May 5, 1942. N. L. BRUNNER 2,281,744

FACE MASK

Filed July 11, 1940



FIG. 1.

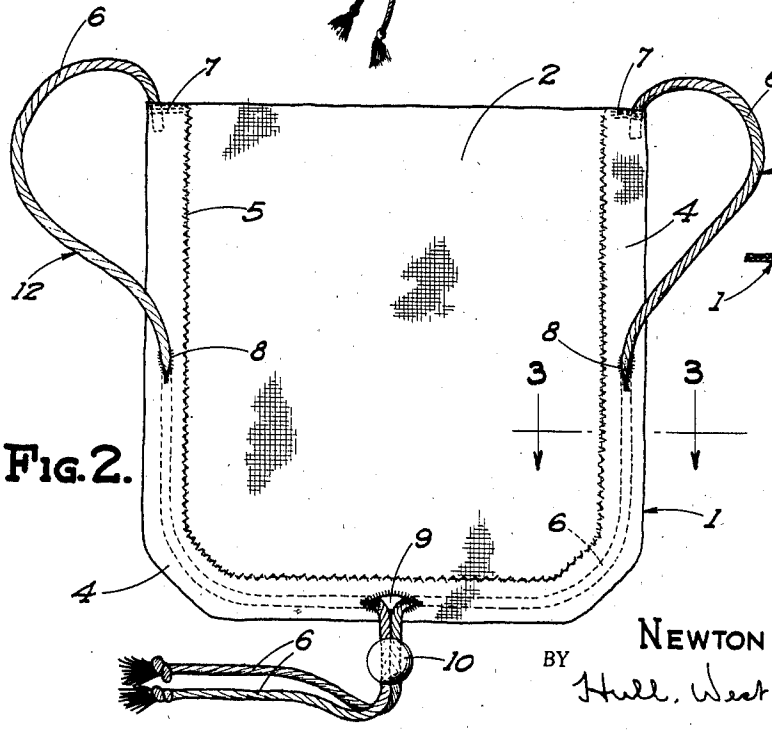


FIG. 2.

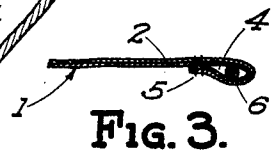


FIG. 3.

INVENTOR.
NEWTON L. BRUNNER
BY Hull, West & Shilton
ATTORNEYS.

Patented May 5, 1942

2,281,744

UNITED STATES PATENT OFFICE

2,281,744

FACE MASK

Newton L. Brunner, East Cleveland, Ohio

Application July 11, 1940, Serial No. 344,945

9 Claims. (Cl. 128—146)

This invention relates to an improved face mask for physicians, surgeons, nurses and dentists' use, and for use by barbers, housewives and mothers, as a protection against communication of germs from the wearer to others, as to patients, patrons or children, or vice versa; and for protecting the wearer from dust, pollen, or the like, making the mask especially beneficial to hay fever sufferers.

Among the objects of the invention are: to provide a simple and inexpensive respirator mask that is very efficient; to provide a mask of this character that is conveniently adjustable to faces of different sizes and that is comfortable to the wearer; to provide a mask that may be easily and quickly put on and taken off—as easily, in fact, and in much the same manner as a pair of spectacles—and whose adjustment will not be disturbed by repeated removals and replacements, and to provide a face mask of the nature aforesaid that is very durable and will permit of boiling for cleaning and sterilizing purposes, the same involving no materials that will be injured by such treatment.

The foregoing objects, with more limited ones hereinafter appearing, are attained in the embodiment of the invention illustrated in the accompanying drawing wherein

Fig. 1 shows the mask, in perspective, on a wearer;

Fig. 2 is an elevational view of the mask showing the side that is intended to go next to the face, and

Fig. 3 is a sectional detail on the line 3—3 of Fig. 2.

The mask, designated generally by the reference numeral 1, consists of a face covering 2 that is made up of any desired number of thicknesses—desirably more than one and not to exceed four—of suitable fabric, such as cotton gauze of relatively fine mesh. In order to provide the desired number of thicknesses, the material is preferably folded, once or twice over, along the top of the face covering, thereby to avoid stitching at this location and insure the maximum of comfort where it is drawn across the face. The face covering 2 is shown as approximately rectangular in shape excepting that, adjacent its lower corners, it is cut or formed along diagonal lines between its lateral and bottom edges so as to cause it to better fit the face. A relatively deep hem is made down each side and entirely across the bottom of the face covering thereby to provide a continuous tubing 4, the stitching of the hem being designated 5.

Permanently secured to each upper corner of the face covering is one end of an elongated flexible and somewhat elastic means or cord 6, the connection being effected, desirably, by inserting the end of said means or cord into the adjacent open end of the tubing 4 and stitching or otherwise fastening the parts together, as indicated at 7. A buttonhole or eyelet 8 is made in the rear wall of the tubing 4 a suitable distance downwardly from each of the top corners of the face covering; and another such buttonhole or eyelet 9 is provided at about the center of the bottom of the mask. Each elongated means or cord 6 is led in through the adjacent buttonhole or eyelet 8 and is threaded through the tubing and its free end, with that of the other, is brought out through the buttonhole or eyelet 9. After being frictionally engaged through the opening of a slide 10, the ends of the cords may be knotted for the two-fold purpose of preventing their withdrawal from the slide 10 and the unraveling of the cords. The slide 10 may consist of a bead or the like of wood, plastic, rust-proof metal, or other suitable material that will not be adversely affected by sterilizing.

