No. 862,789. PATENTED AUG. 6, 1907.

G. BAUSCH.

NOSE PIECE FOR EYEGLASSES.

APPLICATION FILED DEC. 11, 1905.

Fig. 1.

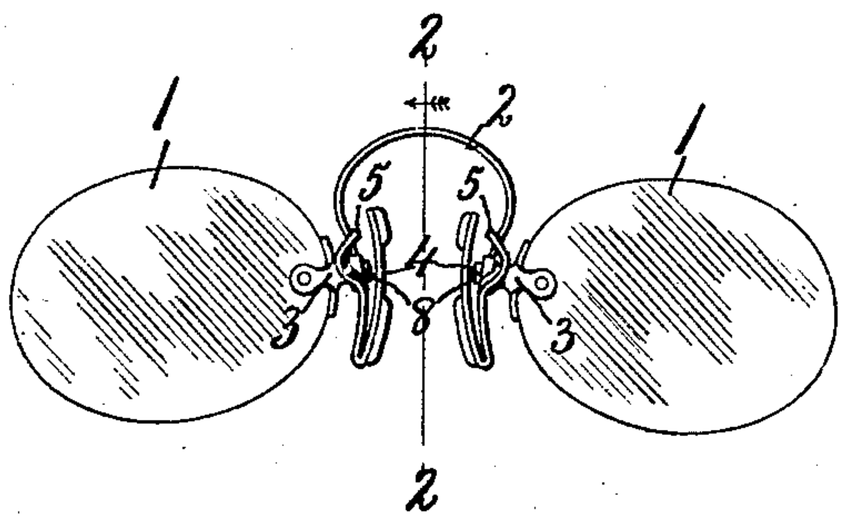


Fig. 2.

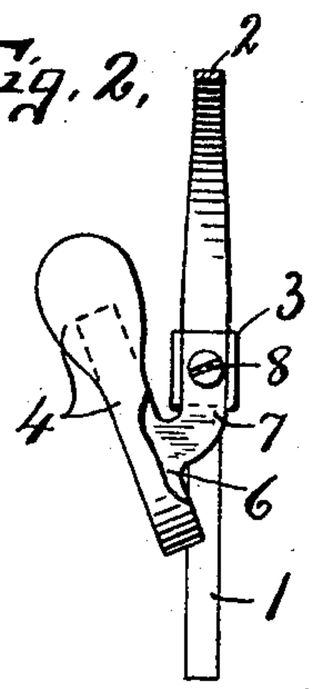


Fig. 3.

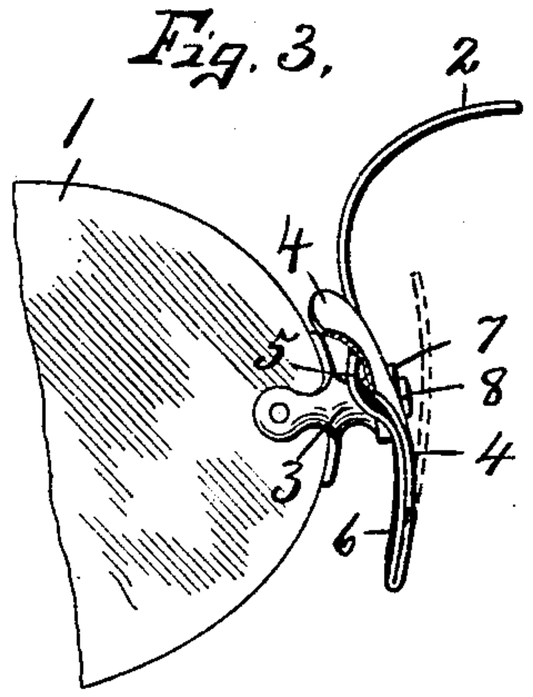
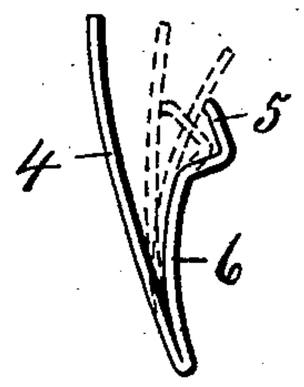


Fig. 4.



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NOSE-PIECE FOR EYEGLASSES.

No. 862,789. Specification of Letters Patent. Patented Aug. 6, 1907.

Application filed December 11, 1905. Serial No. 291,290.

