

UNITED STATES PATENT OFFICE.

MARY LONGDEN, OF YATES CENTER, KANSAS, ASSIGNOR OF ONE-HALF TO
N. ANDREW FULLER, OF HASTINGS, MICHIGAN.

FACE-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 695,403, dated March 11, 1902.

Application filed November 14, 1901. Serial No. 82,242. (No model.)

To all whom it may concern:

Be it known that I, MARY LONGDEN, a citizen of the United States, residing at Yates Center, in the county of Woodson and State of Kansas, have made certain new and useful Improvements in Face Protectors or Masks, of which the following is a specification.

My invention is an improvement in protectors or masks for the human face for the use of firemen, miners, employees in factories, and other persons whose calling or business is such that they are at times in danger of inhaling poisonous gases, smoke, or foul air and dust.

The invention is embodied in the construction and arrangement of parts hereinafter described and claimed, and shown in the accompanying drawings, in which—

Figure 1 is a perspective view illustrating the application of the protector or mask to a person's face and head. Fig. 2 is a plan view of the body of the protector. Fig. 3 is a cross-section of the nose portion of the protector. Fig. 4 is a cross-section through the reticulated holder for the sponge or air-filtering material. Fig. 5 is a cross-section on the line 5 5 of Fig. 2.

The body A of the mask (see Fig. 2) is formed of a piece of waterproof cloth, the same having the central portion cut out at *a* and being provided with lateral extensions or straps *a'* and top extensions or straps *a''*, which serve as means for fastening the protector to a person's head. The reticulated holder B for sponge or other air-filtering material is formed of woven wire in two concavo-convex parts or sections *b*, (see Fig. 4,) the same being spaced apart at all points save their edges, which are sewed to the edge of the body portion A, around the opening *a* therein. The convexity of the sponge-receptacle B accommodates the nose of the wearer and affords a considerable air-space in front of his mouth. The filling C, placed and held between the two parts or sections *b* of the holder B, is in practice saturated with water or in case of necessity with some disinfecting liquid, and when the mask or protector is applied to the face and head, as shown in Fig. 1, no

air can be inhaled save what is drawn through the saturated filling C. To insure the exclusion of the surrounding air at all other points, I provide the body portion A with a strip of rubber D, (see Fig. 5,) which is secured to the edge of said body in any suitable manner, and when the protector is applied, as shown in Fig. 1, such strip lies adjacent to and in close contact with the face and throat of the wearer. I further provide the body A with an attachment for the nose portion which is of peculiar service. The same consists of a strip of thin flexible metal E, preferably such as is non-corrosive or coated with non-corrosive material. The metal piece E is secured in the nose-covering portion of the body A, and it is apparent that the same may be easily shaped to conform to the noses of different wearers; it having such thickness and rigidity as required to adapt it to retain in use any shape which may be given to it. Thus the mask or protector is held in close contact with the nose and the adjacent portions of the cheeks, so as to perfectly exclude the air at those points. The piece E may be secured by stitching or in any other preferred manner.

It will be noted in Fig. 2 that each of the lateral and top straps *a'* and *a''* is provided with buttons *a⁴* and that the corresponding straps are provided with loops *a⁵*. The latter are formed of elastic material, preferably rubber cord, and when the mask is applied, as in Fig. 1, the loops *a⁵* are stretched and extended as may be required for attaching them to any one of the buttons *a⁴*. By this means the mask is held tightly and securely on heads and faces differing in size.

It will be seen that the convexity of the sponge-holder B affords an air-reservoir surrounding or in front of the nose and mouth of the wearer, whereby breathing is considerably facilitated.

The mask is easily and quickly applied and affords perfect protection in the cases mentioned.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The improved face protector or mask, com-

prising a body of flexible material having a central opening and above the same a nose-strap provided with a flexible piece of metal which is adapted to conform closely to the nose of the wearer and retain in use the shape thus imparted to it, and the reticulated concavo-convex pieces of wire-netting covering the said opening, and sponge filling held therein, as shown and described.

MARY LONGDEN.

Witnesses:

W. E. HOGUELAND,
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