No. 675,275. Patented May 28, 1901.

J. H. GUNNING.

NASAL DEVICE.

(Application filed May 25, 1900.)

(No Model.)

Fig. 1.

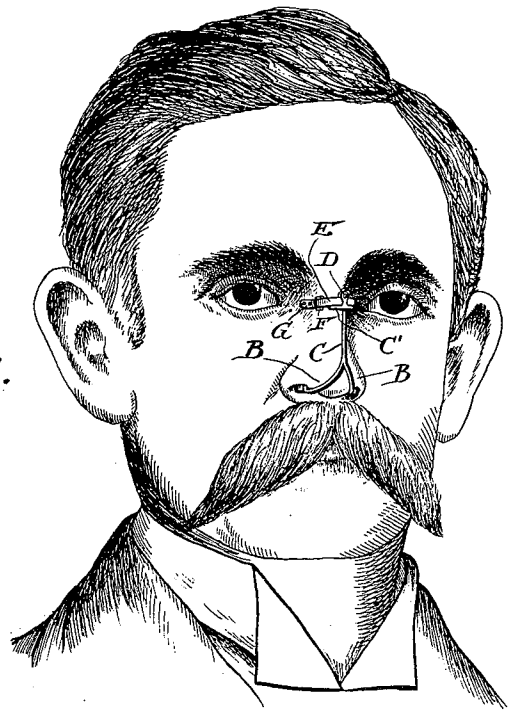


Fig. 2.

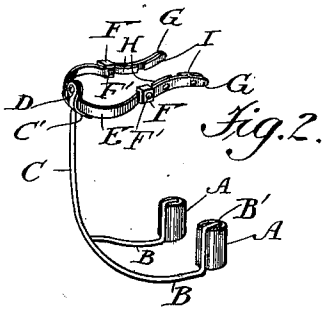


Fig. 3.

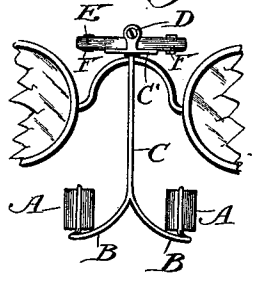
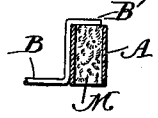


Fig. 4.



Witnesses:

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F. B. Clautice.

Inventor

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UNITED STATES PATENT OFFICE.

JOSEPHUS H. GUNNING, OF NEW YORK, N. Y.

NASAL DEVICE.

SPECIFICATION forming part of Letters Patent No. 675,275, dated May 28, 1901.

Application filed May 26, 1900. Serial No. 17,916. (No model.)

To all whom it may concern:

Be it known that I, JOSEPHUS H. GUNNING, a citizen of the United States, residing in the borough of Manhattan, in the city and State of New York, have invented a certain new and useful Improvement in Nasal Devices, of which the following is a specification.

Devices to be introduced into the nostrils to hold them open have been long used for certain diseased conditions. I have discovered that the cases in which such devices may be of much benefit are very numerous. I have devised a convenient light device made, preferably, of precious metal, which carries portions adapted to enter the nostrils, respectively, and to hold them gently dilated and also carries light but adequate clamps adapted to take hold on the bridge of the nose above, so that the device will be reliably kept in place.

My improved device is also adapted to administer medical agents in the form of fumes or vapors by moistening cotton-gauze and inserting such in the interiors of the short tubes, inserted one in each nostril.

The instrument serves usefully in cases of disease or deformity requiring gentle surgical treatment and also in the large class of cases where the wearers are in ordinary health, with no deformity which would be usually recognized as such, but where the tissues do not of themselves hold the nostrils sufficiently open. Its use is especially indicated for athletes to avoid opening the mouth for the strong inhaling of air required in violent exercise.

The accompanying drawings form a part of this specification and represent what I consider the best means of carrying out the invention.

