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2,890,695

NASAL AIR FILTER

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FIG. 1

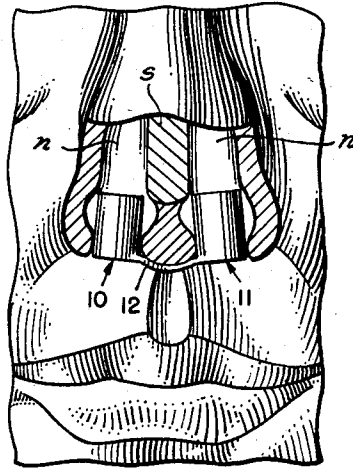


FIG. 4

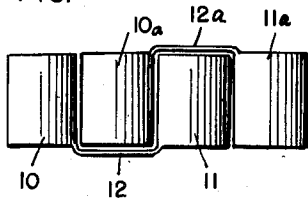


FIG. 5

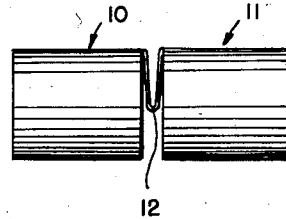


FIG. 2

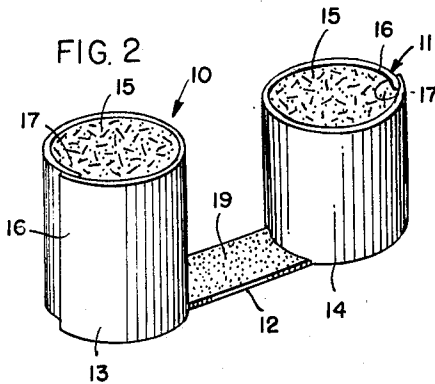


FIG. 3

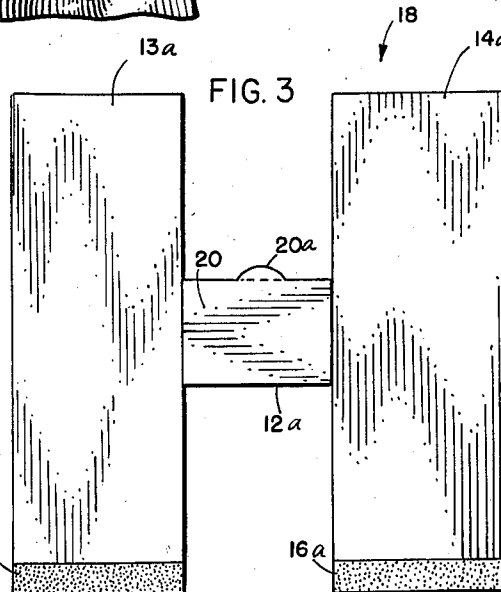


FIG. 6

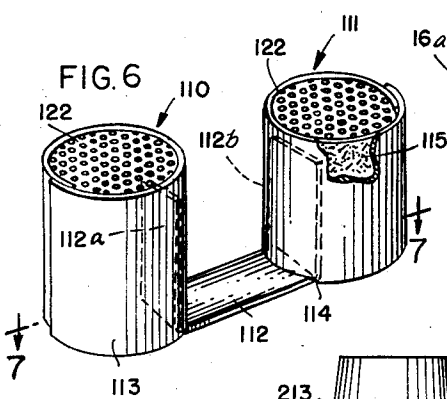


FIG. 7

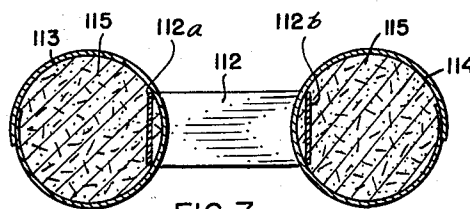
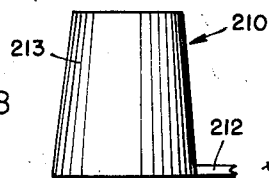


FIG. 8



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NASAL AIR FILTER

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4 Claims. (Cl. 128—148)

This invention relates to a nasal air filter, and in particular it relates to an air filter having a pair of filter elements which may fit within the nostrils and be temporarily secured to the lower portion of the nose.

The principal object of the present invention is to provide a very inexpensive, lightweight, disposable nasal filter.

A further object of the invention is to provide a nasal filter which is almost entirely concealed when it is applied to the nose, and which is very easily inserted in the nostrils or removed therefrom while being securely fastened to the nose while it is in use.

Yet another object of the invention is to provide a nasal filter which may be fabricated from a single sheet of paper or other like pliable material to form tubular jackets connected by a strip which may be secured to the septum of the nose, each tubular jacket containing a soft mass of filter material.

The invention is illustrated in the accompanying drawings in which:

Fig. 1 is a fragmentary elevational view of a person's face with the lower portion of the nose in section to show the device of the present invention in place;

Fig. 2 is an enlarged perspective view of a preferred form of nasal filter embodying the invention, ready to be inserted in the nose;

Fig. 3 is a plan view of a blank for fabricating the jackets and connecting strip for the device illustrated in Fig. 2;

Fig. 4 is an elevational view of two filter devices showing one way they may be packaged;

Fig. 5 is an elevational view showing another way of packaging the filter;

Fig. 6 is a perspective view of a first modified form of the device with a part broken away;

Fig. 7 is a section taken as indicated along the line 7—7 of Fig. 6; and

Fig. 8 is a fragmentary side elevational view of a second modified form.

