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E. A. RING

2,216,503

NOSE PAD FOR EYEGLASSES AND SPECTACLES

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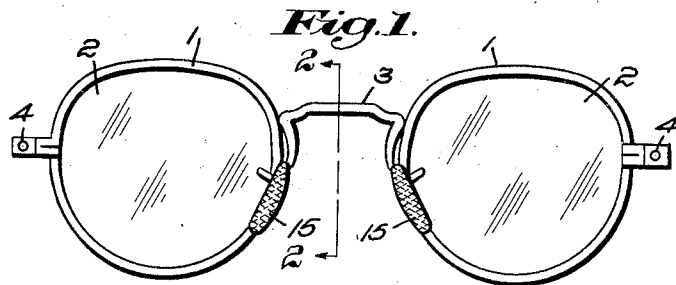


Fig. 2.

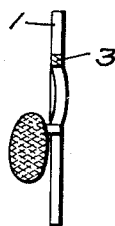


Fig. 3.

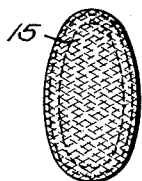


Fig. 4.

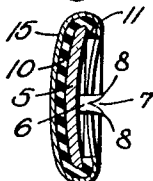


Fig. 5.

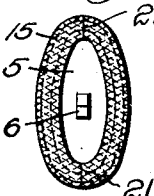


Fig. 6.

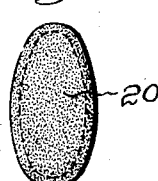


Fig. 7.

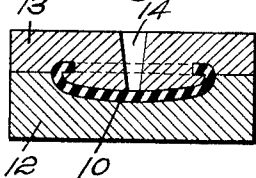


Fig. 8.

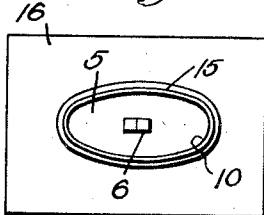


Fig. 9.

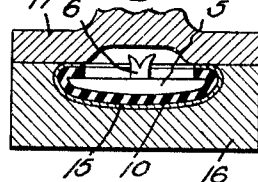


Fig. 10.

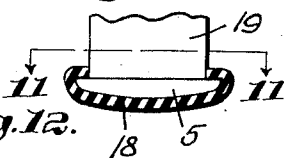


Fig. 12.

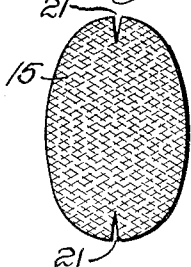


Fig. 11.

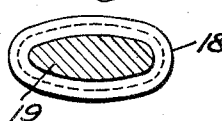
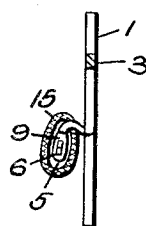


Fig. 13.



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UNITED STATES PATENT OFFICE

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NOSE PAD FOR EYEGLASSES AND SPECTACLES

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3 Claims. (Cl. 88—48)

This invention relates to nose pads or guards for eyeglasses, spectacles and the like.

In order that the principle of the invention may be readily understood, I have disclosed a single embodiment thereof in the accompanying drawing, wherein—

Fig. 1 is a plan view of a pair of eyeglasses or spectacles having my invention applied thereto;

Fig. 2 is a vertical section upon the line 2—2 of Fig. 1 and looking toward the left in said figure;

Fig. 3 is an enlarged view of the nose pad or guard viewing the same from the surface thereof that contacts with the nose, and representing the use of a textile material as the skin contacting portion of the pad or guard;

Fig. 4 is a vertical central section through the structure shown in Fig. 3;

Fig. 5 is a plan view of the pad or guard viewed from the opposite side with respect to Fig. 3;

Fig. 6 is a view similar to Fig. 3, but representing the use of a deposited material to contact with the flesh of the wearer in lieu of the textile material shown in Figs. 3, 4 and 5;

Fig. 7 is a transverse section taken through a mold and representing the molding of the rubber portion of the nose pad or guard;

Fig. 8 is a plan view of the lower member of a die, the purpose whereof is to cause the proper positioning of the textile material upon the outer face of the rubber that has been molded as shown in Fig. 7;

Fig. 9 is a vertical cross section representing the two members of the die with the nose pad or guard within the same, and showing both the rubber and the textile material in position thereon;

Fig. 10 is a cross sectional view representing the application of the rubber to the body portion of the pad or guard by a dipping action as contrasted with the molding procedure indicated in Fig. 7;

Fig. 11 is a cross sectional view upon the broken line 11—11 of Fig. 10;

Fig. 12 is a plan view of the textile material shown in Figs. 3, 4 and 5, but laid out flat (that is, before it has been positioned in the die of Figs. 8 and 9); and

Fig. 13 is a view in side elevation of the nose pad or guard looking at the same from the face opposite to that shown in Fig. 2.

