

(No Model.)

A. MILLER.
FIREMAN'S MASK.

No. 577,926.

Patented Mar. 2, 1897.

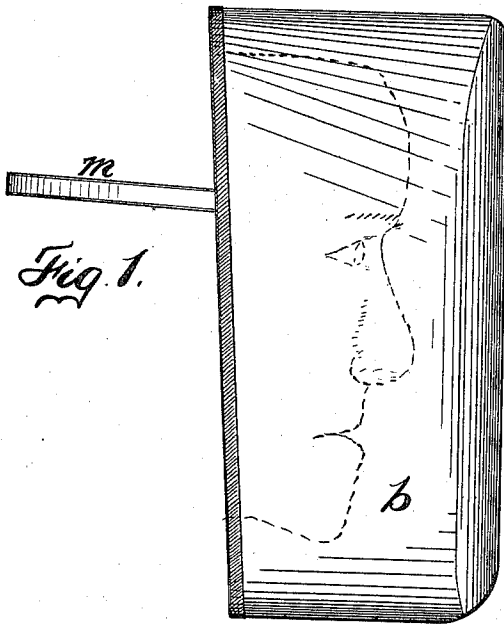


Fig. 1.

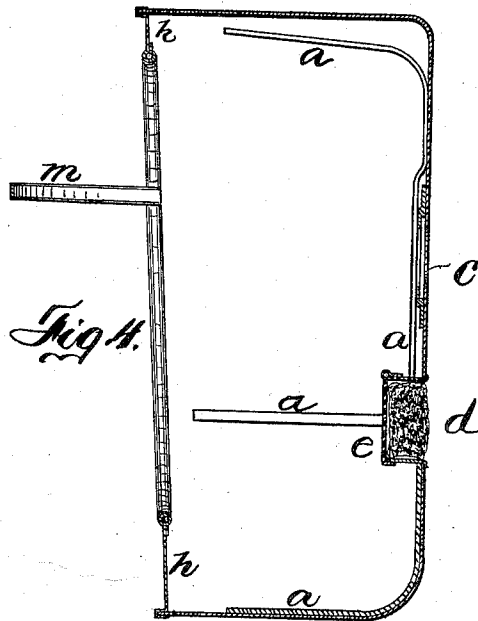


Fig. 4.

Fig. 2.

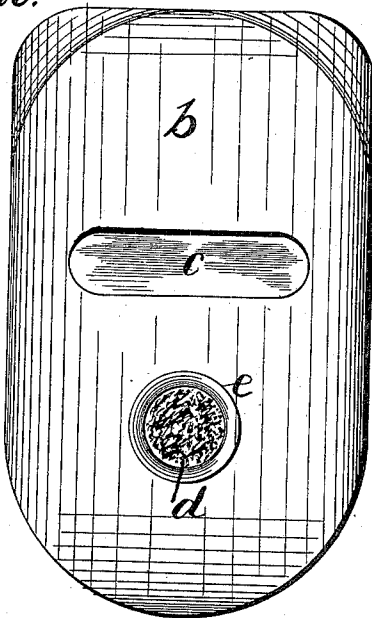
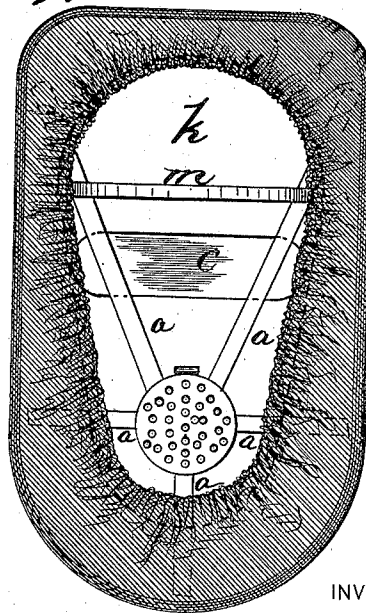


Fig. 3.



WITNESSES:
Charles W. Marvin,
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AUGUSTA MILLER, OF SYRACUSE, NEW YORK.

FIREMAN'S MASK.

SPECIFICATION forming part of Letters Patent No. 577,926, dated March 2, 1897.

Application filed April 11, 1896. Serial No. 587,116. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTA MILLER, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Smoke-Protectors, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to apparatus or devices for preventing the inhalation of smoke or noxious vapors and the asphyxiation resulting therefrom.

My object is to produce a protector against such inhalation adapted to be used by firemen, employees of establishments operating smoke-houses, by travelers, and by private persons who are or may be obliged to encounter, enter, or pass through smoke either as a matter of business, or to save life, or for many other purposes.

To that end it consists of a concaved body, somewhat like a mask, constructed of suitable non-combustible material of such form as to suitably cover part of the front of the head, the face, the chin and provided with a suitable expansible and elastic closure which fits closely and smoke-tight across the top of the head, down the sides of the face, and under the chin, and further provided with a suitable opening and a transparent pane of mica or other suitable material to permit vision and with a suitable cup or box holding a sponge and perforated so as to permit the passage of air through it for breathing and at the same time strain out or eliminate the greater part of the noxious elements of the smoke, suitable means being provided for holding said mask in place. It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the device complete and in position for use. Fig. 2 is a front elevation thereof. Fig. 3 is a rear elevation thereof. Fig. 4 is a vertical section thereof.

a is a frame, of suitable material to properly support, stiffen, and hold in shape the body *b*, which is substantially of the form shown in the drawings and is constructed of material, such as asbestos, either non-com-

bustible or absolutely impenetrable to smoke and impervious to or not affected by heat. The frame *a* is composed of strips which radiate from the perforated cup or holder and support the top, bottom, and sides of the body, as shown in Figs. 3 and 4. In the front in a suitable opening a pane *c*, of mica or other suitable material, is mounted, and in a lower opening a sponge or other suitable device *d* is placed, usually in a suitable cup or holder *e*, having a perforated inner end or cover either hinged to the body of said cup or fitting over or into it like a cap. A backing *h* is secured to the sides of said body *b*, having its inner edges shirred or gathered and having an elastic cord or a gathering-string in said edges, creating an expansible opening *k*.

It is operated as follows: A person expands said opening, inserts the face into said body, drawing said shirred edge onto the top of the head, down adjacent to the ears, and under the chin, said edges making a smoke-tight joint, the face of such person being thus inclosed within said body, the eyes being opposite said pane for vision, and the mouth adjacent to said sponge for breathing by drawing air through the sponge or expelling it also through it. When drawn in, the air is purified by its passage through the pores of the sponge.

This apparatus fits like a mask or hood over the face, and with it a person can walk through thick smoke, as in a burning building, or enter a smoke-house to labor therein, and can remain in the smoke for a long time without sickness, injury, or asphyxiation.

A strap *m* can be used to be passed around the back of the head to hold the mask in place.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a smoke-protector, the frame *a* composed of radiating strips, combined with an inclosing body *b* made of some material not affected by heat, the window *c*, and the backing *h*, made of a different material from the body, and having its edges gathered, substantially as described.

2. In a smoke-protector, the perforated cup or holder *e*, and the supporting-frame *a*,

formed of a series of strips which radiate from the cup and form a support for the inclosing frame *b*, made of some material that is not affected by heat, combined with the frame *b*, having the backing *h*, which is gathered around its inner edge, and means for securing the protector to the head, substantially as set forth.

In witness whereof I have hereunto set my hand this 6th day of April, 1896.

AUGUSTA MILLER.

In presence of—

C. W. SMITH,

HOWARD P. DENISON.