May 29, 1945. J. J. McCAULEY 2,377,255

WALL CABINET CLOTHES DRIER

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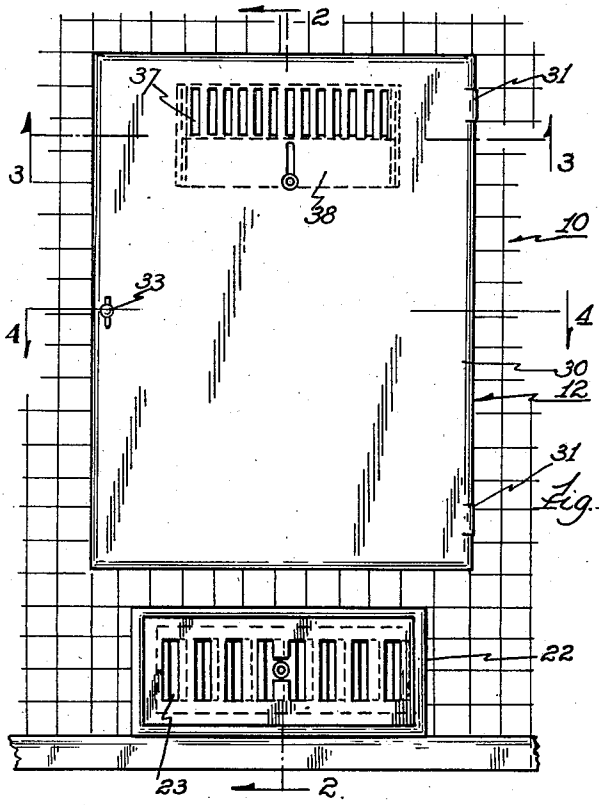


Fig. 1.

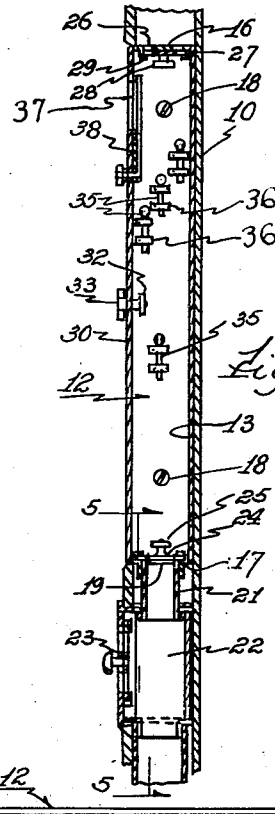


Fig. 2.

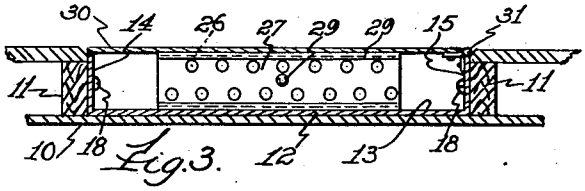


Fig. 3.

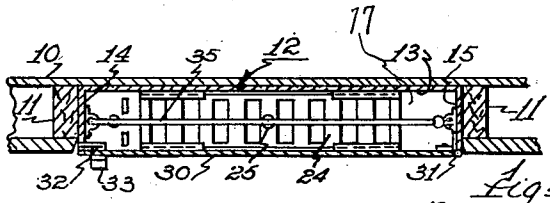


Fig. 4.

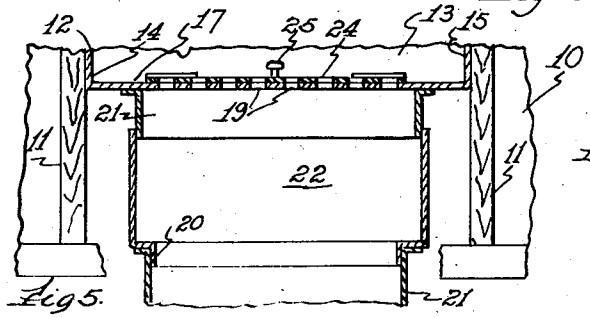


Fig. 5.

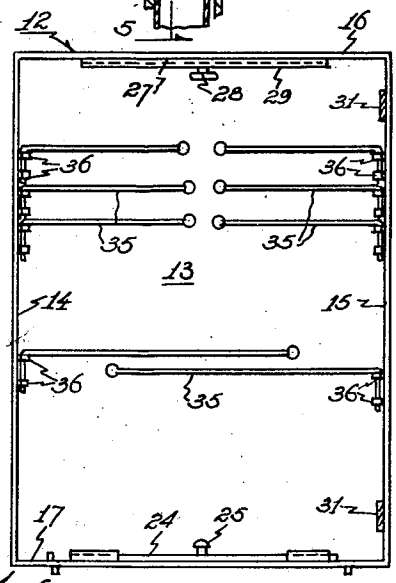


Fig. 6.

