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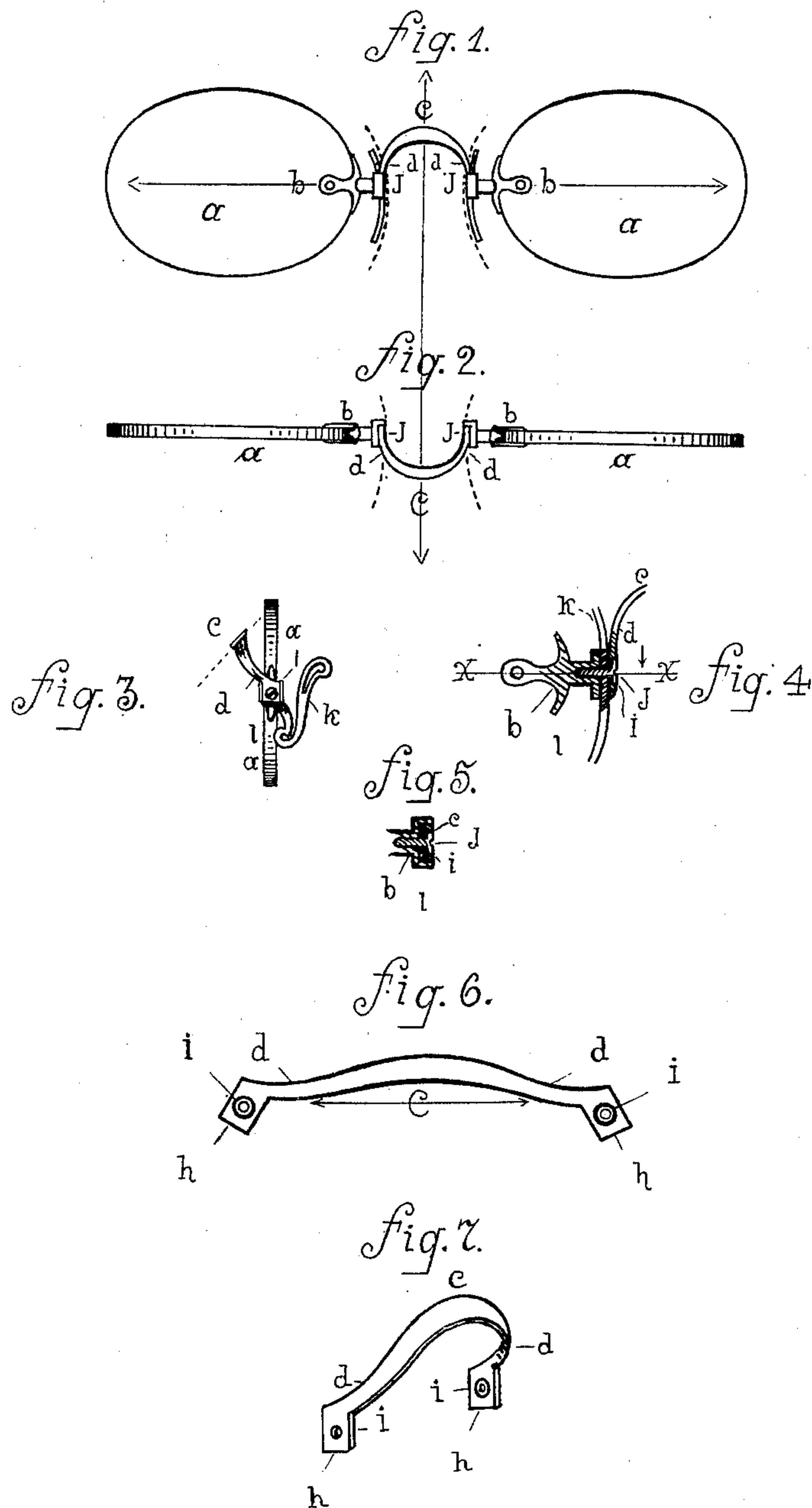
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W. E. CAWOOD.

EYEGLASSES.

APPLICATION FILED APR. 30, 1903.

MODEL.



Witnesses.

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EYEGLASSES.

