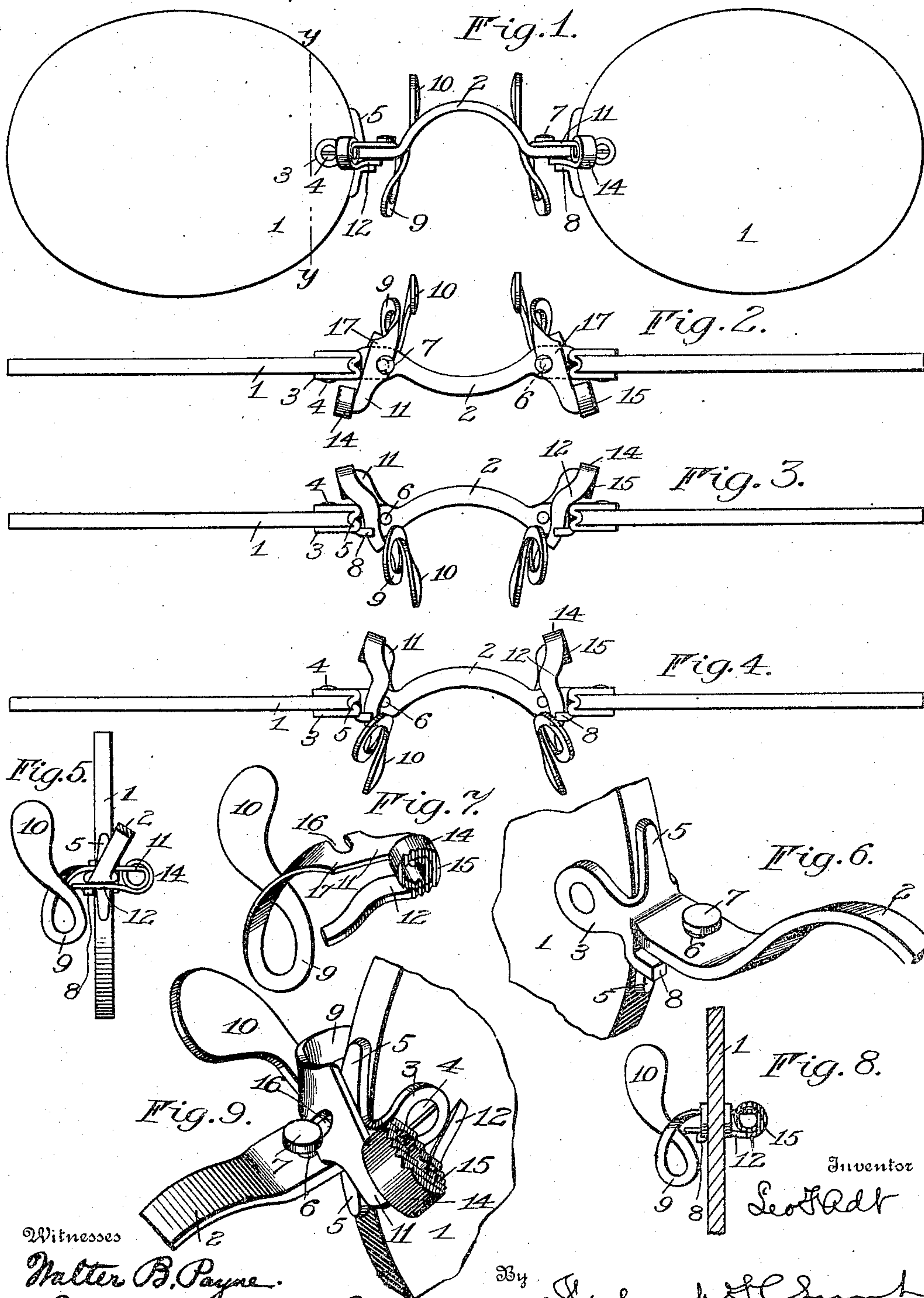


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PATENTED AUG. 6, 1907.