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WALL CABINET CLOTHES DRIER

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2 Claims. (Cl. 34—233)

My invention is related to clothes driers of the cabinet type which when manufactured are made as individual portable units and which are especially adapted to be installed in walls of any room desired, and which when in installed position are nearly or substantially flush with the outer surface of the wall. The relatively crowded conditions and lack of space prevailing in apartments and other modern dwellings seldom provide either space or means for drying of garments or the like which are frequently washed, i. e. stockings, underclothing, etc., and which it is the prevailing practice to hang such articles to dry either inside the home, on porches or the like, and particularly when the weather is cold and the same are hung indoors where long periods of time are required before the same become dry. These conditions and practices have resulted in the garments being in the way in bathrooms or kitchens during the drying period.

It is an important object of my invention to provide a clothes drier including a cabinet having structural features which facilitate the quick and easy installation and mounting of the clothes drier cabinet or unit in a wall and also into communication with the normal and regular source of propelled or moving air, and which the use of in that way within the dwelling is normally inconspicuous and optionally conceivable and in which the garments can be relatively quickly dried.

It is a further object of my invention to provide economically manufacturable clothes driers of the aforesaid cabinet type and installable in walls or partitions or adjacent thereto, and which include heated air inlets and outlets and which are connectable to conventional forms of hot air systems, and which include selectively movable pivoted or hinged closure means and adjustable suspension or hanger members therein.

Other and further objects of my invention will be apparent from the following description, the accompanying drawing, and expended claims.

Fig. 1 is a front elevational view of a section of a conventional wall illustrating the front of said drying cabinet and of a wall hot air register therebelow.

Fig. 2 is a vertical cross sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a cross sectional view taken on a horizontal plane indicated by line 3—3 of Fig. 1.

Fig. 4 is a cross section view taken on the horizontal plane indicated by line 4—4 of Fig. 1.

Fig. 5 is a fragmentary and cross section view taken on line 5—5 of Fig. 2.

Fig. 6 is a front elevational view of the open face of the cabinet with the front door removed.

Referring to the drawing reference numeral 10 illustrates a section of a vertical wall which in the illustration of the drawing is a tile wall and which includes a plurality of vertical spaced apart joists or trusses 11 which form parts of conventional walls in dwellings.

Numeral 12 generally designates a cabinet which may be of any desired shape though preferably of rectangular form as illustrated in the drawing. Said cabinet, when of rectangular form is composed of rear wall 13, opposite vertical side walls 14 and 15 and top and bottom walls 16 and 17 respectively, all of which may be formed integral and optionally from a suitable blank of material such as metal.

The wall 10 is cut away to form an opening and to receive the said cabinet, the cabinet preferably being of a width less than the distance between the two adjacent joists or trusses 11. The side walls 14 and 15 may optionally be provided with a plurality of spaced apart holes (not shown), which may be formed by punching, and through which nails or screws or equivalent fastening elements 18 (see Figs. 2 and 3) may be driven into the adjacent trusses 11 respectively to support the cabinet in the desired position.

As illustrated in Figs. 2 and 5 the bottom wall 17 is provided with a plurality of openings or ports 19 which in the particular illustration of my invention of the drawing are shown as of rectangular shape. A connecting conduit section 21, which may be formed with the upper portion or lip, is connected by soldering, welding, or the like to bottom 17 and surrounding said inlet ports 19. The lower end of said conduit is communicatively connected either to the hot air system of the building or to the upper portion of the compartment or receptacle of a conventional register such as 22 illustrated in Figs. 1 and 2. The register unit 22 may be provided with any form of adjustable closure, for example that designated as 23 in Fig. 2, whereby the openings from said register unit to the particular room may be selectively opened or closed. The register unit 22 is communicatively connected by an air conduit to the source of hot air in a conventional manner, for example by an inlet conduit, a segment of which is illustrated at 21 in Fig. 2.

The inlet ports or openings 19 are preferably provided with suitable adjustable closure means which I have illustrated as a grill 24 having a plurality of spaced openings therein which are adapted in register with openings 19. The grill

24 is provided with a handle 25 as shown in Figs. 2, 4, and 5, said grill being slidably mounted on the inner face of the bottom wall 17 between inward extensions on said wall 17. It will be understood that horizontal movement of said closure or grill will fully or partially open or close the said inlet openings 19.

As illustrated in Figs. 2 and 3, which exemplify one form of my invention, the top or upper wall 16 of cabinet 12 has formed therein a plurality of spaced apart openings or outlet ports 26 which are adapted to be selectively closed by a suitable closure member 27 and which is illustrated in the form of a flat plate or panel having a plurality of spaced apart holes therein which are adapted to register with the outlet ports 26 in the top wall of the cabinet. The slidable closure member 27 is preferably provided with a handle 28 and is held in position by a plurality of spaced apart hook members 29 which are secured to the inside of top wall 16 in any suitable manner, as by welding or the like.