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To all whom it may concern:

Be it known that I, WALTER E. CAWOOD, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, 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 invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an eyeglass-mounting in which the intermediate portion of the bow-spring or bridge is so constructed as to conform to the arch of the nose and rest on the crest of the same, which materially aids in the support of the lens, the terminating portions of said bow reduced to a narrower width than its central portion, said narrow portion forming a neck capable of adjustment, thus permitting the optician to bend the bridge or bow-spring to different angles and heights as desired, said bow-spring or bridge having lugs formed thereon integral with and extending laterally from the said bow-spring, said lugs adapted to secure the bow-spring to lens-studs, said lugs so disposed in their conjunction with the bow-spring that when the same is engaged with the lens and to the stud that the flat intermediate portion of the bow presented will be at an oblique angle to the vertical plane of the lens and extend above the longitudinal line of the same, this adjustment conforming to the usual contour of the nose, permitting the cuticle to engage all of the flat inner metallic curvatures, thus overcoming the objectionable feature of the lower edge of the metal of the bow-spring cutting into the flesh of the nose, which it would do were the flat portion exactly in the horizontal plane, or approximately so, as in former inventions of this class. Countersunk apertures are provided for the aforesaid lugs, whereby the screws employed in securing the bow to the lens-stud can sink below the bearing-surface of the metal, leaving no projections that might pierce the cuticle. This feature having quite an advantage over bow-springs of this class not provided with these improvements, it also permits the entire inner curvature of the bow-spring to fit flush with the nose, a feature not attainable in detachable bow-springs of this

class, where screws or other means of attachment rise above the bearing-surface. This form of bow-spring or bridge, as herein depicted and in combination with the herein-after-described nose-guards and lens-studs, is especially adapted for use where cylindrical lenses are prescribed, as a nose-piece of this class is practically rigid and does not permit of axial deviation of the lens, a feature not attained with the ordinary bow-spring commonly in use. The necessary resiliency is acquired in the construction of the nose-guards, the same constituting a feature of novelty, as hereinafter described and illustrated, the accompanying drawings forming a part hereof.

Figure 1 is an elevation of the invention, showing the same as applied and in combination with a pair of lens, studs, and guards, the dotted lines indicating the nose. Fig. 2 is a plan view thereof. Fig. 3 is a view in end elevation, showing the device in combination with lens-stud and guard. Fig. 4 is a cross-section showing countersunk aperture and screw embedded therein flush with the plane of the bow-spring; Fig. 5, a cross-section on line *x*. Fig. 6 is a plan view of a blank from which a complete bow-spring or bridge is formed, the configuration of the same taking the form of a compound curved elongated flat strip of metal, which gently rises from the horizontal plane. The lugs disposed thereon are at an oblique angle to the same. Fig. 7 is a perspective elevation of the bow-spring or bridge, showing the position assumed when in use.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings, *a* represents the lenses; *b*, the clasps and lens-studs; *c*, the bow-spring or bridge; *d*, the neck of the same; *h*, the lugs; *i*, the countersunk aperture; *j*, the attachment-screw.

My improved bow spring or bridge consists approximately of an inverted-U-shaped loop, formed of a flat strip of metal, as illustrated, Figs. 6 and 7, the crest or central front portion of the bow *c* wider than the immediate sides, which are materially reduced to form neck *d*, which terminates at its conjunction with lugs *h*. The advantage gained in this form of construction is the feature of adjustment as hereinbefore stated. The opti-

cian can readily bend the narrow strip or neck of the bow-spring toward the vertical meridian, as a wide portion would not respond to the manipulation of the pliers, except in its own plane. The intermediate portion of the bow-spring is so shaped as to conform to the arch of the nose and rest on the crest of the same *c*, Fig. 1, the bow-spring or bridge herein depicted having lugs *h h*, forming a part thereof, said lugs adapted to secure the bow to lens-studs *b b*, said lugs so disposed at the terminating ends of the bow-spring that when engaged to the lens-studs *b b* the flat portion of the bow-spring presented will be at an oblique angle to the vertical plane of the lenses *a a*, said lugs having therein countersunk apertures *i i* for receiving the screws or means adapted for securing the bow-spring to the studs.

In the drawings, Fig. 3, I have illustrated one of the guards adapted for use in combination with this invention, the claims for this guard having been set forth in a former application for Letters Patent. The principal feature embodied in this guard is that of resiliency in the main bearing-arm *k*. The bow-spring or bridge *c*, Fig. 3, in the aforesaid invention has little or no resiliency, the same only conforming to the contour of the nose. The guard as illustrated, Fig. 3, has a supporting-arm *l*. This arm is so shaped by the manipulation of the pliers as to rest on the side of the nasal bone without spring-pressure. The main bearing-arm *k*, which is resilient by reason of its peculiar construction, gently engages the fleshy part of the nose without discomfort to the wearer, thereby securing the eyeglasses firmly to the nose.

I do not confine myself to the exclusive use of the guards herein depicted to be used in combination with the aforesaid bow-spring or bridge. In fact, this bow-spring being detachable may be used with any desirable nose-guard and studs, it being optional with the refractionist.

In using the terms "metallic saddle" or "interposing bearing-plate" it will be understood that they are the equivalent of "bow-spring" or "nose-bridge" and are adapted to perform the same functions. Having described the "bow-spring" or "bridge" as being made of a "flat strip of metal," it is understood, however, that it may be constructed of round, oval, or segmental shape, it being optional with the maker.

