

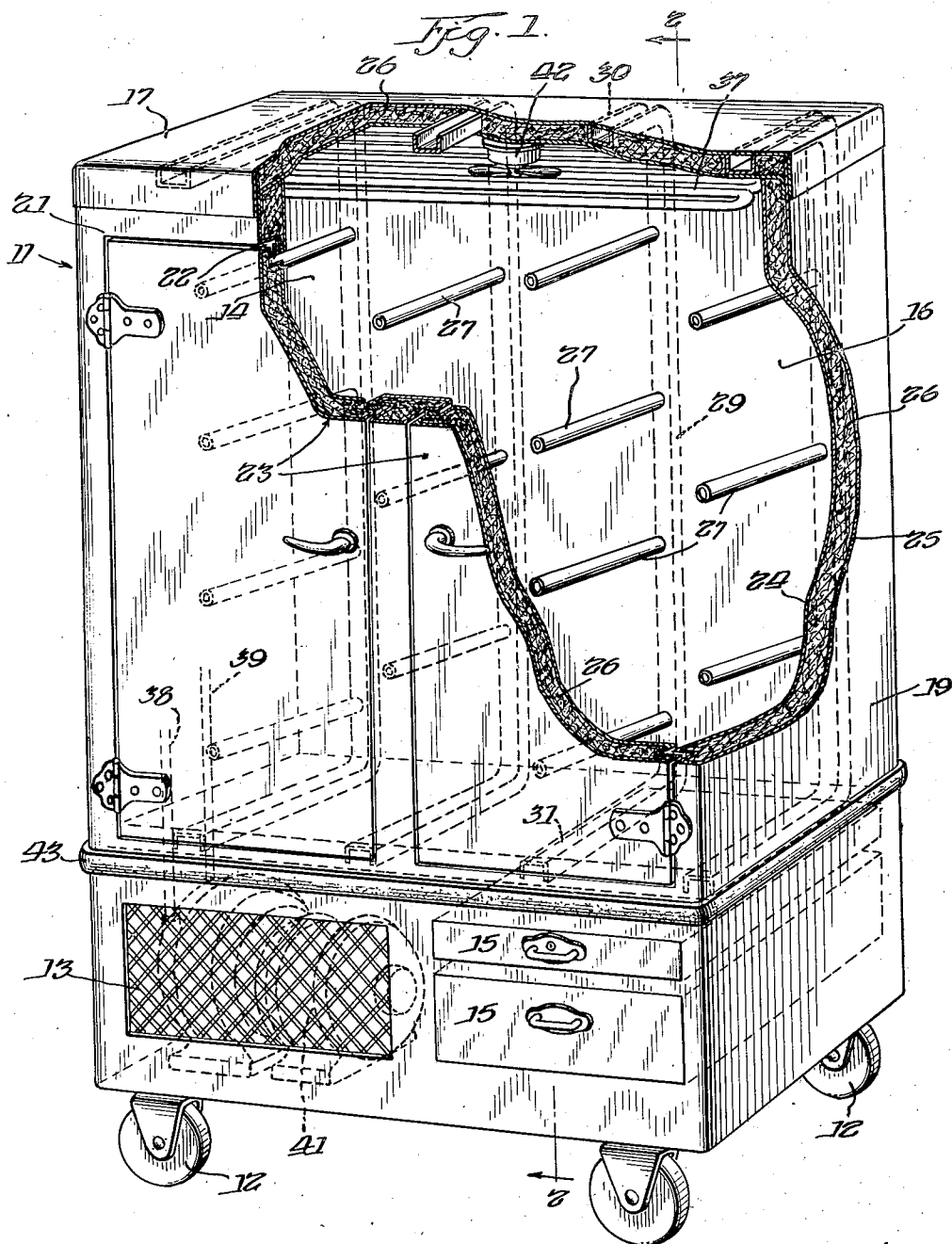
March 14, 1950

A. G. HOWARD
REFRIGERATED CABINET

2,500,609

Filed April 13, 1946

2 Sheets-Sheet 1



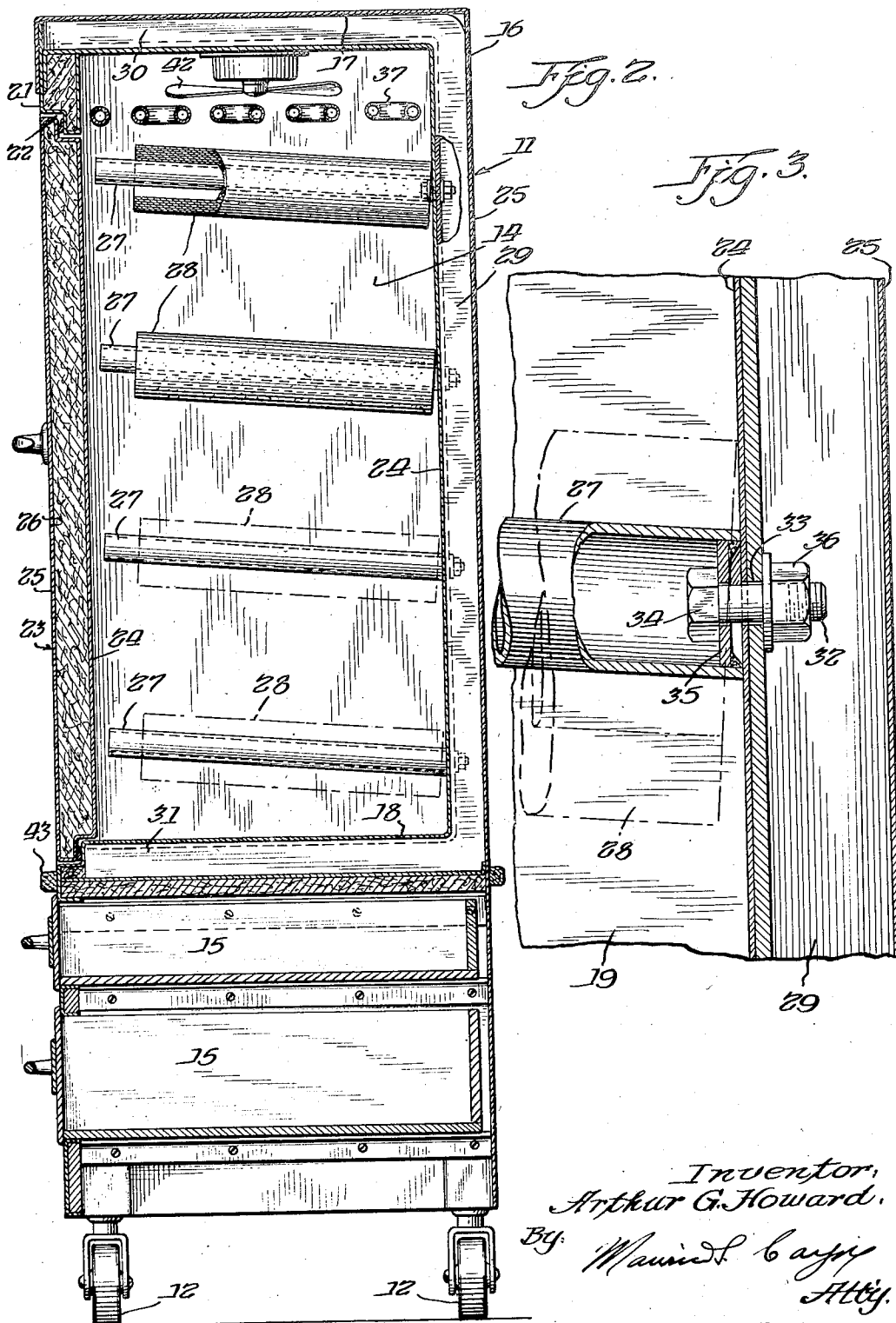
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A. G. HOWARD
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2 Sheets-Sheet 2

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UNITED STATES PATENT OFFICE

2,500,609

REFRIGERATED CABINET

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Application April 13, 1946, Serial No. 662,052

3 Claims: (Cl. 312-172)

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The invention relates to improvements in a cabinet structure and more particularly to a conditioning cabinet, including a refrigeration unit, constructed to support rolls of sheet stock such as waxed paper, or the like, in predetermined positions permitting unobstructed circulation of conditioned air therearound and enabling ready removal or insertion of such rolls.

It is the purpose of this invention to provide a storage cabinet particularly intended for the storage of rolls of waxed paper wherein the rolls may be kept under controlled conditions so that they may be suitable for immediate use regardless of the atmospheric conditions of the room within which the cabinet is located. Bakeries, or the like, wherein, for example, bread wrapping machines are used, frequently have excessively high temperatures and, as a result, any supply of waxed paper for use in such machines is affected by the room temperature and very frequently is rendered unsuitable for use. It is therefore an object of the present invention to provide a refrigerated storage cabinet useful for conditioning rolls of waxed paper in such manner that the rolls are readily available for removal separately.

Another object is to provide a cabinet of the kind referred to with novel means to support therein a plurality of rolls of waxed paper in spaced relation, one to the other.

Another object is to provide a refrigerated cabinet with a plurality of hanger arms therein each to receive a roll of waxed paper, or the like, and each of which is inclined in a direction to facilitate easy extraction and positioning of the rolls thereon.

Another object is to provide a cabinet of the kind referred to which embodies novel structural means to reinforce the cabinet walls from which the hanger arms protrude.

