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2,629,284

NOSE PAD FOR OPHTHALMIC MOUNTINGS

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Fig. 1.

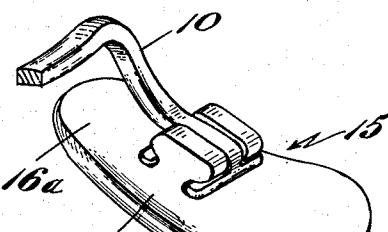


Fig. 2.

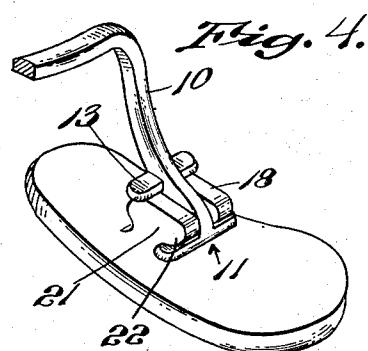
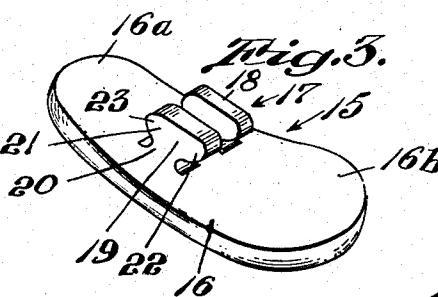
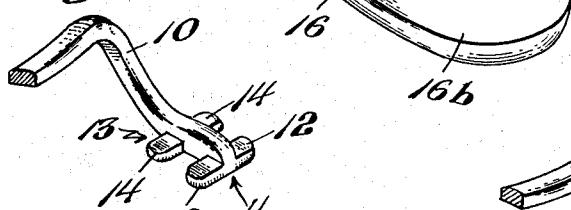


Fig. 5.

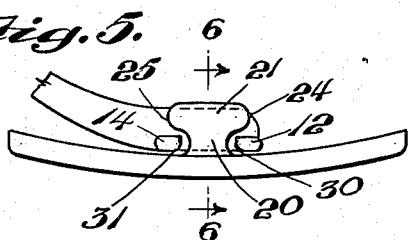
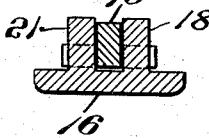


Fig. 6.



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NOSE PAD FOR OPHTHALMIC MOUNTINGS

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2 Claims. (Cl. 88—48)

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This invention relates to a nose pad and the means for mounting the same such as from a supporting arm attached to an ophthalmic mounting.

Nose pads have heretofore been made of non-metallic material requiring a metal reinforcement for shape retaining qualities or for secure attachment to the supporting arm. Several delicate operations are involved in the usual methods of sandwiching an embossed metal reinforcement between covering layers of plastic. Generally the connecting arm between the pad and the lens supporting mounting is pierced to receive the projecting boss or tongue of the pad's metal reinforcement and these must be bent or headed or spun over for its attachment.

One of the objects of this invention is to provide a pad construction which is strong and sturdy and one which will retain its required fitting curvatures without assembly of a separate unit in it for reinforcement.

Another object of this invention is to provide for an assembly without the necessity of deforming or bending any of the parts manually or with tools.

Another object of this invention is to provide a pad which will have a suitable projection from the pad, all molded as a single integral piece with the pad so that assembly of a separate unit for reinforcement or to project from it is unnecessary.

Another object of this invention is to provide an interlocking arrangement so that the arm and the projection which extends from the pad may be snapped together by reason of a temporary deformation of the stock which returns to its previous shape.

Another object of this invention is to so shape the projection and to so shape the arm which is to support the pad that by a simple camming action the two may be snapped together.

Another object of the invention is to provide a construction for assembling the supporting arm and pad so that the pad will have an arcuately limited movement on a horizontal or perpendicular axis in relation to the arm after assembly has been completed.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:

Fig. 1 is a perspective view of the pad with a fragmental portion of the supporting arm assembled therewith;

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Figure 2 is a perspective view of the supporting arm alone;

Figure 3 is a perspective view of the pad alone;

Figure 4 is a perspective view illustrating a partial assembly of the two parts;

Figure 5 is an elevation showing the assembly of the pad and arm; and

Figure 6 is a section on line 6—6 of Figure 5.