Having described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. An improved bow-spring for eyeglasses in which the intermediate portion conforms to the nose, the terminating portions of the same being of a narrower width than the central portion, said narrow portions having lugs formed thereon or portions that are wider than the narrow portions and extending laterally therefrom and integral therewith, said

lugs adapted to engage the head and flanges of a pair of lens holders and studs, said lugs having formed therein vertically countersunk apertures adapted to receive a screw, said screw adapted to enter said vertically countersunk aperture and engage the bow-spring, in combination with a pair of lens-holders, studs and nose-guards, the same provided with apertures for receiving said screws, the intermediate portion of the aforesaid bow-spring out of line with the lens holders and studs when engaged to the same substantially as described.

2. In eyeglasses or spectacles, the combination of a pair of lenses, a pair of lens holders and posts with flanges thereon, a pair of nose-guards, and a bow-spring or bridge, said bow-spring or bridge having lugs formed at the terminating ends of the same, integral therewith and extending laterally therefrom and adapted to enter the interposed portion of the flanges, said lugs having therein vertically countersunk apertures whereby a screw may be seated therein for the purpose of rigidly securing the bow-spring or bridge to the lens holder and post with flanges thereon, the intermediate portion of the bow-spring or bridge extending forward of the lens-holders, and nose-guards, the intermediate portion of the aforesaid bow-spring so shaped in form of construction as to be capable of engaging and fitting flush with the cuticle of the nasal septum and when inserted upon the nose of the wearer for the purpose intended and having in combination the elements hereinbefore described, the optical center of the lenses capable of intercepting the visual axis of the eyes when the aforesaid eyeglasses or spectacles are used for the purpose intended.

3. The combination of a pair of lenses, lens holders and studs, a pair of nose-guards, a detachable bow-spring, provided with countersunk apertures whereby a screw may enter said countersunk aperture from the inner face of the bow-spring, said bow-spring in combination with screws or engaging parts adapted to enter said countersunk apertures as described, the head or larger portion of said screws or engaging parts sunk to a plane with the flat surface of the bow-spring, said screws adapted to rigidly secure the bow-spring in combination with a pair of lens holders and studs and a pair of nose-guards, the head or larger portion of said screws adapted to be seated within said countersunk apertures friction-tight thereby preventing said screws working loose from the parts engaged substantially as described, the interposed portion of the aforesaid bow-spring extending forwardly of the lens-holders, studs and nose-guards when rigidly engaged to the same, substantially as described.

4. The improvement in eyeglasses, consisting of the combination of lenses, lens-holders, a pair of lens-posts, a pair of nose-guards, and a detachable metallic saddle, or interposing

bearing-plate having formed thereon portions adapted to enter and engage the lens-posts and when so engaged the position assumed by the saddle or interposing bearing-plate being offset and out of line with the lens-posts and lenses said interposed bearing-plate or saddle capable of fitting flush with the flesh of the nose when seated thereon for the purpose intended, the cuticle engaging all of the entire inner metallic surface substantially as described, said saddle or interposing bearing-plate constructed of a metal and consisting approximately of an inverted-U-shaped band adapted for the purpose substantially as described.

5. A new article of manufacture, a metallic saddle or interposing bearing-plate for nose-glasses, adapted to bear directly upon the cuticle of the nasal septum and capable of engaging and fitting flush with the same throughout all of the entire inner metallic surface of the said described saddle or interposed portion of the nose-glasses, said described saddle being wider in its central portion than its intermediate sides and adapted to prevent spreading of the lenses, the narrow portions practically rigid but capable of independent adjustment, said narrow portions having formed thereon other portions, lugs, the same being adapted to engage with lens-posts having flanges thereon and adapted to receive the same the aforesaid-described saddle or interposing bearing-plate constructed of metal and consisting approxi-

mately of a shoe-shaped structure capable of the functions substantially as described.

6. A new article of manufacture, a bow-spring or bridge adapted to use in the construction of eyeglasses or spectacle-mountings, said mountings consisting of lens holders and posts with flanges thereon and nose-guards, said bow-spring or bridge having formed thereon portions adapted to engage in combination the lens holders and posts having flanges thereon and the nose-guards, the interposed portion of said bow-spring or bridge extending outward from the portions that are adapted to engage said lens-post and flanges, said interposed portion so shaped that the anatomy of the nose may enter said interposed portion and fit flush with the same when the bow-spring is applied thereto, the same being in combination with a pair of lenses, lens holders and posts with flanges, and nose-guards, the elevation of said flanges rising only to the combined surface of the bow-spring and the supporting-arm of the nose-guards, said flanges adapted to prevent swiveling of the same, the interposed portion of the bow-spring or bridge being out of line with the flanges when engaged to the same in a substantial manner.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WALTER E. CAWOOD.

Witnesses:

CARL H. KELLER,
L. J. PHEBUS.