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APPARATUS FOR APPLYING VAPORS TO THE HUMAN BODY

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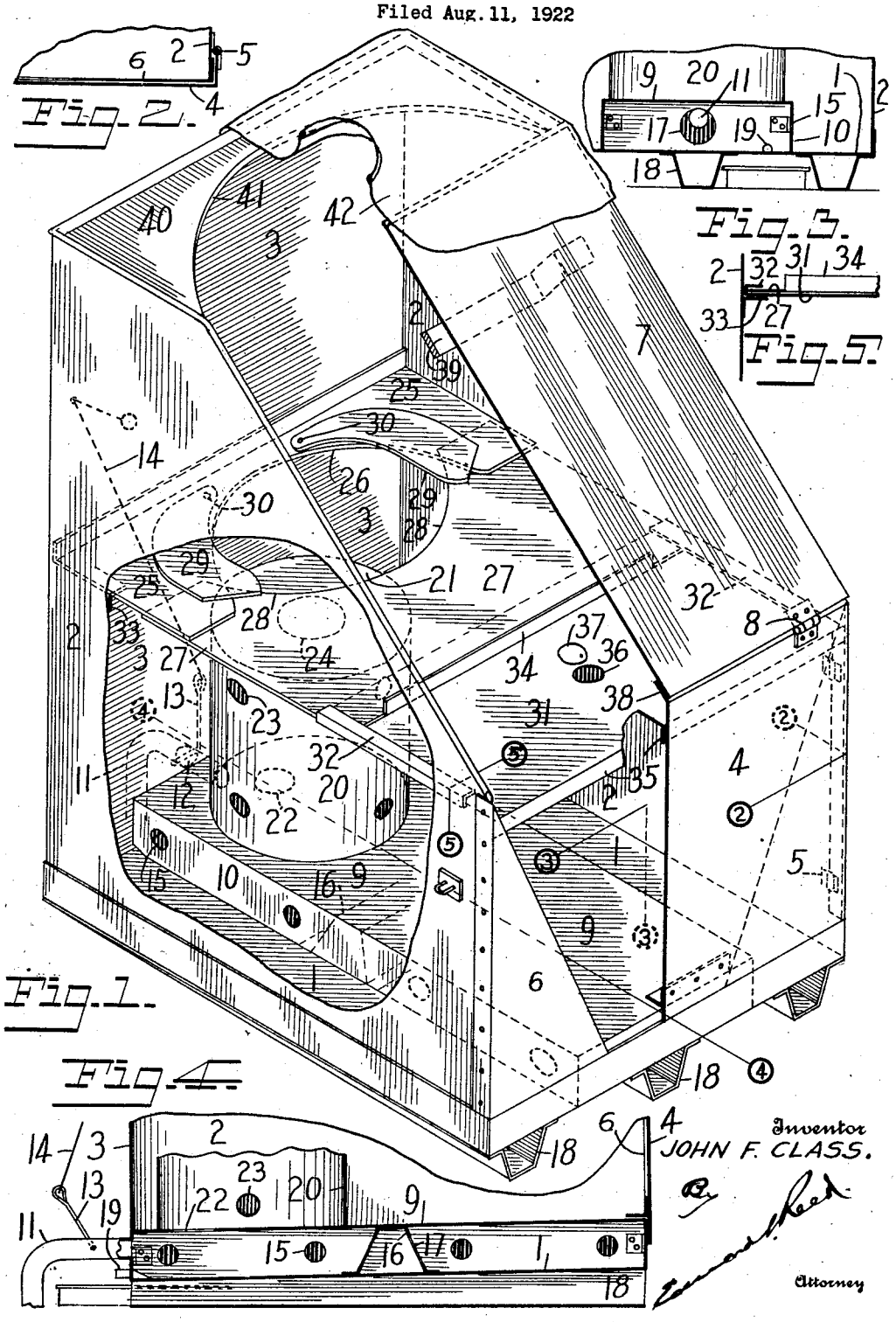


Fig. 2.

Fig. 3.

Fig. 5.

Fig. 1.

Fig. 4.

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APPARATUS FOR APPLYING VAPORS TO THE HUMAN BODY.

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This invention relates to an apparatus for applying vapors to the human body.

One object of the invention is to provide such an apparatus, or cabinet, which will be simple in its construction, easily manipulated, and efficient in its operation.

A further object of the invention is to provide such a cabinet in which the vapors will be distributed uniformly throughout the same.

A further object of the invention is to provide such a cabinet having a plurality of compartments for subjecting different portions of the body to different treatments.

Other objects of the invention will appear as the aparatus is described in detail.

