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PROCESS OF MAKING OPHTHALMIC MOUNTINGS

Original Filed Oct. 25, 1923

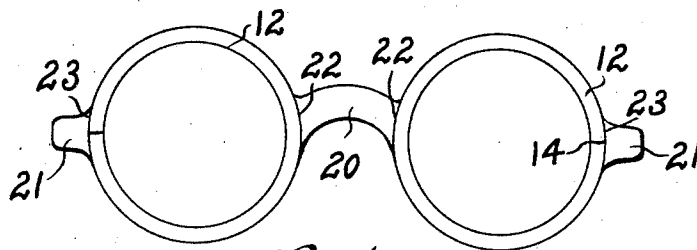


Fig. 1.

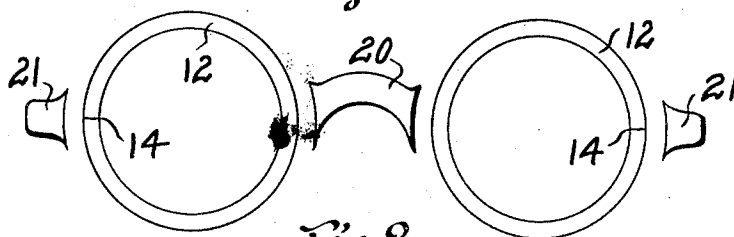


Fig. 2.

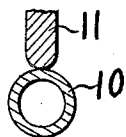


Fig. 3.

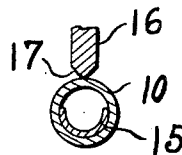


Fig. 5.

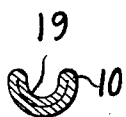


Fig. 4.

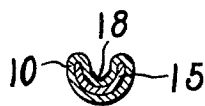


Fig. 6.

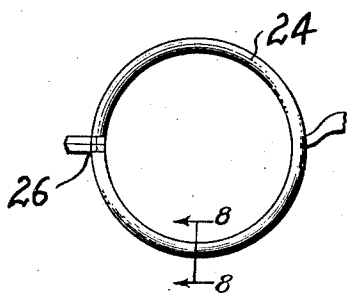


Fig. 7.

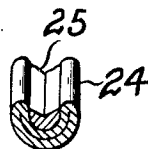


Fig. 8.

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PROCESS OF MAKING OPHTHALMIC MOUNTINGS.

Original application filed October 25, 1923, Serial No. 670,678. Divided and this application filed May 9, 1925. Serial No. 29,080.

The present invention relates to an improved ophthalmic mounting and process or method of constructing the same, and has particular reference to ophthalmic mountings of that class that are formed or chiefly formed from the so-called zyl or other form of cellulose composition.

This application is a division of my co-pending application for improvements in ophthalmic mountings, filed October 25, 1923, Serial Number 670,678.

An important object of our invention is to provide an ophthalmic mounting of the character described and a method or process of constructing the same whereby the amount of materials that have heretofore been wasted will now be saved, thus causing a great saving in time and expense to the manufacturer of such mountings.

Another very important object of the invention is to provide an ophthalmic mounting of the character described and method or process of forming the same whereby the eye pieces, bridge, and end pieces will be formed separately and then united to form a completed mounting or blank, thus making it possible to make the eye pieces, bridges and end pieces in large quantities and assembling the various pieces with the desired sized other pieces.

Another important object of the invention is to provide an ophthalmic mounting of this nature and process or method of making the same wherein the eye pieces may be provided with substantial reinforcing means to prevent any warping thereof.

Another important object of the invention is to provide an ophthalmic mounting of this nature and the method or process of forming the same that will be strong, durable, very simple and inexpensive to manufacture.

Other objects, and advantages of the invention will become apparent during the course of the following description.

In the drawings, wherein like numerals are employed to designate like parts throughout the same:

Figure 1 is a front elevation of the finished ophthalmic mounting in an assembled condition.

Figure 2 is a front elevation of a mounting showing the various parts disassociated.

Figure 3 is a transverse vertical section showing the method of forming the eye pieces or tube stock before the tube has been shaped.

