O. M. POTTERF.

ELECTRICALLY HEATED DRIER FOR CLOTHING.

APPLICATION FILED MAR. 31, 1916.

1,271,613. Patented July 9, 1918.

FIG. 1.

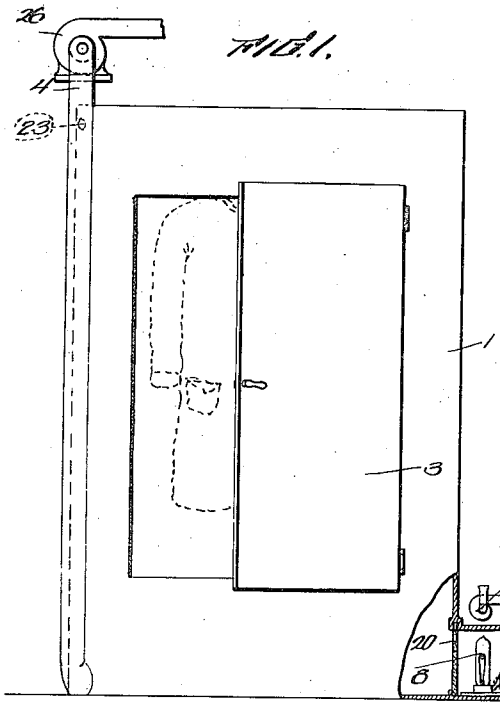


FIG. 2.

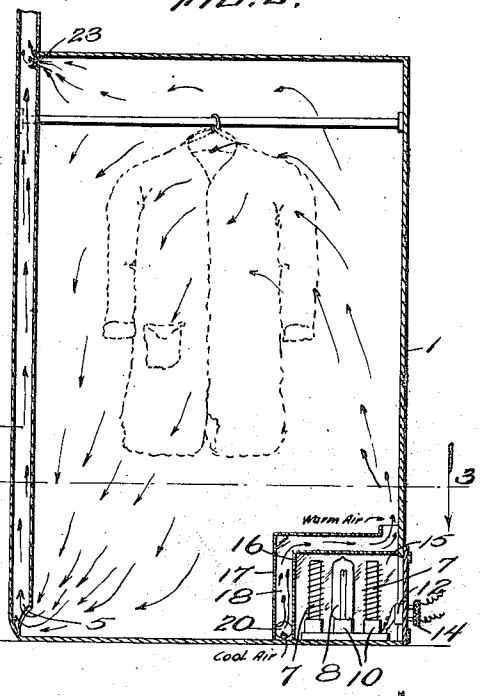


FIG. 3.

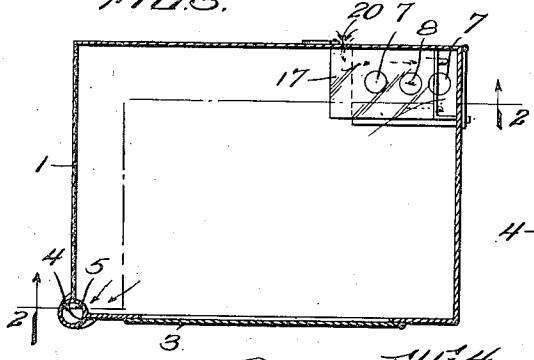
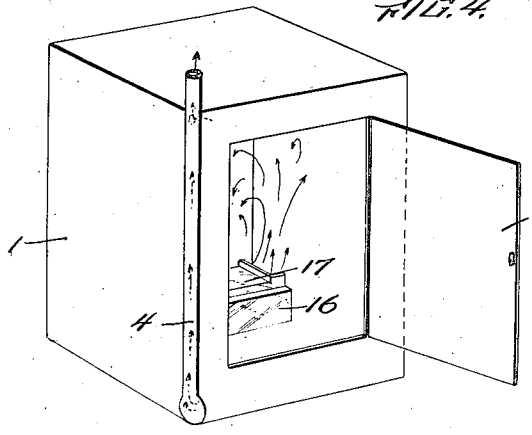


FIG. 4.



