(No Model.)

3 Sheets—Sheet 1.

M. POSTLETHWAITE.

VENTILATED HAT.

No. 385,282. Patented June 26, 1888.

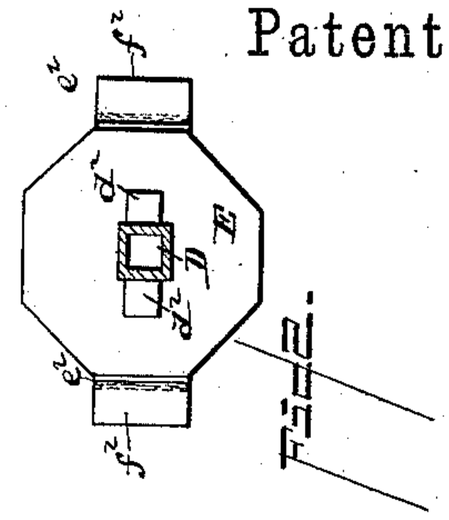

Fig. 2.

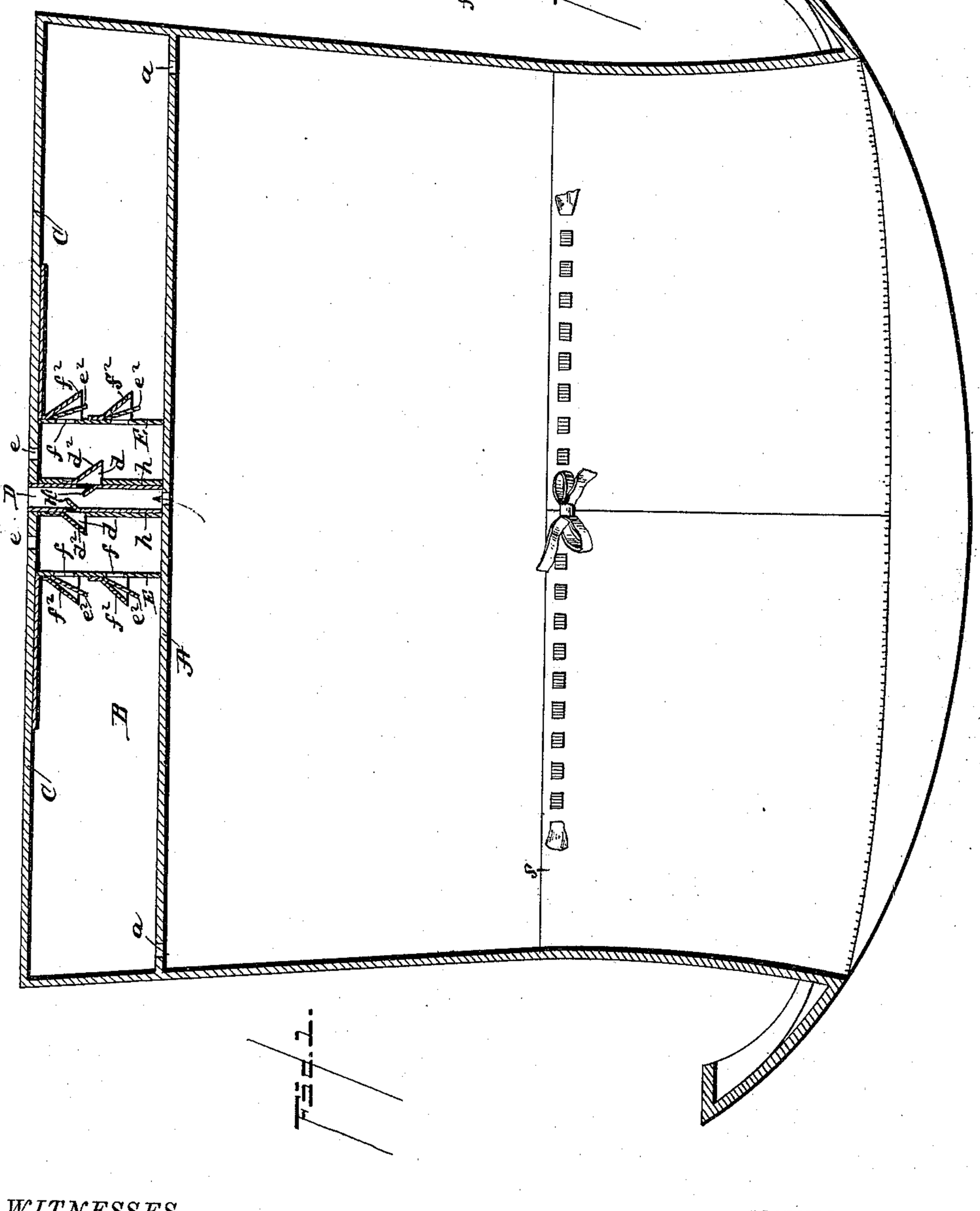

Fig. 1.