To all whom it may concern:

Be it known that I, GEORGE BAUSCH, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Nose-Pieces for Eyeglasses, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in nose-pieces for eye-glasses in which opposite resilient leaves or springs are attached in any suitable manner to the lens mounting so that the ends of the leaves are spring pressed under comparatively light tension against opposite sides of the nose for the purpose of holding the glasses in operative position independently of the spring pressure of the bow which usually connects the parts of the lens mounting.

The essential purpose of my invention is to make the nose-piece as light and resilient as may be consistent with durability so that the pressure upon the nose will not be excessive and at the same time to provide adjustable limiting stops to prevent excessive compression of the springs beyond the limit of their resiliency.

A further object is to mount the springs in such relation to their limiting stops that the tension is gradually increased as the free ends of the springs approach said stops, thereby affording a comparatively wide range of effective action of the springs for different nose widths without necessitating the bending or adjustment of the bow.

In the practical use of spring-nose-pieces of this character, I have discovered that when the springs are made sufficiently light to prevent excessive irritation of the nose, the tendency is to adjust the bow to such a degree as to bring all the gripping pressure upon the nose-springs and if the compression of these springs is not limited in some way, there is always more or less liability of breaking the springs owing to their extreme delicacy, and in my present invention, I have sought to avoid this undue strain and consequent breakage by providing the mountings with adjustable limiting stops located in the path of movement of the free ends of the springs so that when they are compressed or spread apart in the act of placing the glasses upon the nose, the free ends of the nose pieces cannot be compressed beyond their resilient power.

It is obvious that many different forms or styles of nose pieces possessing the desired resiliency may be employed depending somewhat upon the style of mounting to which the lenses are secured, but in all instances, the active part of the nose piece is more or less rigidly connected at its lower end to a strap or other portion of the mounting while its other end extends upwardly and is free to spring laterally from its lower to its upper end so that in its normal position, the pressure is comparatively light, but the tension gradually increases as the upper ends are sprung from each other until they engage their respective limiting stops, whereupon any tendency to spring the nose-pieces farther apart transfers the spring to the bow, thus preventing any liability of straining the light nose-springs to the breaking point.

In the drawings,—I have shown in Figure 1, a pair of eye-glasses equipped with my improved nose-pieces. Fig. 2 is an enlarged sectional view taken on line 2—2, Fig. 1, showing in side elevation, the lens mounting and nose-piece. Fig. 3 is also an enlarged face view of one of the nose-pieces, showing a portion of the lens mounting to which the nose piece is attached. Fig. 4 is an edge view, similar to Fig. 3, of the detached nose-piece and mounting, showing the different positions in which the stop may be adjusted to limit the action of the spring nose-piece.

In order to clearly demonstrate the practicability and utility of my invention, I have shown a pair of eye-glasses —1— which are connected by a bow —2— and suitable lens mountings or clamps —3— to which are secured a pair of oppositely arranged nose-pieces —4—. The novelty of my invention lies more particularly in the construction of the nose-pieces —4— and their association with adjustable limiting stops —5— which are also attached to their respective lens mountings or clamps. The nose-pieces —4— and their limiting stops —5— together with the means for attaching them to their respective mountings are substantially identical and I will, therefore, describe one of such nose-pieces together with its limiting stop and manner of adjustment of said parts to the lens mounting.

The nose-piece —4— preferably consists of a comparatively light leaf of thin spring metal arranged in a more or less upright position at a slight angle with the plane of the lens as best seen in Fig. 2, with its lower end integral with or otherwise united to the lower end of a strap —6— provided with a laterally and upwardly projecting offset —7— secured by a screw —8— to the lens clamp or mounting —3—, said screw —8— serving also to screw the adjacent end of the bow —2— to the same mounting.

The united ends of the strap —6— and spring leaf —4— extend some distance below the clamp or mounting —3— while the spring leaf or nose-piece —4— extends from its junction with the strap —6— upwardly some distance above the mounting —3— and, therefore, has a resilient or spring action throughout its entire length from its junction with the strap —6— to its upper end which is free to spring laterally through a considerable arc as best seen in Figs. 3 and 4.

