

No. 855,573.

PATENTED JUNE 4, 1907.

A. C. HEATH.
MEDICAL APPLIANCE.
APPLICATION FILED OCT. 9, 1906.

Fig. 1.

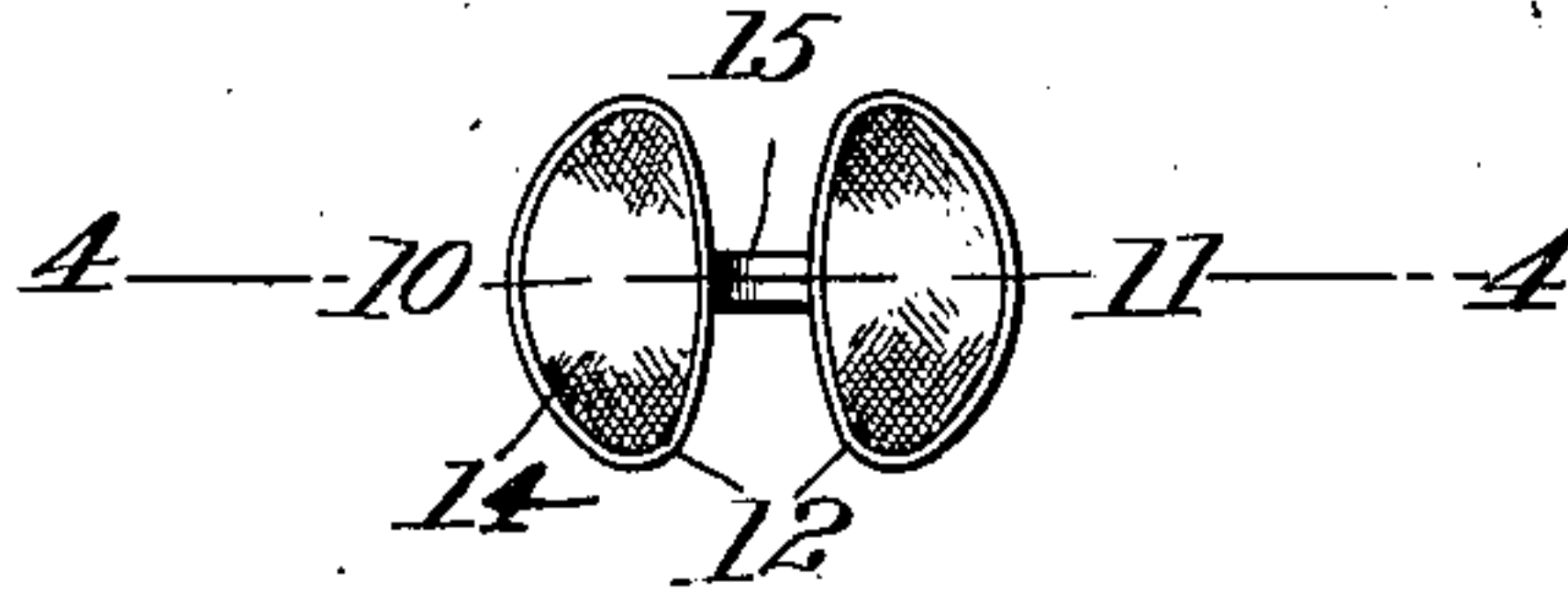


Fig. 2.

