

(No Model.)

B. N. HUESTIS.
ARTIFICIAL EAR DRUM.

No. 366,838.

Patented July 19, 1887.

Fig. 1.

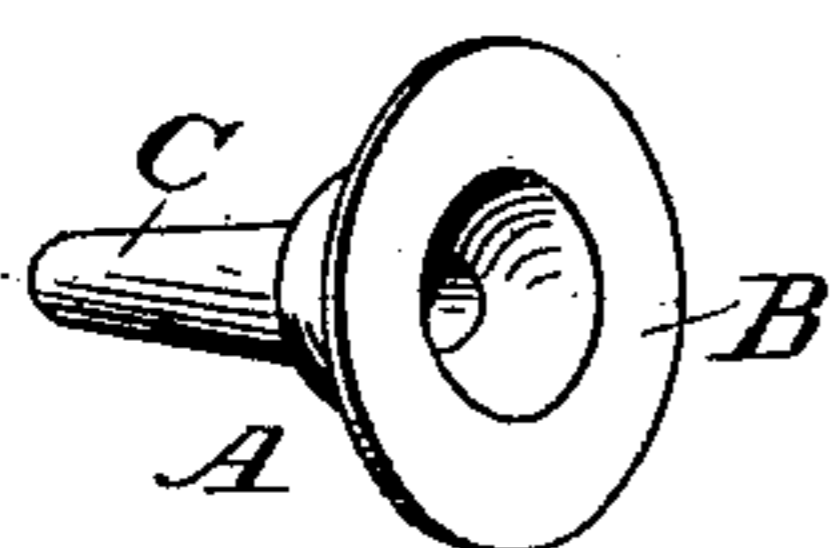


Fig. 2.

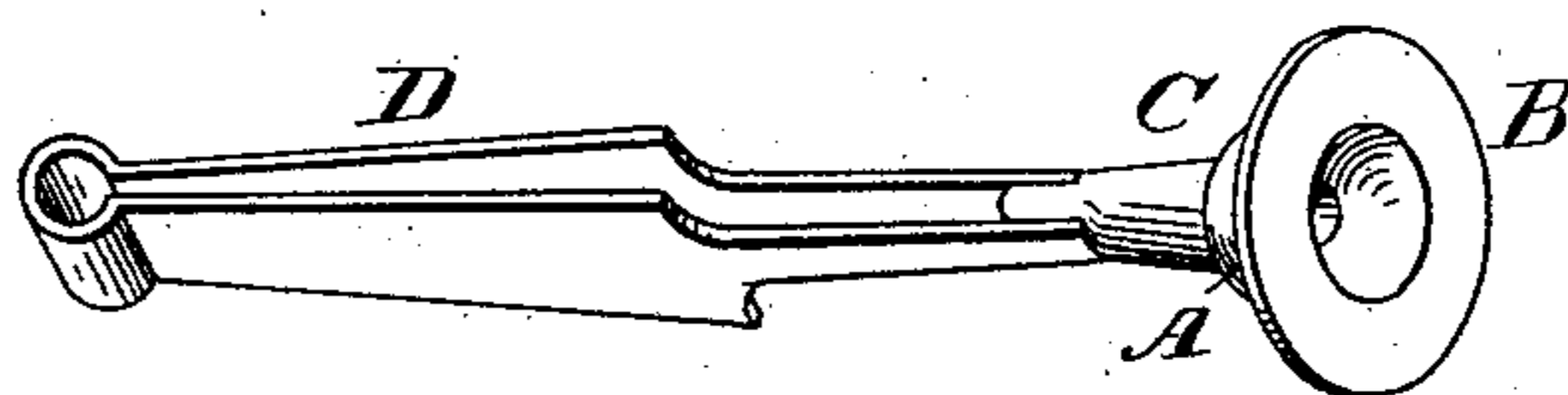


Fig. 3.