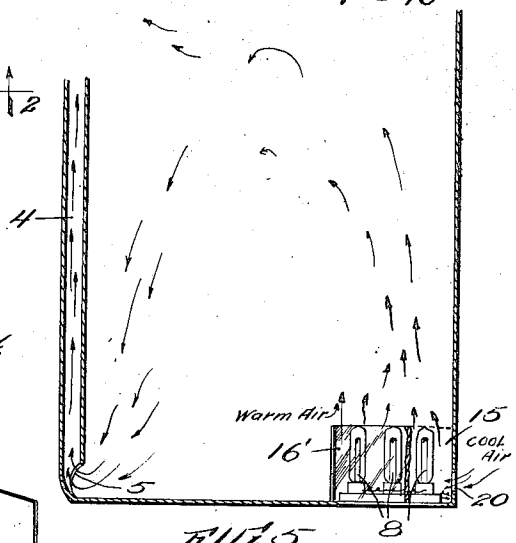


FIG. 5.

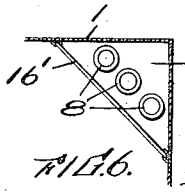


FIG. 6.

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ELECTRICALLY-HEATED DRIER FOR CLOTHING.

1,271,613. Specification of Letters Patent. Patented July 9, 1918.

Application filed March 31, 1916. Serial No. 88,056.

To all whom it may concern:

Be it known that I, ORLYSTIS M. POTTERF, a citizen of the United States, residing at Larned, in the county of Pawnee and State of Kansas, have invented certain new and useful Improvements in Electrically-Heated Driers for Clothing, of which the following is a specification.

My invention relates to drying cabinets or closets for use especially in drying articles of clothing and deodorizing them after being cleansed in gasolene.

The main purpose of my invention is to provide a closed cabinet or drying closet in which the clothing may be subjected to currents of warm air constantly maintained in circulation without any danger of becoming overheated and without the possibility of an explosion of the very inflammable gasolene fumes liberated from the clothing. Another object is to safely illuminate the interior of the closet from the source of heat energy.

In the accompanying drawings, Figure 1 is a front elevation of a drying closet embodying my invention; Fig. 2 is a vertical section of a modification thereof taken on the line 2—2 of Fig. 3; Fig. 3 is a transverse section on the line 3—3 of Fig. 2; Fig. 4 is a perspective view of the same on a reduced scale; Fig. 5 is a vertical section similar to Fig. 2, but showing a modified form of heating device; and Fig. 6 is a detail section of the heating arrangement shown in Fig. 5.

When the clothing has been subjected to a "dry cleaning" process which usually consists in being soaked or washed in benzin, gasolene or other volatile cleansing liquid, it is necessary to permit the escape of the volatile liquid remaining in the fibers of the cloth or fabric and to deodorize the garments by removing all traces of the fumes of gasolene or other cleansing agent. This cannot be done in a room heated by a stove or other open fire because of the highly inflammable nature of the fumes produced by the volatilization of gasolene. Moreover it is unsafe to even use a heated room for this purpose on account of the danger of an explosion from an accidentally lighted match or other source of fire and also because of the danger of asphyxiation to the attendants from the gasolene fumes.

My invention provides (*a*) a safe method of withdrawing the vapor and conducting it through a closed exhaust conduit to the atmosphere; (*b*) a safe method of heating the air and maintaining a forced draft or currents of air which thoroughly penetrate the clothing thereby enhancing the volatilization and effectually deodorizing the clothing; and (*c*) provides a safe method of illuminating the interior of the closet so that the clothing may be examined without removal.

The closet or drying chamber 1, may be constructed of metal or any suitable material and is provided with a door 3. An outlet escape or exhaust channel or conduit 4, is preferably provided at one corner of the closet and leads to the outside atmosphere. The heating device is preferably located diagonally opposite the inlet 5 of the exhaust channel 4, as this arrangement causes the air currents to circulate throughout the entire area of the chamber.

In the form shown in Figs. 2, 3 and 4, the heaters may be of any type of resistance wire, such as illustrated at 7, one or more of the heaters being preferably of the lamp bulb type 8, so that it may serve the additional function of illuminating the interior of the chamber. These heating units may be held in sockets 10, and connected either in series or parallel relation to the terminals of the socket 12, adapted to receive the plug 14, connected to any suitable source of electric power. The degree of heat may be graduated as desired by connecting in circuit any number of the heaters.

