DEVICE TO PROMOTE NASAL BREATHING AND PREVENT SNORING

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FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 6.

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DEVICE TO PROMOTE NASAL BREATHING
AND PREVENT SNORING

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1 Claim. (Cl. 128—148)

This application involves improvements over the original Carlock application Serial No. 68,611, filed on April 11, 1949, now Patent No. 2,568,742, and the Patent 1,256,138, issued February 12, 1918, to Wilson.

The object and nature of the new improved invention is to make this one-piece flexible plastic device much lighter in weight, easier to adjust and place in proper position, make certain the breathing tubes will be held firmly but comfortably in the nostrils, give the device a more artistic and attractive design, make it less costly to manufacture and to secure for users greater air volume and effectiveness in every way. An added vital feature is a detachable plug-in funnel-shaped tubular device with fine wire or plastic mesh ends to trap, filter and hold obnoxious, poisonous and contagious elements or germs including hay fever pollen, various fumes, nicotine in tobacco smoke, tar, sulphuric acid and other irritating elements in smoke, smog, dust of every nature, foul air and obnoxious odors usually found in a considerable number of factories, industrial plants and foundries.

These filter-traps with their fine metal or plastic mesh ends will have an effective but harmless filter material with great absorption power placed in the filter-traps in a way to permit ample air flow into and out of the nasal passages. These highly effective devices may be replaced as often as necessary and fresh unused traps plugged into the base tube openings of the nasal breathing and snoring preventive tubes and may be removed almost instantly when desired.

One special advantage and work of this new attachment is that returning air from the lungs and nasal passages with its poisonous elements are also trapped and held, thus making this attachment suitable for use by those ill with contagious nose, sinus, throat and lung diseases. It is likewise a protection for all concerned if worn by doctors, nurses and others administering to the sick. These filter-traps are easy to place in position and removed almost instantly when the breathing and snoring preventive tubes are designed to be used solely to promote better nasal breathing and thereby prevent snoring, one of humanity’s most embarrassing habits.

The new improved nasal breathing tubes have a bulb-lock design that fits snugly, comfortably but firmly in the nostrils and the bulge rests in the interior pocket or nest of the lobes of the nose. Sufficiently rigid but amply flexible and almost nonbreakable plastics like polyethylene are very attractive and have made it possible to design and invent a new and longer pair of lye-type wings that do their work well in curving gently but quite firmly over the exterior lobes of the nose, thereby adding a second locking device to better hold the breathing tubes in proper position in the nostrils. At the upper end of these lye-type wings are vertical tie-on holes for elastic cords (not shown in the drawings) and these holes now can be molded instead of machining drilled, thereby lessening the labor cost to manufacture. However, such tie-on holes should never be necessary unless the user is in a highly nervous, very restless or delirious condition.

One of the main purposes in designing the new improvements was to make certain that the breathing tubes would be held firmly but comfortably in the nostrils so that these tubes could not slip out. This objective has been well achieved and the lye-type wings were designed not only to assist in holding the breathing tubes in proper position but to give to this new improved invention a very attractive and artistic appearance, which is also less prominent to the eyes of others than the user. And finally, the device is much easier to place in the nose and to take out.

There is absolutely no resemblance of the high state of art in the design of this new improved device to the plain piece of soft rubber tubing (with part of the middle section cut out) which was patented by Wilson in 1918.

The several objectives and advantages of this improved Carlock invention will become fully apparent from the following description of the drawings, that plainly and clearly illustrate the new improvements over the original Carlock invention and of the Wilson invention:

Fig. 1 is an elevational view of the complete left-side tube above the base when the tubes are in position to be inserted in the nostrils.

Fig. 2 is a sectional view of the one-piece invention showing the lower one-half longitudinal section of the tube, base, bridge, bulge-locks, lye-type wings and tie-on holes.

Fig. 3 is a longitudinal central section view of the right-side nostril-engaging tube when in proper position to be inserted. It shows the approximate interior and exterior size of the tubes, the width and length of the alley between the tubes, the thickness and shape of the bulge-lock as well as the funnel-shaped base openings of the tubes.

Fig. 4 is a side elevational view of the filter-trap showing the large funnel-shaped exterior end and smaller exterior engaging end which
enters the base openings of the tubes. Metal or plastic mesh is fitted and molded inside each end and the interior tube barrel of the trap is filled with harmless but highly absorbent material that has proved effective in trapping and holding the foul and poisonous elements of the air.

Fig. 5 is an angle view of the base of the invention showing the size and shape of the funnel-shaped base tube openings, the shape and size of the bridge, scalloped or fluted shoulders of the wings and such shoulders slant slightly toward the funnel-shaped tube openings, and the angle view of the remainder of the wings, vertical tie-on loopholes and the bulge-lock tubes.

Fig. 6 portrays exterior views of both mesh-fitted ends of the filter-traps in position to be plugged into the tube base openings when the base of the breathing and sneezing preventer tubes face downward. As stated before, these filter-traps are filled with harmless but highly absorbent material of proven worth.