L. F. ADT.
EYEGLASSES.

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Witnesses

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EYEGLASSES.

No. 862,368.

Specification of Letters Patent.

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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 Eyeglasses; 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.

10 My present invention relates to eyeglass mountings and particularly to that class in which the lenses are connected by a relatively rigid bridge and the guards or portions bearing upon the wearer's nose are pivoted upon the mounting and provided with forwardly-projecting finger pieces by means of which the guards may be separated and otherwise manipulated, while the gripping or holding action is performed by a spring or springs operating upon these guards to bring them together.

20 The invention consists in certain improvements and combinations of parts whereby not only is the construction simplified and the operation of the parts rendered easier, but each of the guards embodies in itself all of the parts necessary for causing the various operations required, and the means for securing it in position upon the mounting or support, and in the preferred form they are each constructed of a single piece of sheet metal.

25 The invention further consists of certain constructions and combinations of parts all as will be hereinafter more fully explained, the novel features being pointed out in the claims at the end of the specification.

30 In the accompanying drawings: Figure 1 is a front elevation of a pair of eyeglasses constructed in accordance with my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a bottom plan view. Fig. 4 is a similar view with the guards separated. Fig. 5 is a vertical cross sectional view taken through the center of the bridge, and Fig. 6 is a perspective view of one end of the bridge with the guard removed. Fig. 7 is a detail perspective view of the guard. Fig. 8 is a sectional view on the line *y-y* of Fig. 1 showing the outer side of the operating end of the guard. Fig. 9 is a perspective view showing the manner of disengaging the guards from the mounting.

45 Similar reference numerals in the several figures indicate similar parts.

50 In mountings of this general description the lenses indicated by 1 are connected by a relatively rigid arched bridge, and in the present construction the bridge is directly connected to the lenses; 2 indicating the central arched portion extending over the wearer's nose and adapted to contact therewith if desired, and at the ends are provided the attaching lugs 3 extending over opposite faces of the lenses and connected by the usual screw 4, said ends also being provided with the vertically-extending edge-bearing lugs 5. At the ends

of the arched portion, and between it and the lenses are provided the horizontally-extending surfaces constituting supports upon which the guards are adapted to rest, and from these extend the vertical pivot pins 6 having heads 7. Arranged beneath the ends of the bridge and preferably at the rear side of the mounting is a holding projection or lug 8 with which a portion of the guard coöperates in the manner hereinafter described.

65 As stated, while I prefer to make the bridge and lens-attaching part in a single structure as shown, they can be formed separately and connected, but either, if made separately and connected, may constitute a support upon which the operating parts of the device are mounted.

70 The part which I term the guard embodies a body portion or arm pivotally mounted upon the pin 6 on the support and extending transversely of the plane of the lenses, having upon its rear portion a bearing pad or pad adapted to rest upon the nose of the wearer, and in the present instance consisting of a lower loop 9 and the upper bearing pad 10 connected to the loop and of such nature that it will be relatively more resilient.

80 11 indicates the operating arm of the guard extending forwardly from the pivot for a short distance, and thence extending rearwardly again beneath the support,—forming a resilient or spring arm 12, the edge of which bears against the mounting, preferably above the lug 8, and having a sliding connection with the same, the tendency of said arm being to force the operating ends of the guards outward and the bearing pads of the guards toward each other. The end of this arm 12 is slightly curved in the direction of its movement about the pivot so that the yielding pressure exerted upon the bearing pads will be nearly uniform at substantially all portions of its movement, thereby enabling the bearing pads to be readily opened to their widest extent without unduly increasing the tension. This feature of providing a separate and positive pivotal bearing for the guards and constructing the latter with spring arms having a sliding bearing upon the mounting, insures the positive and uniform movements of the guards, and also facilitates the construction in that the guards as a whole may be each made of a single piece of spring metal, and as will be described, may be locked in engagement with the mounting. When the spring arms are thus made of a continuation of the operating arm, I prefer to form a coil 14, the outer edge of which may be roughened to form a broad finger piece 15, while the tendency of the coil will be to throw the spring arm downward, it being retained, however, by the lug 8 on the support.

