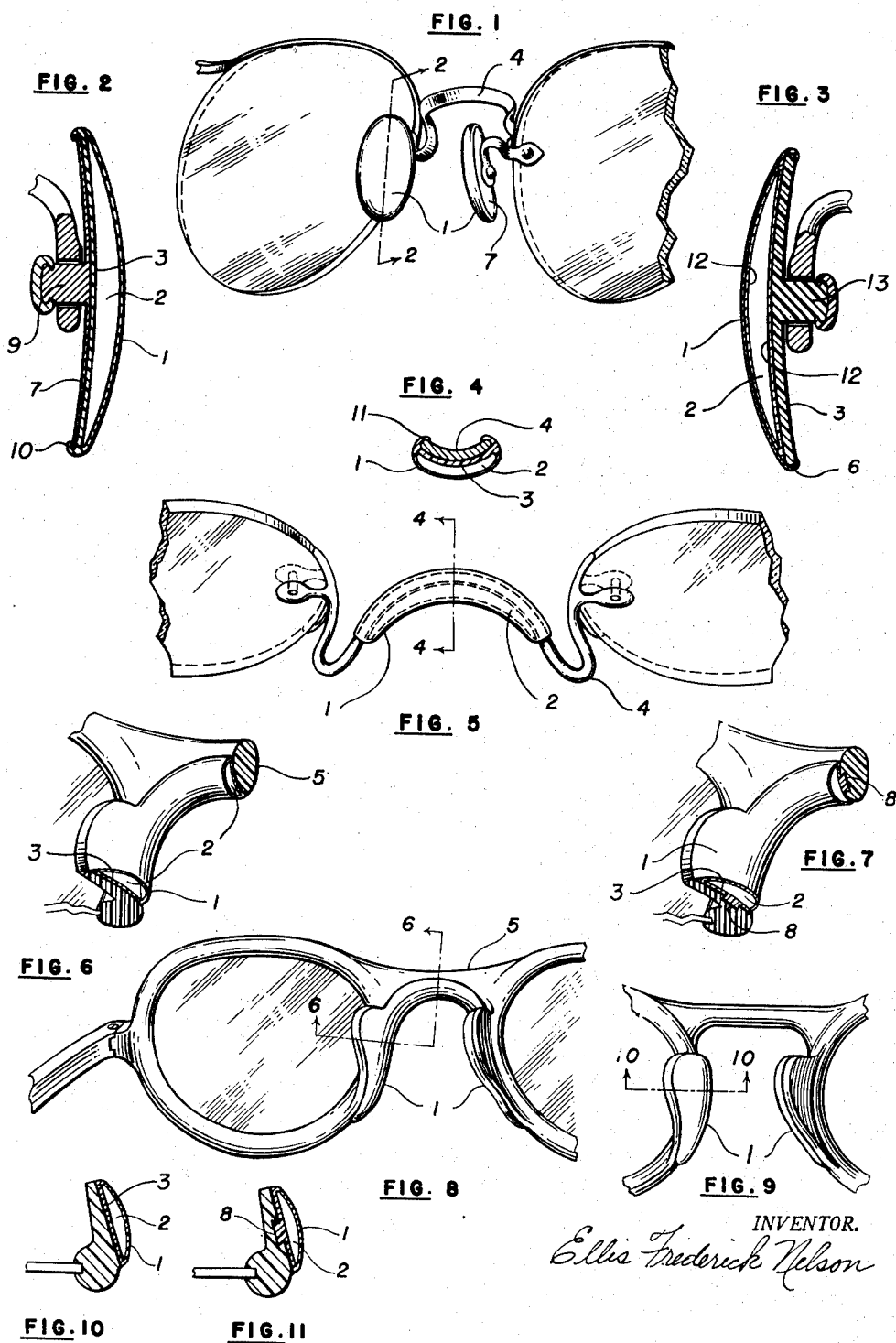


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OPHTHALMIC MOUNTING

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The present invention relates to ophthalmic mountings or eyeglasses, and more particularly to bridges and nose guards.

