No. 896,538. PATENTED AUG. 18, 1908.

R. M. HENRY & W. HESTER.

HEAD AND FACE STEAMER.

APPLICATION FILED JULY 20, 1905.

Fig. 1.

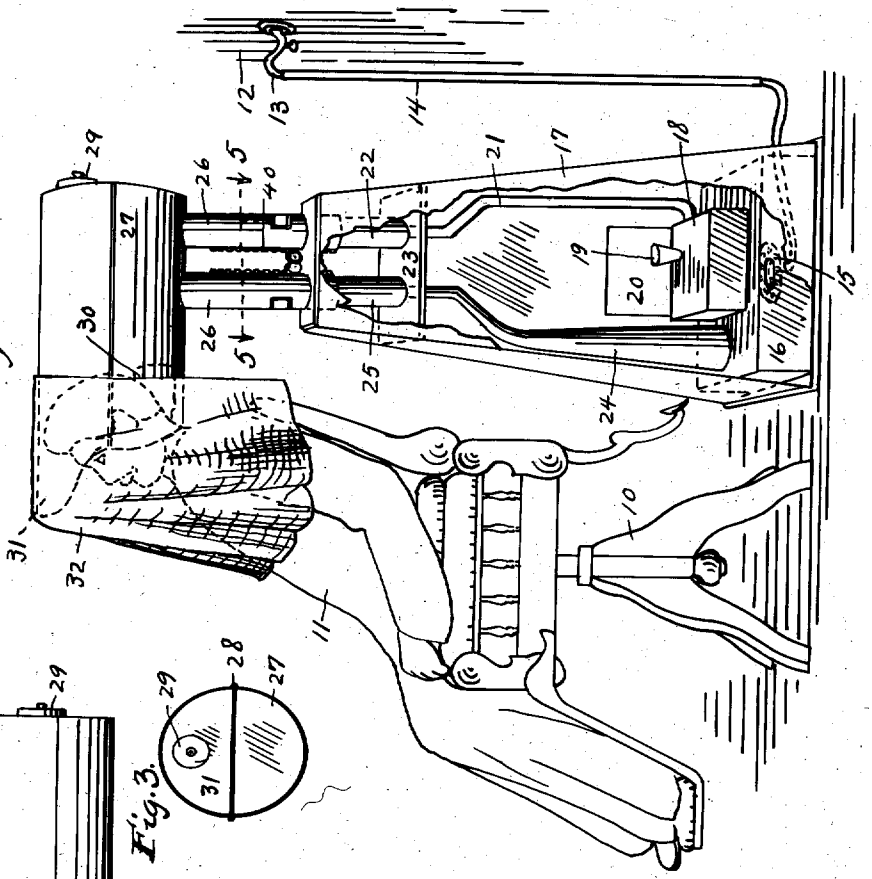


Fig. 2.

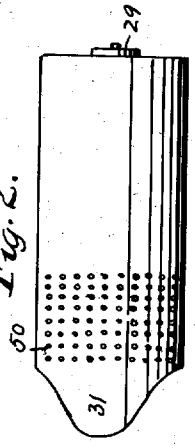


Fig. 3.

Fig. 4.

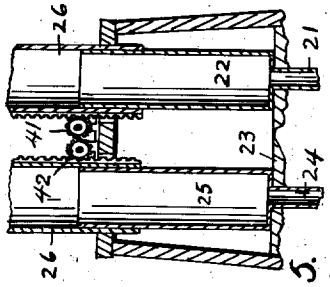
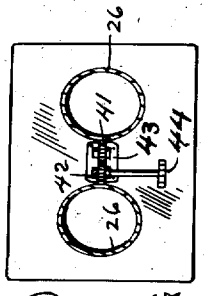


Fig. 5.



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R. Allemong

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By W. A. Lockwood
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UNITED STATES PATENT OFFICE.

ROBERT M. HENRY AND WILLIAM HESTER, OF INDIANAPOLIS, INDIANA; SAID HESTER ASSIGNOR, BY MESNE ASSIGNMENTS, TO SAID HENRY.

HEAD AND FACE STEAMER.

No. 896,538. Specification of Letters Patent. Patented Aug. 18, 1908.

Application filed July 20, 1905. Serial No. 270,593.

To all whom it may concern:

Be it known that we, ROBERT M. HENRY and WILLIAM HESTER, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Head and Face Steamer; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is to provide means for supplying steam for a person to breathe in combination with air. For some diseases it is desirable that the patient breathe air saturated or mixed with steam, and the broad mechanical idea consists in a hood adapted to extend over the head and beyond the face of the patient through which, preferably from the rear, steam is introduced, and a curtain made of porous material suspended from the hood in front of the patient's face so that the lower end of the curtain will rest upon the clothing of the patient and furnish a chamber about the patient's face where the air enters through the porous curtain and may commingle with the steam that enters through the hood. Without the curtain the steam would escape into the atmosphere and with a non-porous curtain air could not well reach the steam in sufficient quantity.

Another feature of the invention consists in the means for treating the scalp with steam. In connection with both uses medicated steam is preferably used. Also the device provides heated air as well as steam and in connection with the steam.

The nature of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is a side elevation of the device in position for treating a patient, the patient being represented in a chair, a portion of the device being broken away. Fig. 2 is a plan or top view of the hood. Fig. 3 is a rear elevation of the hood. Fig. 4 is a central vertical section of the upper part of the steam chest and the telescoping tubes mounted on the upper end thereof. Fig. 5 is a section on the line 5—5 of Fig. 1.

