

April 1, 1930.

E. HUTCHINSON, JR

1,752,797

DRYING CABINET

Filed Sept. 20, 1928

2 Sheets-Sheet 1

FIG. I.

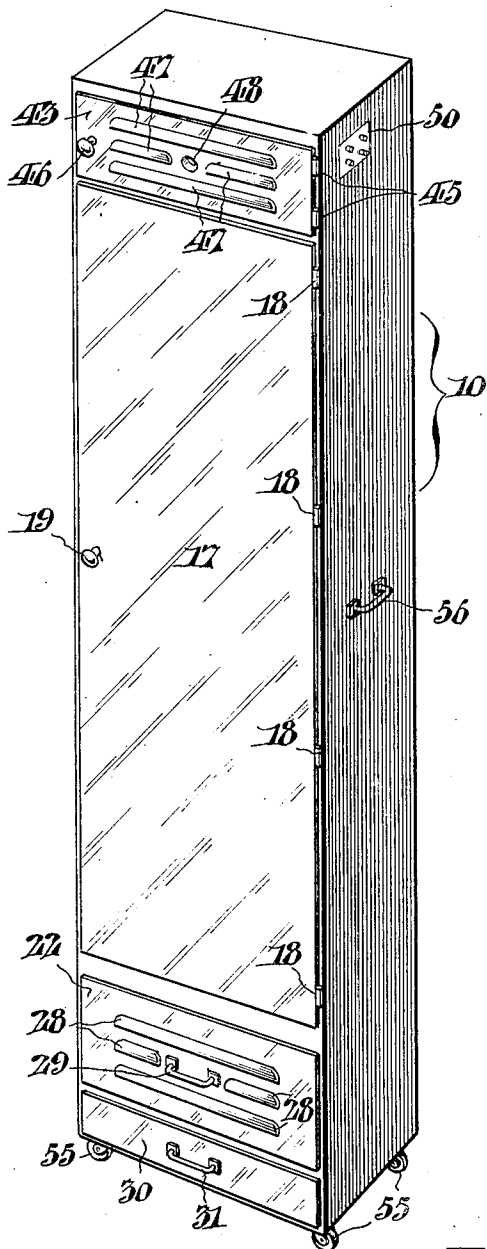


FIG. IV.

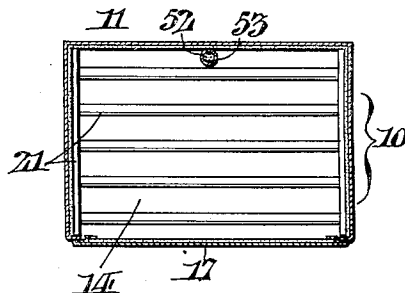


FIG. V.

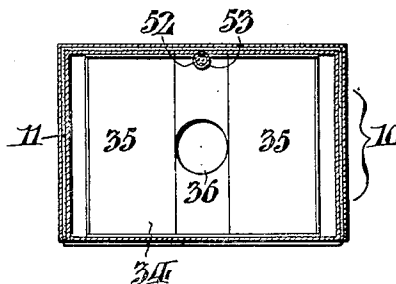


FIG. VI.

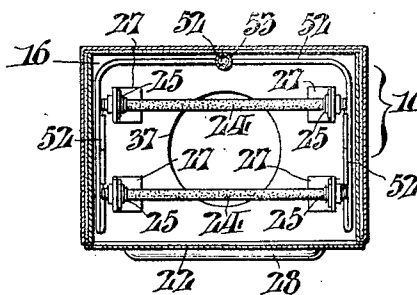
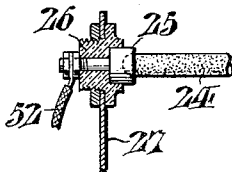


FIG. VII.



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2 Sheets-Sheet 2

FIG. II.

