

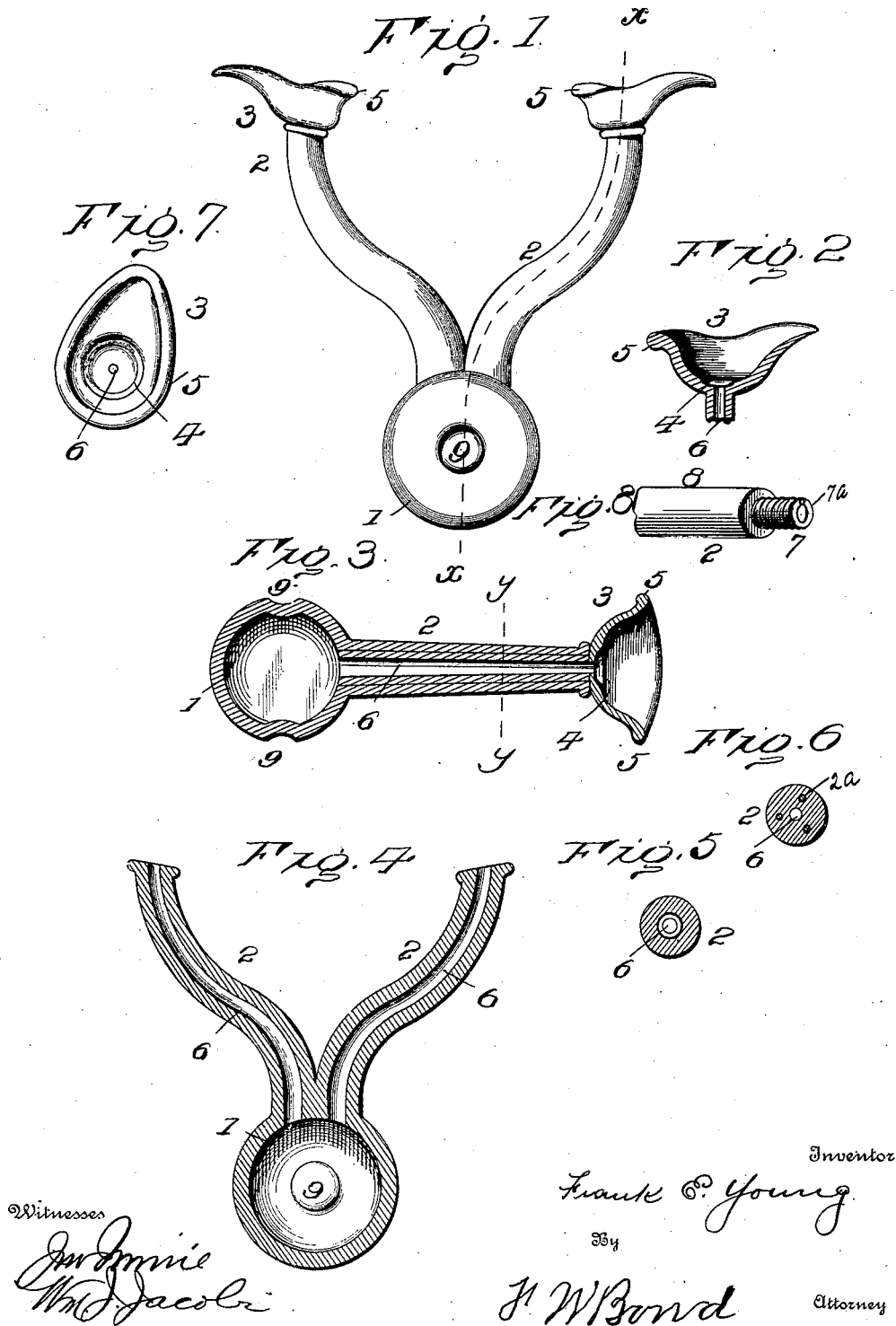
No. 676,379.

Patented June 11, 1901.

F. E. YOUNG.
EYE CUPS.

(Application filed Feb. 5, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

FRANK E. YOUNG, OF CANTON, OHIO.

EYE-CUPS.

SPECIFICATION forming part of Letters Patent No. 676,379, dated June 11, 1901.