The various parts of this invention are identified by numerals 1 to 10 inclusive. Part 1 shows the size and approximate shape of the bulge-lock exterior of the breathing tubes of Fig. 1 and this bulge fits firmly but comfortably in the pocket or nest of the interior of the base of the nostril. Part 2 shows the approximate width and length of the alley shown on Figures 1, 2, 3, and 5. Part 3 shows the straight lines of the tubes illustrated on Figures 1, 2, 3 and 5. These straight lines of the alley make it easier to slip the tubes into the nostrils and give more comfort and less prominence when in proper position. Part 4 designates the beautiful lyre-type wings in Figures 2 and 5. These wings are considered one of the inventor's finest achievements because these flexible wings curve over gently but firmly and lock effectively around the exterior lobes of the nose, thus adding much to the design of the breathing tubes must not slip out of the nostrils. Part 5 shows the tie-on loopholes at the top ends of the lyre-type wings on Figures 2 and 5. These improved tie-on holes are vertical instead of horizontal as in the original Carlock invention. The new holes are more attractive and can be molded instead of machine-drilled by hand, thus saving considerable expense in the manufacture of this new improved device. These holes are an extra safeguard in preventing the breathing tubes from slipping out of the nostrils, although they may never be required but stand ready in an emergency.

Part 6 of Figures 1, 2, 3 and 5 illustrate the approximate size, shape and angles of the base funnel-shaped tube openings. These funnel helps in getting the greatest possible air volume to the lungs. Part 7 of Figures 1, 2 and 3 illustrates the approximate shape and diameter of the head openings of the breathing tubes. These heads will not collapse and because of the liberal size will carry ample volumes of oxygen-laden and life-giving air to and through the nasal passages to the lungs. Practically nothing on this earth can live without oxygen.

Part 8 of Figures 2, 3 and 5 shows the design and approximate size of the bridge section or central part of the base. The contours of the base to fit comfortably over the upper lip and under the partition of the nostrils together with funnel-shaped openings are clearly illustrated. The middle section of the bridge from the dividing line slopes gently to the funnels surrounding the base openings. All assist in rushing additional volumes of air to the lungs. Part 9 of Fig. 2 illustrates the approximate design of the interior lines of the funnel-shaped base tube openings and the approximate size of the air passages through the funnels' greatest diameters at points where the nostril engaging portion of the breathing tubes begin. As explained before, the liberal size of the funnel-shaped openings and the lower interior of the tube add much to the invention's effectiveness in getting the air to the lungs.

Part 10 of Figures 1, 2, 3 and 5 illustrates the slightly funnel-shaped or fluted shoulder portions of the lyre-type wings. The increased funneling of air adds value to the device. Part 11 of Figures 2 and 3 shows quite clearly the approximate interior design of the walls of the breathing tubes and the approximate interior diameters of the tubes at the base openings and head openings. These diameters are liberal and as straight as the improved design permits, thus making them inviting and easy for oxygen-laden air to enter and rush onward and almost as equally easy for returning foul air with its poisonous elements to get out quickly.

Part 12 of Fig. 1 illustrates the exterior design, shape and diameters of the breathing tubes, all of which help the effectiveness of the air in the nostrils. The bulge-lock identified by part 1 is one of the outstanding improvements. It greatly assists in holding the breathing tubes firmly in the nostrils. Part 13 of Fig. 4 shows the location and diameter of the filter-trap end that enters the base openings of the breathing tubes. It is shown more clearly in Fig. 6. Part 14 of Figures 4 and 6 illustrates the large end of the filter-trap and part 15 of said Fig. 4 shows the size, diameter and shape of the funnel-shaped large or outer end. Both ends are fitted with rather fine metal or plastic mesh to trap, filter and hold obnoxious and poisonous elements in the air. The filter material is harmless but a highly effective absorbent material of proven worth that traps, filters, and holds such elements in the air as hay fever pollen, dust of every nature, nicotine in tobacco smoke, sulphuric acid and other irritating elements in oil refinery fumes and smoke, smudge pot and smog fumes and smoke, poisonous air elements of various kinds including foul and obnoxious odors that may be found in a considerable number of factories, industrial plants, stores and foundries.

These filter-traps also catch, filter and hold returning bad and dangerous air elements that pass out of the lungs, throat and nasal passages, some of which may be germ-laden and therefore making this filter-trap attachment almost a necessity when plugged into the breathing tubes by those ill with contagious nose, sinus, throat and lung diseases. The attachment is likewise a protection to all connected with sick rooms, clinics and hospitals including such attendants as physicians, nurses and other medical attendants while administering to the sick.

The nasal breathing tube heads may be made round, oval or elliptical and when these head openings are elliptical or oval the devise is less prominent in the nostrils without impairing the normal air flow.

An interesting and highly valuable discovery, is the fact that when the interior walls of the breathing tubes are swabbed with a heavy sticky medicated ointment, it traps and holds large quantities of dust of every nature, alluring and kindred elements in the air and the swabbing acts as a vaporizing nasal unguent that in a great
many cases restores normal breathing and pain is quickly relieved.

I claim as my invention:

A device for use to promote nasal breathing and to prevent snoring, comprising a base portion, two funnel-shaped breathing tubes fixed to the base portion and extending in spaced substantially parallel relationship from the base, the base having tube openings communicating with the breathing tubes, said tubes having bulged portions at their respective sides and shaped for fitting the interior lobe of the respective nostril, flexible lyre-type wings extending from the base in spaced generally parallel relationship to the breathing tubes, said wings being shaped to extend gently but firmly around the exterior lobes of the nose.

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