Figure 4 is a similar view showing the tubular stock shaped.

Figure 5 is a transverse vertical section showing the tube stock provided with reinforcing means before it has been shaped.

Figure 6 is a view of the same after it has been shaped.

Figure 7 is a fragmentary front elevation of another form of ophthalmic mounting, and

Figure 8 is a section taken on line 8—8 thereof.

In the drawings, wherein for the purpose of illustration is shown the preferred embodiment of the same, the numeral 10 in Figure 3 designates a length of tubular stock formed from preferably a cellulose composition material. The tubular stock is made somewhat pliable whereupon a roller 11 is forced downwardly and rolled along the same until the stock assumes the shape as shown in Figure 4. After the stock has been shaped, as in Figure 4, it may be wound around a suitable mandrel until it has properly set up, after which it may be cut so as to form an eye piece, as is designated by the numeral 12. This eye piece 12 will have the desired groove or lens seat and will at the same time have the proper curvature as at 13, thus doing away with a great deal of milling that has heretofore been required. The ends may be cemented as at 14, and it has been found through experimentation that such cemented joints are practically every bit as strong as a ring stamped from sheet stock.

In Figure 5 the tube 10 has a substantially U-shaped metallic member 15 placed within its bore, said member being thin enough and pliable enough to be curved, although in ordinary practice it will be found to be rigid. A roller 16 having the somewhat pointed end 17 is rolled along the tube, whereby the tube will assume a position as shown in Figure 6, thus forming a

lens seat 18 similar to the seat 19 in Figure 4, except that it is angular instead of round. The tube stock as is shown in Figure 6, is shaped and cut as shown in Figure 4, thus forming an eye piece 12 which may or may not be reinforced by the metallic member 15, as may be desired for the particular purposes for which it is used. After the rings 12 have been formed the bridges 20 and end pieces 21 may be formed and suitable sized ones are selected and cemented to the eye pieces.

It is preferred that the joint, as at 14, will be arranged so that the end piece 21 will overlie both ends thereof so as to give additional strength to the finished product. The bridge 20 will be cemented as at 22 while the end pieces will be cemented as at 23. Of course, various methods may be employed and devised to insure perfect alignment of the bridge and end pieces with respect to the eye pieces, so that we do not wish to limit ourselves to any one particular method. It will be seen that a small or large bridge 20 may be used with the eye pieces so that any combinations may be had by such a construction. The metallic reinforcing member 15 will be found exceptionally desirable in the so-called all zyl frames, as this member will prevent warping of the frame and will thereby increase the life thereof.

In Figure 7 the ring 24 is placed over a metallic frame 25, as is shown in Figure 8, thus the ends 26 will not be cemented to each other, as at 14, but will be secured in the usual manner. In this instance it will not be necessary or desirable in most cases to provide the reinforcing element 15, but the ring is formed by the method shown in Figures 3 and 4 will be placed over the metallic ring 25.

By forming an ophthalmic mounting in this manner considerable stock is saved, and

as the composition used is a very expensive one, such an item is very important. Furthermore, the time involved will be greatly reduced as a number of the milling and grooving operations will be obviated, and the rings will be formed from tube stock in one or two operations.

It is to be understood that the form of our invention herewith shown and described is to be taken as the preferred embodiment of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described our invention, we claim:

1. The process of forming an ophthalmic eye piece of the character described comprising rolling tube stock to form a groove therein, wrapping the same so as to form a ring, and cementing the free ends of said ring.

2. The process of forming an ophthalmic eye piece of the character described comprising making a piece of round stock pliable, rolling the same to form a groove therein, wrapping the stock so as to form a ring, allowing the ring to set up, and cementing the free ends thereof.

3. The process of forming an ophthalmic mounting of the character described consisting of rolling a cellulose tube to form a seat therein, and wrapping the tube into a ring, and joining its ends.

4. The process of forming an ophthalmic mounting consisting of rolling tube stock to form grooves therein, wrapping the stock into rings and cementing their ends and joining a bridge and end pieces to said rings.

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