Application filed February 5, 1900. Serial No. 3,996. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. YOUNG, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have
5 invented certain new and useful Improvements in Eye-Cups; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of
10 this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a side elevation showing the different parts properly connected. Fig. 2 is a detached sectional view of one of the eye-
15 cups. Fig. 3 is a sectional view on line $x x$, Fig. 1. Fig. 4 is a longitudinal section through Fig. 1, except that the eye-cups are removed. Fig. 5 is a transverse section through line $y y$, Fig. 3. Fig. 6 is a view through line $y y$, Fig.
20 3, showing a slight modification. Fig. 7 is a top view of the eye-cups, showing the contact rim or roll. Fig. 8 is a detached view of a section of tubes, showing a malleable coil with flexible impervious covering.

25 The present invention has relation to eye-cups; and it consists in the different parts and combinations of parts hereinafter described, and particularly pointed out in the claims.

30 Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the expansion-bulb, which is formed of
35 a size and shape to carry out the object and purpose hereinafter described.

From one side of the bulb 1 are extended the tubes or arms 2, which arms or tubes are preferably formed integral with the bulb 1
40 and are substantially of the form shown in the drawings. Said arms may connect separately or jointly with the expansion-bulb shown. To the outer ends of the arms or tubes 2 are connected therewith or formed integral
45 the eye-cups 3, which eye-cups are located and arranged substantially as shown in the drawings, and for the purpose of providing suitable adjustment of the eye-cups to the eyes the arms or tubes are formed flexible,
50 as hereinafter described.

For the purpose of providing proper contact or counter pressure upon the covering of

the body portion or margin of the orbit the eye-cups 3 are so shaped and designed that they will snugly fit upon said covering, there-
55 by preventing the air from entering the eye-cups after the air has been exhausted or withdrawn from the eye-cups, as hereinafter described.

For the purpose hereinafter described the
60 eye-cups 3 are each provided with the myopic or cornea concave 4, which myopic concaves are located substantially as illustrated in the drawings.

The contact-rims 5 of the eye-cups 3 are
65 convex and curved upward toward their ends, as illustrated in Figs. 1, 2, and 3, in such shape or contour as to fit the surface around the eye proper.

In use the eye-cups 3 are formed integral
70 and may also be formed integral with the arms or tubes 2 and the bulb 1. All of the above parts may be formed integral, if desired; but in the drawings I have illustrated the eye-cups 3 formed separate; but it is im-
75 material, as the object and purpose of the present invention can be carried out without any reference to the manner of connecting the parts together.

For the purpose of providing proper ad-
80 justment for the arms 2, together with the eye-cups 3, said arms may be provided with inlaid wires 2^a, as illustrated in Fig. 6, or a modified form, such as shown in Fig. 8, may be employed, which consists of a coiled wire
85 7^a, covered with flexible impervious material, the flexibility of said wires, tubes, or coils being of such a degree that the arms 2, together with the eye-cups 3, can be easily and
90 quickly adjusted to the necessary angle or position and at the same time hold said arms or tubes and eye-cups at the desired point of adjustment.

The expansion-bulb is provided with the thumb and finger sockets or depressions 9,
95 which are located opposite each other, as illustrated in Fig. 3.

In use the cups 3 are properly adjusted as to space and angularity by the bending of the tubes 2 so as to fit the cups over the eye,
100 and with the thumb and finger upon the bulb it is compressed, thereby forcing the air therefrom. The bulb should not be at once released, but by alternate slight pressure and

release of the bulb by the thumb and finger is allowed to gradually expand, which movement produces a vibratory motion, being a mild mechanical scientific massage of the eye and its structure. When the bulb has fully expanded, it is again compressed, and the movement repeated, and so on during the treatment.

The object and purpose of forming the arms flexible is to provide a means for first adjusting the eye-cups upon the orbital surface around the eye, the flexibility of such arms being such that the adjustment will remain unless force is applied to displace the adjustment.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, binocular eye-cups provided with myopic or cornea concaves located in the lower portions of the cups and the cups provided with contact rims or flanges concaved longitudinally and the flanges or rims convexed transversely,

tubes connected to the cups proper and said arms connected to the bulb, and the bulb, all arranged, substantially as and for the purpose specified.

2. As an improved article of manufacture, binocular eye-cups provided with myopic or cornea cavities located in the lower portions of the cups and the cups provided with contact rims or flanges concave longitudinally, and the flanges or rims convexed transversely, tubes connected to the binocular cups and said tubes connected to one side of the bulb, and the bulb provided with recesses or sockets upon its opposite sides, all of said parts being made integral, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANK E. YOUNG.

Witnesses:

J. A. JEFFERS,
F. W. BOND.