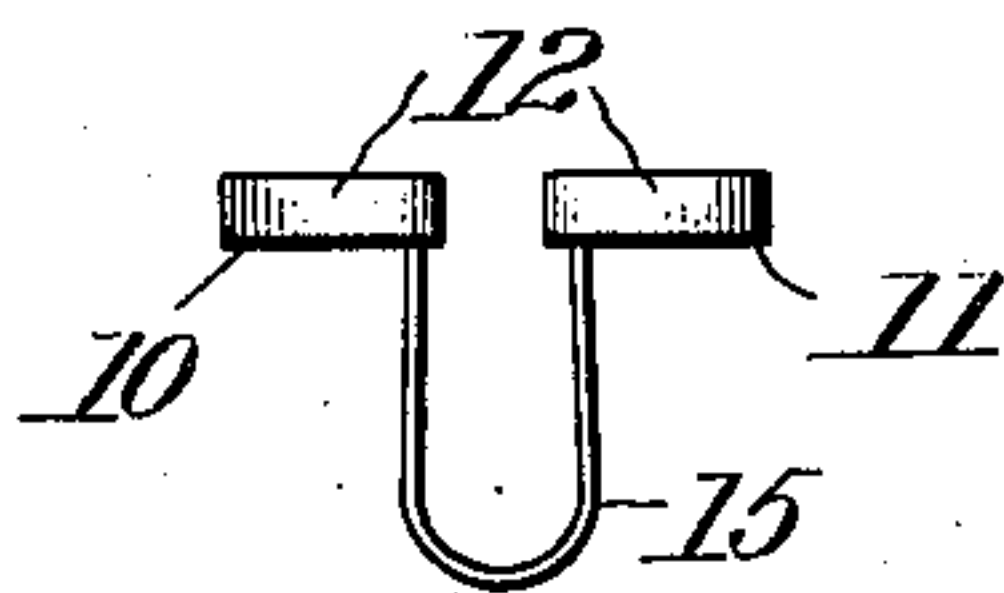


Fig. 3.

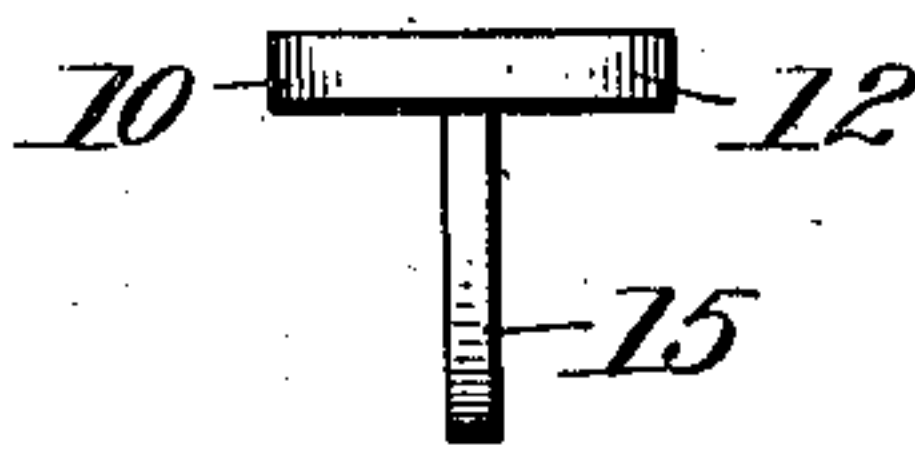


Fig. 4.