110 A detachable connection between the guard and the pivot pin on the support is provided by making

- an open slot 16 in the inner edge of the guard which engages said pivot pin below its head, the material of the guard between the outer end of the slot and the lens edge-bearing lugs being wide enough so that the guard cannot be slid far enough outward to become disengaged from the head of the pin, under ordinary circumstances, and the tendency of the spring arm 12 being to move the guard as a whole so that the pin will occupy the bottom of the slot.
- 10 The guard may be readily detached, if desired, by disengaging the end of the spring arm 12 from the lug 8, moving it downwardly and forwardly beyond the edge of the lens, and then by tilting the guard vertically, as shown in Fig. 8.
- 15 The amount of separation of the nose-bearing pads may be limited by suitable stops, but I prefer to cause shoulders 17 on the guards to come into contact with the lens edge-bearing lugs for this purpose, as shown in Fig. 2.
- 20 The guards as a whole may be removed in the manner described and replaced by the reverse movement, thus enabling guards having different bearing-pads to be substituted if desired, or permitting a replacement of the guard, if one should be broken or otherwise injured. It will be noted that the guards embody not only the nose-bearing pad and the operating arm, but also the actuating spring and the means for holding them in locked engagement with the support or mounting, so that no screws, separate springs or other small parts, are required, and as in the preferred construction, the whole of the guard is of a single piece of sheet metal, which may be stamped from a flat blank and then bent up as shown, the construction is much simplified and cheapened.
- 35 Of course other forms of pads bearing upon the wearer's nose may be provided, if desired, but I find the one shown to be efficient, as the arm bearing the pad 10 will not only have a spring action, but may be adjusted to bear with greater or less pressure on the nose.
- 40 There are no parts liable to get out of adjustment or become loose and the mountings once assembled, will be capable of operation indefinitely without adjustment.
- 45 I claim as my invention:
1. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon having forwardly-extending operating portions, rearwardly-extending bearing pads and provided with yielding spring arms having sliding engagement with the mounting and operating to turn the guard on the pivot.
 2. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon having the forwardly-extending operating portion, the rearwardly-extending bearing pad and a spring arm secured to the guard having a sliding engagement with the mounting when turned on its pivot.
 3. In an eyeglass mounting, the combination with supports and a relatively fixed pivot thereon, of guards pivoted on said pivots on the mounting each having two arms, one provided with a nose-bearing pad, and the other being resilient and having a sliding engagement with a stationary portion of the mounting.
 4. In an eyeglass mounting, the combination with the support and a relatively fixed pivot thereon, of a guard pivoted on said pivot on the mounting having two arms, a bearing pad mounted on one arm and the other arm being resilient and slidably engaging the mounting.
 5. In an eyeglass mounting, the combination with a sup-