In the accompanying drawings Fig. 1 is a perspective view of an apparatus embodying my invention, partly broken away; Fig. 2 is a sectional detail view taken on the line 2—2 of Fig. 1; Fig. 3 is a sectional detail view taken on the line 3—3 of Fig. 1; Fig. 4 is a longitudinal sectional view taken through the bottom of the apparatus on the line 4—4 of Fig. 1; and Fig. 5 is a sectional detail view taken on the line 5—5 of Fig. 1.

In these drawings I have illustrated one embodiment of my invention and the apparatus here shown is substantially the same as the cabinet shown and described in my application for Patent No. 1,533,829, granted April 14, 1925, of which application the present application is a continuation in part. It will be understood that the present embodiment of the invention has been chosen for the purposes of illustration only and that the structure may take various forms without departing from the spirit of the invention.

As here shown, the cabinet as a whole is formed of sheet metal and comprises a bottom wall 1, parallel side walls 2, and a back wall 3 connecting the rear edges of the side walls, the side walls and back wall being supported on the bottom wall 1. The upper forward corners of the side walls are cut away to provide inclined edges, as shown in Fig. 1, and the front wall 4 of the cabinet is of a height substantially equal to the height of the vertical edges of the side walls and is preferably hinged to one of the side walls, as shown at 5, so that it can be moved out of the way to permit the patient to enter or leave the cabinet. The front edges of the side walls are braced against the bottom wall by gusset plates 6 which lie inside of the hinged front wall 4. These gusset plates are of such a size and so arranged that they will not interfere with the passage of the patient into and out of the cabinet. The upper forward portion of the cabinet is closed by a top plate 7 which rests upon the inclined edges of the side walls and is movable into and out of position thereon. Preferably it is hinged to the upper edge of the front wall, as shown at 8, so that it will swing down into a position parallel with this front wall and will then move with the front wall when the latter is swung about its hinges 5. The upper edge of the front wall is here shown as provided with a flange 38 upon which the lower edge of the plate 7 rests and the plate 7 may, if desired, be provided on its inner side with a handle 39 for manipulating the same.

Arranged within the cabinet and spaced some distance above the bottom wall 1 is a floor 9 which, in the present instance, is supported on the floor by side walls, or flanges, 10 and the ends of the space between the floor, the bottom wall and the flanges is closed at its ends by the front and rear walls of the cabinet, thus forming a vapor chamber. This chamber is connected by a conduit 11, which extends through the rear wall of the cabinet, with a suitable vapor generator, such for example as that shown in the above mentioned application. The passage of the vapors through the conduit into the chamber is controlled by a valve 12 having a handle 13 which may, if desired, be operated by a cord 14, one end of which extends into the cabinet and is so arranged that it can be manipulated by the patient in the cabinet. The side walls, or flanges, 6 of the vapor chamber are provided with a plurality of openings 15 by means of which the vapor is delivered from the chamber to all parts of the cabinet. Preferably, the intermediate portion of the floor 9 is braced by a suitable supporting structure, which, as shown at 16, in Fig. 4, is in the form of an inverted channel, the walls of which are provided with openings 17 to permit the circulation of the vapors in the chamber.

The cabinet may rest directly upon the floor or other supporting structure, but I prefer to provide it with supporting devices which will raise it off the floor and in the present instance I have shown it as provided with a plurality of channel shaped structures 18 extending lengthwise thereof.

These structures are, in the present instance, of less height at their rear ends than at their front ends so that the floor 1 will slope rearwardly where it is provided with an outlet, or drain pipe, 19, through which the products of condensation may escape.

Preferably the cabinet is provided with a seat upon which the patient may rest during the application of the vapors. As here shown, this seat is in the form of a cylindrical structure 20, the upper end 21 of which constitutes a seat. This structure also constitutes a vapor receptacle and is connected with the vapor chamber under the floor 9 by an opening 22 in the bottom thereof. In the present instance the cylindrical structure rests upon the floor 9 and the floor forms the bottom of that structure. If desired, the structure may also be provided with openings 23 connecting the same with the interior of the cabinet above the floor 9. The seat 21 is provided with an opening 24 by means of which vapors may be applied locally to the body of the patient, as for the purpose of treating rectal diseases or the like.

