

June 5, 1928.

1,672,591

W. A. WELLS

NOSTRIL DILATOR

Filed Aug. 4, 1927

Fig. 1

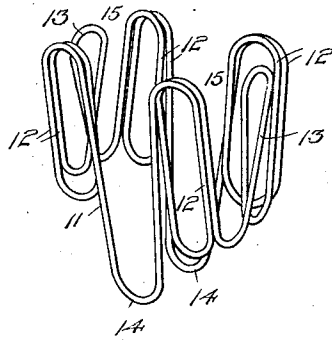


Fig. 2

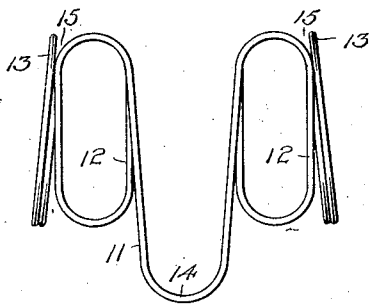
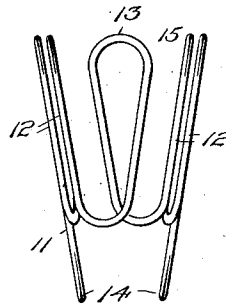


Fig. 3



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UNITED STATES PATENT OFFICE.

WALTER A. WELLS, OF WASHINGTON, DISTRICT OF COLUMBIA.

NOSTRIL DILATOR.

Application filed August 4, 1927. Serial No. 210,533.

My invention relates to nostril dilators and particularly to one for treating a patient afflicted with an obstruction in the vestibule of his nose or inadequate nasal passages, and also as an instrument for distending the nostrils to permit a physician or surgeon to treat or operate in the nasal cavity—thus leaving him the free use of both hands for operating.

The accompanying drawings illustrate one form of my invention, in which:

Figure 1 is a perspective view of my instrument,

Figure 2 is a front view of the same, and Figure 3 is a side view.

In these drawings, 11 represents a continuous smooth resilient wire which is coiled into a series of loops 12, and 13, each loop having one or more secondary coils. When not constrained, the instrument assumes a somewhat truncated-wedge-like shape, four of the loops 12 being on the sloping faces, while two lateral loops 13 join two of the loops 12.

Two bridging loops 14 join adjacent loops 12 of the companion pressure members 15, the semi-circular portions of the said loops 14 serve both as stops which engage the septum of the patient's nose and as handles by which the instrument may be readily withdrawn.

The resilient pressure members distribute the pressure over a relatively large area and permit the ready adjustment of these members to noses of varying shapes and sizes both by bending the wire to permanently alter the shape and also by the resiliency of the device which permits spring resisted contraction in any direction. For infants and for individuals having peculiarly shaped noses, special forms of my instrument may be provided.

My dilator is designed with particular reference to the anatomical conformation and physiological characteristics of the nasal organ, causing a minimum of discomfort because no pressure is exerted upon the sensitive mucous membrane adjacent to the septum, and expanding the nostrils in different directions without exerting excessive pressure at any point. My instrument expands the nostrils without obstructing the free passage of other instruments for operating upon or treating the deeper portion of the nasal cavity.

The device is so shaped as to be firmly retained in the nose and being relatively inconspicuous may be worn while the patient is engaged in his usual occupations as well as when asleep—normal breathing through the nose being prompted at all times, and snoring overcome or lessened when he sleeps.

In operation, the device is held with the loops 14 in position to straddle the septum of the patient's nose, the instrument is then manually contracted and inserted in the nostrils, whereas the pressure is released the dilator expands the nostrils and continues to provide a resilient support.

Many modifications of the illustrated form of my invention may be made within the scope of the claims and the invention. Other shapes for the pressure members may, for instance, be used, coils of other shapes substituted and a single bridging loop used.

What I claim is:

1. A nostril dilator comprising a plurality of loops of resilient wire forming two resilient pressure members, each having a succession of laterally resilient loops adapted to yieldingly expand companion nostrils by pressure against the flexible sides thereof.

2. A nostril dilator comprising a plurality of loops of resilient wire arranged in a hollow form having companion resilient pressure members, each having a succession of laterally resilient loops separated by a transverse opening, said pressure members being joined by one or more resilient bridging loops spanning one end of said opening.

3. A nostril dilator comprising a series of laterally resilient elongated loops of resilient wire arranged in the form of a hollow truncated wedge provided with a transverse opening and one or more resilient bridging loops at one end of said opening joining symmetrical portions of said dilator.

4. A nostril dilator comprising companion resilient pressure members each formed of a series of laterally resilient loops adapted for yieldingly resisting peripheral contraction, and one or more resilient bridging loops joining said pressure members.

In testimony whereof I hereunto affix my signature.

W. A. WELLS.