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(No Model.) 3 Sheets—Sheet 2.

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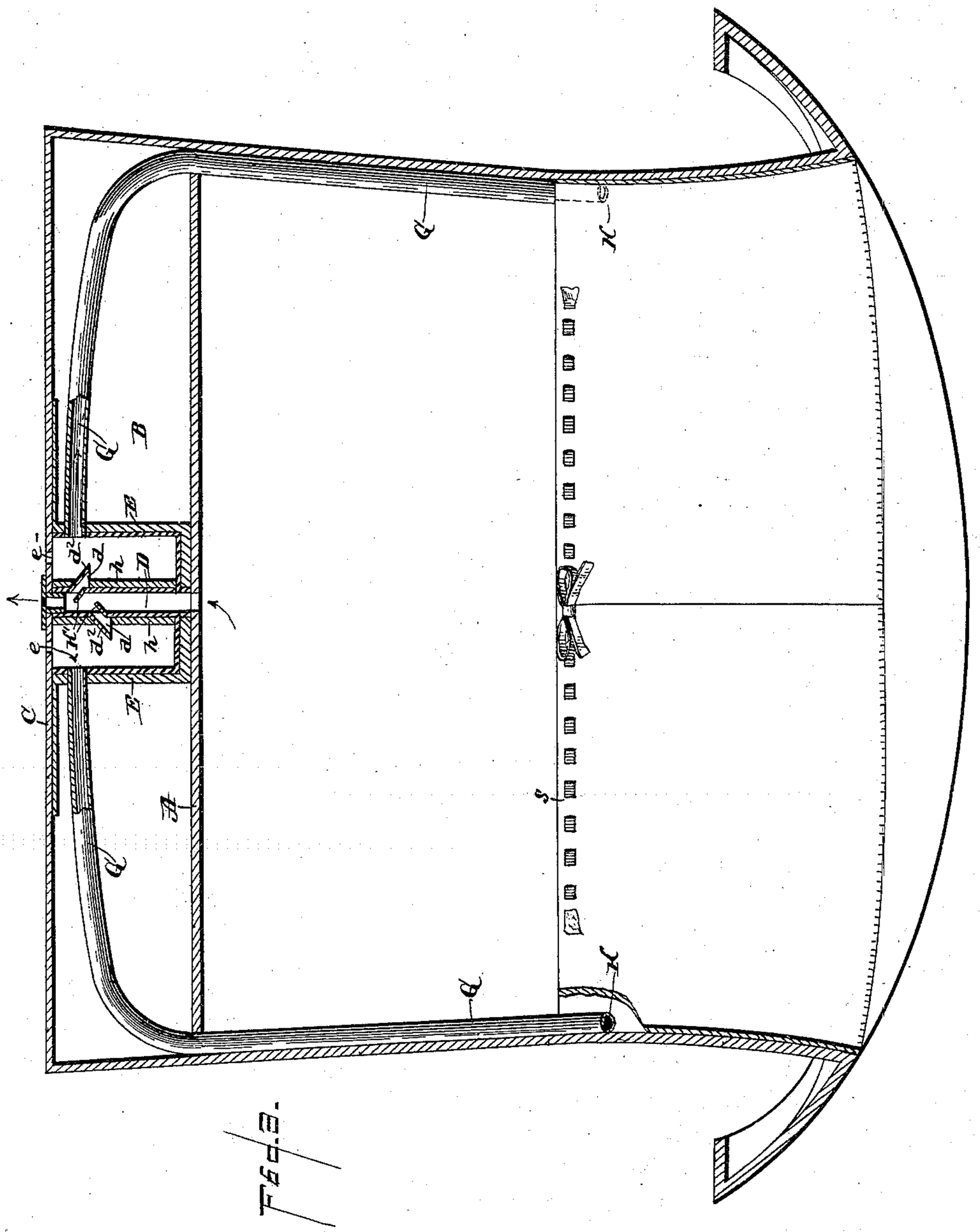

