Dec. 1, 1942. B. HOWARD 2,303,465

HEALTH OR HUMID AIR CABINET

Filed May 10, 1941

Fig. 1.

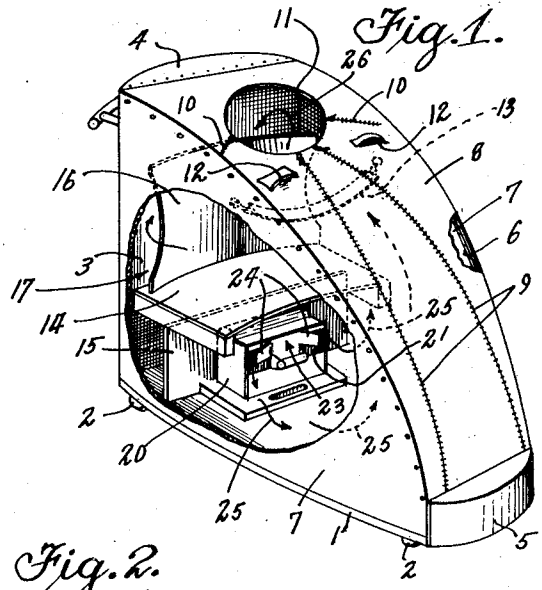


Fig. 3.

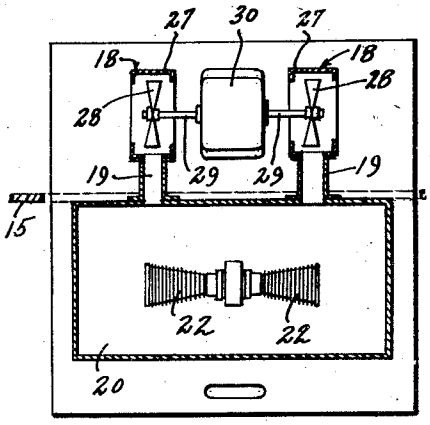


Fig. 2.

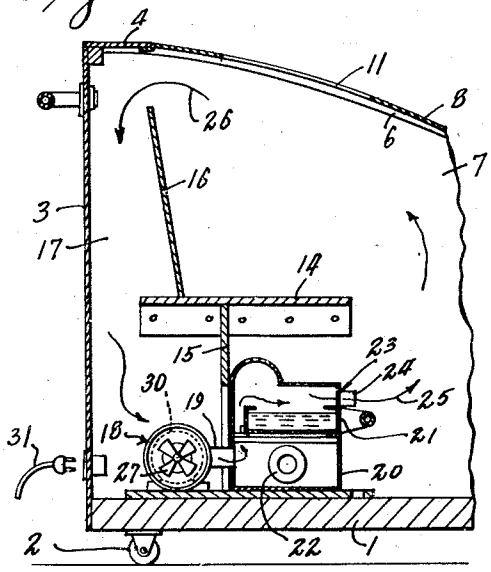
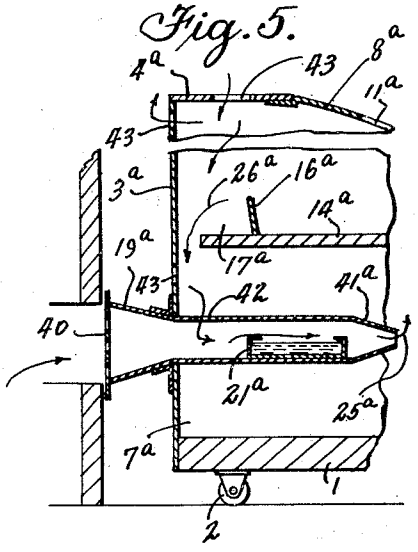


Fig. 5.



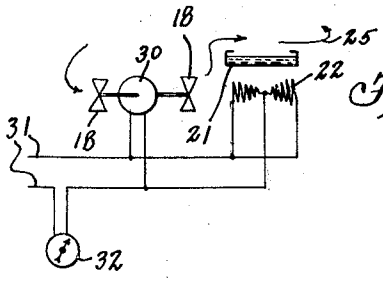


Fig. 4.