It has long been proposed to provide a nose pad or guard of some suitable material such as metal, shell or bone, and to provide a soft rubber covering therefor. Examples thereof are shown in the

following patents: Blenthen, No. 222,123, Dec. 2, 1879; Molitor, No. 411,164, Sept. 17, 1889; Cowles, No. 497,773, May 23, 1893; Bromberg, No. 722,080, Mar. 3, 1903; and Wood, No. 825,789, July 10, 1906.

As shown in certain of said patents, it is customary to provide the rubber element of the nose pad or guard as a tube suitably shaped or formed to envelop or surround the basal portion of the nose or guard. My invention is preferably used in conjunction with a rubber or like element, which, however, is overlaid by an element employed by me to prevent direct contact of the rubber with the nose of the wearer.

There has been a long standing problem in eyeglass wear, the proper solution of which has never heretofore been arrived at so far as I am aware. The problem in question is that of resting or supporting a pair of glasses on the sides of the nose in such a manner and with the use of such material as to allow the wearer maximum comfort and efficiency, and yet at the same time preventing the direct contact of any rubber with the skin of the wearer.

Nose pads or guards employing rubber as the surface thereof to come in direct contact with the skin of the wearer are comparatively expensive over a period of time. It is customary in cases involving the use of a rubber material to remove the rubber material and to substitute a fresh rubber piece therefor. This involves a substantial expense, as, for example, twenty-five cents per pair of glasses for every six weeks or two months, if the user wishes to secure efficiency in use and the best appearance of the device. Nevertheless, with such devices as are heretofore constructed so far as I am aware, and upon continued application of the same to the wearer's nose, the guard or pad becomes dirty on the outer surface and increases the hazard of infection. Physicians are practically agreed that continued direct contact with rubber is unhealthy for tender skin. Moreover a period of wear of such a device for a few months results in the rubber portion of the pad or guard becoming swollen, and in many instances such rubber member completely disintegrates before the supposed time limit of wear is reached. Furthermore many such articles are unsightly from the very commencement of their use, and they continue to become more so during their use. Moreover, in the use of such a guard or pad frequent visits to an optical concern or establishment become necessary in order to replace the rubber element with a new one from time to time.

In order to overcome the objections incident to devices such as hereinbefore referred to, I have provided a nose pad or guard wherein the portion of the pad or guard which comes directly in contact with the skin of the wearer is of some suitable material, such, for example, as a textile material, and preferably waterproof silk or some other such soft, substantially waterproof material. Waterproof silk is a woven material, and within the term "textile material" employed by me are included many materials woven from strands or fibers of various sorts, interwoven as indicated in Figs. 3 and 12. Within the term "textile material" are also included materials that are not woven from strands but are otherwise formed. Desirably, however, a woven material is used having warp and weft strands or elements to engage the skin of the nose. Within the scope of my invention, however, other materials than textile material may be employed, and in the ensuing description I shall indicate certain of them.

I shall proceed to describe the preferred embodiment of means for practicing my invention without, however, limiting my invention to the things herein described.

In Fig. 1, I have represented a pair of eyeglasses or spectacles, the frame whereof is shown at 1, and the glass elements at 2. The nose piece is represented at 3. These parts may be of any usual or preferred construction. The nose piece 3 is formed with or suitably attached to the frame 1, and suitable temples may be attached in the case of spectacles at the parts 4.