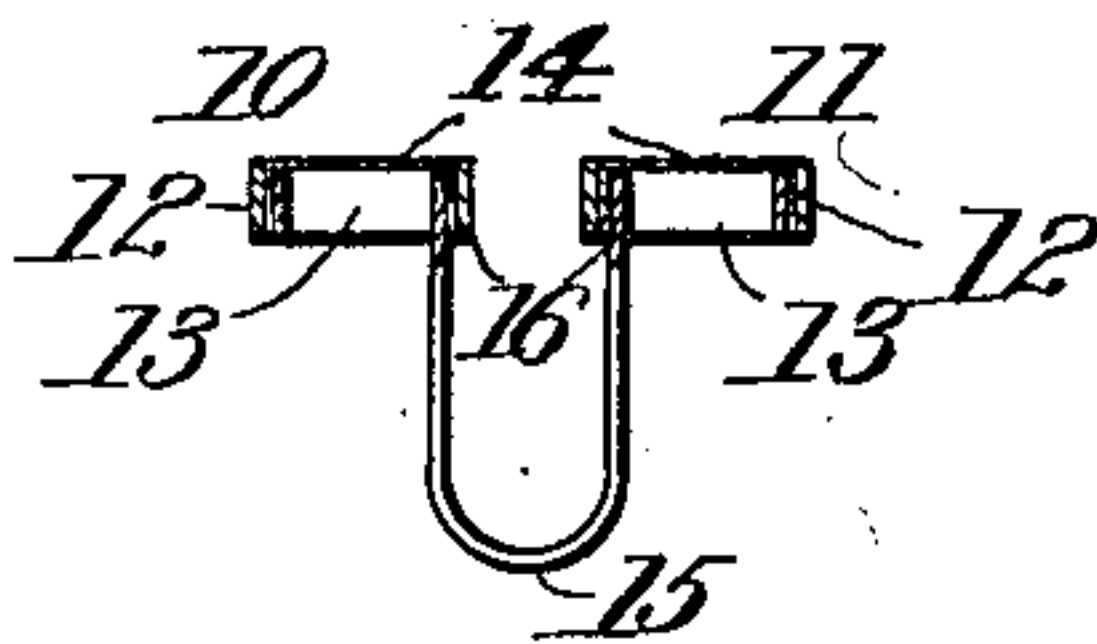
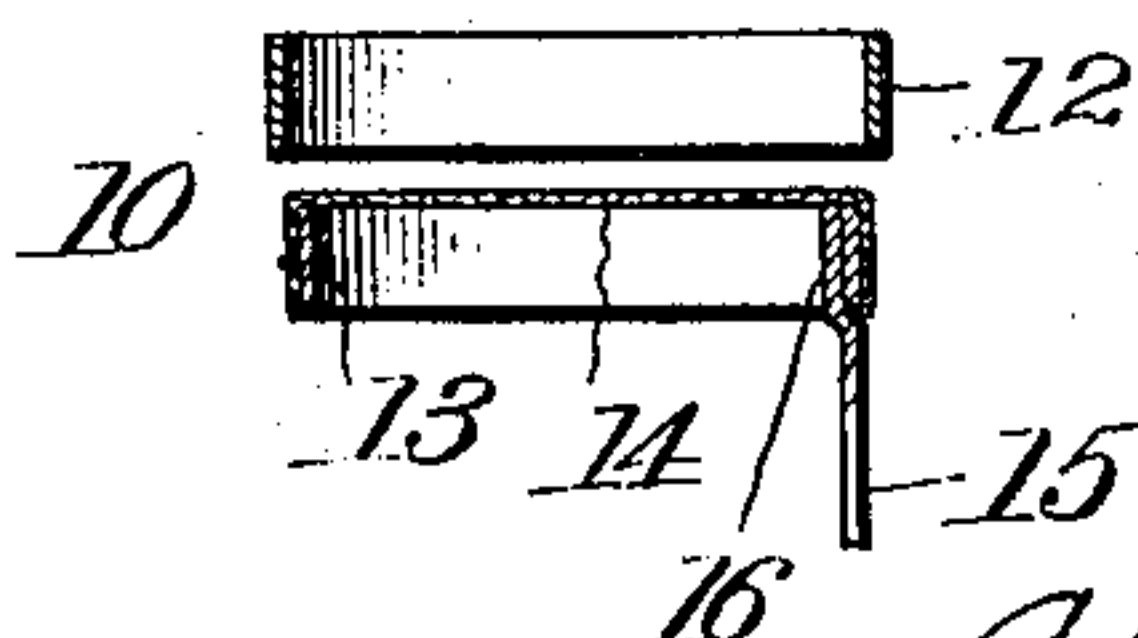


Fig. 5.



Witnesses

C. H. Walker,
Wm. J. Hodges

Inventor

Albert C. Heath

By

Henry P. Blair

Attorney

UNITED STATES PATENT OFFICE.

ALBERT C. HEATH, OF ST. PAUL, MINNESOTA.

MEDICAL APPLIANCE.

No. 855,573.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed October 9, 1906. Serial No. 338,160.

To all whom it may concern:

Be it known that I, ALBERT C. HEATH, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Medical Appliances, of which the following is a specification.