Nose guards bear against the sides of the nose. Bridges bear similarly on the top of the nose. As it is practically impossible to fashion the nose guard or the bridge exactly to the shape of the anatomical structure with which it contacts, the total bearing pressure is usually exerted upon some localized portion of that structure, which may become abraded, in consequence. Even without abrasion, the pressure is painful, and may lead to disfigurement.

Proposals have accordingly been made for relieving the pressure. These have usually involved employing protective pads of various forms, of greater or less degree of softness, and constituted of various materials. In some cases these have given some degree of relief, but they have been attended with disadvantages.

It is accordingly an object of the present invention to provide a new and improved bridge and a new and improved nose guard the pressure of which against the nose shall automatically so adjust itself as to enable wearing the ophthalmic mounting in comfort.

To the attainment of this end, a feature of the invention resides in a fluid-containing chamber provided with a flexible wall or face for engaging the nose. Because of its flexibility, the wall or face yieldingly conforms to all parts of the nose with which it engages, and the fluid pressure behind the wall or face becomes thus distributed evenly throughout the area of engagement.

It has heretofore been proposed to provide a flexible-walled chamber for a nose guard, but this proposal has involved positioning the flexible wall of the chamber behind a rigid nose-engaging member, instead of in direct contact with the nose. The uniformly distributed pressure of the present invention has not, therefore, been obtained.

Another object is to provide a new and improved attachment for a bridge or a nose guard, in order to adapt the invention to standard bridges and nose guards.

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

The invention will now be more fully described in connection with the accompanying drawings, in which Fig. 1 is a fragmentary perspective of a metal ophthalmic mounting embodying nose guards in accordance with the present invention; Fig. 2 is an enlarged section upon the line 2—2 of

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Fig. 1, looking in the direction of the arrows; Fig. 3 is a section similar to Fig. 2 of a modification; Fig. 4 is an enlarged section upon the line 4—4 of Fig. 5, looking in the direction of the arrows; Fig. 5 is a fragmentary perspective of a metal ophthalmic mounting embodying a bridge in accordance with the present invention; Fig. 6 is an enlarged fragmentary perspective, partly in section upon the line 6—6 of Fig. 8; Fig. 7 is a sectional perspective similar to Fig. 6 of a modification; Figs. 8 and 9 are fragmentary perspectives similar to Figs. 1 and 5 of modifications embodying non-metal ophthalmic mountings; Fig. 10 is a section upon the line 10—10 of Fig. 9, looking in the direction of the arrows; and Fig. 11 is a section similar to Fig. 10 of a modification.

In Fig. 1, there is shown an ophthalmic mounting embodying a metal bridge 4 that is raised above the nose, out of engagement therewith. The nose guards 7 may be of any standard type, constituted of metal or some non-metal material, like the nitrocellulose products known as "Zylonite" and "Celluloid," consisting of about 40 parts nitrocellulose, 20 parts camphor and 40 parts linseed or castor oil or equivalents. The nose guards 7 are shown each provided with a stud 9 by means of which it may be supported on the ophthalmic mounting. The bearing pressure of the nose guard on the sides of the nose is greatly relieved, however, by distributing it over an area as large as the nose-engaging area of the nose guard itself.

To this end, the bearing face of the nose guard 7 is covered with a one-piece sealed fluid-tight chamber the space 2 within which contains a fluid. The fluid may be a suitable gas or liquid, including air and water.

At least the exposed wall or face 1 of the chamber, that engages the side of the nose, is flexible, in order that it may conform throughout its area to the shape of the side of the nose against which it contacts. Since this wall or face 1 directly engages the side of the nose, the pressure exerted thereby becomes distributed throughout the area of engagement of the nose by the flexible nose-engaging wall or face of the chamber.