The nose piece 3 is provided with two guards or pad portions to engage the opposite sides of the nose of the wearer. While the basal portions of such pads or guards may be constructed in any suitable manner, I have preferably, as indicated most clearly in Figs. 4, 5 and 13, provided a basal member 5 which may be of metal, shell, bone or the like, and which desirably, as indicated best in Fig. 4, is slightly curved in lengthwise or transverse section. The said basal member 5 may be connected in any suitable manner to the frame 3, as, for example, by providing a rivet-like part 6 upon said basal member. Said rivet-like part 6 is slitted, as indicated at 7, to provide two supports or prongs 8, 8. The somewhat enlarged part 9 of the guard (best shown in Fig. 13) is provided with a hole through which the rivet 6 passes, after which the prongs 8 are bent or forced outwardly so as to lie flat against the surface of the part 9, thereby firmly securing the basal portion 5 of the guard or pad to the frame. In this or any other suitable manner, the basal portion of the nose pad is attached to the guard. It is immaterial, so far as my invention is concerned, how the basal member, such as 5, is attached to the frame 1.

I preferably employ a rubber or rubber-like element, and I have clearly represented the same in Fig. 4 at 10. The said rubber or rubber-like element, which is preferably soft rubber, is so shaped or formed that it lies closely against the outer surface of the basal member 5, as indicated in Fig. 4, and the perimeter or edge 11 of the said rubber piece 10 fits tightly against or is received upon the inner face of the said basal member 5, all as clearly indicated in Fig. 4.

The said rubber or rubber-like element 10 is formed in any suitable way, as, for example, by molding the same in a two part mold, the lower member whereof is indicated at 12, and the upper member whereof is indicated at 13 in Fig. 7. I have diagrammatically indicated an opening 14

for the deposit of the rubber or rubber-like material in a liquid state. In a suitable manner, as, for example, by a molding process, as in Fig. 7, the said rubber element 10 is fashioned or formed into the shape indicated in Fig. 7, so that it may be applied to the basal member 5, as indicated in Fig. 4. The said rubber element 10 is removable, as it should be replaced after a few weeks of use.

I provide an outer skin contacting member, one embodiment whereof is indicated at 15 in Figs. 3, 4 and 5. In said Figs. 3, 4 and 5, said material 15 is represented as a textile material. The preferred textile material employed by me is waterproof silk, but I may employ some other soft, waterproof material of textile or equivalent nature. Thus within the scope of my invention I may and preferably do employ a waterproof woven material formed of suitable strands. Thus I secure a smooth surface to contact with the skin of the nose, and avoid projections or roughness, the interwoven warp and weft strands presenting sufficient friction to hold the glasses in position.

I have in Fig. 12 represented the said textile material as laid out flat, the warp and weft of the textile material being indicated by the straight, crossed or interwoven lines in said Fig. 12 and also in Fig. 3. As there shown, it is preferably elliptical form and of sufficient size so that it can be suitably positioned to overlies smoothly and completely the rubber element 10. In order to achieve this result, I may proceed in any suitable manner, but preferably by providing a die composed of two members 16, 17. Within the lower member of the die is positioned the basal member 5 of the pad with the rubber element 10 and the textile covering or coating member 15. After the said parts 5, 10 and 15 have been placed in the lower member 16 of the die, the upper member 17 thereof is brought into contact therewith for a suitable length of time so as to cause said textile or equivalent material to maintain the shape and position indicated in Figs. 4 and 9.

When it becomes necessary, the said material 15 may be removed together with the rubber material 10 from the pad or guard and be replaced by substitute or fresh elements of the same construction.

Although I have, in Fig. 7, represented the preparation of rubber 10 by a molding process, I may provide the same by a dipping process, indicated in Figs. 10 and 11. In said figures, the rubber element is indicated at 18. When proceeding in this manner, the basal element 5, suitably supported upon a stem or part 19, is dipped one or more times into a rubber or rubber-like solution until the structure shown in Fig. 10 is secured, or I may deposit suitable liquid material upon the rubber 10 or basal element 5, as indicated at 20 in Fig. 6. So far as I am aware, I am the first to provide a textile or equivalent coating material or element to overlies a rubber or rubber-like element, such as 10, or to provide a silk or other suitable textile jacket or sheath to be applied to the nose pad or guard, and desirably in such a manner as to be readily removable therefrom.