The cabinet is of such a character that the vapors applied to the upper and lower portions of a body may be different in amount or character, or the vapors may be applied to the lower portion of the body only. To this end the cabinet is divided into upper and lower portions by means of a partition having an opening through which the body of the patient extends. In order that this partition may be moved to permit the patient to enter and leave the cabinet I have shown it as formed in a plurality of sections, a part at least of which are movable. In the present construction the rear section 25 of the partition is supported in contact with the rear wall and the rear portions of the side walls and may, if desired, be rigidly and permanently secured to these walls. This section of the partition is provided at its forward edge with a recess 26 to receive the rear portion of the body of the patient who is seated upon the seat 21. A second section of the partition, 27, is arranged in front of the section 25 and provided with a recess 28 opposed to the recess 26 and adapted to receive the forward portion of the body of the patient. The edges of the two partitions overlap so that by moving the partition 27 horizontally the fore and aft diameter of the opening formed by the two recesses, 26 and 28, may be varied to accommodate the same to different patients. In order that the transverse diameter of the opening may also be varied to accommodate it to different patients I have provided movable plates, or wings, 29 adapted to overlap the lateral edges of the openings and having their inner edges curved to fit about the body of the patient. In the present instance these wings are pivotally mounted on the fixed section 25 of the partition, as shown at 30, and are so arranged that when moved into contact with the body of a patient the edges of the opening will at all points fit closely about the body of the patient and no appreciable amount of vapor will pass through the opening. In the present construction I have shown the partition as also comprising a third section 31 which extends between the forward edge of the second, or intermediate, partition 27 and the front wall 4 of the cabinet. The forward edge of the intermediate partition 27 preferably overlaps the rear edge of the section 31 and is slidably mounted thereon, the section 31 being provided with guides 32 in which the edges of the section 27 are mounted, so that the intermediate section 27 can have sliding movement relatively both to the rear section 25 and to the front section 31. Preferably the several sections are supported at their lateral edges on ledges, or tracks 33, secured to the side walls 2 of the cabinet. To remove the forward portion of the partition the intermediate section 27 is moved forwardly onto the front section 31 and the forward edges of the two sections then elevated to clear the gusset plates 6 and withdrawn from the cabinet. The sections 27 and 32 may be provided at their forward edges respectively with flanges 34 and 35 to facilitate the manipulation thereof. Any suitable means may be provided for introducing vapors into the upper compartment. In the present construction the vapors are taken from the lower compartment and the partition may be provided with one or more openings, 36 through which the vapors may escape from the lower compartment to the upper compartment, and these openings may be controlled by closures or valve plates 37 so that communication between the two compartments may be regulated or entirely interrupted.

Arranged at the rear upper portion of the cabinet is a plate 40 having in its forward edge a curved recess 41 which, together with the upper rear edge of the top plate 7, forms an opening through which the head of the patient may project. The opening is somewhat larger than the neck of the patient and will preferably be closed by a suitable flexible apron, or closure, such as that shown at 42.

While I have shown and described one embodiment of my invention I wish it to be understood that I do not desire to be limited to the details thereof as various modifications may occur to a person skilled in the art.

Having now fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a cabinet of the character described, having a bottom wall, a floor arranged above said bottom wall and having flanges extending downwardly from the lateral edges thereof and spaced from the respective lateral edges of said bottom wall to form a vapor chamber between said bottom and said floor, said flanges having openings to connect said chamber with the interior of said cabinet, means for introducing vapor into said chamber, and a movable closure to permit the patient to enter and leave the cabinet.

2. In a closed vapor bath cabinet adapted to receive the body of a patient and having an opening through which the neck of the patient may extend, means for introducing vapors into said cabinet, and a partition within said cabinet adapted to encircle the body of a patient, and divide the interior of the cabinet into two compartments, whereby different parts of the body may be subjected to different treatments.

3. In a closed vapor bath cabinet adapted to receive the body of a patient and having an opening through which the neck of the patient may extend, means for introducing vapors into said cabinet, a partition within said cabinet adapted to encircle the body of a patient, and separate means to control the admission of vapors to said cabinet on opposite sides of said partition.

4. In a cabinet of the character described, a partition dividing the same into upper and lower compartments, said partition having an opening to receive the body of a patient, said upper compartment having an opening through which the neck of the patient may extend, means for admitting vapors to the lower compartment, and means for controlling the admission of vapors from the lower compartment to the upper compartment.

5. In a cabinet of the character described, a partition dividing the same into upper and lower compartments, said partition having an opening to receive the body of a patient, said upper compartment having an opening through which the neck of the patient may extend, and means for introducing vapors into said compartments.

6. In a cabinet of the character described, a partition dividing the same into upper and lower compartments, said partition comprising two sections having opposed recesses to embrace the body of a patient, one of said sections being movable relatively to the other, said upper compartment having an opening through which the neck of a patient may extend, and means for introducing vapors into said compartments.

