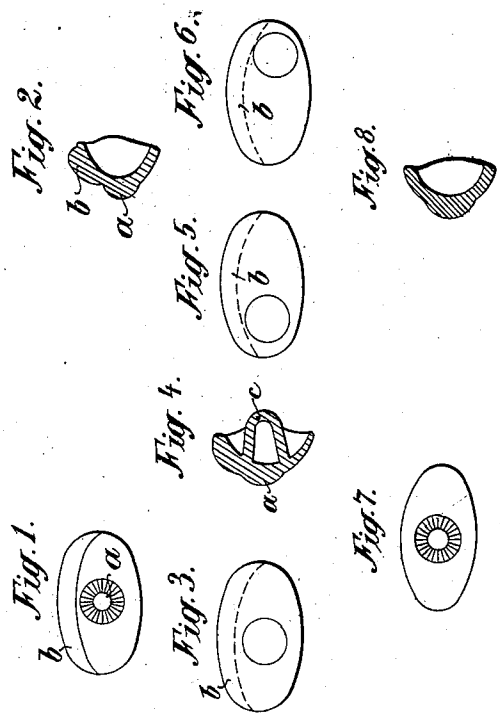
No. 762,298. PATENTED JUNE 14, 1904.

V. FUKALA.

ARTIFICIAL EYE.

APPLICATION FILED MAY 23, 1901.

MODEL.



Witnesses:
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No. 762,298. Patented June 14, 1904.

UNITED STATES PATENT OFFICE.

VINCENZ FUKALA, OF VIENNA, AUSTRIA-HUNGARY.

ARTIFICIAL EYE.

SPECIFICATION forming part of Letters Patent No. 762,298, dated June 14, 1904.

Application filed May 23, 1901. Serial No. 61,492. (Model.)

To all whom it may concern:

Be it known that I, VINCENZ FUKALA, a subject of the Emperor of Austria-Hungary, residing at Kaiserstrasse 86, Vienna, in the Empire of Austria-Hungary, have invented a certain new and useful Artificial Eye for Empty Orbits, of which the following is a specification.

This invention has reference to artificial eyes, which are used as substitutes for natural eyes when these have been removed and it becomes necessary to hide the socket, so as not to disfigure the face of the patient.

The artificial eyes heretofore in use showed the inconvenience that they had no means of properly positioning the eye in the socket, the eye dropping back into the cavity of the socket, so that the surrounding parts of the face assumed an ugly hollow appearance. This also caused great inconvenience to the wearer of the artificial eye, for, aside from the failure to imitate the appearance of natural eyes, these artificial eyes as used before my invention by their constant pressure caused an irritation of the inner walls of the socket, their sharp edges chafing the conjunctiva and exercising a constant pull upon the straight muscles of the eyelid. All these difficulties are avoided in my invention by providing the artificial eye with suitable projections, lugs, or the like, and preferably at the side near the temple, by which it is possible to adjust them properly in the cavity of socket and to retain them in the position it is desired to impart to them. The eye as constructed according to my invention is particularly intended for use in such cases where the socket is perfectly empty, the stump of the eye having been also removed.

My invention is shown by way of example on the accompanying drawings in Figures 1 to 6 in various modifications, while Figs. 7 and 8 show the eyes as heretofore constructed in plan and section.

The artificial eye as constructed according to my invention is of the usual shape and color.

a is the front part representing the pupil, as shown in front view in Fig. 1 and in section in Fig. 2 of the drawings.

b is a ridge or projection along the upper front part of the artificial eye which is right underneath the upper eyelid and serves to prevent the drooping of the same. Projections or lugs *c*, preferably rounded on the back side of the concave part of the eye and of which there may be any suitable number, serve to prevent the dropping back of the artificial eye, as they tend to push the same outward. By these means it is possible to so position and adjust the artificial eye that it will cause no inconvenience to the wearer and will present a true imitation of the appearance of natural eyes.

It is obvious that the projections referred to may be both combined in one and the same eye; but I may also arrange to have such projections, of which there may be any number, either only on the upper part of the front side or both on the front and on the rear side of the artificial eye. The artificial eye and the projections referred to may be made of any material suitable for the purpose, and the latter may be made in one piece with the body part of the artificial eye or may be separate therefrom and may then be attached by any suitable binding material.

In order to present a true imitation of the natural eye and in order to keep the artificial eye at the front of the socket, it is essential to make it concave at the inside, so that the muscle and the conjunctiva are not chafed and have a chance to extend freely into the cavity. On the other hand, in order to prevent the dropping back into the socket the projections are preferably provided at the side of the eye near the temple, whereby the eye is properly positioned and retained in place.

I am aware that artificial eyes with projections on the concave part of the same are old, and I make no claim specific to such construction; but in all these former constructions the projections were of lesser depth than the artificial eye itself, and besides they were jointed and not rigidly secured to the back of the same, or if rigidly connected to the same they were secured at the edge of the eye, so as to constitute a backward extension of the same, nor has there been any extension along the rim at the front part of the eyes as heretofore manufactured. Such artificial eyes

failed to seat themselves perfectly in the socket and frequently caused painful strains and chafing of the conjunctiva, which is avoided in my invention, which is applicable for entirely empty eye-sockets also, while the eyes as heretofore constructed were, as a rule, only adaptable for use with eye-sockets where the stump was still left in the cavity.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. In artificial eyes, the combination with a concave dish-shaped, solid body, of projections along the upper rim of the convex outer surface of the said body and above the iris part of the artificial eye.

2. In artificial eyes the combination with a solid vaulted dish-shaped body, of projections along the upper rim of the outer convex surface of the said body and a rounded projection, secured to the concave face of the said body and of at least the same depth, but of smaller height than the same, the rims of the said dish-shaped body extending on all sides considerably beyond the juncture with the said rounded projection.

3. In artificial eyes, substantially as described, a vaulted dish-shaped body, a thickened ridge along and on the upper rim of the said body and protruding upon the convex side of the same and a projection or bulb constituting the iris or pupil part below said thickened rim on the convex face of the said body.

In witness whereof I have hereunto set my hand in presence of two witnesses.

VINCENZ FUKALA.

Witnesses:
C. B. HURT,
ALVESTO S. HOGUE.