I preferably provide an element corresponding to the element 10 herein shown as an inner or underlying jacket or sheath. One of the properties of such an underlying jacket or sheath is elasticity, and another is softness that provides a suitable cushioning effect. The said underlying jacket or sheath is then, in accordance with my invention, covered by a cementing or welding or

vulcanizing process, or in any other suitable manner, with the overlying element, which desirably is waterproof silk. This is done in such a manner as to leave a split or opening 21 in the silk in such a manner as to allow for expansion of the edges of the rubber or other elastic material forming the inner or underlying element that is applied to the basal member of the nose piece 3.

When the entire jacket consisting of both the rubber element 10 and the silk or other outer element 15 is positioned for use, the said split becomes practically invisible, since the said split is not of such extent as to be visible at the face shown in Fig. 3, nor at the part thereof that is between the extreme inner edge and said outer face. In other words, the said split is provided at the very perimeter, and extends but a slight distance therefrom.

In addition to constructing the said skin contacting element 15 of some suitable waterproofing material, the whole sheath or completed jacket is preferably sterilized and medicated with a healing substance for the protection of the skin of the wearer.

Among the advantages secured by my invention are the following. Due to the separation or spacing of the rubber jacket 10 from the skin of the wearer, the entire pad or guard of my invention has a greatly increased life or time period. In view of the fact that medication in some form may be applied to the completed pad, the sheath has a healing and germ killing tendency when applied to a tender membrane or surface infection of the nose. Due to the protection of the outer or covering material 15 of the sheath, no rubber comes in direct contact with the skin of the wearer. Nevertheless the soft rubber pad or portion of the entire pad or cushion provides the desired cushioning effect, thus insuring the wearer the maximum amount of comfort. Furthermore, the pad or guard is neat in appearance at the beginning and maintains that appearance throughout its active life if treated with reasonable care. Due to the greatly increased life of the pad or cushion, the time necessarily spent in replacement thereof is greatly reduced.

While I have described in detail the use of silk, it is to be understood that I am not limited thereto, as I may use some other suitable material, as, for example, rayon or some other suitable cloth or material of textile nature, preferably of a woven character, as indicated in Figs. 3 and 12, or I may if desired use a suitable lacquer or form a deposit from the acetate liquid for acetate films, as in Fig. 6. If the outer coating is applied as a deposit, liquid is applied in such a manner as to leave a protective film or coating permanently applied to the rubber, if the rubber material be employed. This does not prevent the removal of the rubber element, together with the applied coating to which I have referred. In other words,

the entire pad of my invention may be removed from the basal member of the guard or frame.

It will be understood that within the scope of my invention, the member or element 15, of whatever material, and the coating 20 need not in all cases cover the entire surface of the rubber element or cushion 10, provided the same is of sufficient extent to keep the said rubber element or cushion out of contact with the skin of the nose. While preferably the outer covering or coating is of the full extent herein disclosed, my invention is not limited in this respect provided the function and purpose of keeping the rubber cushion out of contact with the skin of the nose are accomplished.

Having thus described one illustrative embodiment of my invention, it is to be understood that although specific terms are employed, they are used in a generic and descriptive sense and not for purposes of limitation, the scope of the invention being set forth in the following claims.

I claim:

1. In eyeglasses or spectacles having a frame including a nose piece, a nose guard having a basal element secured to the nose piece, a cushioning member of rubber overlying the face of said basal element that is toward the nose, and a silk covering applied to said cushioning member so as to exclude said member from contact with the skin of the nose, both the rubber and the silk being applied flatwise to the basal member and the edges of both the rubber and the silk being turned about and inward over the edge of the said basal element.

2. In eyeglasses or spectacles having a frame including a nose piece, a nose guard having a basal element secured to the nose piece, a cushioning member of rubber overlying the face of said basal element that is toward the nose, and a woven covering applied to said cushioning member so as to exclude said member from contact with the skin of the nose, both the rubber and the woven material being applied flatwise to the basal member and the edges of both the rubber and the woven material being turned about and inward over the edge of the said basal element.

3. In eyeglasses or spectacles having a frame including a nose piece, a nose guard having a basal element secured to the nose piece, a cushioning member of rubber overlying the face of said basal element that is toward the nose, and a woven, waterproof covering applied to said cushioning member so as to exclude said member from contact with the skin of the nose, both the rubber and the woven, waterproof material being applied flatwise to the basal member and the edges of both the rubber and the woven, waterproof material being turned about and inward over the edge of the said basal element.

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