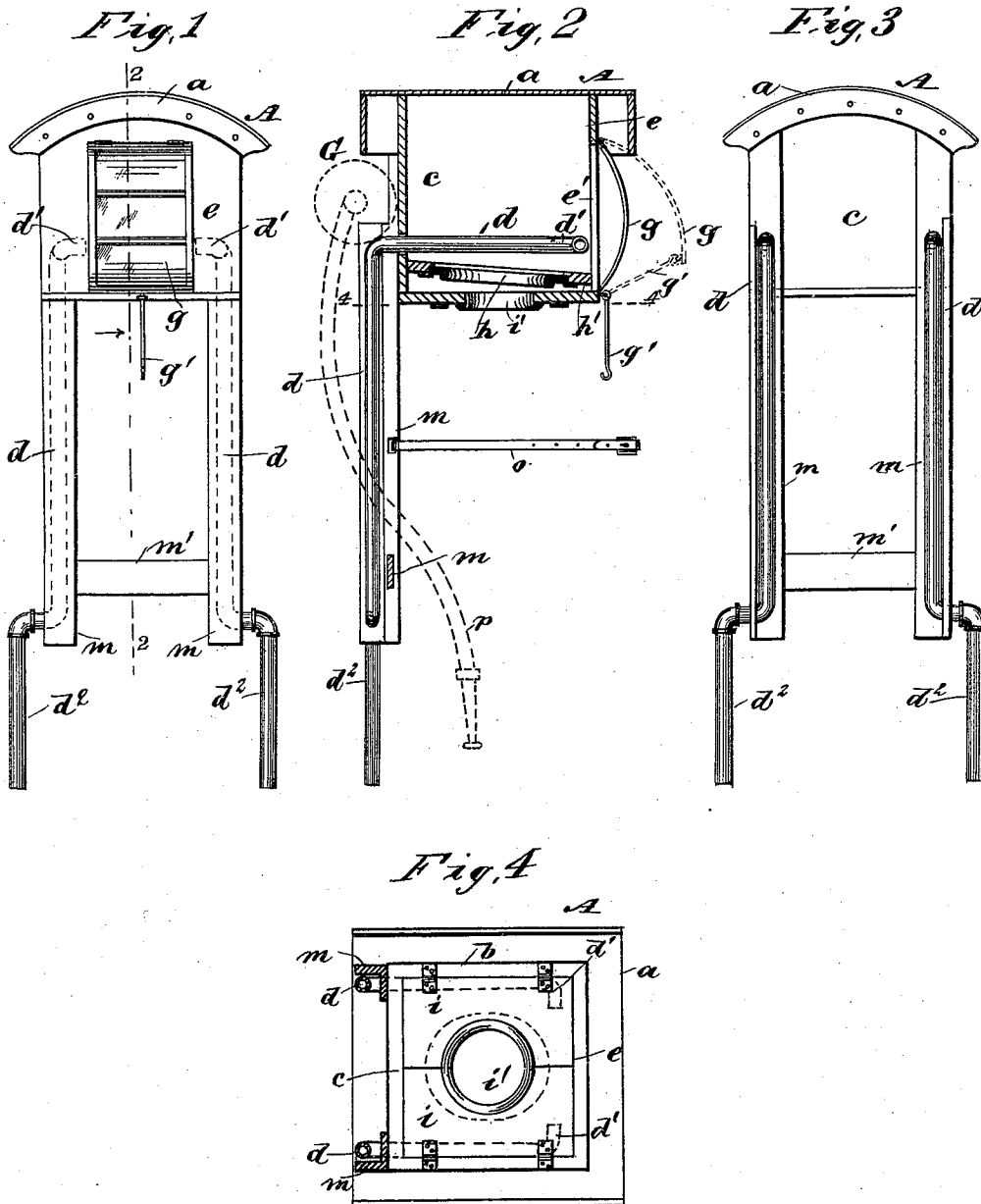


(No Model.)

C. HERLICK.
SMOKE EXCLUDING HOOD.

No. 478,429.

Patented July 5, 1892.



WITNESSES:

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CHRISTIAN HERLICK, OF MARQUETTE, MICHIGAN.

SMOKE-EXCLUDING HOOD.

SPECIFICATION forming part of Letters Patent No. 478,429, dated July 5, 1892.

Application filed April 15, 1892. Serial No. 429,297. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN HERLICK, of Marquette, in the county of Marquette and State of Michigan, have invented a new and useful Smoke-Excluding Hood, of which the following is a full, clear, and exact description.

This invention relates to improvements in devices for protecting the head of a person from smoke, and particularly in a burning building entered by the wearer of the device, and has for its object to provide a simple, light, and readily-applied structure which will screen the head of the operator from flame or smoke, permit the wearer to see before him, afford means for introduction of air from near the floor of the apartment pervaded with smoke above, and, furthermore, to enable the operator to carry a fire-extinguishing device upon his back attached to the shield or hood.

