Jan. 10, 1950 E. S. REITANO 2,494,406

PROTECTIVE MASK

Filed March 17, 1949

Fig. 1.

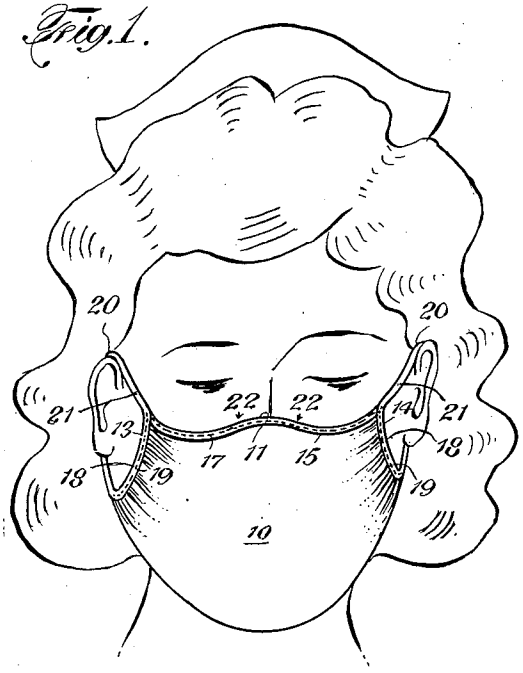



Fig. 2.

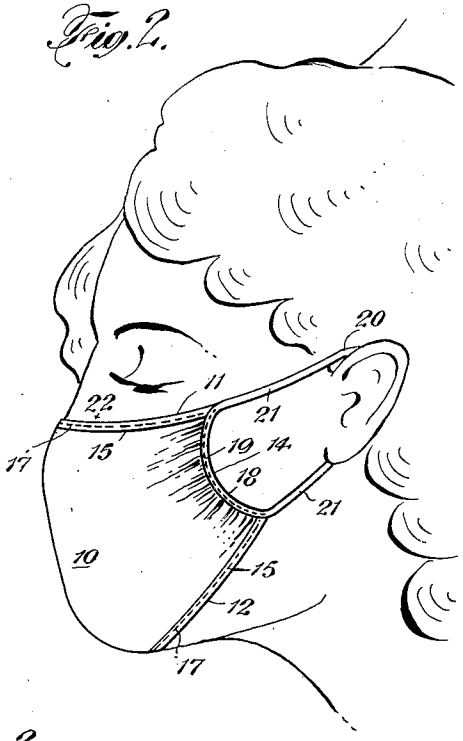
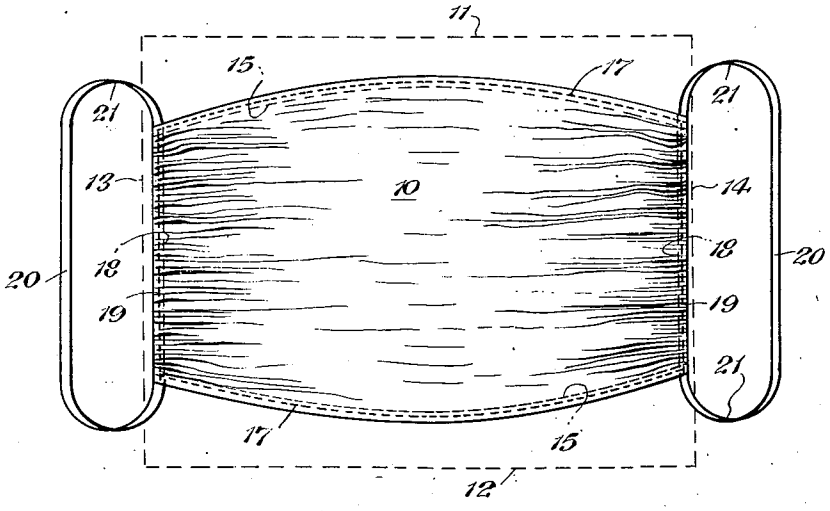



Fig. 3.




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## PROTECTIVE MASK

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1 Claim. (Cl. 128—146)

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The present invention relates to a protective mask, and more particularly to a facial mask adapted to cover that portion of the face below the eyes.

The invention especially pertains to a sterilized mask which is used as a protection against contagious diseases, and against industrial dusts, and the like.

Protective masks now generally used for preventing contagious diseases from being transmitted from one to another are rather expensive compared to the product of the present invention, and due to this expense the wearer occasionally will use the mask more than once and in so doing often forgets to re-sterilize the mask and thereby leaves himself unprotected against contagion.

Other disadvantages of the masks now in use are that most of them have a string or tape attached which is tied at the back of the head to hold the mask in position on the face. This means of attaching the mask not only disarranges the coiffure but very often slips down the back of the head and causes the mask to become displaced as by dropping off the face. The wearer who may be a nurse assisting at an operation must interrupt her work to rearrange the mask.

The present invention obviates these difficulties by providing a protective mask with suitable elastic temple straps attached to the body portion of the mask, and which straps may be quickly slipped over the ears of the wearer. When these temple straps are over the ears of the wearer the body portion of the mask will be held snugly against the contour of the face. This arrangement permits the mask to be put on and taken off with great ease and celerity without disarranging the coiffure. It also permits the attaching means to maintain its snug holding position without making the wearer uncomfortable.

The object of the present invention is to provide a low cost protective mask which is inexpensive enough that it may be used only once and then discarded.