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HEALTH OR HUMID AIR CABINET

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4 Claims. (Cl. 4—164)

This invention relates to health cabinets, and more particularly to a cabinet for health treatments wherein there is maintained a circulation of warm, moist air for the stimulation of perspiration.

It is an object of this invention to produce a health cabinet within which there is maintained an air circulation and in which means are provided for maintaining the air heated and humid.

Another object of this invention is to produce a health cabinet in which a person is adapted to be confined and within which means are provided for maintaining a definite air circulation and for maintaining moisture in the air as it is circulated.

Another object of this invention is to provide a health cabinet in which means are provided for maintaining a circulation of warm, humid air where the circulation is maintained over the individual within the cabinet and where the circulation passes over the shoulders of the individual back of the individual and around over the front of the individual.

Another object of this invention is to provide a health cabinet in which there is mounted a water tray and in which means are provided for passing heated air over the surface of the water in the tray and for directing a continuous circulation of the air over an individual positioned within the cabinet.

Other objects and advantages of this invention it is believed will be apparent from the following hereinafter contained description of a preferred embodiment thereof as illustrated in the accompanying drawing.

In the drawing:

Figure 1 is a perspective view partly in section of the health cabinet embodying my invention.

Figure 2 is a fragmental sectional side elevation thereof.

Figure 3 is a horizontal section of the air circulating heating means embodied in my invention.

Figure 4 is a wiring diagram of the heating and circulating means embodied in my invention.

Figure 5 is a fragmental sectional elevation of the modified form of health cabinet embodying my invention.

In the preferred embodiment of my invention as illustrated in the accompanying drawing, 1 indicates a platform which is supported on wheels 2 to provide a mobile unit. Secured to the rear of the base 1 is a rear partition or plate 3 having an upper plate 4 secured thereto at the upper end. Secured to the forward end of the base 1 is a front plate 5. Curved ribs 6 define the upper extremities of the side walls 7 and the top surface of the cabinet. Any suitable material may be utilized for forming the side walls 7 and the front closure 8. As herein illustrated, canvas duck is stretched between the edges of the base plate 1 and the ribs 6 and extends over the front face 8. The duck is slit at the slits 9 and 10, which slits 9 and 10 terminate in a neck aperture 11. The duck is joined at the slits by the use of suitable fastening means such, for example, as those commonly referred to as "zippers."

Hand apertures 12 are formed in the duck to permit the hands to be thrust out of the cabinet. An arm sling 13 is mounted within the cabinet in order to support the arms.

Mounted on the base plate 1 is a chair 14 having a supporting partition 15 which extends transversely of the chamber within the cabinet. The chair 14 is provided with a back 16 suitably curved and which terminates short of the sidewalls 7. The back 16 is also positioned forwardly from the rear partition or plate 3 so as to provide an air passage 17.

Mounted upon the base plate 1 to the rear of the partition 15 is an air circulating fan 18 which directs air through ducts 19 into an air heating chamber member 20 in which there is mounted a water pan 21. Mounted in the chamber member 20 below the water pan 21 is a heating element 22. The air outlet from the chamber member 20 is provided with a baffle member 23 having baffle wings 24 which tend to direct the air as circulated along the inner surface of the side walls 7 toward the front of the cabinet as indicated by the circulation arrows 25. The air thus circulates up over the individual seated upon the seat 14 and passes up over his shoulders as indicated by the arrows 26, passes down through the air channels 17 and back into the circulating fans 18.

The fans or blowers 18 include the housings 27 and blades 28 mounted upon the motor shafts 29 of the electric motor 30. The ducts 19 are connected over the outlets of the housings 27.

Any suitable or desirable form of heating unit 22 may be employed and the power for operating the motor 30 and the heating elements 22 is derived from the power means 31, the leads from which are suitably coupled to the motor 30 and the heating element 22.