To apply the mask to the face, the cords are drawn out to provide loops designated generally by the numeral 12 which are engaged about the wearer's ears with the top edge of the mask drawn relatively taut across the nose and cheeks below the eyes. Then the wearer, by grasping the ends of the cords 6 with one hand, may shove the slide 10 upwardly with the other until the lower portion of the mask is gathered snugly about the corresponding part of the face and beneath the chin. The cords 6 are intended to fit the opening of the slide 10 tightly enough to cause the slide to hold the parts in adjusted position by friction against accidental disarrangement. Furthermore, the cords are desirably somewhat elastic to promote comfort and ease of application and removal of the mask.

After once adjusted to the face, the mask may be readily removed by simply disengaging the loops 12 from the ears, and with equal facility the mask may be replaced.

Instead of using a slide 10, the end portions of the cord, after the mask is drawn up under the chin and properly distributed about the lower portion of the face, may be tied, a bow or other type of knot which may be readily untied being desirable so that, in case of shrinkage caused by washing or sterilizing, the cords may be readjusted to compensate for such shrinkage.

Having thus described my invention, what I claim is:

1. A mask of the class described comprising a face covering, and elongated flexible means having ends attached to the top portion of the covering at points spaced apart laterally thereof, said flexible means being detached from the covering for a substantial distance from said points of attachment to provide loops for engagement over the ears of the wearer, the edge portion of the covering within the lower region thereof being slidably connected to said flexible means between each loop and the central portion of the bottom of the covering where said means is accessible for adjustment purposes.

2. A mask of the class described comprising a face covering that is substantially straight across the top and otherwise shaped to cover the lower part of the face and to extend beneath the chin, and an elongated flexible means having ends attached to the top edge portion of the covering adjacent each lateral edge thereof, the portions of the element adjacent said ends being left slack to provide loops for engagement about the ears of the wearer, the edge portion of the covering being slidably connected to said element downwardly from said loops to the bottom, said element serving to draw the lower portion of the face covering snugly about the sides of the face and beneath the chin.

3. A mask of the class described comprising a face covering that consists of a piece of fabric folded along a substantially straight line over and upon itself to provide a plurality of thicknesses, the folded edge of the face covering constituting the top thereof, and said covering being otherwise shaped to extend down along the sides of the face and under the chin, and elongated flexible means having ends attached to the top portion of the face covering at points adjacent the sides thereof, said element being detached from the covering for a substantial distance from said point of attachment to provide loops for engagement over the ears of the wearer, the edge portion of the covering downwardly from said loops and at the bottom being slidably connected to said means, the means aforesaid serving to hold the face covering snugly against the sides of the face and beneath the chin and along which said covering may be adjusted to properly distribute the material thereof throughout the lower portion of the covering.

4. A mask of the class described comprising a face covering that is substantially straight across the top and otherwise shaped to cover the lower portion of the face and to extend beneath the chin, the covering being provided with tubing adjacent the bottom and up the sides, a cord attached at one end to the top portion of the mask adjacent each lateral edge thereof and, with a part left slack to provide a loop to be engaged about an ear of the wearer, extended downwardly through the tubing, the tubing being open at the bottom of the covering to permit the end portions of the cords to be drawn out, and a slide through which said end portions are frictionally engaged.

5. A mask of the class described comprising a face covering formed to provide tubing down each side and across the bottom, the tubing having openings spaced downwardly from the top of the face covering and being open at substantially the center of the bottom, and elongated flexible means having ends secured to lateral portions of the covering adjacent the top thereof and being extended in through the first mentioned openings and downwardly through the tubing along the sides of the covering and out through said opening at the center of the bottom.

6. A mask of the class described comprising a face covering of suitable fabric that is provided with tubing down each side and across the bottom, cords attached at one of their ends to laterally spaced parts of the top of the covering and threaded through the tubing, the tubing being open at about the center of the bottom of the covering to permit the opposite end portions of the cords to be drawn out, and a slide through which the latter end portions of the cords are frictionally engaged, the portions of the cords adjacent their attached ends providing loops for engagement over the ears of the wearer.

7. A mask of the class described comprising a face covering consisting of a piece of fabric folded to provide a plurality of thicknesses, the fold of the material constituting the top edge of the face covering, said covering being hemmed down each side and across the bottom to provide a continuous tubing, the tubing having openings spaced a material distance downwardly from the top corners of the face covering and an opening adjacent the center of the bottom of the covering, two cords, each having one of its ends engaged in the top of the hem adjacent one top corner of the face covering and permanently secured therein, said cord being led in through the adjacent one of the first mentioned openings of the tubing and out through the opening adjacent the bottom of the covering, and a slide through which the end portions of the cords are frictionally engaged.

8. A mask of the class described comprising a face covering, and elongated elastic means having ends attached to the top portion of the covering at points spaced apart laterally thereof and being free from the covering for a substantial distance from said points of attachment to provide loops for engagement over the ears of the wearer, the edge portion of the covering across the bottom and up the sides for a limited distance being slidably connected to said means.

9. A mask of the class described comprising a face covering, and elongated elastic means having ends attached to the top portion of the covering at points spaced apart laterally thereof and being free from the covering for a substantial distance from said points of attachment to provide loops for engagement over the ears of the wearer, the edge portion of the covering across the bottom and up the sides for a limited distance being slidably connected to said means, the means being accessible for adjustment purposes adjacent the bottom of the covering.

NEWTON L. BRUNNER.