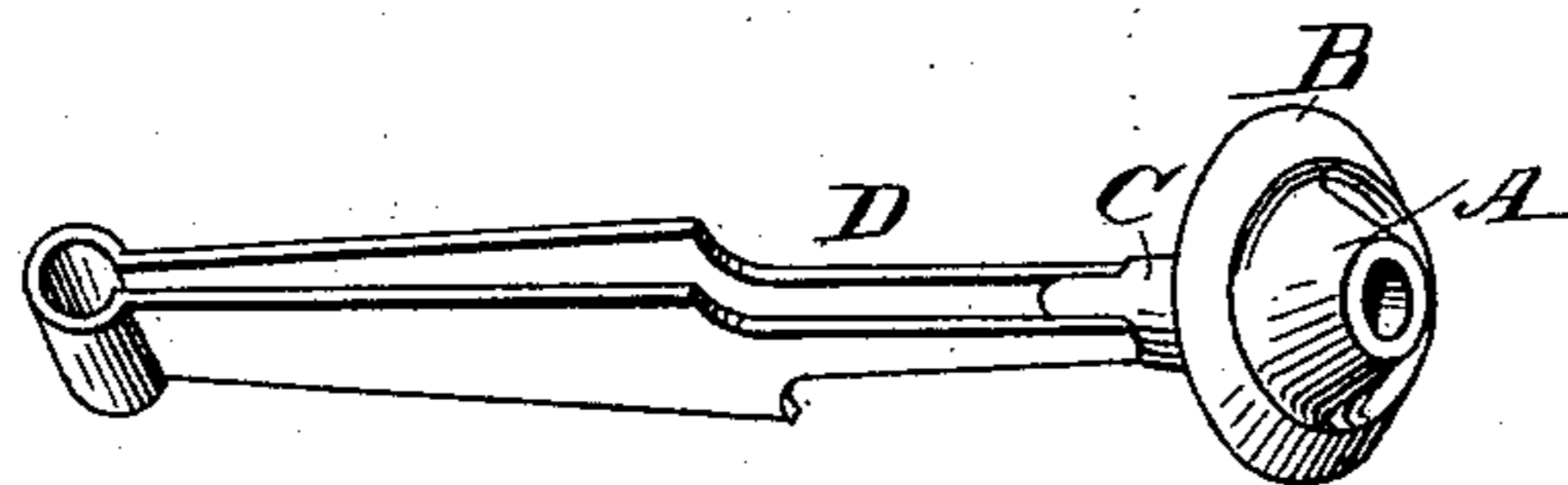
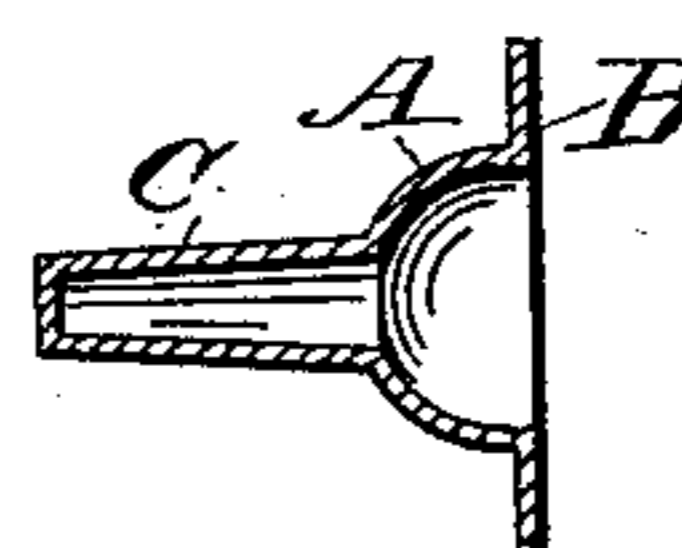


Fig. 4.



WITNESSES:

George Binstanburg
& Sedgwick

INVENTOR:

B. N. Huestis

BY

Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

BENJAMIN NEHEMIAH HUESTIS, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO EDWIN W. BRENNEN, OF SAME PLACE.

ARTIFICIAL EAR-DRUM.

SPECIFICATION forming part of Letters Patent No. 366,838, dated July 19, 1887.

Application filed November 15, 1886. Serial No. 218,914. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN NEHEMIAH HUESTIS, of the city, county, and State of New York, have invented a new and Improved Artificial Ear-Drum, of which the following is a full, clear, and exact description.

My invention relates to artificial ear-drums, and has for its object to provide a drum which will relieve deafness to a greater extent than has heretofore been accomplished where the natural drum has been entirely lost, and also enable persons to hear distinctly having naturally a thick drum, and wherein the said artificial drum may be inserted or withdrawn without pain to the wearer, and wherein it will be wholly invisible when worn, and the wearer sleep with perfect comfort with the drum in position.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my artificial ear-drum, and Fig. 2 also a perspective view in position to be inserted in the ear. Fig. 3 is a perspective view of the drum when entered in position in the ear before being fixed in its place, and Fig. 4 is a central vertical section.

It has been a serious objection to artificial ear-drums as heretofore constructed that they are difficult to manage, owing to attached metallic parts, which cause serious inconvenience and pain to the wearer, necessitating removal at night in order that the users may sleep with comfort, thereby debarring them from quick intelligent notification in the event of danger.

The principal requirements of artificial ear-drums are, that they be soft and flexible, easily inserted or withdrawn, invisible, and free from all metallic, rigid, or irritating parts.

It has been my aim to produce a device embodying all the above-named requirements, which shall be thoroughly effective to receive the waves of sound and transmit the same to the auditory nerves. To that end I provide an elastic cup-shaped membranaceous body,

A, having an integral annular flange, B, and provided centrally at the rear with a hollow stem, C, closed at its outer end. The entire device I preferably construct of rubber or thin gutta-percha.

To insert the artificial drum in place, the stem C is grasped with a pair of ordinary aural forceps, D. As the drum is inserted the cup-shaped body A, together with its annular flange B, will fold down upon the stem and assume a contracted form, as shown in Fig. 2, thus permitting a painless insertion when the drum has reached the proper point in the ear. Before the forceps are withdrawn the stem is pulled slightly back, causing thereby the drum to expand and assume its normal position, as shown in Fig. 1.

The drum may be left in the ear during the night with perfect safety, as there is nothing attached to protrude and catch the pillow or bear against the membrane, when the body assumes a horizontal position, to irritate the same.

A drum of my construction may be worn with comfort for months without removal. When it is desired to extract the said drum, a purchase is readily obtained upon the stem with the forceps and the body quickly withdrawn thereby.

Should the annular flange be larger than the wearer can conveniently endure, it may be cut away, even to the cup-shaped body, without materially affecting the transmission of sound, and should the natural drum not be missing, but merely thick and non-sensitive, the closed end of the stem in that event may be clipped off, permitting a free circulation through the artificial drum to the natural one.

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

An artificial ear-drum consisting of a cup-shaped body having an annular flange and provided with a hollow stem closed at its outer end, substantially as shown and described, and for the purposes herein set forth.

BENJAMIN NEHEMIAH HUESTIS.

Witnesses:

J. F. ACKER, Jr.,
E. M. CLARK.