A uniform distribution of bearing pressure is thus obtained, such as is not attainable with previous proposed construction involving, for example, the use of solid rubber or other pads. Though the solid rubber may be softer than the metal or the nitrocellulose products before mentioned of which the pad is constituted, it nevertheless provides a solid bearing surface. Ac-

cording to the present invention, on the other hand, the only solid that bears against any part of the wearer's body is the face or wall 1 of the chamber, and this face or wall 1 may be made so thin and flexible as not to present any real solid reaction at all. Substantially the whole reaction is provided by the fluid in the space 2.

The chamber may be assembled with the nose guard 7 in any desired way. The backing-portion wall 3 of the chamber, which may or may not be flexible, may be cemented to one of the faces of the nose guard 7. This cementing may be done by the optician who dispenses the glasses.

The chamber is shown in Fig. 2 provided with a peripheral flange 10, that may be flexed over the peripheral edge of the standard nose guard 7, into engagement with the other face of the nose guard 7. The chamber thus constitutes an attachment for the standard nose guard 7.

If desired, however, the use of the separate standard metal or non-metal nose guards 7 may be dispensed with, and specially designed nose guards may be employed, the wall 3 of which is made heavier and thicker, as shown in Fig. 3, integral with the stud 13. The flexible nose-engaging wall or face 1 of the chamber is shown in Fig. 3 very much thinner than the wall 3, and cemented along the periphery of the thicker wall 3, as shown at 6. These specially designed nose guards may also be dispensed by the optician.

An attachment chamber similar to that illustrated in Figs. 1 and 2 may be mounted also on the standard metal bridge 4 of the ophthalmic mounting, as shown in Figs. 4 and 5, for engaging the top of the wearer's nose. It may be provided with a similar flexible or non-flexible wall 3 for cementing to one of the faces of the bridge 4 a similar flexible nose-engaging wall 1, for engaging, this time, the top of the nose, with uniform distributed pressure, and a peripheral flange 11, similar to the flange 10, for flexing over the edges of the bridge 4, into engagement with the other face of the bridge 4, as shown clearly in Fig. 4.

Though the ophthalmic mounting of Figs. 1 to 3 is shown provided with nose guards alone according to the present invention, and that of Figs. 4 and 5 with a bridge alone, it will be understood that, in connection with mountings the nose guards and the bridges of which both bear on the nose, they may both be provided with the flexible chambers of the present invention. In some cases, however, a single flexible chamber for the bridge and both nose guards may be provided, as shown in connection with the non-metal ophthalmic mounting 5 of Figs. 6 and 8, the bridge and the lens-holding members of which are shown integral, in one piece. The single chamber may be an attachment, provided with a wall 3 for cementing, as before described, to the nose-guard and the bridge portions of the mounting, as illustrated in Fig. 6, or it may be built at the factory integrally into the ophthalmic mounting by means of a rib 8 upon the wall 3, set into a correspondingly shaped recess disposed along the said nose-guard and the bridge portions of the mounting, as shown in Fig. 7.

Where the non-metal ophthalmic mounting is of the type the bridge of which, like the metal bridge 4 of Fig. 1, is raised above the nose, of course, it suffices to supply two separate nose-engaging flexible-walled chambers, as shown in Fig. 9. These may be either separate attachments, the backing walls 3 of which are cemented to the standard ophthalmic mounting, as shown

in Fig. 10, corresponding to Fig. 6, or built as a unit into the mounting, as shown in Fig. 11, corresponding to Fig. 7.

The flexible nose-engaging walls of the various fluid-containing chambers may be constituted of any suitable flexible material. Rubber, however, has certain disadvantages. It becomes disintegrated by perspiration, body oils and other secretions, and even by mere exposure to variations in the condition of the atmosphere, temperature and sunlight. With disintegration, it loses its resiliency. It also loses its resistance to the permeation of gases and liquids, permitting the fluid in the chamber to escape. Continued contact of rubber with the skin, moreover, may lead to pathological consequences.