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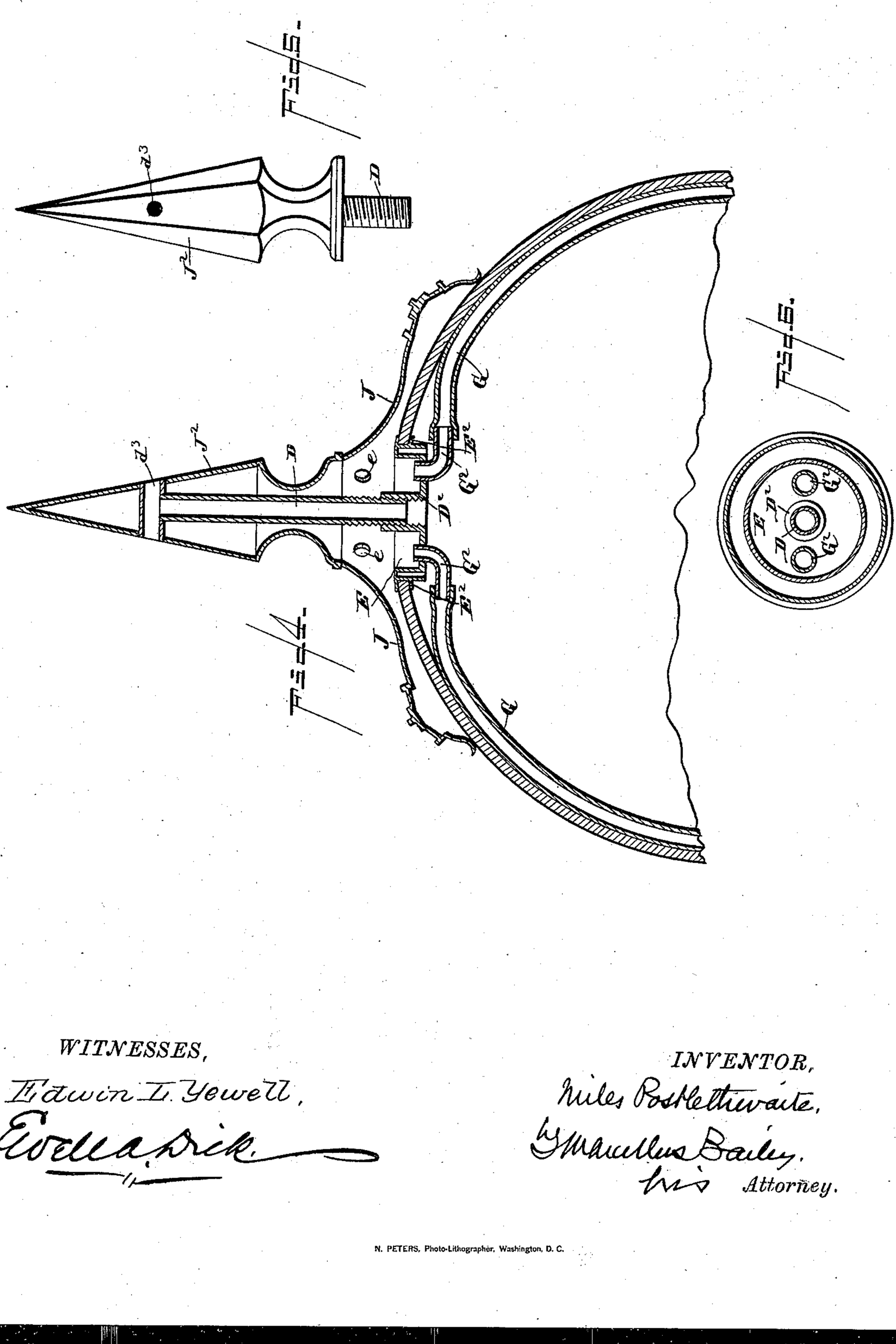

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UNITED STATES PATENT OFFICE.

MILES POSTLETHWAITE, OF WHITEHAVEN, COUNTY OF CUMBERLAND, ENGLAND.

VENTILATED HAT.

SPECIFICATION forming part of Letters Patent No. 385,282, dated June 26, 1888.

Application filed January 17, 1888. Serial No. 260,970. (No model.)

To all whom it may concern:

Be it known that I, MILES POSTLETHWAITE, of Whitehaven, in the county of Cumberland, England, have invented certain new and useful Improvements in Means for Ventilating Hats or Coverings for the Head, of which the following is a specification.

My invention has for its object to provide hats or head-coverings with efficient means for securing ventilation while they are in wear.

According to my invention I provide a passage or uptake for the heated air from the hat and a casing or channel or channels for the admission of external air, the said passage (or uptake) and casing (or channel or channels) both communicating with the exterior of the hat and with the interior of the hat, so that there are distinct passages through which the hot air escapes and the cooler air enters, respectively. It is not new, broadly considered, to provide head-coverings with such passages.

My invention consists in the construction and arrangement of parts whereby the proper movement of the air is secured.

In order that my said invention may be fully understood, I shall now proceed more particularly to describe the same, and for that purpose shall refer to the several figures on the annexed sheets of drawings, the same letters of reference indicating corresponding parts in all the figures.

Figure 1 is a section of a hat provided with a ventilating arrangement according to my invention. Fig. 2 is a plan of the said arrangement. Fig. 3 is a section, similar to Fig. 1, of a modified arrangement. Fig. 4 is a section of a portion of a helmet provided with the arrangement of inlet-passages shown in Fig. 3. Figs. 5 and 6 are details, hereinafter referred to.