- port and a relatively fixed pivot member thereon, of a guard cooperating with said pivot member on the support and having two arms, a bearing pad on one of said arms and the other arm being resilient and having a sliding engagement with the mounting.
6. In an eyeglass mounting, the combination with a support and a fixed pivot on the mounting, of a guard pivoted on said pivot on the mounting, having an operating portion and a spring connected to said guard and movable upon a stationary bearing point on the mounting removed from said pivot.
7. In an eyeglass mounting, the combination with the support and a relatively fixed pivot on the mounting, of a movable guard arranged to turn on said pivot and having a spring attached to and movable with it, said spring having a portion reacting upon a fixed bearing point on the mounting when the guard is turned on the pivot.
8. In an eyeglass mounting, the combination with a support and a relatively fixed pivot on the mounting, of a guard pivoted on the said pivot and having a spring attached thereto at a point removed from the pivot and its free end engaging a stationary portion of the mounting.
9. In an eyeglass mounting, the combination with the support and a relatively fixed pivot on the mounting, of the guard pivoted on the said pivot having a forwardly-projecting operating portion, a rearwardly-projecting nose-bearing pad and a spring on the guard having a sliding engagement with a fixed portion of the mounting.
10. In an eyeglass mounting, the combination with a support, of a removable guard, open interlocking pivotal connections between the guard and mounting, said connections opening transversely of the plane of the pivot, and a spring arranged between the guard and mounting and serving to hold the parts in interlocking engagement and also to turn the guard on its pivot.
11. In an eyeglass mounting, the combination with the support, of a removable guard having a nose bearing pad and an operating portion, open interlocking pivotal connections between the guard and mounting and a spring on the guard engaging the mounting and serving to hold the parts in interlocking engagement and to move the guard on its pivot.
12. In an eyeglass mounting, the combination with the support, of a removable guard, interlocking connections between the guard and mounting, and a spring-arm on the guard engaging the mounting and serving to hold the interlocking parts in engagement and to turn the guard on its pivot.
13. In an eyeglass mounting, the combination with the support, of a guard pivoted on the support embodying an operating portion, a nose-bearing pad, and a spring arm, said arm being arranged on the opposite side of the support from that on which the guard is supported.
14. In an eyeglass mounting, the combination with a support having a pivot pin thereon, of a removable guard embodying a portion extending on one side of the support having a slot for engaging the pin and a spring arm located on the opposite side of the support and engaging a stationary portion of the mounting.
15. In an eyeglass mounting, the combination with a support having a pivot pin thereon, of a removable guard having a portion extending on one side of the support and engaging the pin, and a spring located on the opposite side of the support.
16. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon having a bearing pad in rear of the support, an operating portion in front thereof and a finger-piece on said operating portion formed by coiling the material of the guard to present the edge of the material to the fingers.
17. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon having a bearing pad in rear of the support, an operating arm extending in front of the support and a spring extending from the said arm and having a sliding bearing on the support.
18. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon having a bearing pad in rear of the support, an operating arm extending in front thereof having a coil at its outer end and an arm extending from said coil rearwardly and engaging the support.

19. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon constructed of a single piece of metal having a bearing pad in rear of the support, an operating arm extending in front of the support and a spring extending from the outer portion of the arm beneath the support and having a sliding engagement with a stationary portion of the mounting.

20. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon having the bearing pad in rear of the support, an operating arm extending in front thereof and a resilient arm connected to the operating arm and provided with a curved end having a sliding engagement with a stationary portion of the mounting.

21. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon having the bearing pad in rear of the support, an operating arm extending to the front thereof, a resilient arm connected to the outer end of the operating arm and having its free end curved inwardly and having a sliding engagement with the support.

22. In an eyeglass mounting, the combination with the bridge having the pivot pins thereon near the ends, of the guards pivoted on the pins having the bearing pads in rear of the bridge, the operating arms extending in front thereof and the springs extending from the front ends of said arms and having a sliding bearing upon the mounting.

23. In an eyeglass mounting, the combination with the bridge having the pivot pins thereon, near the ends of the guards having the open slots in which the pins are seated, the bearing pads in rear of the bridge, the operating arms extending in front thereof, the resilient arms extending from the ends of the operating arms having a sliding bearing upon the mounting.

24. In an eyeglass mounting, the combination with a support, of a guard pivoted thereon composed of a single piece of material and embodying the bearing pad in rear of the support, the operating arm forward of the support and the rearwardly-extending yielding arm having a sliding bearing upon the support.

25. In an eyeglass mounting, the combination with a support and a relatively fixed pivot on the mounting, of a guard pivoted on said pivot and composed of a single piece of sheet metal embodying the nose-bearing portion having the lower loop and the upper yielding pad, the forwardly-extending operating arm, and the yielding portion extending rearwardly from the end of the arm and having a sliding bearing upon the mounting.

