

(No Model.)

A. WISNIEWSKI.

PROTECTIVE HEAD COVERING OR HOOD.

No. 296,499.

Patented Apr. 8, 1884.

Fig. 1.

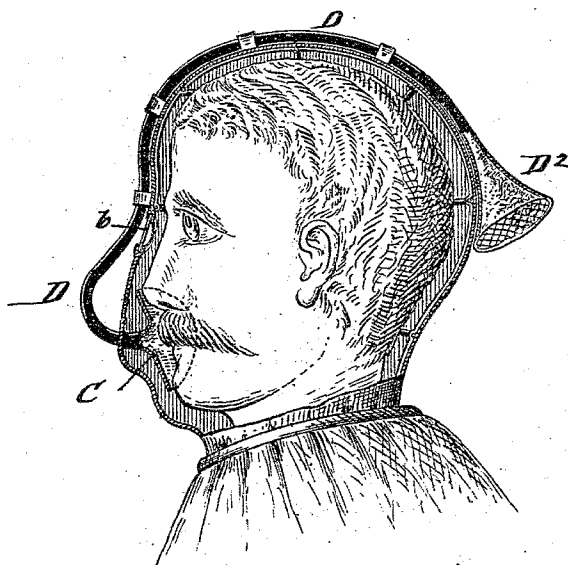


Fig. 3.

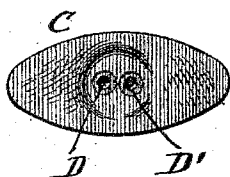


Fig. 2.

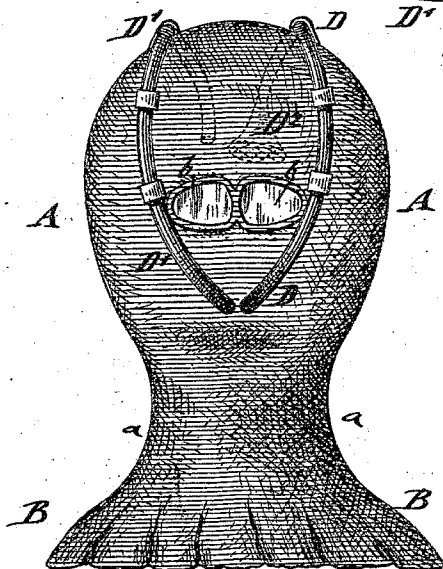
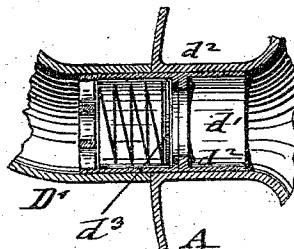


Fig. 4.



WITNESSES:

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PROTECTIVE HEAD-COVERING OR HOOD.

SPECIFICATION forming part of Letters Patent No. 296,499, dated April 8, 1884.

Application filed October 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, ANTON WISNIEWSKI, of the city, county, and State of New York, have invented certain new and useful Improvements in Protective Head-Coverings or Hoods, of which the following is a specification.

This invention has reference to an improved protective head-covering or hood for workmen employed in chemical factories, firemen, and others who are compelled to enter and work in spaces filled with deleterious gases or floating particles.

In the accompanying drawings, Figure 1 represents a vertical longitudinal section of my improved protective head-covering or hood shown in position for use. Fig. 2 is a front view of the same. Fig. 3 is a detail view of the interior mouth-plate or shield, and Fig. 4 is a detail vertical longitudinal section of the valve of the air-education pipe of the hood.

Similar letters of reference indicate corresponding parts.

A in the drawings represents a protective head-covering or hood, which is preferably made of rubber or other suitable elastic material that is impervious to air. The hood A is stiffened by an interior wire frame, *a*, of the size and contour of the head. To the lower part or neck portion, *A'*, of the hood is applied a flexible collar, B, that is placed below the collar and upper part of the coat. The coat is then buttoned at the front, so that the collar B is tightly pressed on the shoulders and chest, so as to exclude air and gases. At the front of the hood A are arranged eye-openings *b b*, which are closed by glasses. Below the eyes is arranged, at the interior of the hood, a flexible mouth-plate or shield, C, that fits easily over the mouth and nose without exerting an undue pressure on the same. The plate C is connected with valved air induction and eduction tubes D D', of rubber, of which the former has an inwardly, the latter an outwardly, opening valve *d*, that is made of a sleeve, *d'*, having an interior shoulder or seat, *d''*, and a spring-pressed valve-disk, *d'''*, which is pressed against the seat *d'* by its spiral spring. The valve shown in Fig. 4 represents the outwardly-opening valve of the air-education tube D', the valve of the air-induction tube D opening inwardly by arranging the spring-pressed valve-disk *d'''* at the oppo-

site side of the shoulder *d''*. In place of the valve shown, any other approved valve construction may be used for the air-tubes D D'. The air-tubes D D' pass upward at both sides of the eyes and over the crown of the hood to the back of the same, where the induction-pipe D has a funnel-shaped terminal, D², which is screened and filled with sponge or other porous material. This porous material is soaked with chemical solutions by which the deleterious gases or fumes against which protection is desired are neutralized. Purified atmospheric air is thereby drawn in through the tube D and its inwardly-opening valve, while the vitiated air from the lungs is forced through the outwardly-opening valve of the tube D', and the latter to the outside.

By arranging the tubes D D' at the front, top, and back of the hood A, they are entirely out of the way, and are not dangling about in front, as in firemen's head-coverings heretofore in use.

By the use of the protective hood the workmen may move about and work in an atmosphere of poisonous gases or pass through dense smoke without any bodily injury resulting therefrom.

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

1. A protective head-covering consisting of a hood provided with glass-covered eye-openings, an interior mouth-piece, an induction air-tube connected with said mouth-piece, a valve within said induction air-tube adapted to automatically open inwardly for the admission of air, and an eduction air-tube, also connected to said mouth-piece, provided with a valve adapted to open outward automatically for the discharge of air, substantially as described.

2. A protective head-covering consisting of a hood provided with glass-covered eye-openings, a mouth-piece below said openings, an induction air-tube connected with said mouth-piece, having a funnel-shaped terminal provided with filtering material, an automatic inlet-valve within said tube, and an eduction-tube, also connected to said mouth-piece, and provided with an automatic valve adapted to open outwardly, said tubes being passed up over the top of said hood, which latter is provided with means for retaining the tubes in place, substantially as described.

3. A protective head-covering comprising a hood provided with glass-covered eye-openings, an induction air-tube opening opposite the mouth of said hood, provided with an automatic inlet-valve, and an eduction air-tube, also connected to said hood opposite the mouth, and provided with an automatic outlet-valve, said tubes being passed up over the top of said hood, which latter is provided with means

for retaining the tubes in place, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ANTON WISNIEWSKI.

Witnesses:

PAUL GOEPEL,
SIDNEY MANN.