The strap —6— and lower portion of the spring leaf or nose-piece —4— lie in substantially the same plane in the direction of movement of the spring leaf and normally diverge upwardly from their junction, the adjacent face of the strap —6— being slightly convexed so that when the spring leaf —4— is pressed laterally,

it has a more or less rolling contact upon the strap —6— whereby the tension of the spring gradually increases as it is compressed or forced from its normal position indicated by dotted lines in Fig. 3 and full lines in Fig. 4. This gradually increasing tension of the spring under compression from its junction upwardly is important from the fact that the pressure of the nose-piece upon the nose may be varied from an extremely light degree to a maximum tension, or pressure of the heavier bow spring —2—, but the essential purpose in nose-pieces of a comparatively thin and light spring leaf is to relieve the excessive pressure upon and irritation of the nose and still have sufficient gripping power to hold the glasses in operative position. The spring is, therefore, extremely delicate and in order to avoid any possibility of breakage, I have provided the limiting stops —5— which are, in this instance, made of light bendable metal preferably integral with the strap —6—, although it is evident that it may be made from a separate piece of metal and attached to the lens mounting in any other manner than that shown. In fact, I have shown the spring leaf or nose-piece —4—, stop —5—, strap —6— and its offset —7— as formed from one or the same piece, but only for the convenience of illustration of the principle of my invention as it is clearly obvious that each of these elements may be made separately and secured together in any well known manner without departing from the spirit of this invention.

The limiting stop —5— is located between the lower and upper ends and just at the outside of the spring leaf —4— preferably nearer the top of said leaf and is adapted to be bent to different positions as best seen in Fig. 4, so as to throw the abutting face of the stop nearer to, or farther from, the normal position of the leaf —4—, thereby allowing the leaf to spring laterally a greater or less distance as may be necessary or advisable to avoid any liability of breaking or unduly straining said leaf while under compression or tension.

The spring leaf —4— is normally set or adjusted so that its free upper end will normally spring inwardly from its junction with the strap —6— under gradually increasing tension from the junction upward so that when the eye-glasses are placed upon the nose, the upper ends of the leaves —4— will engage the opposite sides of the nose under an extremely light pressure to avoid, as far as practicable, excessive irritation, and that the spaces normally intervening between the upper ends of the leaves and their respective limiting stops allow a considerable range of action of the nose-piece for different nose widths without adjusting the spring bow —2—, thereby avoiding excessive irritating pressure of the latter which is necessarily heavy and less resilient than the spring leaves —4—. If, however, by careless adjustment of the spring bow or careless manipulation of the delicate leaf springs —4—, the latter should be spread apart or brought under excessive tension beyond their resiliency, the limiting stops —5— which are adjusted to prevent excessive tensioning of the spring-leaves would engage and limit their lateral compression, thereby avoiding any liability of breakage of said leaves, and at the same time, transferring the tension from said leaves through the stops —5— to the heavier spring bow —2—. This latter effect would soon indicate to the wearer the necessity for proper adjustment of the bow to throw the leaves farther apart or, at least, a sufficient distance apart so that the pressure upon the nose would be entirely within the tension of the spring leaves—4—.

The salient feature of my invention is to provide a pair of comparatively light spring leaves acting independently of the bow to grip the sides of the nose under a less irritating pressure than would be produced by the tension of the bow spring and at the same time to provide adjustable abutments or stops in the paths of the free ends of the leaves to prevent excessive compression or lateral springing of the leaves to the point of breakage.

What I claim is:

1. In a lens-mounting for eye-glasses, a pair of nose-pieces each consisting of two upright strips of metal united at their lower ends and diverging upwardly from each other, the inner strip being spring tempered and the outer strip having its upper end bendable toward and from the spring tempered strip forming an adjustable stop therefor to limit the outward spring of the spring-tempered strip.

2. In a lens-mounting for eye-glasses, a pair of lens clamps, straps of bendable metal having lateral offsets secured to the clamps, said straps having upright portions extending above and beneath their respective lateral offsets, spring-leaves united at their lower ends to the lower ends of their respective straps and extending upwardly above the upper ends of said straps, the upper extremities of the straps being bendable toward and from the springs to form limiting stops therefor.

3. In combination with the lens clamps of a pair of eye-glasses, upright straps secured to said clamps, spring nose pieces having their lower ends united to the lower ends of the straps and their upper ends extending some distance above the upper ends of said straps, each strap and its nose-piece diverging upwardly from their lower ends, the upper end of each strap being bendable to throw its extremity nearer to or farther from the nose-piece.

4. In a lens-mounting for eye-glasses, two opposite pairs of metal strips, those of each pair being united at their lower ends and diverging upwardly, the inner strip being formed of spring metal and constituting a nose-piece, and the outer strip having its upper end bendable to throw its extremity nearer to, or further from the nose-piece.

In witness whereof I have hereunto set my hand this 5th day of December, 1905.

GEORGE BAUSCH.

Witnesses:
H. E. CHASE,
M. M. NOTT.