It is therefore preferred to employ a suitable flexible plastic, such as a plasticized vinyl resin polymer. This may, for example, be the product obtained by polymerizing one or two or more vinyl derivatives; for example, a vinyl halide, such as vinyl chloride, and a vinyl ester of an aliphatic acid, such as vinyl acetate, propionate or butyrate, or a styrene compound. Vinyl chloride is preferred, without the vinyl acetate, because it is non-toxic, but a conjoint copolymer of both these compounds may be used.

To impart the proper degree of flexibility, the vinyl chloride, with or without the vinyl acetate, for example, should be combined with a suitable plasticizer, such as a neutral high-boiling ester of phosphoric acid, like tricresyl phosphate, or of phthalic acid, like dibutyl, dibutoxyethyl or ethylhexyl phthalate, a sebacate, an alkylated or halogenated naphthalene or diphenyl, or a polymeric glycol ester, like triglycol dihexoate.

The proportions of the ingredients should be such as to yield a product that not only is flexible, but also has the toughness and strength necessary to resist tearing and abrasion. It should, furthermore, have suitable waterproofing and airproofing properties, so as to offer high resistance to the permeation of gases. These properties vary, of course, with the particular polymers and plastics and proportions employed. The product should have characteristics such as to resist the destructive action of oxidation, oils and sunlight, and of corrosives, such as acids and alkalis. To reduce toxicity, it should preferably be purified.

Commercial resins admirably adapted for the purpose are on sale under the trade-marks, for example, "Koroseal" and "Vinylite Q," the former manufactured by the B. F. Goodrich Company, and the latter by the Carbon and Carbide Company.

The following proportions have been found to be quite satisfactory:

100 parts of the resin, by weight;
35 parts $\pm$ 10 parts of the plasticizer, by weight;
and

Approximately 5 parts by weight of one or more stabilizers, pigments, fillers, modifiers, etc.

Among the resins that may be employed in accordance with the present invention are the following:

Cellulose acetate compositions; cellulose acetate butyrate compositions; cellulose nitrate plastics; ethyl and methyl cellulose plastics; methyl methacrylate molding materials; polyethylene plastics; polystyrene; polyvinyl acetals, formals and butyrals; polyvinyl chloride plastics; polyvinylidene chloride; vinyl chloride-acetate resin compounds; vinylidene chloride plastics; chlorinated rubber; polyamide molding materials;

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regenerated cellulose; tetrafluorethylene; butadiene copolymers; chloroprene polymers; isobutene polymers; isobutene-diolefin copolymers; vinyl polymers; styrene elastomers; polyester elastomers; cyclorubber; silicone rubber; and organic polysulfides. These may be employed singly or in combination; as, for example, a combination of styrene and butadiene. Some of these, of course, are better than others.

All of the above compounds may be made flexible by suitable treatment, as by including or excluding plasticizers, and the like. In some cases, indeed, as in the case of the polyethylene plastics, not even a plasticizer is needed. This list is by no means complete, moreover; reference may be made, for example, to the odorless, tasteless, non-toxic protein obtained from corn raw material of the casein type and manufactured under the name "Zein" by the Corn Products Refining Company and the unsaturable rubber-like vegetable-oil-compound polymer made from soy beans and ethyl alcohol, known as "Agripol," marketed by Reichhold Chemical Company.

To reduce the tendency for air or other gases to permeate through the walls of the chamber, the inner faces of these walls may be coated, as shown at 12, with a solution of a polyvinyl alcohol polymer. This coating may be supplied in any desired manner, as by spraying, painting or dipping.

The flexible fluid-containing chamber need not, however, be constituted entirely of the plasticized polymer, and it need not be of uniform constitution or thickness. It is sufficient that the face or wall that engages the wearer's nose be so constituted and that it be of the proper thinness to impart the proper degree of flexibility to enable it to conform to the surface of the nose with which it engages.

