

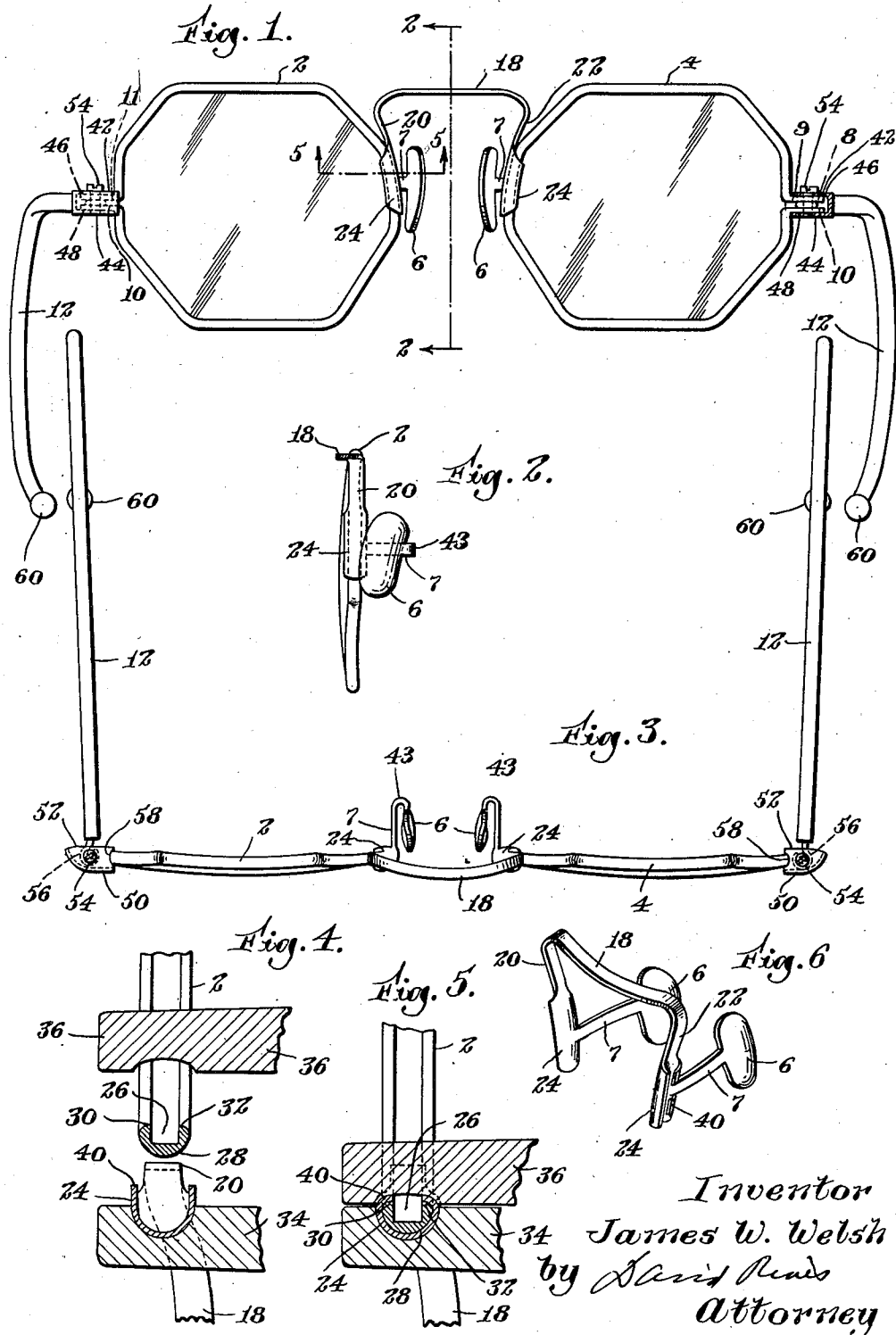
Aug. 10, 1937.