In Figs. 2, 3 and 4, the heating units are inclosed in a tight box-like compartment 15 so that no fumes can come in contact with the hot wire of the resistances 7. Over the inner walls 16, of the heater inclosure I place another wall member 17, spaced therefrom to form an intervening channel 18, constituting a warming chamber. The air enters at 20, and becomes heated in passing through the channel 18 in contact with the wall 16. In order that the interior of the cabinet or closet may be illuminated from the heater 8, I may make the walls 16 and 17 of glass.

Instead of entirely inclosing the heating chamber 15, I may inclose a space, as by a plate 16′ of glass or other suitable material secured across one corner, leaving the top open. In this case, I employ the lamp type of heaters in which the resistance filament is inclosed in a glass bulb so that there is no danger of igniting the highly inflamma-

ble gasolene fumes. In both arrangements the heating devices are sealed from the drying chamber.

I have indicated in the drawings by means of arrows the general direction of the air currents generated by the heated air constantly rising from the heating chamber. These heated air currents pass upwardly through the cabinet or closet and around and through the clothing suspended therein, causing the gasolene or other volatile cleansing fluid in the fibers of the cloth to be rapidly evaporated and carried downward with the cooling out-going air through the outlet port 5 and out the exhaust conduit 4. For the purpose of assisting the draft through the exhaust I may provide a small port or opening 23, at the top of the cabinet through which a portion of the heated air and lighter fumes will pass and thereby cause a suction action to increase the draft through the exhaust channel.

The garments may be easily inspected at any stage of the drying and deodorizing process, and new garments may be hung in the cabinet without difficulty and without disarranging those already therein because of the light from the heaters.

I have described in detail the particular constructions illustrated in the accompanying drawings for the purpose of clearly disclosing an embodiment of my invention but it is obvious that modifications and changes may be made therein within the purview of my claims and without departing from the spirit of my invention. Instead of locating the heater inside of the cabinet, I may place it in a conduit upon the outside of the cabinet and connected with the inlet 20, as illustrated in Fig. 1, employing a blower or fan 25 to cause a forced draft. An exhaust fan or blower 26 may also be used to increase the draft through the outlet channel 4 if desired.

I claim:—

1. A cabinet or closet for drying and deodorizing clothing, comprising an inclosed chamber or cabinet provided with a sealed heating device adjacent the bottom, an air-heating channel adjacent and passing over said heating device and having an inlet from the exterior and opening into the interior of the cabinet at one side thereof, and an exhaust channel having an outlet port or opening adjacent the bottom of the cabinet upon the side opposite the heating device, and a smaller opening or port connecting the exhaust channel with the upper part of the cabinet.

2. A cabinet or closet for drying and deodorizing clothing, comprising an inclosed chamber or cabinet, an electric heating device therein, an inclosing wall surrounding said heating device and sealing it from the drying chamber, a heating conduit adapted to convey air currents from the outside and lead them into the cabinet at one side thereof and located adjacent said heating device, and an exhaust channel leading from the side opposite the heating device.

3. A cabinet or closet for drying and deodorizing clothing, comprising an inclosed chamber or cabinet, an electric heating device therein, adapted to supply heat and a certain amount of light, an inclosing wall surrounding said heating device and sealing it from the drying chamber and adapted to transmit the heat and light from said device, an air duct or conduit adapted to convey air from the outside adjacent said heating device and introduce it into the chamber at one side thereof, and an exhaust conduit leading from the side opposite the heating device adjacent the bottom of the chamber.

4. A cabinet or closet for drying and deodorizing clothing, comprising an inclosed chamber or cabinet provided with a sealed electric heating device adjacent the bottom, an air-heating channel adjacent and passing over said heating device and having an inlet from the exterior and opening into the interior of the cabinet, means for controlling the heat supplied by said device, and an exhaust channel having an outlet port or opening connecting with the upper part of the cabinet.

In testimony whereof I affix my signature in presence of two witnesses.

ORLYSTIS M. POTTERF.

Witnesses:
W. H. VERNON,
J. S. VERNON.