To these ends my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the device. Fig. 2 is a vertical section on the line 2 2 in Fig. 1. Fig. 3 is a rear view of the appliance, and Fig. 4 is a reverse plan in section on the line 4 4 in Fig. 2.

There is a preferably rectangular box-like structure or hood A provided, having an arched top *a* and closed sides *b*. The rear wall *c*, being also made substantially air-tight, is perforated to admit the introduction of pipes *d* within the hood, as will be further described. The front wall *e* is apertured near the center to permit the wearer to see in front, said hole *e'* being closed by a hinged pendent door *g*, that is glazed with mica plates, and is preferably bulged, as shown in Fig. 2, so as to afford room. The door *g* may be held open, as indicated by dotted lines, with a prop-hook *g'* or similar means when the wearer is in comparatively pure atmosphere.

The lower side of the hood A is partly closed by a cross board or wall *h*, that is apertured of a size to admit the head of the wearer and allow a free movement of the same within the

hood, which wall is secured in the rabbeted edge of a frame *h'*, that has its edges attached to the sides of the hood and has its aperture rounded on the lower edge, so as to avoid chafing upon the person of the wearer of the hood.

Two doors *i* are hinged by one edge of each to each side wall of the hood so as to swing downwardly, said doors being scalloped on their adjacent edges, so that when in closed adjustment a circular hole will be formed, as shown in Fig. 4, at *i'*, the relative dimensions of this hole being such as will cause the neck of a person donning the hood to be loosely embraced by the scalloped portions of the doors, and to protect the neck of the person wearing the device the lower edge of the hole is rounded, as shown in Fig. 2.

The hood A is furnished with two upright frame-bars *m*, that are preferably made of light angle-iron, said bars being held parallel and properly spaced apart below by a cross-bar *m'*, their upper portions being fastened along the side edges of the rear wall *c* exteriorly.

The air-supply pipes *d* pass through the rear wall *c*, as before mentioned, and extend forwardly along the side walls *b* within the hood A at a proper height from the bottom board *h*, and are preferably bent toward each other at their forward ends *d'*, so as to be near the nostrils and mouth of the wearer when the device is in use. The lower portions *d''* of the air-pipes *d* are turned outwardly and downwardly near the lower ends of the frame-bars *m*, passing through perforations in the latter, which will support the pipes and spread them apart sufficiently to afford room for a free movement of the lower limbs of the wearer of the hood. Such a proportionate length is given to the pipes *d* as will permit the hood A to be supplied with air from near the floor of a room when the device is carried by an operator.

In service the fireman or other party who desires to enter a room or building pervaded with smoke, so as to reach the fire and extinguish it, places the hood A upon his shoulders, inserting his head through the doors *i* and bottom wall *h*, and the doors, being closed simultaneously, embrace the wearer's neck and prevent the introduction of smoke. The

front glazed door *g* is also lowered, which will seal the hood and prevent the entrance of smoke, air entering from near the floor, which air will generally be nearly free from smoke, that rises by reason of its comparative light-
5 ness. The device is held in position by a strap *o*, that encircles the waist of the wearer.

Any suitable apparatus *G*, that is compact and light and contains chemicals which will
10 extinguish fire, is mounted upon the rear of the head-protector, as indicated in Fig. 2, and secured thereto by any proper means, so that the wearer of the hood *A* can by a manipulation of the hose *p*, which is attached to the
15 generator *G*, extinguish a fire in its incipient stage, as this is the designed use for the device as an entirety.

The entire structure should be made as light as is permissible with a view to proper
20 strength and the hood *A* be given interior dimensions sufficient to hold air enough to support life without replenishment for several minutes, so that a fire can be located in an apartment and extinguished without seri-
25 ous inconvenience to the operator if he is provided with the improvement and carries a fire-extinguisher with it.

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

1. A smoke-excluding device comprising a forwardly-apertured hood having a glazed door in front, adjustable doors below adapted to inclose the wearer's neck, and means to

secure the hood in place, substantially as de- 35 scribed.

2. A smoke-excluding device comprising an inclosing hood for the head, having a pendent glazed door in front, an apertured bottom piece, hinged drop-doors scalloped on meet- 40 ing edges and located below the bottom piece, and means to hold the hood in place, substantially as described.

3. The combination, with an inclosing hood having parallel frame-bars and air-supply 45 pipes supported by the bars and entering the hood, of a pendent glazed door in front on the hood, closing an aperture therein, an apertured bottom board, two hinged doors below the bottom board, scalloped on meeting 50 edges, and a securing-strap, substantially as described.

4. The combination, with an inclosing hood having parallel frame-bars pendent from its rear and air-supply pipes entering the rear 55 of the hood, extending forwardly therein, and also depending below, of a bulged glazed door in front on the hood, covering an aperture in it, a prop-hook therefor, an apertured bottom piece in the hood, two hinged drop-doors be- 60 low the bottom piece on the hood, scalloped on meeting edges, and a securing-strap, substantially as described.

CHRISTIAN HERLICK.

Witnesses:

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FRANCIS M. MOORE.