J. W. WELSH

2,089,237

OPHTHALMIC MOUNTING

Filed Dec. 31, 1934



UNITED STATES PATENT OFFICE

2,089,237

OPHTHALMIC MOUNTING

James Wilson Welsh, Providence, R. I., assignor
to The Welsh Manufacturing Company, Providence, R. I., a corporation of Rhode Island

Application December 31, 1934, Serial No. 759,860

3 Claims. (Cl. 88—42)

The present invention relates to ophthalmic mountings, and more particularly to bridges and bridge and temple connections for the same. From a more limited aspect the invention relates to mountings the bridges of which are raised out of contact with the wearer's nose, and which mountings are held in position, partly or wholly, by guards that engage the sides of the nose. The invention is particularly adapted for goggles.

An object of the present invention is to provide a new and improved ophthalmic mounting of the above described character to the ends of economy in material, simplicity in construction, and ease of manipulation.

Other and further objects will be explained hereinafter and will be particularly pointed out in the appended claims.

The invention will now be described in connection with the accompanying drawing, in which Fig. 1 is a front elevation of a pair of goggles embodying the present invention; Fig. 2 is a section taken upon the line 2—2 of Fig. 1, looking in the direction of the arrows; Fig. 3 is a plan; Figs. 4 and 5 are sections taken as though upon the line 5—5 of Fig. 1, but upon a larger scale, and illustrating two steps in the manufacture of the goggles of the present invention; and Fig. 6 is a perspective view of the bridge shown more particularly in Figs. 1, 2 and 3.

The illustrated goggles comprise two lens-holding rims 2 and 4 connected together by a bridge that is raised out of contact with the nose, guards 6 being provided to engage the sides of the nose. The rims 2 and 4 are shown split at points opposite the bridge, and each rim is provided at its ends with a pair of end pieces 8 and 10 between the oppositely disposed inner faces 9 and 11 of which is pivoted a temple 12. The temple may be of the type ordinarily employed in goggles, comprising a fabric-tube-covered wire.

The preferred bridge of the present invention is made of a single piece of sheet metal. It has a center portion 18 and two side portions 20 and 22, extending, one at each side, from the central portion. The side portions 20 and 22 each has a body portion terminating in a free end portion 24. The central portion 18 is shown bent slightly outward, away from the forehead of the wearer.

The free end portions 24 are of greater width than the width of the central portion 18 and the said body portions of the side portions 20 and 22, and are provided with arms extending beyond the corresponding body portion on each side of the corresponding body portion. The arms of

each free end portion are bent into substantially the shape of a section of a toroidal or doughnut-shaped, surface, as illustrated more particularly in Fig. 6, thus providing clamps for receiving the lens-holding rims 2 and 4, respectively. This construction is particularly adapted for use with rims the lens-receiving grooves 26 of which are of narrower width than the cross-sectional diameter of the rims, as illustrated more particularly in Figs. 4 and 5; for the clamp may be bent over and against the exterior surface 28 of the rim, from one side 30 of the lens-receiving groove 26 completely around to the opposite side 32 thereof, as is also illustrated in Fig. 5. This may be effected by means of dies 34 and 36. The clamp 24 may be placed in the die 34, as shown in Fig. 4, the rim 2 may thus be placed on the clamp 24, and the die 36 brought down from the position of Fig. 4 into that of Fig. 5.

The nose guards 6 are shown carried on arms 7 that extend from the free end portions 24 of the side portions 20 and 22, as part of the same sheet of metal out of which the central portion 18 and the side portions 20 and 22 are formed, and are cut out of one of the arms of each clamp 24, substantially centrally thereof, to produce a slot 40 in said arm, as shown more particularly in Fig. 6. The arms 7 are thus disposed nearer to the center of the bridge than would otherwise be the case, and they extend substantially in the same direction, at a substantial angle to the clamps. They are bent reversely, at 43, and the guards 6 are then died into proper shape.