Further 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 having means for positioning the mounting before the eyes of the wearer, the positioning means comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a substance selected from the group consisting of a plasticized chloroprene polymer, a plasticized isobutene-diolefin copolymer, a plasticized vinyl halide polymer, a plasticized silicon rubber and a polyethylene plastic, whereby the soft yieldable wall is rendered non-toxic, the substance being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

2. As an attachment for an ophthalmic mounting, a support and a fluid-tight fluid-containing chamber mounted upon the support provided with means for attaching the attachment to the

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ophthalmic mounting and having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a substance selected from the group consisting of a plasticized chloroprene polymer, a plasticized isobutene-diolefin copolymer, a plasticized vinyl halide polymer, a plasticized silicon rubber and a polyethylene plastic, whereby the soft yieldable wall is rendered non-toxic, the substance being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

3. In an ophthalmic mounting, a nose-guard comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of one of the sides of the wearer's nose and the material of which comprises a substance selected from the group consisting of a plasticized chloroprene polymer, a plasticized isobutenediolefin copolymer, a plasticized vinyl halide polymer, a plasticized silicon rubber and a polyethylene plastic, whereby the soft yieldable wall is rendered non-toxic, the substance being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the said one side of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the said one side of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the said one side of the wearer's nose.

4. In an ophthalmic mounting, a bridge comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the top of the wearer's nose and the material of which comprises a substance selected from the group consisting of a plasticized chloroprene polymer, a plasticized isobutene-diolefin copolymer, a plasticized vinyl halide polymer, a plasticized silicon rubber and a polyethylene plastic, whereby the soft yieldable wall is rendered non-toxic, the substance being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the top of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the top of the nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the top of the nose.

5. In an ophthalmic mounting, a nose-guard

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comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of one of the sides of the wearer's nose and the material of which comprises a plasticized chloroprene polymer, whereby the soft yieldable wall is rendered non-toxic, the chloroprene polymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the said one side of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the said one side of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the said one side of the wearer's nose.

6. In an ophthalmic mounting, a bridge comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the top of the wearer's nose and the material of which comprises a plasticized chloroprene polymer, whereby the soft yieldable wall is rendered non-toxic, the chloroprene polymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the top of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the top of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the top of the wearer's nose.

7. In an ophthalmic mounting, a nose-guard comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of one of the sides of the wearer's nose and the material of which comprises a plasticized isobutene diolefin copolymer, whereby the soft yieldable wall is rendered non-toxic, the isobutene-diolefin copolymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the said one side of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the said one side of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the said one side of the wearer's nose.

8. In an ophthalmic mounting, a bridge comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the top of the wearer's nose and the material of which comprises a plasticized isobutene diolefin copolymer, whereby the soft

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yieldable wall is rendered non-toxic, the isobutene-diolefin copolymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the top of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the top of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the top of the wearer's nose.

9. An ophthalmic mounting having means for positioning the mounting before the eyes of the wearer, the positioning means comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a plasticized vinyl halide polymer, whereby the soft yieldable wall is rendered non-toxic, the vinyl halide polymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

10. As an attachment for an ophthalmic mounting, a support and a fluid-tight fluid-containing chamber mounted upon the support provided with means for attaching the attachment to the ophthalmic mounting and having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a plasticized vinyl halide polymer, whereby the soft yieldable wall is rendered non-toxic, the vinyl halide polymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

11. In an ophthalmic mounting, a nose-guard comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of one of the sides of the wearer's nose and the material of which comprises a plasticized vinyl halide polymer, whereby the soft yieldable wall is rendered non-toxic, the vinyl halide polymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the said one side of the wearer's nose with which it engages throughout the said area of such engagement

in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the said one side of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the said one side of the wearer's nose.

12. In an ophthalmic mounting, a bridge comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the top of the wearer's nose and the material of which comprises a plasticized vinyl halide polymer, whereby the soft yieldable wall is rendered non-toxic, the vinyl halide polymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the top of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the top of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the top of the wearer's nose.