In detail 10 represents a chair and 11 a patient, while 12 represents the wall of a room in which a gas jet 13 is mounted. From the gas jet a tube 14 leads to a burner 15 within the heating box 16, placed in the lower end of the steam chest 17. Upon said heating box 16 a water tank 18 is secured into which water is introduced through the funnel 19. When desired, and usually, medicine is combined with the water that is introduced into the tank 18.

20 is a door in the side of the steam chest through which the parts just described are accessible to the operator.

From the tank 18 a pipe 21 leads to the stationary expansion tube 22 that is secured in connection with the plate 23, extending transversely of the steam chest 17 near its upper end. A hot air pipe 24 leads from the heating box 16 to the expansion pipe 25 similarly secured to the plate 23.

The two pipes 22 and 25 are parallel and near each other and the pipes 26 are telescopically mounted in connection with the pipes 22 and 25, said pipes 26 moving vertically through openings in the top of the ste am chestand surrounding the pipes 22 and 25. Said pipes 26 lead to the hood 27. This hood is divided longitudinally into two parts, the upper and lower parts, as shown in Fig. 3, and they are hinged together at 28, and at their rear ends they are provided with an arm hole that is closed by a cap 29. The diameter of the hood is somewhat greater than the diameter of the head of the patient, so that the patient inserts the back of his head in the front end of the hood and rests the back of the head upon a cushion 30, shown by dotted lines in Fig. 1. There is a projection 31 from the upper part of the hood that projects over and beyond the face of the patient. A curtain 32 is placed over the forward portion of the hood so as to envelop the bust of the patient, so that the steam or hot air cannot escape around the edges of the curtain and the curtain will hold the steam and hot air about the face and head of the patient. The curtain is made of cloth or other porous material so that air can pass through the meshes therein and commingle with the steam and heated air within the curtain and be mixed there and be breathed by the patient. As stated above, the steam may be medicated according to the nature of the disease.

The hood is vertically adjustable by means of the racks 40 on the tubes 26 that are engaged by the gear wheels 41 and 42, respectively, said gear wheels being mounted on the plate 43 on top of the steam chest 17, and

one of said gears being driven by a finger wheel 44. In this way the device is adjustable to patients of varying heights.

The expansion tubes 22 and 25 are made larger than the tubes 21 and 24 so that the steam and hot air will expand and not be directed immediately and directly against the head of the patient. Likewise the hood is provided with perforations 50 on the upper side above the head of the patient in order to temper the steam and air as it comes in contact with the head. These perforations 50 are covered by the curtain 32 so that the air from the outside must pass through both the curtain and the perforations 50. While treating the scalp, the operator can extend his arm into the hood and rub the scalp. The chief value of the device, however, lies in its ability to prepare properly medicated and steamed air for breathing, and the device is made to do this by reason of the addition of the curtain 32 that is sufficiently porous to admit air and supply the necessary oxygen. It furnishes a chamber about the face for the mingling of these gases that is not air tight, yet it affords a sufficient protection against the escape of the heated air or steam into the atmosphere.

While cloth is preferably used in the curtain 32, still we do not wish to be limited to any particular kind of porous or perforated or fibrous material.

Fresh air inlet openings in the tubes 26 are provided and closed by the doors or plates 60. With these we are enabled to introduce atmospheric air into either tube 26 to mix with the hot air or steam as desired or to the extent desired. One advantage of this is that it prevents the steam from condensing and holds it suspended.

What we claim as our invention and desire to secure by Letters Patent is:

1. A hood adapted to surround the head of a person with a projection forward from the upper part thereof to a point beyond and in front of the head and face of the person when the device is in place, a curtain made of porous material suspended from the forward end of said hood so as to form a chamber in front of and about the face of the person, and means for introducing vapor into the chamber thus formed.

2. A hood adapted to envelop loosely the rear portion of the head of a person with a projection forward from the upper part thereof to a point beyond in front of the head and face of the person when the device is in place, a curtain made of porous material suspended from the forward end of said hood and projection so as to form a chamber in front of and about the face of the person, and means for introducing vapor into the rear part of the hood, whereby the chamber in front formed of said curtain and hood will be filled by the vapor.

3. A chest, a pair of tubes extending upwardly therefrom, a hot air box in said chest, a communication between said hot air box and one of said tubes, a vapor box in said chest, communication from said vapor box with the other tube, the vapor box being placed over the hot air box, a burner in the hot air box and under the vapor box, a horizontally disposed tube on the upper end of said two tubes with the rear end closed and the front end open, and with a forward projection from the upper part of the front end of said hood, and a curtain made of porous material suspended from the front end of said hood and projection so as to form a chamber in front of the face of a person when the back of his head is in said hood.

In witness whereof, we have hereunto affixed our signatures in the presence of the witnesses herein named.

ROBERT M. HENRY.
WILLIAM HESTER.

Witnesses:
C. HOEN,
N. ALLEMONG.

Correction in Letters Patent No. 896,538.

It is hereby certified that in Letters Patent No. 896,538, granted August 18, 1908, upon the application of Robert M. Henry and William Hester, of Indianapolis, Indiana, for an improvement in "Head and Face Steamers," an error appears in the printed specification requiring correction, as follows: In line 74, page 2, the word "tube" should read *hood;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 20th day of October, A. D., 1908.

[SEAL.]

C. C. BILLINGS,
Acting Commissioner of Patents.

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2. A hood adapted to envelop loosely the rear portion of the head of a person with a projection forward from the upper part thereof to a point beyond in front of the head and face of the person when the device is in place, a curtain made of porous material suspended from the forward end of said hood and projection so as to form a chamber in front of and about the face of the person, and means for introducing vapor into the rear part of the hood, whereby the chamber in front formed of said curtain and hood will be filled by the vapor.

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