

J. M. DAVIES.  
 VENTILATOR FOR HATS.  
 APPLICATION FILED JAN. 14, 1910.

970,894.

Patented Sept. 20, 1910.

Fig. 1.

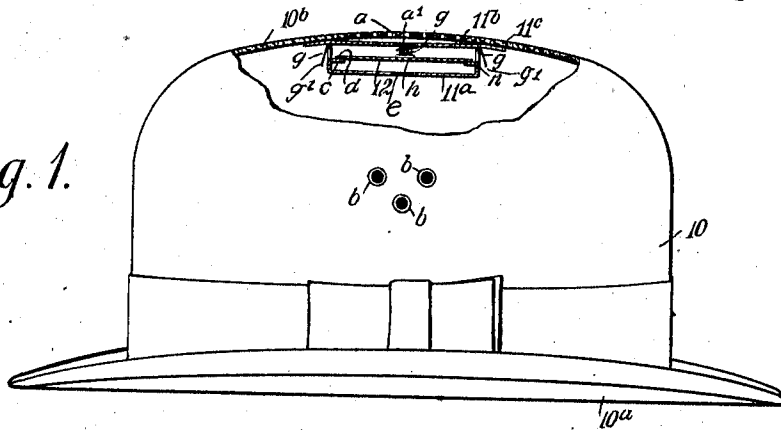


Fig. 2.

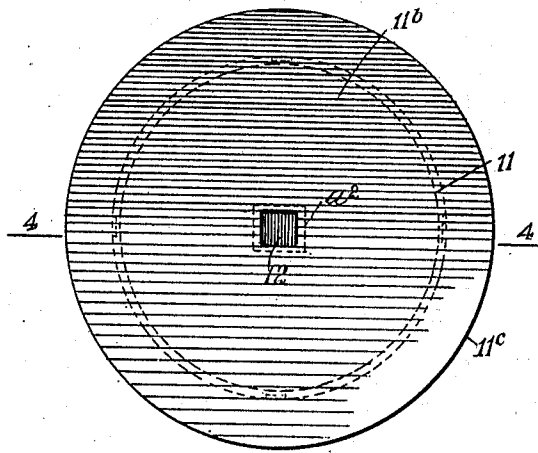


Fig. 3.

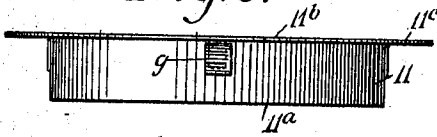


Fig. 4.

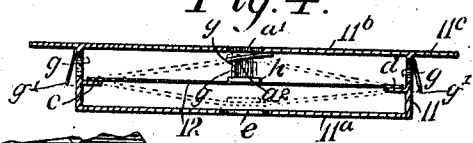
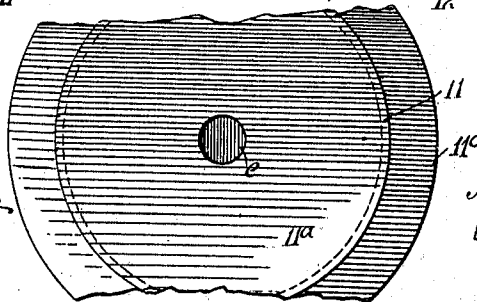


Fig. 5.



WITNESSES:  
*George Cambay.*  
*Chas. L. Patton*

INVENTOR  
*John M. Davies*  
 BY *Muns Co.*  
 ATTORNEYS

# UNITED STATES PATENT OFFICE.

JOHN M. DAVIES, OF PLATTSBURG, NEW YORK.

## VENTILATOR FOR HATS.

970,894.

Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed January 14, 1910. Serial No. 538,078.

To all whom it may concern:

Be it known that I, JOHN M. DAVIES, a citizen of the United States, and a resident of Plattsburg, in the county of Clinton and State of New York, have invented a new and Improved Ventilator for Hats, of which the following is a full, clear, and exact description.

This invention relates to means for introducing air within the crown of a stiff bodied hat, and has for its object to provide a ventilating device of novel construction, which is actuated automatically by the wearer while walking, and causes a pulsating current of fresh air to circulate in the upper portion of a hat body having the improvement placed therein.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended claims.

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

Figure 1 is a side view partly in section, of a hat and of the improvement placed therein; Fig. 2 is an enlarged detached top plan view of the device; Fig. 3 is a side view of the same; Fig. 4 is a transverse sectional view of the device, taken substantially on the line 4—4 in Fig. 2; and Fig. 5 is a reversed plan view of the same, shown broken away at opposite sides.

In the drawings that represent the construction and application of the invention, 10 represents the body of a man's hat of well known shape popularly known as a "derby hat," having a stiff body that may yield slightly to lateral pressure, and is formed with an integral rim 10<sup>a</sup>. In the crown 10<sup>b</sup> of the hat body 10, a plurality of small openings *a* are formed for the induction of air, and in the side wall thereof, other perforations *b* may be provided as usual, for the escape of heat.