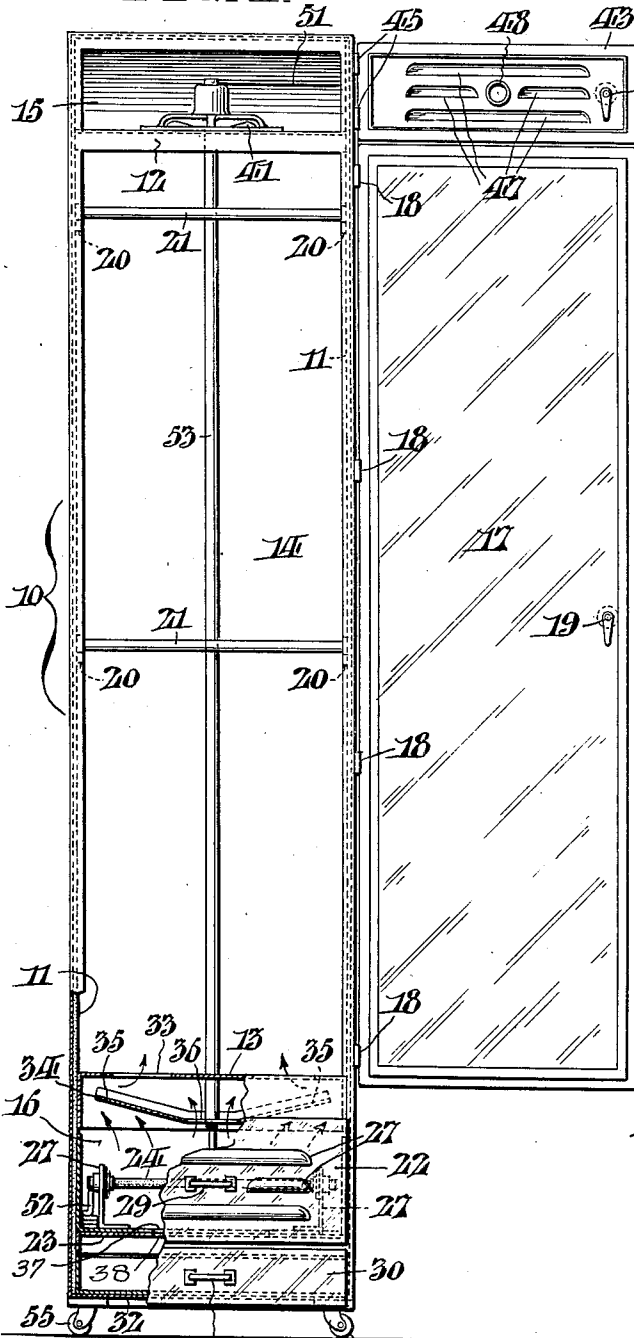
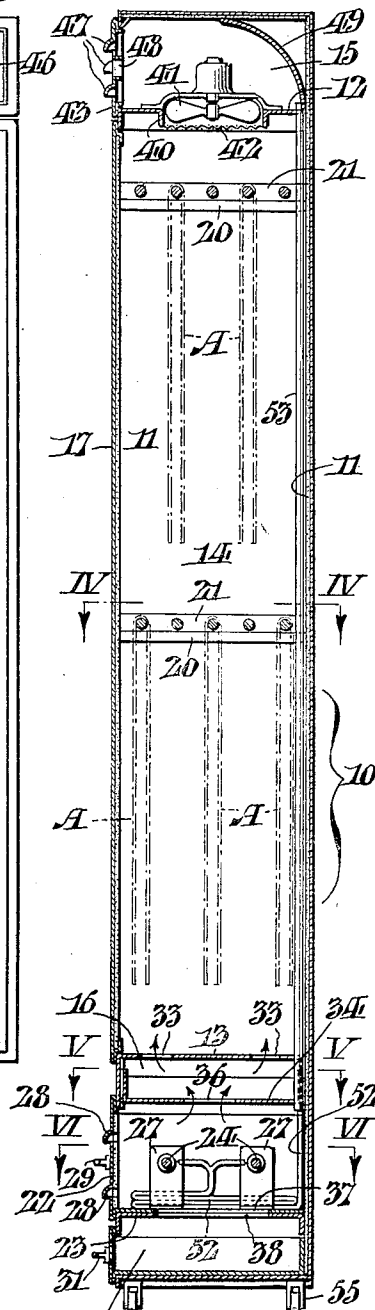


FIG. III.



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## UNITED STATES PATENT OFFICE

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## DRYING CABINET

Application filed September 20, 1928. Serial No. 307,079.

This invention relates to drying cabinets—more particularly to a type intended for domestic use in drying small articles of wearing apparel requiring frequent laundering, such, for example, as lingerie, stockings, handkerchiefs, etc.

The main object of my invention is to provide a cabinet, suitable to the purpose referred to, which is inexpensive though neat in appearance; that is safe, highly efficient and economical in operation; which is compact so as to require very little space for its accommodation; and, moreover, one that is adaptable either as a portable structure or as an insert capable of being readily built into a wall.

