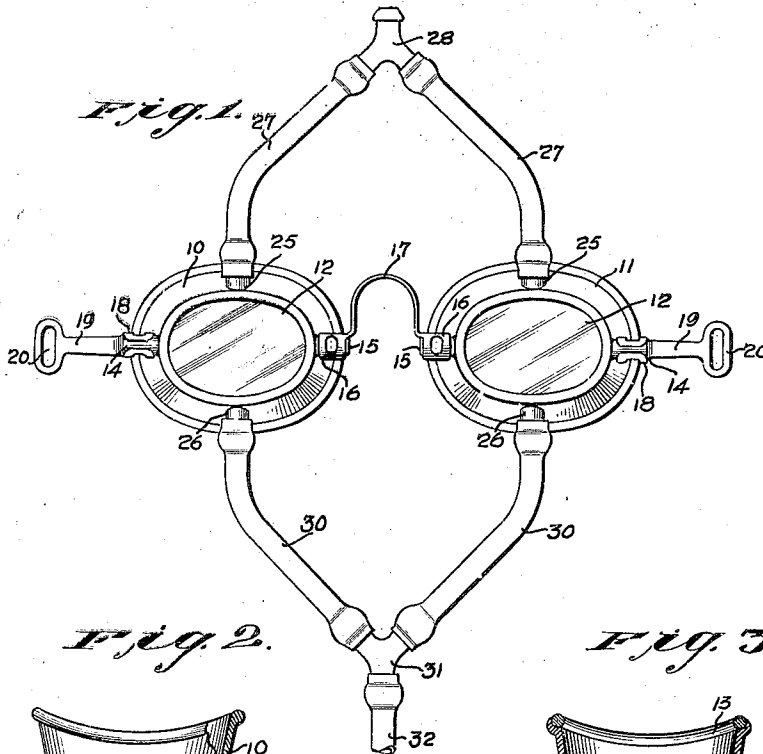
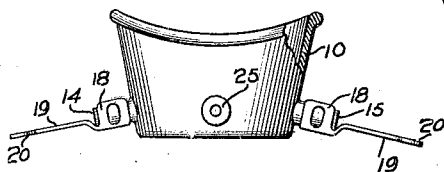
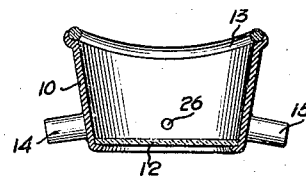
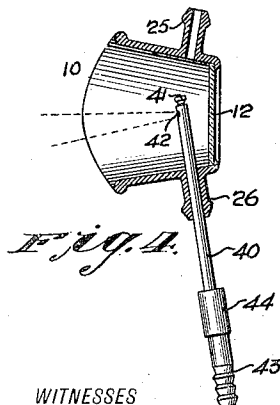
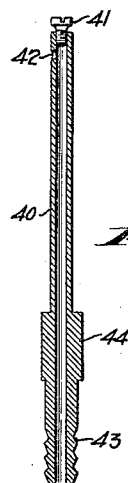


F. MAIER.
EYE WASHING DEVICE.
APPLICATION FILED JAN. 11, 1921.

1,437,435.

Patented Dec. 5, 1922.



WITNESSES
H. C. Heilig
W. G. Heston

INVENTOR
FRIEDRICH MAIER
BY *Mumford*
ATTORNEYS

UNITED STATES PATENT OFFICE.

FRIEDRICH MAIER, OF ELIZABETH, NEW JERSEY.

EYE-WASHING DEVICE.

Application filed January 11, 1921. Serial No. 436,582.

To all whom it may concern:

Be it known that I, FRIEDRICH MAIER, a citizen of the United States, and a resident of Elizabeth, in the county of Union and State of New Jersey, have invented a new and Improved Eye-Washing Device, of which the following is a full, clear, and exact description.

The invention relates to eye washing devices such as shown and described in the Letters Patent of the United States, No. 1,246,971, granted to me on November 20, 1917.

The object of the present invention is to provide a new and improved eye washing device arranged to permit of accurately directing a jet of water or medicated liquid onto any particular point of the eyeball.

Another object is to permit the use of a pair of cups simultaneously or either of the cups singly.

Another object is to provide a firm mounting of the cups to securely hold the device in place on the user's face and to form non-leaking joints with the face portions around the eyes.

Another object is to insure a proper circulation of the washing water or medicated liquid through the cups.

With these and other objects in view, the invention consists of certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the improved eye washing device arranged for simultaneously washing both eyes;

Figure 2 is a plan view of one of the cups arranged for single use part being shown in section;

Figure 3 is a sectional plan view of one of the cups provided with a packing at its rear edge;

Figure 4 is a cross section of one of the cups with the jet pipe inserted therein; and

Figure 5 is an enlarged longitudinal central section of the jet pipe.