This particular type of construction wherein closable air outlet ports are provided in the top wall, is adapted to be utilized in instances where it is either desirable to expel the air from within the cabinet into the building walls or in instances where such expelled air is desired to be conveyed through a closed path for further use at other points.

A front closure forming a door or cover 30, and preferably of rectangular shape and preferably formed of metal, is hingedly mounted and connected to one side wall of the cabinet, preferably to the right wall 15, by means of a pair of hinges 31 as illustrated in Figs. 3 and 4. Said closure 30 may assume the form of a mirror-bearing frame as desired, or the same itself may be a mirror hingedly mounted in substantially the described manner. The closure 30 is preferably provided with a suitable latch 32 having an outwardly projecting grippable handle 33 thereon to permit selective locking of said closure.

As shown in Figs. 2, 4, and 6, a plurality of hangers 35 are suspended and anchored in any spaced apart relation along the walls, preferably the opposed side walls of the cabinet. Said hangers or rods may desirably be of substantially right angled shape and their respective bent end portions are pivotally anchored in the inwardly extending portions of a plurality of eyelets or brackets 36 which may be secured to the side walls of the cabinet in any suitable manner, as for example by welding or the like. Said eyelets, brackets or inward extensions may likewise be formed by punching the cabinet walls inwardly along substantially U shaped paths and also forming apertures in the same, after which said punched out portions may be bent into the cabinet into substantially perpendicular position wherein the respective hanger rods may be either removably or securely mounted thereon. It is of advantage to mount the said hanger rods 35 pivotally substantially as hereinbefore described so as to permit the same to be swung outwardly through the front opening of the cabinet when the door is open to facilitate a placement thereon of garments or the like. After the desired articles are suspended on said hanger rods 35 the same may be swung inwardly and the door closed and releasably locked if desired.

As shown in Figs. 1 and 2, I have illustrated the door 30 provided with ventilator openings or slots 37 which are preferably aligned transversely. These openings provide outlet ports for the air whenever it is desired that a part or all of the air be expelled into the room in the wall of which the said drying cabinet is mounted. Said ventilator openings 37 are adapted to be closed by a slidable plate-like closure 38 which may be made to slide either vertically or horizontally. Said closure plate 38 in the illustration of the drawing is shown as provided with an enlarged knob or handle 39 whose inner reduced end extends through slot 40 of door 30 and is threadingly mounted in said closure plate so as to permit tightening or releasing of said plate 38 when it is desired to slide same and re-secure it in desired position with respect to air outlet ports 37. As illustrated, the said handle 39 extends through a suitable slot 40 formed in said door to place it into a grippable position. The plate-like closure 38 is preferably slidable between inwardly directed lugs or extensions (not shown).

The use of my said cabinet as above described permits relatively quick drying of the wet or damp articles placed thereinto by the absorption of the air circulated in and through the said cabinet, and provides a convenient means which is entirely out of the way both when in use and when not in use.

I am aware that many changes may be made and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not desire to limit the patent granted thereon otherwise than necessitated by the prior art.

I claim as my invention:

1. In a substantially concealable clothes drying cabinet adapted to be mounted in a wall; a housing having back, side, top and bottom walls and having a front opening; a door hingedly connected to said cabinet and adapted to close said front opening said door being normally positioned when closed to lie substantially in a common plane with the adjacent wall surface; said bottom wall having a plurality of air inlet ports therein and having an outwardly projecting lip about the area of said inlet ports; an adjustable closure on said bottom wall adapted to close said inlet ports; said top wall having a plurality of air outlet ports therein; a conduit section connectable to the lip on the bottom of said housing and adapted to be communicatively connected to a circulating air source; and a plurality of hanger bars swingably mounted on the walls within said cabinet and extending into said cabinet.

2. In a substantially concealable clothes drying cabinet adapted to be mounted in a wall; a housing having back, side, top and bottom walls and having a front opening; a door hinged on one of said side walls and adapted to close said front opening; said bottom wall having a plurality of air inlet ports therein and having an outwardly projecting lip about the area of said ports; an adjustable closure on said bottom wall adapted to close said inlet ports; said top wall having a plurality of air outlet ports therein; a movable adjustable closure member mounted on said top wall and adapted to close said outlet ports; said door having a plurality of spaced air outlet openings in its upper portion; an adjustable slidable closure mounted on the upper portion of said door and adapted to close said upper outlet openings of said door; and a plurality of hanger bars pivotally mounted on the side walls of said cabinet and extending into said cabinet.

JOHN J. McCAULEY.