In proceeding with this invention I mold in one piece from suitable material a pad of generally plate or dish form from the mid face portion of which extends a projection or boss undercut on its horizontal opposite edges and divided by a perpendicular slot, so that an I-shaped rigid end portion of a supporting arm may be positioned in the slot with the projections extending over the opposite heads of the I-shaped arm on either side of the center portion of the arm.

With reference to the drawings, the supporting arm comprises a metallic arm 10 from the end portion of which there projects laterally a pair of heads 11 and 13 having fingers 12—12 and 14—14 projecting from either side of the arm 10 which together form an I-shaped end of the arm 10.

The nose pad is designated generally 15 and comprises a plate portion with upper nose bearing portion 16a, lower nose bearing portion 16b connected by an intermediate nose bearing portion 16 having a projection 17 extending from the rear face of this portion 16. I will mold the pad comprising the plate and the projection 17 all in one piece of unreinforced material which will be of a character to be tough and yet somewhat resilient for yielding, while permitting some flexibility for adjustment. A nylon-plastic thermoplastic powder may be suitable for this purpose, the operation being one of injection molding where quantities may be produced at a time. This material is found to resist abrasion, is non-toxic, and is also very tough. It is undesirable to have a plastic which is stiff enough to be brittle. The material is also desirably plastic or flowable when hot and yet solid when cooled to usual atmospheric temperatures. This projection 17 is divided into two parts 18 and 19 which have neck portions 20 with heads 21, thus providing overhanging or undercut portions 22 and 23 in the direction of the longitudinal extent of the pad plate. These overhanging portions 22 and 23 have rounded or arcuate surfaces 24 and 25, as may be best seen in Figures 3 and 5. The spacing between the heads 11 and 13 of the I formation of the arm is such that the distance is a little less than the longitudinal dimension of the heads

21; thus, when the arm is to be assembled with the pad, as shown in Figure 4, the head 11 is inserted as shown beneath the undercut heads 22 with the arm 10 in the space between the projections 18 and 19 and then the arm is forced so that the head 13 cams over the curved portions 23 of the projection, causing this projection to be temporarily deformed by reason of the character of the stock which is used until the arm is over the large portion of the head and rests beneath the head. The head being resilient then springs back to its normal shape and the arm is locked in position or assembled with the pad while leaving the pad free to rock longitudinally to align with the particular individual's nose upon which the mounting is positioned. The fingers 12 may be rounded on their lower side as at 30, while the fingers 14 may be rounded on their corners 31 for ease of entry, while leaving the opposite corners sharp to prevent detachment of the arm from the pad.

The arrangement is one of ease of assembly and of simplicity in construction.

The pad has its attaching projections formed of metal in the shape above described which may be similarly advantageously attached to a supporting arm as above described, the projections having an integral base embedded in the pad for anchoring it thereto.

I claim:

1. An ophthalmic mounting comprising a nose pad and a supporting arm therefor, said arm having spaced oppositely extending lateral projections providing an I shaped end and said pad comprising a plate with upper and lower nose bearing portions continuously connected together by an intermediate nose bearing portion the latter of which is integrally provided with a pro-

jection having a slot to divide it into spaced portions, said portions being undercut at their opposite edges to extend over the opposite projections of the I-shaped end of said arm while receiving the portion of the arm between said projections in said slot.

2. A nose pad for an ophthalmic mounting having a supporting arm, said pad constituted wholly of an integral one-piece unreinforced material comprising a plate with upper and lower nose bearing portions continuously connected together by an intermediate nose bearing portion the latter of which is integrally provided with a slotted projection having its opposite edges undercut, leaving a pair of enlarged heads extending toward the upper and lower portions, each head being resilient and having one of its ends rounded for camming into interlocking engagement with a relatively rigid supporting arm, the slot of said projection extending in a direction from said upper to lower portions to receive said arm.

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