13. An ophthalmic mounting having means for positioning the mounting before the eyes of the wearer, the positioning means comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a plasticized silicon rubber, whereby the soft yieldable wall is rendered non-toxic, the silicon rubber being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

14. As an attachment for an ophthalmic mounting, a support and a fluid-tight fluid-containing chamber mounted upon the support provided with means for attaching the attachment to the ophthalmic mounting and having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a plasticized silicon rubber, whereby the soft yieldable wall is rendered non-toxic, the silicon rubber being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial

solid reaction by the wall against the said area of the wearer's head.

15. In an ophthalmic mounting, a nose-guard comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of one of the sides of the wearer's nose and the material of which comprises a plasticized silicon rubber, whereby the soft yieldable wall is rendered non-toxic, the silicon rubber being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the said one side of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the said one side of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the said one side of the wearer's nose.

16. In an ophthalmic mounting, a bridge comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the top of the wearer's nose and the material of which comprises a plasticized silicon rubber, whereby the soft yieldable wall is rendered non-toxic, the silicon rubber being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the top of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the top of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the top of the wearer's nose.

17. An ophthalmic mounting having means for positioning the mounting before the eyes of the wearer, the positioning means comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a polyethylene plastic, whereby the soft yieldable wall is rendered non-toxic, the polyethylene plastic being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

18. As an attachment for an ophthalmic mounting, a support and a fluid-tight fluid-containing chamber mounted upon the support provided with means for attaching the attachment to the ophthalmic mounting and having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the

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wearer's head and the material of which comprises a polyethylene plastic, whereby the soft yieldable wall is rendered non-toxic, the polyethylene plastic being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

19. In an ophthalmic mounting, a nose-guard comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of one of the sides of the wearer's nose and the material of which comprises a polyethylene plastic, whereby the soft yieldable wall is rendered non-toxic, the polyethylene plastic being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the said one side of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the said one side of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the said one side of the wearer's nose.

20. In an ophthalmic mounting, a bridge comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the top of the wearer's nose and the material of which comprises a polyethylene plastic, whereby the soft yieldable wall is rendered non-toxic, the polyethylene plastic being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the top of the wearer's nose with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the top of the wearer's nose is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the top of the wearer's nose.

21. An ophthalmic mounting having means for positioning the mounting before the eyes of the wearer, the positioning means comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a plasticized chloroprene polymer, whereby the soft yieldable wall is rendered non-toxic, the chloroprene polymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout

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the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

22. An ophthalmic mounting having means for positioning the mounting before the eyes of the wearer, the positioning means comprising a support and a fluid-tight fluid-containing chamber mounted upon the support having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a plasticized isobutene-diolefin copolymer, whereby the soft yieldable wall is rendered non-toxic, the isobutenediolefin copolymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

23. As an attachment for an ophthalmic mounting, a support and a fluid-tight fluid-containing chamber mounted upon the support provided with means for attaching the attachment to the ophthalmic mounting and having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a plasticized chloroprene polymer, whereby the soft yieldable wall is rendered non-toxic, the chloroprene polymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

24. As an attachment for an ophthalmic mounting, a support and a fluid-tight fluid-containing chamber mounted upon the support provided with means for attaching the attachment to the ophthalmic mounting and having a soft yieldable wall of substantial area for engaging a portion of corresponding substantial area of the wearer's head and the material of which comprises a plasticized isobutene-diolefin copolymer, whereby the soft yieldable wall is rendered non-toxic, the isobutene-diolefin copolymer being treated to render it of sufficient flexibility to conform yieldingly to the shape of all parts of the said area of the wearer's head with which it engages throughout the said area of such engagement in order that the pressure of the fluid in the chamber behind the wall shall be distributed evenly throughout the said area of engagement, whereby substantially the whole reaction against the said area of the wearer's head is provided

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through the wall by the fluid in the chamber without substantial solid reaction by the wall against the said area of the wearer's head.

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