

Nov. 20, 1928.

1,692,271

L. JUDELSON

DRIER CABINET

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FIG. 1

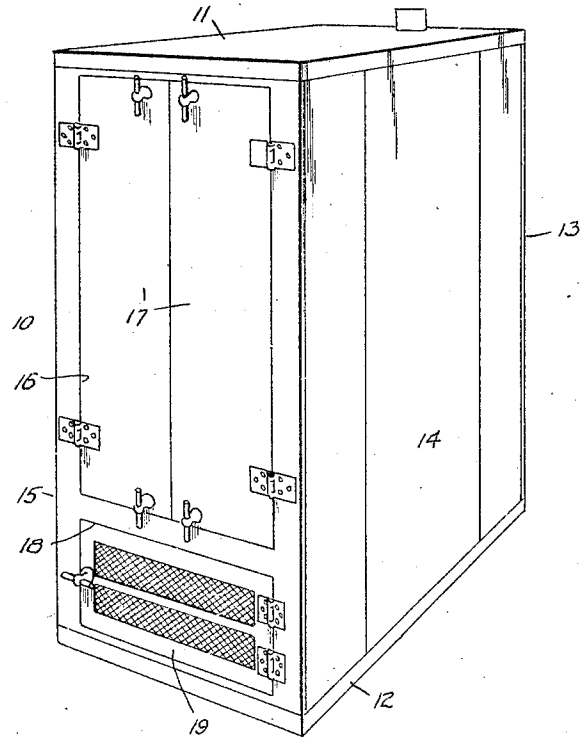
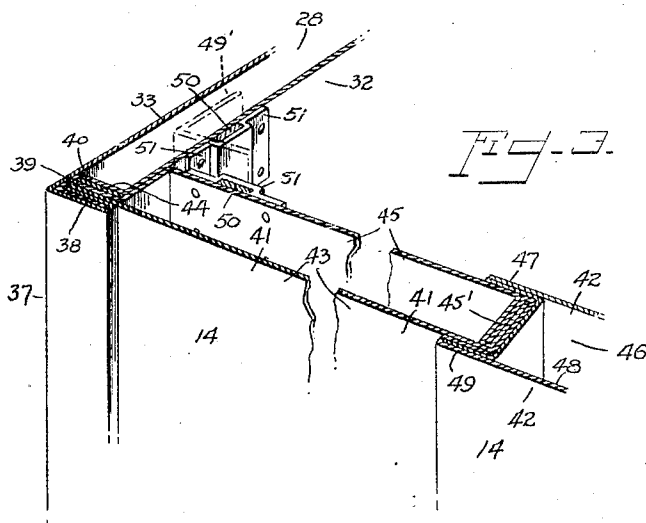


FIG. 3



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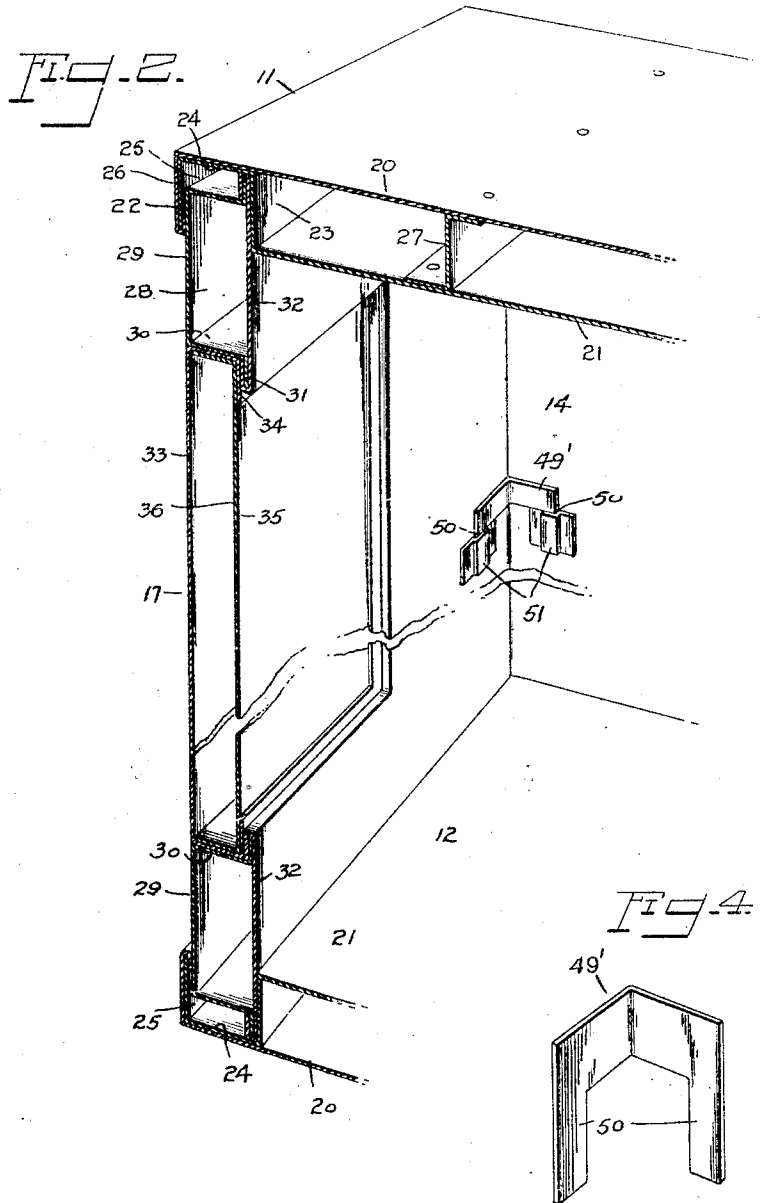
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Patented Nov. 20, 1928.