A U-shaped box has oppositely disposed sides 42 and 44 respectively disposed adjacent to the outer faces 46 and 48 of the respective end pieces 8 and 10 and a side 50 connecting the sides 46 and 48, the box being open at 52, opposite to the connecting side 50, so that the temple 12 may extend therethrough. A screw 54 extends through an opening in the side 42, the end piece 8, an eye 56 of the temple and the end piece 10, and is screw-threaded into the side 44. The temple is thus enabled to pivot about the screw 54. Relative turning movement of the U-shaped box and the lens rim may be prevented by providing notches 58 in the sides 42 and 44 shaped to conform to the exterior surfaces of the rims 2 and 4, as illustrated more particularly in Fig. 3.

A very inexpensive, yet highly efficient goggle is thus provided, of relatively inexpensive stock that can be readily assembled at very small cost. Though the bridge has been described as consisting of sheet metal, suitably died, cut and shaped, it may be constituted of wire, celluloid or other

suitable substance, whether metal or non-metal. The lens-receiving rims are constituted of ordinary eye wire, preferably metal, readily cut to size and easily shaped, the end pieces 8 and 10 extending integrally therefrom, as part of the same piece of stock, but merely bent into parallelism. The end pieces 8 and 10 may be flattened out, so as not to be provided with a groove 26, by suitable dies, though even this is not really essential. The openings for receiving the screw 54 in the end pieces may be punched through in any well known way. The box for receiving the end pieces costs but little, as does the screw 54. The temples are formed of inexpensive material, such as metal wire, covered by an inexpensive fabric tubing, surmounted by a knob 60.

Modifications will occur to persons skilled in the art, and all such are considered to fall within the spirit and scope of the invention as defined in the appended claims.

What is claimed is:

1. An ophthalmic-mounting bridge made out of a single piece of sheet metal comprising a raised central portion and two side portions extending from the ends of the central portion, each side portion comprising a body portion and a free end portion, the free end portion of each side portion being of greater width than the widths of the said central portion and the said body portions of the side portions and having arms extending beyond the corresponding body portion on each side of the corresponding body portion, the said arms of each free end portion being bent into substantially the shape of a section of a toroidal surface to provide a clamp for receiving a lens-holding rim about which it may become clamped, a nose-guard arm extending from one of the said arms of each of said free end portions substantially centrally thereof and cut out of the said one arm of the corresponding clamp, thereby producing a slot in said one clamp arm, the nose-guard arms extending in substantially the same direction at a substantial angle to the clamps, and a nose guard carried by each nose-guard arm.
2. An ophthalmic mounting having, in combination, two metal rims each having an inner lens-receiving groove of narrower width than the

cross sectional diameter of the rim, and a bridge made out of a single piece of sheet metal comprising a raised central portion and two side portions extending from the ends of the central portion, each side portion comprising a body portion and a free end portion, the free end portion of each side portion being of greater width than the widths of the said central portion and the said body portions of the side portions and having arms extending beyond the corresponding body portion on each side of the corresponding body portion, the said arms of each free end portion being bent into substantially the shape of a section of a toroidal surface to provide a clamp, the rims being respectively received in the clamps, and each clamp being bent over against the exterior surface of the corresponding rim from one side of the lens-receiving groove completely around to the other side of the lens-receiving groove, a nose guard arm extending from one of the said arms of each of said free end portions, and a nose guard carried by each nose-guard arm.

3. An ophthalmic-mounting bridge made out of a single piece of stock comprising a raised central portion and two side portions extending from the ends of the central portion, each side portion comprising a body portion and a free end portion, the free end portion of each side portion being of greater width than the widths of the said central portion and the said body portions of the side portions and having arms extending beyond the corresponding body portion on each side of the corresponding body portion, the said arms of each free end portion being bent into substantially the shape of a section of a toroidal surface to provide a clamp for receiving a lens-holding rim about which it may become clamped, a nose-guard arm extending from one of the said arms of each of said free end portions substantially centrally thereof and cut out of the said one arm of the corresponding clamp, thereby producing a slot in said one clamp arm, the nose-guard arms extending in substantially the same direction at a substantial angle to the clamps, and a nose guard carried by each nose-guard arm.

JAMES W. WELSH.