This invention relates to protectors for hair dressing use and the like, being more particularly intended to provide a practical form of protector readily applicable to the face of the wearer and adapted to prevent the accidental entrance of water into the eyes, ears, nose or mouth of the wearer, more particularly in shampooing or other hair dressing operations, although it may be usefully employed under other conditions where a similar protection is desired.

The invention will be best understood by reference to the following description when taken in connection with the accompanying illustration of one specific embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

In the drawings,—

Fig. 1 is a plan view of a protector embodying one form of the invention;

Fig. 2 is a cross-sectional elevation on the line 2—2 in Fig. 1;

Fig. 3 is a section taken through the protecting ear plug which constitutes a part of the face protector shown in Fig. 1;

Fig. 4 is a cross-sectional elevation on the line 4—4 in Fig. 4;

Fig. 5 shows the application to the head of the wearer of the protector illustrated in Figs. 1 to 4 inclusive;

Fig. 6 is a front elevation of a modified form of face protector;

Fig. 7 is a cross-sectional elevation on the line 7—7 in Fig. 6, showing the application of the annular rubber sealing pads to the eyeglass rims;

Fig. 8 is a section through one of the sealing pads removed from the eyeglass rim; and

Fig. 9 is a sectional plan showing the modified form of face protector with the attached ear protecting plugs.

Referring to the drawings and more particularly to the embodiment of the invention shown in Figs. 1 to 5 inclusive, the protector comprises a visor-like shield 11 adapted to extend across the forehead of the wearer and of a material which will readily conform to the forehead and bear a close fitting relation thereto. For this purpose rubber may be advantageously employed since it can be readily molded to any desired shape, and, capable of being sterilized or cleansed after use, it has the necessary sanitary qualifications. When rubber is employed, the body or core of the shield is preferably formed of sponge rubber and finished with a substantially imporous exterior surface, since this provides a shield readily conformable to foreheads of varying contours, while at the same time a light weight shield may be had of sufficient mass and size to secure the needed protection.

The inner or contact wall of the shield is formed with a broadened median central portion at 13 where it is designed to overlie the ophryon, the shape being such as to approximate as nearly as possible the contour of the average cranium along the median line of the frontal bone. The central portion of the shield is extended down at 15 to provide a broad bearing between the eyes of the wearer and is extended up at 17 to provide a somewhat raised central peak. From the central portion the edges of the contact wall are narrowed or tapered more or less toward the ends of the shield, the latter being designed to clasp tightly about the sides of the forehead and extend about the forehead somewhat back of the eyes.

The body of the shield preferably extends forwardly to provide a trough-like, water-shedding surface 19 formed with a retaining lip 21 which becomes quite pronounced near the middle of the shield, the shape of such surface being such as to conduct the water to opposite ends of the shield away from the forehead and away from the face of the wearer when the shield is applied as shown in Fig. 5.

Extending through the body of the shield from end to end and molded therein is a reinforcing member 23 designed to give a more or less resilient stiffening effect to the protector. This reinforcing member may consist, for example, of a piece of flattened spring wire composed of steel or one of the non-oxidizing alloys of steel. The reinforcing member is formed with ends 25 projecting from opposite ends of the shield and herein employed as attachments to assist in securing the shield in place. For this purpose the extensions 25 are
prolonged for a suitable distance beyond their points of emergence from the body of the shield and are adapted each to fit within a socket piece 27, being held therein and adjustable to different positions to vary the length of the connection by means of a set screw 29. The socket 27 is carried by a bent arm 31, the projecting end 33 of which is adapted to carry an ear plug 35, also preferably formed of sponge rubber. The latter is of such size and shape as permits it to be inserted in and substantially close the opening of the external ear, thereby constituting both an anchorage or fastening for the shield adapted to hold it in place on the forehead of the wearer and an ear protector preventing the entrance of water into the ear.

The shape of the arm 31 is such that when the shield is applied to the forehead, the ear plug may be readily inserted in the ear, the shield itself and the reinforcing member permitting more or less flexibility or freedom of movement in manipulating the plug. The fastening attachments comprising the extensions 25, the bent arm 31 and the ear plug may be readily adjusted as to length to adapt the shield to different wearers by means of the set screw 29. The ear plug 25 is held frictionally in place on projection 33 so that plugs of different shapes and sizes may be substituted as may be required.

In applying the shield to the face of the wearer the median portion of the contact wall is pressed against the forehead just back of the eyes and the ends drawn or pressed into firm sealing contact with the sides of the forehead. The ear plugs are then inserted in the ears, the attachments being lengthened or shortened if necessary to cause the shield to lie snugly against the forehead.

When the protector is applied to the face of the wearer, the latter, whether in upright, prone or some intermediate position, is fully protected against the entrance of soapy water into the eyes or ears, and the water is deflected from the forehead back over the ears.

Referring to the form of the invention illustrated in Figs. 6 to 9 inclusive, the ears are protected by ear plugs 37 of a construction similar to those already described, but the eyes are protected by eyeglasses or goggles, each rim of which is provided with an annular pad or cushion of sponge rubber conformable and closely fitting the face of the wearer around each eye. As shown in Figs. 6 and 7, the shield comprises two eyeglass frames 39 of aluminum or other suitable metal connected by a spring bridge piece 41 of any ordinary and usual construction. The sides of the frame are provided with swiveling connections 43 to which are attached the arms 45 adjusably held in the socket 47, as in the construction previously described. Each eyeglass frame is provided with a transparent lens piece 49, which may be of glass, celluloid or any other water-tight, transparent material, and each frame is covered with an annular cushion 51 of sponge rubber of the shape and contour necessary to effectively seal the space around the eyes of the wearer when the protector is held in position by the spring bridge piece and drawn to its seat by the ear attachments. The annular cushions are each preferably formed with an internal groove or slot 53 (see Fig. 8) so that they may be slipped each over a frame rim and held in place thereon or readily removed therefrom for purposes of cleaning or for substitution of pads or cushions of different shapes or sizes. To avoid interference with the swivel connections 43 and the bridge piece 41, the front walls of the cushions or pads are transversely slotted at 55.

This invention in either form shown is of special utility in ladies' beauty parlors or hair dressing establishments, since it insures complete protection by the wearer against the disagreeable effects of the entrance of soap or water into the eyes or ears during the shampooing operation. It may have useful application, however, to various other purposes, such, for example, as the protection of the wearer in bathing.

While I have herein shown and described for purposes of illustration one specific embodiment of the invention, it is to be understood that extensive deviations may be made in the form, construction and relative arrangement of parts, all without departing from the spirit thereof.

Claims:
1. A self retaining protective device for preventing entry of fluids into the ears and eyes of a wearer comprising a pair of bridge connected members each formed to encircle an eye of the wearer and fit the face in a fluid tight manner to prevent access of fluids to the eyes, a pair of ear plugs formed to fit the ear orifices in a fluid excluding manner and a pair of adjustable retaining members connecting said ear plugs to opposite sides of said pair of bridged members, said adjustability providing for the effecting of a fluid tight but comfortable fit of the device to wearers having different head sizes.

2. A protective device for preventing entry of fluids into the ears and eyes of a wearer comprising an eye protecting means formed to fit against the face of a wearer in a fluid tight manner to prevent the fluid from entering the eyes, ear plugs formed to enter the ear orifices with a fluid excluding fit, and adjustable members connecting the ear plugs and eye protecting means to enable adjustment of the device to different head sizes, substantially as and for the purposes described.

In testimony whereof, I have signed my name to this specification.

NICHOLAS MERLINO.