Referring to the drawings in greater detail, and referring first to Figs. 2 and 3, the preferred form of the present invention includes a pair of identical filter members indicated generally at 10 and 11 the lower ends of which are connected by an integral strip 12. Each of the filter members 10 and 11 has a tubular jacket element, numbered, respectively, 13 and 14, which is formed from pliable sheet material such as paper or the like by rolling it around a soft mass 15 of filter material and adhering one of its marginal portions 16 to the opposite marginal portion 17.

As seen in Fig. 3, the tubular jacket elements 10 and 11 and the connecting strip 12 may be readily formed from a blank, indicated generally at 18, which consists of a pair of rectangular jacket portions 13a and 14a between which is a generally centrally positioned strip 12a. At the ends of the jacket portions 13a and 14a, which will provide the marginal portions 16 of the tubular jacket elements, are strips of adhesive 16a each of which may be

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adhered to the opposite end of the jacket portion to form the tubular jacket elements. For convenience in mass production of the filter members, the adhesive strips 16a are on the same surface of the blank 18 as an adhesive coating 19 which is applied to the connecting strip 12a.

In fabricating the nasal filter from the blank shown in Fig. 3 the filter material is positioned on the upper surfaces of the two blank jacket portions 13a and 14a so that the jacket elements may be wrapped around the filter material and the adhesive strips 16a adhered to the opposite ends of the rectangular blank portions. Conveniently, the adhesive 19 on the connecting strip is of the pressure sensitive type and is protected by a removable sizing strip 20 having the usual loose finger piece 20a.

The individual filter devices may be packaged as seen in Fig. 5, with the filter members positioned end to end and the connecting strip 12 folded at 21 to lie between the filter elements 10 and 11. Alternatively, as seen in Fig. 4, the connecting strip 12 may be long enough that a filter element 10a of one filter device may rest between the elements 10 and 11 of another device, with one of the two devices inverted.

As seen in Fig. 1, the filter members 10 and 11 are of suitable dimensions to be inserted endwise into the nostrils n with the connecting strip 12 beneath the septum S of the nose; and the adhesive material 19 may be adhered to the exposed end of the septum to prevent the filter members from being accidentally dislodged.

The use of two filter members with a connecting strip located beneath the septum makes it very easy to position the filter members in the nostrils and to remove them from the nostrils, while the adhesive coating on the connecting strip assures that the temporary attachment of the filter device to the nose will be secure.

The alternative form of the device illustrated in Figs. 6 and 7 has tubular jacket elements 113 and 114 similar to those in the preferred form, and also containing soft masses 115 of filter material. In this form the filter material is shown for purposes of illustration as being granular in form, and the ends of the tubular jacket elements 113 and 114 are closed by perforated end flaps 122. Also, the integral adhesive coated connecting strip 12 is eliminated, and instead there is a connecting strip 112 of resilient material which has upturned arms 112a and 112b positioned, respectively, within the tubular elements 113 and 114. The resilient arms 112a and 112b are biased toward each other, so that they may be clamped lightly on the septum of the nose. Preferably, the arms 112a and 112b are secured with adhesive to the tubular elements 113 and 114 which simplifies the fabrication of the device.

Any suitable air filtering material may be used in the filter members, the only requirement being that as confined in the jacket the entire mass must be soft, so as to conform easily to the interior of a nostril. Conveniently the filter members may be of the general type used for filter tip cigarettes, and may be fabricated in the same general fashion. If a granular filter material is used it must be loosely packed in the jacket elements.

The modification shown in Fig. 8 has a pair of filter members, such as the filter member 210, connected by a strip 212. The filter members are frusto-conical in form, so that the jacket element 213 of the member 210 tapers from bottom to top; thus facilitating insertion of the members into the nostrils.

This modification may be fabricated from a blank similar to that shown in Fig. 3, but with the jacket portions cut with arcuate sides and converging ends so as to roll into a frusto-conical form.

The foregoing detailed description is given for clearness of understanding only and no unnecessary limita-

tions should be understood therefrom, as modifications will be obvious to those skilled in the art.

I claim:

1. A nasal air filter comprising: a pair of filter members adapted to fit in the nostrils, each of said filter members having a soft mass of filter material within a pliable jacket which affords free passage of air through the mass; a connecting strip secured to the adjacent lower end portions of both said members and a coating of adhesive on a surface of said connecting strip by which the strip may be adhered to the exposed end of the septum of the nose.

2. A nasal air filter comprising: a pair of filter members, each of said filter members having a pliable tubular jacket containing a mass of soft filter material and being adapted to fit in a nostril; a connecting strip secured to the adjacent lower end portions of both said members and a coating of adhesive on a surface of said strip for temporarily securing said strip to the exposed end of the septum of the nose.

3. A nasal air filter comprising: a pair of pliable

tubular jacket elements each of which contains a mass of soft filter material and is adapted to fit in a nostril; and an integral connecting strip joining the adjacent lower margins of said jacket elements, said connecting strip having an adhesive coating on its upper surface for adherence to the exposed end of the septum of the nose.

4. A blank for forming two connected jacket elements of a nasal air filter comprising: a pair of rectangular jacket portions, a connecting strip extending between central areas of said jacket portions, areas of adhesive along corresponding ends of said jacket portions parallel to said connecting strip, and an adhesive coating on the same surface of said connecting strip as said areas of adhesive.

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