This invention relates to certain new and useful improvements in medical appliances, and has reference more particularly to an improved device for the treatment of hay fever, and other similar ailments.

The invention has for its object the production of a simple and inexpensive device which can be inserted into the nostrils for the purpose of filtering the air drawn thereinto in breathing, whereby injurious substances are prevented from coming in contact with and irritating the sensitive membranes of the nose.

A further object is to provide means whereby the filtering material may be quickly and conveniently changed as desired.

A further object is to provide means for facilitating the insertion and removal of the device into and from the nostril, respectively.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawing:—Figure 1 is a top plan view of my improved surgical device. Fig. 2 is a front view thereof. Fig. 3 is a side view. Fig. 4 is a sectional view on line 4—4, Fig. 1. Fig. 5 is a detail view illustrating the manner of securing the filtering fabric.

Referring to the drawing, 10, 11 designate two filtering members each made up of an outer ring 12, and an inner ring 13, conforming to the contour of the first ring, with a sheet of filtering material 14, such as gauze, grass linen, chiffon, etc. stretched across the open space of the inner ring and having its edges secured between the contiguous faces of both rings. The inner rings are connected by a bridge or band 15 the ends of which are secured to the inner face of each ring as indicated at 16, in such manner as to practically connect the inner adjacent portions of the filtering members. The rings 12 and 13 are made of any suitable material, such as cork, hard rubber, German silver, and the like and are shaped to conform to the contour of the nostril *i. e.* they are substantially elliptical in shape, the contiguous or inner sides, however, being substantially straight,

the outer sides being formed on a deeper curve.

In practice after the filtering fabric has been stretched across each ring 13 and the edges thereof confined by catching the same between the outer face of ring 13 and the inner face of ring 12, the device is ready for use. The bridge or band 15 is grasped in such manner as to readily force the filtering members into both nostrils, the bridge or band 15 serving to limit the distance to which said filtering members can be inserted. When it is desired to remove the device it is only necessary to grasp the bridge or band 15 and the filtering members can then be readily withdrawn.

The advantages of my improved surgical device will be readily apparent. It will be particularly noted that the same is simple and inexpensive in construction, and when placed in position will thoroughly filter the air drawn through the nostrils. When in use the filtering fabric quickly becomes moistened by the secretions of the nose, thereby greatly adding to the filtering power of the device. It will be further observed that the filtering members are so shaped as to readily fit the nostril in such manner as to be safely retained thereby and that there are no exposed points or protuberances that can injure the flesh. Another advantage lies in the simple and efficient means for securing the filtering fabric in position and for accomplishing a ready change thereof. It will also be noted that by means of the bridge or band the device may be readily inserted into position or removed, as desired, and that the same may be readily bent to bring the filtering members closer together or farther apart, as the conformation of the patient's nose requires. It will be further observed that while I have shown and described my improved surgical device as particularly adapted for the treatment of hay fever, I do not limit myself in this particular, as the same may be employed by miners, or others engaged in any vocation where it is desirable or necessary to prevent foreign particles from entering the nostrils, throat or lungs. Or by persons residing in localities where sand and dust storms are prevalent.

I claim as my invention:—

A medical appliance comprising a bridge or band, and a pair of elliptical ring-like filter members formed of thin bands of smooth metal, one side of each member being ap-

proximately flat and the other side arranged
on a deep curve, whereby said rings conform
to the interior contour of the nostril, the ends
of said bridge or band being secured one to
5 each ring-like member and to the inner face
of the flattened portion thereof, whereby the
ends of said bridge or band will not lacerate
the flesh in placing the rings in the nostril, a
filtering fabric extended across each filter
10 member, and a securing ring for each filter
member conforming to the contour thereof

and fitting over the outer face thereof to sur-
round the same and clamp said fabric in posi-
tion, said rings being formed of thin bands of
smooth metal.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

ALBERT C. HEATH.

Witnesses:

M. B. HENDERSON,
EMMA C. GRIERSON.