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UNITED STATES PATENT OFFICE.

LOUIS JUDELSON, OF NEW YORK, N. Y.

DRIER CABINET.

Original application filed May 28, 1924, Serial No 716,340. Divided and this application filed November 28, 1924, Serial No. 752,532. Renewed August 30, 1927.

My invention relates to driers and has reference more particularly to the construction of the drier cabinet, the present invention being the matter divided out of my application for Letters Patent of the United States, filed May 28, 1924, Ser. No. 716,340, and the object thereof is to provide a drying cabinet constructed of separable panels having interlocking joints and separable fastening means for holding the top, bottom and side walls together without the use of rivets, bolts or other permanent connecting means.

Briefly stated my invention comprises an improved cabinet having separable front, back and side panels which are held together by means of top and bottom panels having continuous marginal grooves disposed in their opposite inside surfaces, said grooves being adapted to receive the ends of the front, back and side panels. In order to insure further fastening means the adjoining panels are provided with straps having grooves for the reception of locking members.

The invention is illustratively exemplified in the accompanying drawings, in which Figure 1 is a perspective view of my improved drier cabinet; Figure 2 is a sectional view of one corner of the cabinet showing in perspective the relative arrangement of the different layers of material which make up the top, side and bottom panels, and the separable fastening means used to attach the sides and back of the cabinet together; Figure 3 is a perspective view of a corner and mid-section side panel taken in section below the top section of the cabinet. Fig. 4 is a detail view of the locking member hereinafter designated as 49'.

Referring to the drawings, it will be clear that the construction is the result of an effort to avoid as far as possible, the use of rivets or other permanent fastening means in the final assembly of the walls. Each wall whether top, bottom or side is provided with especially designed interlocking features which enable the cabinet to be readily knocked down for packing and transportation and then again set up at the destination without the aid of skilled workmen.

In Figure 1 the assembled cabinet comprises a container 10 having top and bottom sections 11 and 12, back panel 13, side panels 14 composed of three or more sections, hereinafter described in detail, and a front panel 15 having an opening 16 closed by ver-

tically hung doors 17 and an under front opening 18 closed by a single hinged door 19.

The top section 11 and bottom section 12 are identical and a detailed description of but one section will suffice for both. The top section, shown in Figure 2, comprises a hollow member composed of an outer metal sheet 20 and an inner metal sheet 21, the latter being spaced substantially apart from and below the outer sheet 20, which at its four sides is bent downwardly at right angles to form a depending flange 22. The under sheet 21 is disposed parallel to the outer sheet 20 to a marginal line short of the flange 22, where it is bent upright at right angles to engage the under surface of the upper sheet 20. This arrangement forms an upright inner wall 23. The metal then projects to the angle of the flange 22 and is disposed against the upper sheet 20 to provide a top wall 24 of a channel or groove 25. The extreme marginal portion of the metal sheet is then bent downwardly at right angles to the plane of the top wall 24 to arrange a flange of outer wall 26 which projects to a point short of the lower edge of the flange 22, so as to enable the extreme marginal portion of the latter to be bent back upon itself and over the raw depending edge of the flange 26. At substantial distances apart throughout the top section, Z-shaped reinforcing bars 27 are disposed between the upper and lower metal sheets 20 and 21, suitable rivets or spot welds being employed to fix the position of the members.

The sectional view shown in Figure 2 further illustrates a portion of the front panel 15 which comprises a hollow marginal frame adapted along its upper edge to seat in the channel 25 at the front of the top section 11. A similar disposition of the lower portion of the frame is made in the same channel in the front of the bottom section 12. The frame itself comprises a front channel shaped sheet metal portion 28 having the closed side 29 arranged against the inner face of the combined flanges 22 and 26 and projecting downwardly to define the wall of the opening 16. The lateral walls 30 of the frame are bent at right angles to the side 29 and are again bent at their ends to provide oppositely projecting vertical flanges 31. The back wall of the frame is merely a flat sheet metal section 32 bent back upon itself along its opposite edges to engage over and to closely embrace the

flanges 31. The upper flange 31 and its embracing portion of the back section 32 seats against the inner corner of the top wall 24, while the lower flange 31 and its embracing portion of the back section 32 forms a stop or jamb for the doors 17.