26. In an eyeglass mounting, the combination with the support and a relatively fixed pivot on the mounting, of a guard pivoted on said pivot and constructed of a single piece of sheet metal embodying the vertically-extending nose-bearing portion at the rear and the parallel arms extending forwardly of the pivot and connected at their forward ends, one of said arms having a sliding bearing upon the support.

27. In an eyeglass mounting, the combination with the support and a relatively fixed pivot on the mounting, of a guard pivoted thereon on said pivot and constructed of a single piece of sheet material embodying the vertically-extending nose-bearing portion at the rear, the parallel arms extending forwardly of the pivot and connected at their forward ends by a coil, one of said arms having a sliding bearing upon the support.

28. In an eyeglass mounting, the combination with the support having the headed pivot pin, the guard having the open slot at the side in which the pin is seated, the bearing pad, the operating arm and the resilient portion thereon engaging the mounting and serving to turn the guard on its pivot and hold the slot and pin in engagement.

29. In an eyeglass mounting, the combination with the support and a relatively fixed pivot on the mounting, of the guard mounted thereon on said pivot having the bearing pad in rear of the pivot, the operating arm forward of the pivot and the integral spring arm engaging the mounting and turning the guard on its pivot.

30. In an eyeglass mounting, the combination with the support and a relatively fixed pivot on the mounting, of the guard mounted on said pivot thereon having the bearing pad in rear of the pivot, the operating arm in front of the pivot and the integral spring arm engaging the mounting and actuating the guard toward the mounting and turning it upon the pivot.

31. In an eyeglass mounting, the combination with the support having the seat on one side the pivot pin and the lug, of the guard resting on the seat and pivoted on the pin, having the rearwardly-extending bearing pad, the forwardly-extending operating arm and the resilient arm on the latter having a sliding engagement with the lug, to turn the guard on its pivot and hold it upon the seat.

32. In an eyeglass mounting, the combination with the bridge having the lens-engaging ear and the pivot pin, of the guard pivoted on the pin having the bearing pad at the rear of the bridge, the operating arm at the front and the resilient arm extending rearwardly from the end of the operating arm and having a sliding bearing on the bridge.

33. In an eyeglass mounting, the combination with the bridge having the lens-engaging ear and the vertical headed pivot pin on one side, of the guard supported on the bridge having the open slot in its inner side engaging the pin, the nose-bearing pad arranged in rear of the bridge, the operating arm arranged forwardly of the bridge and the resilient arm connected to the outer end of the bearing arm having a sliding bearing on the side of the bridge opposite the pivot pin and beyond the latter and serving to hold the guard on the pivot pin and turn it thereon.

34. In an eyeglass mounting, the combination with a support and a relatively fixed pivot thereon, of a guard pivoted on said pivot embodying an integral spring having a sliding engagement with the support and a forwardly-extending operating arm, and a nose-bearing portion mounted on the guard.

35. In eyeglasses, the combination with a suitable mounting, a nose guard and cooperating bearing members forming a detachable bearing between the guard and mounting, of a spring for turning the guard on said pivot and acting to retain the bearing members of the guard and mounting in cooperative relation.

36. In eyeglasses, the combination with the mounting, a bearing member thereon and a nose guard having a bearing member adapted to cooperate with said member on the mounting, said members forming a laterally open bearing, of a spring for turning said guard on said bearing and serving to hold the bearing members in cooperative relation with an increased force when the guard is turned on its pivot in opposition to the action of the spring.

37. In an eyeglass mounting, the combination with a support, of a guard pivoted to the support and extending in front and in rear thereof, and an independent connection between the guard and the support comprising a spring extending from the forwardly-extending portion.

38. In an eyeglass mounting, the combination with a support, of a guard pivoted to the support and having a forwardly extending operating arm, and an independent connection between the guard and the support comprising a spring arm connecting the forwardly extending operating arm and the support.

39. In an eyeglass mounting, the combination with a support, of a guard pivoted to the support and having a forwardly extending operating arm, and an independent connection between the guard and the support comprising a spring arm connecting the forwardly extending operating arm and the support, said arm being formed with a coil.

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