Referring to Figs. 1 and 2, a lining or false crown, A, is placed in the hat, leaving a space, B, between itself and the crown proper, C. In this space B, (preferably in the center thereof,) and passing therethrough from the interior to the exterior of the hat, is a tube, D, and surrounding this tube is a casing, E, communicating with the exterior by openings *e* in the crown of the hat and by openings *f* at its sides with the space B between the crown proper, C, and the lining or false crown A, which latter has openings *a* in it communicating with the interior of the hat. The space between the crown proper and the lining or false crown, instead of being used as a passage for air, may be replaced or supplemented by tubes G, as shown in the section, Fig. 3, leading from the aforesaid casing E, the said tubes preferably extending to the sides of the hat and down the sides and terminating and opening just above the head of the wearer of the hat, their open lower ends being shielded or cut off from direct communication with the interior of the hat by extending into the space between the sweat-band or sweat-lining *s* and the sides of the hat, as seen in Fig. 3. The object of this is to prevent the incoming currents of cool air from being interfered with by warm air, which might otherwise freely pass into the tubes.

In both arrangements the air from inside the hat passes out by the central tube, D, and external air consequently enters by the openings *e* into the casing E, surrounding it, and passes by the openings in the sides thereof and by the openings in the lining or false crown, or by the tubes, which may be used in place thereof, into the interior of the hat. If desired, the arrangement of Fig. 1, as regards the admission of external air, may be combined with the arrangement Fig. 3 by making openings through the sides of the casing E and in the false crown, as at *f* and *a*, Fig. 1. To insure the proper passage of the currents of air, the central tube has openings *d* in its sides, at the lower ends of which are inwardly and upwardly inclined deflectors *k*, which act to prevent the passage of incoming air-currents through this tube, deflecting through the openings *d* into the casing or exterior chamber such external air as may from time to time accidentally enter the tube and preserving the passage D practically free for the escape of heated air. Hoods d^2 may, if desired, be applied to the exterior of the openings *d* to turn off and down currents of external air and prevent them from entering the tube through these openings. The openings *f* in the sides of the casing, through which the cold air passes in the arrangement shown in in Fig. 1, have silk or mica flaps or equivalent valves, as shown at e^2, to close the openings

against up currents. These flaps or valves are more especially applicable to the arrangement wherein the space between the crown proper and the false crown or lining is used as a cold-air passage, as in Fig. 1. The sides of the casing may be flattened to seat these flaps or valves; but the flaps or valves may be dispensed with. When the tubes G are used, the lower ends or any suitable part may be covered with flaps or valves for the like purpose; but the arrangement of these open lower ends between the sweat-band and the sides of the hat, as hereinbefore provided, will in most instances alone answer the purpose. In this way I am enabled to assure the proper movement of both the outgoing and the incoming currents of air. The openings *f* may have hoods over them, as at f^2, Fig. 1.

The exit-tube D may be covered with felt or other material or composition, as shown at *h*, Fig. 1, to keep the said tube warm and facilitate the action of the ventilator; or the said tube and the casing E may both be so covered, as shown in Fig. 3.

Fig. 4 is a section showing the application of the invention to a helmet. The boss or top ornament, J, in which the spike J^2 is supported, acts as the inlet-chamber B, it having openings at *e* for external air and having a bottom plate, E, in which the hat-body is secured, as at E^2. Into this bottom plate the stems or short tubes G^2 open, and to these stems or short tubes the air-inlet tubes G (like those hereinbefore described) are affixed, said tubes having their lower ends shielded from the heated air, as hereinbefore provided. In the said bottom plate, E, is also a screwed hollow stem, D^2, into which a tube, D, screws, the said tube forming the means of connecting the spike J^2 to the boss or top ornament, J, and acting as the uptake for heated air, the upper end of the said tube opening into the cross-tube d^3, which communicates with the outer air by openings at its ends.

Fig. 5 is a plan of the bottom plate, and Fig. 6 shows the spike separately.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The combination, with the hat-body, of the uptake or exit tube provided with side openings and internal deflectors, the casing surrounding the uptake-tube for admission of external air, and channels leading therefrom to the interior of the hat, as and for the purposes hereinbefore set forth.

2. The combination, with the hat-body, of the uptake or exit tube provided with side openings and internal deflectors, the casing surrounding the uptake-tube for admission of the external air, and the tubes G, leading from said casing to the lower part of the hat, substantially as and for the purposes hereinbefore set forth.

3. In hat-ventilating apparatus, the combination, with the hat-body and the casing E, for admission of external air, of tubes G, leading from said casing to the lower part of the interior of the hat, with their lower ends shielded or protected from the portion of the hat containing the heated air.

In testimony whereof I have hereunto set my hand this 11th day of January, 1888.

MILES POSTLETHWAITE.

Witnesses:
EWELL A. DICK,
MARVIN A. CUSTIS.