How the foregoing as well as other important advantages may be readily attained in practise will be manifest from the detailed description hereinafter, when considered in connection with the attached drawings.

Fig. I is a perspective view of a drying cabinet conveniently embodying my invention.

Fig. II is a front elevation of the cabinet with its doors open, and portions thereof broken away and in section to expose interior details.

Fig. III is a vertical sectional view of the structure.

Figs. IV, V and VI, are plan sectional views at different levels vertically of the cabinet as indicated, respectively, by the arrows IV—IV, V—V AND VI—VI, in Fig. III; while,

Fig. VII is a fragmentary sectional illustration showing details associated with electric means by which the air is heated within the cabinet.

As herein delineated, the cabinet comprises a comparatively narrow upright rectangular casing 10 which may be conveniently built from light gage sheet metal, and which is preferably lined throughout with asbestos 11 or like material for fire proofing. Horizontal upper and lower cross partitions 12, 13 serve to set apart within the casing 10 a drying chamber 14, and a smaller compartment 15 above said chamber, as well as a space 16 beneath for purposes later on ex-

plained. The drying chamber 14 is provided with a frontal door 17 which is hinged as at 18 along one edge to the cabinet 10, and at the other edge provided with a knob latch 19. At suitable intervals vertically I secure to the side walls of the chamber 14, supports 20 (Figs. II, III and IV) for removable bar racks 21 wherefrom the articles which are to be dried may be suspended as conventionally indicated by the dot and dash lines at A in Fig. III.

The space 16 beneath the drying chamber 14 within the casing 10 is, in part, occupied by a removable drawer 22 which is without a back, and slidingly supported by still another transverse partition 23. This drawer 22 serves as a housing for heating instrumentalities having, in the present instance, the form of electric resistor elements 24, preferably of the kind ordinarily known as "glow-bars". These glow bars 24 are supported at the ends, as shown in detail in Fig. VII, by socketed contacts 25 embedded in insulated bushings 26 which are secured to upper ends of spring members 27, upstanding from the bottom of the drawer 22, see Figs. II and VI. By the opposing action of these spring members 27, it will be seen that the bars 24 are firmly held in place with assurance of good electrical contact with the sockets 25. At the front, the drawer 22 is provided with vent openings 28 for induction of air into the cabinet, as well as with a pull handle 29.

Underlying the drawer 22 is a removable pan 30 to receive drip water from the articles A. This pan 30 is likewise in drawer form and equipped with a pull handle 31 at the front, and it rests on the bottom 32 of the cabinet.

The air entering the vent openings 28 and heated by the glow-bars 24, enters the drying chamber 14 through openings 33 in the partition 13, the latter acting in cooperation with a baffle diaphragm 34 (Figs. II and V) in protecting the articles A within said drying chamber against the direct action of the heating bars 24. As shown in Fig. II, the baffle diaphragm 34 has inwardly sloping end portions 35 that under-reach the openings 33 in the horizontal partition 13, and a central

orifice 36 (Fig. V) in line with registering openings 37, 38 (Figs. II, III and VI) respectively in the bottom of the drawer 22 and in the nethermost horizontal partition 23.

5 By this arrangement, the drip water from the articles A in the drying chamber 14 finding its way through the openings 33 in the partition 13, encounters the sloping end portions 35 of the baffle diaphragm 34 and is thereby directed to the central orifice 36 of the latter so as to fall through the openings 37, 38, in the bottom of the drawer 21 and the lowermost partition 23, into the pan 30, around the heating bars 24, i. e., free from possibility of contact with the latter, and without interfering with the free upward flow of heated air into the drying chamber 14.

10 Referring again to Figs. II and III, it will be noted that the uppermost horizontal partition 12 has a central opening 40 fitted with an electrically driven circulating fan 41, said opening 40 being protected by a guard 42 of wire mesh. The office of this fan 41 is to promote upward flow of the heated air in the drying chamber 14 and thereby accelerate the drying action. The top or fan compartment 15 is protected by a frontal door 43, which, like the door 16, is mounted to swing horizontally on hinges 45 along one edge of the cabinet 10, and provided with a knob latch 46 to secure it in closed position. The door 43 is formed with a number of vents 47, as well as with a central circular opening 48 enabling application of a hose to conduct the heated exhausted air for use exteriorly of the cabinet 10. When the door 43 is opened, the full blast of the heated exhaust air may be utilized for hair drying or like purposes, the flow of the air under either condition being facilitated, through provision within the fan compartment 15, of a curved deflecting surface 49 tending to direct the heated air laterally out through the door opening.