The doors are hollow rectangular sheet metal members having a front section 33 provided with edges bent at right angles to the plane of the door and then parallel to the face of the latter to provide a projecting flange 34 which embraces the inner face 35 of an inside section or inner wall 36 of the door, the marginal portion of this wall 36 being bent at right angles to project parallel to and against the lateral edge of the outer section 33. The air spaces between the walls of the hollow sections of the present construction are provided to insulate the interior of the cabinet 10 from the surrounding air.

An interlocking corner of the front or back panels with the adjacent side end panel 14, is illustrated in Figure 3, wherein the outer vertical edge of a front or back section 15 and 13, comprises the sheet metal front wall 29, bent at right angles to its normal plane to provide a narrow flange 37. The flange 37 includes a projecting portion which is bent back upon itself to embrace the outside flange 38 of the inner wall 32, the latter wall being bent inwardly at right angles at a point short of the outside flange 38 to provide a channel 39 adapted to receive and have its walls closely embrace the projecting flange 40 of a side panel 14.

The side walls or panels 14 are preferably constructed in sections and for illustration three such sections are shown; two end sections 41 which are identical in construction; and a central or intermediate section 42 which is provided with similar interlocking vertical opposite edges. For the sake of brevity, but one of the end sections 41, and one edge of the intermediate section 42, will be described in detail.

The end sections 41 are made of hollow sheet metal construction of width substantially the same as that of the front and back panels, and comprise an outer sheet 43 bent back upon itself along its upright outer edge to form the flange 40 which is closely embraced by the walls of the channel 39. The bent over portion of this flange 40 embraces in its turn a flange 44 of the rear or inner wall 45 of the hollow section 41. The flange 44 is formed by a projecting portion of the wall 45 which is bent towards the front wall 43 at right angles to its plane, the bent portion being adapted to seat against the inside face of the inner wall 32, as shown in Figure 3. The opposite upright edge of the end panel 41 is formed by the marginal edges of the front and back walls 43 and 45, the said edges being bent towards each other and at right angles to the plane of the wall proper

and then being bent back upon themselves to provide spaces into which the end portions of each wall may be inter-engaged by sliding one member over the other when the end panel is being assembled. The arrangement just described provides a perfectly square upright edge 45', as will be clear from the illustration in Figure 3.

The upright edge of the intermediate panel or section 42 is virtually a channel or groove the walls of which are adapted to closely embrace the square edge 45' of the end section 41. The rear sheet metal wall 46 of intermediate panel is bent back upon itself along its upright edge to form a flange 47 and the projecting portion thereof is bent at right angles to the plane of the wall to engage the inner face of the front wall 48 where it is bent to lie parallel thereto. The outer wall 48 projects to the end of the bent portion of the rear wall and is then bent back upon itself to embrace the last named bent end of the rear wall, the end portion at this point forming a second flange 49 parallel to the first flange 47. Together the flanges 47 and 48 provide the channel or groove to receive the end of the end section as previously stated. Thus it will be clear that my improved cabinet is composed of panels which interlock at their edges by means of a tongue and groove arrangement to form a substantially tight container without the aid of the usual rivets etc.

In order to hold the several sections or panels together after being assembled I provide at predetermined intervals about the lateral corners of the top, sides, front and rear panels and at the upright corners of the sides, front and rear panels, a locking member, which comprises a length of angle iron 49' having an angular portion cut away from both planes of the bar to form separated projecting arms 50 disposed on planes at right angles to each other, as shown in Figure 4. These arms 50 are adapted to be inserted in parallel openings or guides 51 formed by a U-shaped strap, one of each of the latter being secured to adjacent walls near the corner where the two walls meet. This particular arrangement and locking means and the manner in which the same is used is clearly illustrated in both Figures 2 and 3.

What I claim is:—

1. In a cabinet having interengaging hollow sheet metal sections, a section comprising an inner sheet each end of which is bent back on itself to form one side of a channel, bent at an angle to form the bottom of said channel, and bent to form a flange parallel to the sheet, and an outer sheet each end of which is bent back on itself to embrace said flange and to form the other side of said channel.

2. In a drier having a door, a cabinet comprising interengaging hollow sheet metal top,

bottom, and side sections, said top and bottom sections having marginal channels on their inner faces, and one of said side sections comprising a hollow marginal frame for said
5 door fitting into one of said channels.

3. In a drier, a cabinet as claimed in claim 2, said marginal frame comprising an outer

U-shaped sheet having oppositely disposed flanges at the ends of the U, and an inner sheet having bent back ends to embrace said flanges, 10 one of said embraced flanges constituting a jamb for the door.

In testimony whereof I affix my signature.
LOUIS JUDELSON.