The improvement, which is centrally mounted within the hat body upon its crown, comprises a preferably thin cylindrical shell 11, formed of rigid material, having a flat bottom wall 11<sup>a</sup>, and a top wall 11<sup>b</sup>, the latter being spaced from the inner surface of the crown 10<sup>b</sup>, and secured at its edge thereto. Centrally in said top wall a perforation *a'* is formed that receives air from

the perforations *a*. A radial flange 11<sup>c</sup> projects from the top wall 11<sup>b</sup>, and when said wall is attached upon the crown 10<sup>b</sup>, the flange is similarly secured thereto by cement or other means.

It is essential that the size of the air chamber formed of the shell 11 and the attachments 11<sup>a</sup>, 11<sup>b</sup>, 11<sup>c</sup> thereon be such that it will not have objectionable bulk or weight, so that said chamber will not be liable to have contact with the head of the wearer of the hat when it is donned, the relative dimensions of the device and the hat body being approximately shown in Fig. 1.

An inwardly projecting flange *c* is formed or secured upon the inner surface of the shell 11, parallel with the bottom wall 11<sup>a</sup>, said flange being located at or near the vertical center of the shell, as is clearly shown in Fig. 4.

A thin diaphragm 12, formed of suitable material, is introduced within the shell 11, and at its circular edge *d* is lapped upon and secured to the flange *c*, said diaphragm being stretched taut, so that it is normally disposed parallel with the bottom wall 11<sup>a</sup>, as shown by full lines in Figs. 1 and 4.

In the bottom wall 11<sup>a</sup>, at its center, a perforation *e* is formed, and in the shell 11, at suitable points above the diaphragm 12, a plurality of perforations *g* are formed, as appears in Figs. 1 and 4. Centrally on the diaphragm 12 a small weight *h* is secured, and as it is essential that the diaphragm be adapted for receiving a limited vibration, as is indicated by dotted lines in Fig. 4, said part is formed of such thin strong material, as will permit it to rise and fall at the center when the hat is slightly jolted. Over each perforation *g* in the side wall of the shell 12, a thin flap valve *g'* is placed, and adapted to vibrate toward and from the shell by cementing one edge of each valve upon the shell, as indicated in Figs. 1 and 4. On the top wall 11<sup>b</sup>, over the perforation *a'* a flap valve *a''* of thin paper or other suitable material, is secured by one edge, said valve being located on the inner side of said top wall.

In operation, if the hat is worn and the wearer walks, the weight *h* will be caused to rise and fall, which will communicate a corresponding movement to the diaphragm 12. This pulsating action of the diaphragm will periodically close the valve *a''*, and open the valves *g'*; when the diaphragm moves

downward the valve  $a^2$  opens and the valves  $g'$  close, and the reverse; this will alternately introduce air through the perforation  $a'$  and expel the inducted air through the perforations  $g$  into the hat body above the head of the wearer, thus automatically ventilating the interior of the hat and cooling the head of the wearer.

Immaterial changes within the scope of the invention may be made, as for example, the shell 11, may be formed as a portion of the hat crown, and the form thereof may be changed, without departure from the spirit of the invention, hence I claim all such slight modifications as fall within the scope of the claims.

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

1. A ventilator for hats, comprising a shell having a top and bottom wall, the bottom wall being apertured and adapted to be secured in the crown of a hat, said shell being provided with a plurality of valved openings, and with a flexible and weighted diaphragm secured at its edges within the shell intermediate of its top and bottom walls.

2. A ventilator for hats, comprising a flanged shell having a top and bottom wall and adapted to be secured in the crown of a hat, said shell having an opening in its bottom wall and valved openings in its sides

and top wall, and a weighted diaphragm secured within the shell intermediate of its top and bottom wall.

3. The combination with a hat body having an air inlet in its crown, of an automatic ventilating device within the hat body, comprising a cylindrical shell, having a top wall, a bottom wall, a valve controlled inlet in the top wall, valve controlled outlets in the side of the shell, and a weighted diaphragm therein adapted to vibrate when the hat is jolted by the wearer.

4. The combination with a hat body of nearly rigid material, and having a perforation in its crown, of an automatic ventilating device within the hat body, comprising a cylindrical shell having perforations therein, flap valves controlling said perforations, a perforated top wall, a flap valve controlling said perforation, a perforated bottom wall, a diaphragm wall therein spaced from the top and bottom walls, said diaphragm being adapted for vibration, and a weight centrally mounted on the diaphragm.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN M. DAVIES.

Witnesses:

RALPH L. SIGNOR,  
C. D. LINCOLN.