Figure 1 is a perspective view showing the device in use; Fig. 2, a perspective view showing the device removed from the nose; Fig. 3, a front elevation showing the device engaged with the bridge of a pair of spectacles; and Fig. 4, a central longitudinal section of one of the tubes, showing its loose filling of cotton carrying a liquid to be inhaled.

Similar letters of reference indicate corresponding parts in all the figures where they appear.

A A are short tubes; B B, wires connecting them to an upright C, the upper end of which latter is knuckled and receives and confines by a screw D a curved spring E, equipped at each end with a box F, which by means of a screw F′ holds a corresponding piece G properly curved and adapted to press gently on the sides of the nose in a manner analogous to that of the corresponding parts in the spectacles sometimes known as "pince-nez." The inner face of each of these pieces G is formed with two metals H and I, one copper and the other zinc. Each wire B is joined to the corresponding tube A by soldering and is extended upward along the exterior of the tube and bent inward, the free end B′ reaching nearly or quite across the interior of the tube. This cross-bar B′ in each tube forms a stop to firmly arrest and hold in place material, preferably cotton-gauze M, (see Fig. 4,) carrying any required medical agent which will vaporize and be inhaled. The spring E is held at right angles to the wire C by the aid of a horizontal support C′, extending a little distance to the right and left.

I prefer that the parts A, B, and C shall be of pure silver or of an alloy thereof.

The application of the device requires little skill or care. It is applied by an upward movement, thrusting the tubes A each into the corresponding nostril, and then by the obvious movement of the upper end of the device rearward toward the head the clamping-spring E opens a little and allows the clamp to take a gentle hold on the upper portion of the nose. It may be shifted a little from time to time; but my experiments indicate that the wearer soon becomes so accustomed to it that he is unconscious of its pressure. In sleep the nostrils are kept open and there is no temptation to open the mouth.

In vigorous exercise—running, rowing, or working a bicycle against a strong wind or up a hill—this device aids to form and maintain the habit of great importance—that of keeping the lips closed, so that the lungs receive no air except through the nose.

When spectacles are worn at the same time, my clamp E may be set either above or below the bridge of the spectacles. With spectacles which have provisions for strong engagement with the head my device is preferably hooked over the spectacles, so as to further insure its retention with violent movements.

Athletes not requiring spectacles with lenses may wear spectacle-frames with plain glasses or without glasses to obtain this means of doubly assuring the retention of my device.

I propose to provide small sizes for children.

It is believed that the use of the device will strengthen the parts, so that the wearer will be able in time to dispense with it and still hold the nostrils distended even when strongly inhaling.

I attach importance to the junctions of the spring E with the upright C and also with the extensions G, for the two reasons that it allows the use of hard rolled metal or spring-tempered steel for the spring, while the other parts may be a different metal, as silver, which can be bent to suit the wearer, and also that it allows the easy exchange of the extensions when deemed expedient.

The term "dilators" may be used to designate the tubes A or equivalent devices for holding the nostrils open without seriously obstructing the induction of air.

I claim as my invention—

1. A nasal device comprising two dilators adapted to be inserted in the nostrils respectively and hold them open to allow free inhalation, in combination with converging wires B B and an upwardly-extending wire C connecting with a curved spring E adapted for supporting the device by the bridge of the nose, all substantially as herein specified.

2. In a nasal device, two nostril-dilators A A with branched wires B B C extending outward and upward, and provisions attached to the wire C adapted to support the device by engaging with securely-held spectacle-frames, all combined and arranged to serve substantially as herein specified.

3. The nasal device described, having tubes A A adapted for insertion in the nostrils respectively and for retaining light material as cotton-gauze, wires B C, extending therefrom outward and upward, the curved spring E adapted for supporting the whole by the bridge of the nose, the horizontal support C′ and screw D for joining the mid-length of the spring, and the boxes F and screws F′ for joining the ends of the spring to the other parts, all substantially as herein specified.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

J. H. GUNNING.

Witnesses:
HENRY J. HULL,
F. H. GUNNING.