The eye washing device in its general construction includes two cups 10 and 11 adapted to be used conjointly for washing both eyes simultaneously, but either of the cups

can be used singly for washing one of the eyes. The cups are alike in construction and each is permanently closed at the front by a window 12 of glass or other transparent or translucent material. The rear edges of the cups 10 and 11 are shaped to conform to the face portions around the eyes and in order to prevent leakage at the joints between the rear edges of the cups and the face portions use is preferably made of packings 13 (see Figure 3) of rubber or other insulating material glued or otherwise fastened to the rear edges of the cups. Each of the cups 10 and 11 is provided at the sides with integral lugs 14, 15, of which the lugs 15 are adapted to be engaged by split sleeves 16 formed at the ends of a bridge 17 used for connecting the two cups 10 and 11 with each other, as plainly shown in Figure 1. When the cups 10 and 11 are to be used conjointly then the outer lugs 14 are engaged by split sleeves 18 of arms 19 terminating in loops 20 adapted to be engaged by the ends of a strap passed around the head of the wearer to tightly hold the cups 10 and 11 in position on the face of the user. When either of the cups 10 or 11 is to be used singly then two arms 19 are used and fastened with their sleeves 18 onto the two lugs 14 and 15 of a cup, as plainly shown in Figure 2. In this case the arms 19 are used as handles for holding the cup in position on the face of the user.

Each of the cups 10 and 11 is provided at the top and bottom with nipples 25, 26, of which the top nipples 25 are connected by tubes 27 with a nipple 28 connected by a tube with a faucet connected with a water main to insure a continuous flow of water through both cups held in use on the eyes at the time. The bottom nipples 26 are connected by tubes 30 with a nipple 31 from which extends a tube 32 leading to a suitable place of discharge. It will be noticed that by the arrangement described water is readily circulated through the cups while the latter are in position on the face portions around the eyes to wash the eyes and to carry off the wash water. When it is desired to wash but one eye then single tube connections are made with the top and bottom nipples 25 and 26 for circulating water through this cup.

When it is desired to direct a jet of water or medicated liquid onto any particular point of the eyeball for washing or other purposes then use is made of a jet pipe 40 inserted

in one of the nipples 25 or 26, preferably the bottom nipple 26, as shown in Figure 4. This jet pipe 40 slidably and rotatably engages the nipple 26 and is closed at its inner end by a screw 41, and a jet opening 42 is arranged in the side of the jet pipe adjacent the set screw 41, as plainly shown in Figures 4 and 5. The outer end of the jet pipe 40 is provided with a nipple 43 adapted to be engaged by one end of a flexible tube connected with a source of water or medicated liquid for directing the same through the pipe 40 to be discharged therefrom in the form of a jet passing out of the jet opening 42 onto any desired point on the eyeball of the eye on which the cup is used at the time. The jet pipe 40 is provided adjacent the nipple 43 with a handle 44 to enable the user to conveniently slide and to turn the jet pipe in the nipple 25 or 26 to direct the jet to the particular point of the eyeball. It is understood that the physician or other operator or the user himself with the aid of a mirror can readily observe through the window 12 the direction of the jet to insure proper application of the jet on the afflicted part.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. An eye washing device, comprising a cup having a nipple opening into the cup, and a jet pipe slidably and turnably fitting into the said nipple and provided at its inner closed end with a jet opening, the outer end of the said jet pipe being arranged for connection with a water supply.

2. An eye washing device, comprising a cup having its rear edge shaped to conform to the portion of the face around the eye and provided with a transparent front and

with nipples at top and bottom, and a jet pipe insertible into either of the said nipples and adapted to turn and to slide therein, the said jet pipe being provided at its inner closed end with an opening adapted to direct a jet of water onto any point on the eyeball, the outer end of the said jet pipe being arranged for connection with a water supply.

3. An eye washing device, comprising a pair of cups each having its rear edge shaped to conform to the portion of the face around the eye and provided with a transparent front, nipples at top and bottom and lugs at the sides, a connecting member detachably engaging the lugs at the inner sides of the cups, holders detachably connected with the lugs at the outer sides of the cups and inlet, and outlet tubes connecting with the said nipples whereby provision is made for circulating a liquid through the cups to wash both eyes simultaneously.

4. An eye washing device, comprising a cup having its rear edge shaped to conform to the portion of the face around an eye and provided with a transparent front, nipples at top and bottom and lugs at the sides, rigid holders having sleeves detachably engaging the said lugs, and tubes connected with the nipples for circulating a liquid through the cup to wash the eye.

5. An eye washing device comprising a cup having its rear edge shaped to conform to the portion of the face around the eye, nipples at the top and bottom of the cup for circulating fluid therethrough in either direction, and a jet pipe extending from one of said nipples into the cup substantially axially thereof and provided with a nozzle adapted to direct a jet of fluid toward the eye when the device is applied.

FRIEDRICH MAIER.