7. In a cabinet of the character described, a partition dividing said cabinet into upper and lower compartments, said partition comprising two sections having opposed recesses to embrace the body of the patient, one of said sections being removable to permit the patient to enter and leave the cabinet and being movable relatively to the other section to adjust the size of said opening.

8. In a cabinet of the character described, a partition dividing the same into upper and lower compartments, and comprising two sections having opposed recesses forming an opening to receive the body of a patient, one of said sections being movable relatively to the other to permit said sections to be placed about the body of a patient, and plates adjustably mounted on said partition to overlap the edges of said opening and close the spaces between said edges and the body of the patient.

9. In a cabinet of the character described, a partition dividing the same into upper and lower compartments, said partition comprising a normally stationary section and a second section movable toward and from the first mentioned section, said sections having opposed recesses to form an opening to receive the body of a patient, and plates pivotally mounted on said normally stationary section to overlap the lateral portions of said opening.

10. In a cabinet of the character described, comprising side walls, a partition comprising a plurality of sections, each supported at its ends on said side walls, two of said sections having opposed recesses to form an opening to receive the body of a patient, the recessed edges of said sections overlapping one another, and one section being movable relatively to the other to vary the size of said opening, said movable section being movably connected with the third section whereby it can be folded onto said section and removed therewith.

11. In a cabinet of the character described, side walls, ledges secured to said side walls, a partition dividing said cabinet into upper and lower compartments, said partition consisting of a plurality of sections, one of said sections being removably mounted on said ledges, a second section slidably mounted on the first mentioned section, and having a recess in that edge thereof opposite said first mentioned section, and a third section mounted on said ledges, provided with a recess opposed to the recess in the second section and having its edges overlapping the edges of the second section whereby said second section may be adjusted to vary the relative positions of the recessed portions of said second and third sections.

12. In a cabinet of the character described, side walls, ledges secured to said side walls, a partition dividing said cabinet into upper and lower compartments, said partition consisting of a plurality of sections, one of said sections being removably mounted on said ledges, a second section slidably mounted on the first mentioned section,

and having a recess in that edge thereof opposite said first mentioned section, and a third section mounted on said ledges, provided with a recess opposed to the recess in the second section and having its edges overlapping the edges of the second section whereby said second section may be adjusted to vary the relative positions of the recessed portions of said second and third sections, and plates pivotally mounted on said third section and arranged to overlap those portions of said recesses adjacent to said side walls.

13. A cabinet of the character described, having a vapor chamber in the lower portion thereof adapted to be connected with a vapor generator, a compartment arranged above and communicating with said vapor chamber and adapted to receive the body of a patient, a partition to divide said compartment into upper and lower portions and comprising two parts, one of which is movable relatively to the other, said parts having recesses to receive the body of the patient, said parts also having a passageway for vapors, and the upper portion of said compartment having an opening through which the head of the patient may extend, and a movable closure for said compartment.

14. A cabinet of the character described having a vapor chamber, a compartment arranged above and communicating with said vapor chamber, a seat arranged within said compartment and comprising a hollow structure communicating with said vapor chamber and having an opening in the top thereof, a partition dividing said compartment into upper and lower portions and comprising two parts one of which is movable relatively to the other, said parts having opposed recesses arranged above said seat and adapted to embrace the body of a patient when on said seat, and said cabinet having a movable end wall to permit the patient to enter and leave the same.

15. A cabinet of the character described having a vapor chamber, a compartment arranged above and communicating with said vapor chamber, a seat arranged within said compartment and comprising a hollow structure communicating with said vapor chamber and having an opening in the top thereof, a partition dividing said compartment into upper and lower portions and comprising two parts one of which is movable relatively to the other, said parts having opposed recesses arranged above said seat and adapted to embrace the body of a patient when on said seat, the side walls of said cabinet above said partition having their upper edges inclined upwardly and rearwardly, a front wall for the lower portion of said cabinet hinged to the vertical edge of one of said side walls, and a closure for the upper portion of said compartment hinged to the upper edge of said front wall and resting normally upon said inclined edges.

16. A cabinet of the character described having a vapor chamber in the lower portion thereof, a compartment arranged above and communicating with said vapor chamber, a conduit to connect said vapor chamber with a vapor generator, a valve to control said conduit, means operable from the interior of said compartment to actuate said valve, a partition dividing said cabinet into upper and lower portions and having an opening to receive the body of a patient, and means to control the passage of vapors to said upper compartment, said upper and lower compartments having movable walls to permit the patient to enter and leave said cabinet.

In testimony whereof, I affix my signature hereto.

JOHN F. CLASS.