Mounted in the circuit is an electric clock switch 32 of any suitable or desirable form as is

well understood in the art, which may be set to control the supply of current to the motor **30** and heating elements **22** for the desired period of time and then cut out the operation of both the circulating motor and the heating elements **22**.

The heating elements **22** are sufficient to supply the heat required for maintaining the air circulated at the desired temperature and the heat is supplied to the water in the water pan **21**. The circulation of the air by the blowers **18** over the surface of the water so takes the heat away from the water as to maintain the same at a relatively low temperature. The effect is that the relative humidity within the treatment chamber is maintained at approximately 45% with air temperatures between 120° and 130° F.

Of course both the temperatures and relative humidity are subject to variation, dependent upon the rate of circulation of the air and the temperature, by maintaining a relatively high velocity of air over the water in the pan **21**. The water in the pan, however, is maintained at the relatively low temperature so that very little evaporation of water occurs and as the individual within the cabinet perspires, the perspiration of the individual aids in maintaining the humidity of the air at the required point.

In the modified form of my invention as illustrated in Figure 5, similar numerals have been used to indicate similar parts. The principal difference in this modification from that heretofore described lies in the means provided for heating the air as it is circulated. In this modification the air is provided through a conduit **19**[a] which is shaped to fit over a register **40** through which hot air from any suitable or desirable source is supplied, ordinarily for the purpose of heating the room. The duct leads through the rear partition **3**[a] and the water pan **21**[a] is mounted in the duct. The reduced end **41**[a] of the duct provides the means for directing the circulation. The circulation duct is provided with an opening **42** through which air from within the cabinet passes on its circulation to again pass over the surface of the water in the pan **21**[a]. In this modification of my invention, as there is continuously introduced heated air from the register **40**, it is essential to provide outlets **43** from which air may pass from within the cabinet in order to maintain the described circulation.

The neck apertures **11** and **11**[a] are ordinarily closed through any suitable means such as by wrapping a towel around the neck of the individual positioned within the cabinet for treatment, the head of the individual protruding from the cabinet.

The front closure or face of the cabinet is inclined upwardly from the front panel member **5** to the upper edge of the rear panel or partition **3** and as thus inclined, serves to confine the direction of travel of the air within the cabinet.

Having fully described my invention, it is to be understood that I do not wish to be limited to the details herein set forth, but my invention is of the full scope of the appended claims.

I claim:

1. A health cabinet comprising a closed chamber, a seat within the chamber positioned in advance of the rear of the chamber to provide an air passage between the rear of the chamber and the seat, an air circulating means below the seat, an air heating chamber having a water pan therein below the seat and through which air circulated by the circulating means is directed, and means for directing the heated air to cause the same to circulate forwardly in the cabinet and to pass upwardly over the seat front and then downwardly through the air passage.

2. In a health cabinet, the combination including an enclosed treatment chamber, a seat within the chamber advanced from the rear thereof, said seat having a back, air circulating heating and humidifying means positioned below the seat for circulating heat and humidified air from under the seat and directing the same forwardly of the chamber to rise up over the front of the seat and then return between the seat back and the rear of the chamber to the said circulating heating and humidifying means.

3. In a health cabinet, the combination including an enclosed treatment chamber, a seat within the chamber advanced from the rear thereof, an air circulating heating and humidifying means positioned below the seat for circulating heated and humidified air from under the seat and directing the same forwardly of the chamber to rise up over the front of the seat and to return down the back of the seat to the said circulating heating and humidifying means.

4. A health cabinet comprising means providing an enclosed chamber, a seat within the chamber positioned in advance of the rear of the chamber to provide an air passage between the rear of the seat and the chamber, air blower means mounted below the seat, a water pan mounted below the seat, means for heating the water in the water pan, means for directing air from the blower means over the surface of the water in the pan, baffle means for directing the flow of air leaving the surface of the water to direct the flow of air forwardly of the cabinet so that the same rises over the front of the seat and is returned through the air passage provided between the rear of the seat and the chamber.

BOB HOWARD.