Another object of this improved invention is to provide a simple, efficient mask of novel construction, with attaching means that perform their duty quickly and comfortably and readily fit different size faces without adjustment.

Another feature of the improved invention is to provide a mask having portions thereof that automatically draw together certain parts of the mask so that when in position on the face, it acts

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to properly pull the mask over the nose and mouth of the wearer in a snug and proper fashion as originally designed.

Primarily the mask of the present invention comprises a main body portion of a suitable inexpensive material such as paper, which may or may not be treated and which paper is usually very soft but of a strong enough texture to allow of a thin tape as a binder, to be stitched along the four edges to prevent the edges from fraying or tearing. The edges running parallel to the major axis of the body portion preferably are the ones bound with a non-elastic tape. The edges running parallel to the minor axis of the body portion preferably are bound with an elastic tape. The elastic tape preferably is a continuous loop having one end of the loop stitched to the body portion and the other end of the loop adapted to go over the ears of the wearer.

The protective mask may also be used for treating a cold in the head by simply immersing the paper body portion thereof in an inhalant and applying the mask to the head.

Further, another advantage of the improved product herein is its use in the industrial field. The mask can also be advantageously used in carrying out certain experiments in the chemical field, or carrying on work in manufacturing plants where there is hurtful dust in the air. There are many other uses in different industries.

Other objects and advantages of the present invention will be obvious as brought out in the following specification and claim.

Reference will be had to the accompanying drawings forming a part of this specification in which similar reference characters indicate corresponding parts throughout the several views, and in which:

Fig. 1 is a front view of the preferred form of the present invention showing it applied to the head of the wearer;

Fig. 2 is a side view of the showing in Fig. 1; and

Fig. 3 is a rear view of the mask removed from the wearer.

Referring to the drawings, wherein there is shown by way of illustration merely, a preferred protective facial mask which is primarily made of a flat rectangular sheet of suitable material, preferably a soft paper of strong texture as indicated by dotted lines in Fig. 3.

The material or body portion 10 has edges 11 and 12 running parallel to its major axis, and edges 13 and 14 running parallel to its minor axis.

A non-elastic tape 15 of cloth or any other suitable material is secured to one side of the body portion 10 adjacent the edges 11 and 12 by machine stitching 17 or by any other suitable means, such as an adhesive strip, as an example.

The non-elastic tape 15 is secured along the entire edges 11 and 12 and may be on one side of the body portion 10 or on both sides; but preferably on the outside of the mask when applied to the face of the wearer.

Secured to the edges 13 and 14 running parallel to the minor axis of the body portion 10 by machine stitching 17 or any other suitable means of fastening, is an elastic tape 18. This portion 18 of elastic material functions to pucker the edges 13 and 14 and is shown as it engages the full length of edges 13 and 14. It will be understood that a plurality of short bits of length of elastic material, or short rubber bits may be employed to pucker the edges 13 and 14 so that the mask will properly function when it is in place on the wearer and give good protection. When the elastic tape 18 is sewn the full length of the edges 13 and 14 of the body portion 10 it causes the edges 13 and 14 to wrinkle or pucker which conveniently helps the mask to fit the contour of the face.

Preferably the elastic tape 18 comprises a continuous loop having one end of the loop 19 stitched to the body portion and the free end of the loop 20 adapted to go over the ear of the wearer. The intermediate portions 21 of the loop serve as temple straps when applied to the face of the wearer.

In the above described preferred arrangement of attaching the resilient and non-resilient edgings to the body portion of the mask, it will be understood that such arrangements give the desired functioning of the parts to obtain the desired result. However, it is possible to rearrange some of these parts so that the desired end results may be obtained by varying the lengths of the resilient members and their attachments to the mask. In some instances, a resilient piece may be employed for all of the edging and to go over the ears.

Since this mask is preferably made of paper which more or less stops the air from passing through, a natural air space is had as shown at 22 on each side of the bridge of the nose.



It will be understood that various modifications and changes may be made in the preferred form of the invention herein, and such modifications and changes are to be understood as part of this invention, as outlined in the following claim.

The invention claimed is:

An oronasal shield comprising a flat rectangular sheet of soft paper of relatively strong texture, a narrow strip of non-elastic tape fastened to one surface of said paper along each edge of said sheet parallel to the major axis of said paper sheet thereby to reinforce the same and to prevent fraying or tearing of the edges of said paper sheet, and an endless elastic textile covered tape firmly fastened while stretched to each of the edges of said flat sheet parallel to the minor axis of said paper sheet thereby to reinforce the same and to prevent fraying or tearing of said paper sheet and to cause said edges parallel to the minor axis of said sheet to shirr or pucker when said tape is released, said endless elastic tape being of length to go around the ears of a wearer to draw said shield over the nose and mouth of said wearer to create a reasonably close fit of said shield to the face.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 814,741 | Southworth | Mar. 13, 1906 |
| 960,520 | Dysthe | June 7, 1910 |
| 1,296,946 | Galiardo | Mar. 11, 1919 |
| 1,359,073 | King | Nov. 16, 1920 |
| 1,584,012 | Cocroft | May 11, 1926 |
| 2,134,640 | Merkin | Oct. 25, 1938 |
| 2,276,612 | Ellis | Mar. 17, 1942 |
| 2,432,767 | Klein | Dec. 16, 1947 |
| 2,458,580 | Fisketti | Jan. 11, 1949 |

FOREIGN PATENTS

| Number | Country | Date |
|---|---|---|
| 134,432 | Great Britain | Nov. 6, 1919 |