45 To control the heating bars 24 and the motor of the fan 41, I equip the cabinet with a conventional form of double switch such as shown at 50 in Fig. I, the same being placed, for convenience in the present instance, near the top of the cabinet at one side. 50 The conductors 51 Fig. II carrying current to the motor of the fan 41 may be run direct to one section of the double switch 50; while the conductors 52 for the heating elements 23 are run up through a protective tube 53 located centrally of the rear wall internally of the cabinet 10. From Figs. II and III it will be noted that the tube 53 terminates at the bottom directly above the top edge of the drawer 21, and that a sufficient length of the conductors 52 is left for coiling within said drawer (see also Fig. VI) to permit removal of the latter without necessity for breaking any of the electrical connections.

In the form herein illustrated the cabinet 65 10 of my invention is portable by virtue of

being mounted on roller casters 55 and equipped with handles 56 (Fig. I) on opposite side walls to facilitate movement from place to place. If desired however, by omission of the casters 55 and the handles 56, and reallocating the switch 50, the cabinet 10 may be used as an inset capable of being built into the walls of buildings.

Having thus described my invention, I claim:

1. In a drying cabinet of the character described, a casing affording a vertical drying chamber with a door permitting access for placement of articles which are to be dried; a support beneath the chamber with spaced spring members upstanding from its bottom to support electric resistor heating bars at opposite ends, and superjacent baffle means collecting and directing drippage from the articles being dried directionally away from possibility of contact with said heating bars.

2. In a drying cabinet of the character described, a casing affording a vertical drying chamber with a door permitting access for placement of articles which are to be dried; means beneath the chamber to heat air for upward flow within the cabinet; a pan underlying the heating means, and baffle means for collecting water drippage from the articles within the chamber and diverting the same around the heating means to fall into the pan aforesaid.

3. In a drying cabinet of the character described, a casing affording a vertical drying chamber with a door permitting access for placement of the articles which are to be dried; heating means beneath said chamber; and a baffle diaphragm having inwardly sloping portions serving to direct drippage from the articles being dried away from contact with the heating means as well as protecting said articles against the direct action of such heating means without interfering with free upward flow of the air within the cabinet.

4. In a drying machine of the character described, a casing affording a vertical drying chamber with a door permitting access for placement of the articles which are to be dried; heating means beneath the chamber; a pan underlying the heating means; and baffle means protecting the articles against the direct action of the heating means without interfering with free upward flow of the air in the chamber, and further serving to divert water drippage from the articles around the heating means into the pan aforesaid.

5. In a drying cabinet of the character described, a casing affording a vertical drying chamber with a door permitting access for placement of the articles which are to be dried; heating means beneath the drying chamber; and a compartment above the drying chamber with a fan therein to promote upward flow of air through the cabinet, said

compartment having an exhaust vent opening permitting attachment of a hose to conduct away the heated exhaust air for use exteriorly of the cabinet.

5 6. In a drying cabinet of the character described, a casing affording a vertical drying chamber with a door permitting access for  
10 placement of the articles which are to be dried; heating means beneath the drying chamber; and a compartment above the drying chamber with a fan therein to promote  
15 upward flow of the heated air through the cabinet, said compartment having a separate door which, upon being opened, enables employment of the full blast of the heated exhaust air for drying purposes exteriorly of the cabinet.

7. In a drying cabinet of the character described a casing affording a vertical drying  
20 chamber with a door permitting access for placement of the articles which are to be dried; heating means beneath the drying chamber; a compartment above the drying chamber with a fan therein to promote up-  
25 ward flow of the heated air through the cabinet, said compartment having a separate door which, upon being opened, enables use of the full blast of the heated exhaust air for drying purposes exteriorly of the cabinet;  
30 and a rounded deflecting surface to direct the heated air laterally outward through the door opening.

8. In a drying cabinet of the character described, a narrow upright casing mounted on  
35 rollers and provided with handles at the sides to facilitate moving it from place to place, said cabinet being interiorly partitioned to set apart a drying chamber, a space beneath said chamber, and a compartment  
40 thereabove; air heating means in the space below the drying chamber; a baffle member having inwardly sloping portions serving to collect and divert drippage away from the heating means; and propelling means in the  
45 compartment above the drying chamber operative to promote upward flow of heated air within the cabinet.

In testimony whereof, I have hereunto signed my name at Philadelphia, Pennsylvania, this 18th day of September, 1928.

50 EDWARD HUTCHINSON, JR.