Another object is to provide novel structural means for securing a plurality of hanger arms firmly to the back wall of a cabinet within which they are mounted and to a reinforcing element embedded within said wall.

Another object is to provide a refrigerated cabinet of the character referred to which is inexpensive to construct and which is highly useful and very efficient.

Other and further objects of the present invention will be apparent from the following description and claims and are illustrated in the accompanying drawings which, by way of illustration, show a preferred embodiment and the principle thereof. Other embodiments of the invention embodying the same or equivalent principle

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may be used and structural changes may be made as desired by those skilled in the art without departing from the present invention and the purview of the appended claims.

In the drawings:

Fig. 1 is a perspective view of a refrigerated cabinet embodying features of the present invention and showing portions thereof broken away.

Fig. 2 is a transverse vertical sectional detail view taken substantially on line 2-2 of Fig. 1.

Fig. 3 is an enlarged fragmentary detail sectional view through the back wall of the cabinet illustrating the manner of attaching the hanger arms thereto.

Referring specifically to the disclosure in the accompanying drawings, the refrigerated air conditioned cabinet, generally indicated at 11, preferably is mounted upon suitable casters 12 so as to enable its being positioned in close proximity to a bread wrapping machine or other apparatus commonly used in the baking industry. Such wrapping machines, or the like, usually are located in a room closely adjacent to the bake ovens and, consequently, the humidity and temperature of the room is excessively high. Such atmospheric conditions are detrimental to waxed paper used for wrapping loaves of bread, or the like, consequently, the cabinet 11 is primarily designed to contain a supply of rolls of waxed paper for use on the wrapping machine or other apparatus.

The cabinet 11 includes a lower machine compartment 13 and an upper or a storage compartment 14. The machine compartment 13 occupies but a portion of the lowermost part of the cabinet 11 and the unoccupied part thereof is fitted with drawers 15, useful for the storage of tools, cutters, etc., of the kind required for maintenance and adjustment of the wrapping machine.

The upper or storage compartment 14 includes a back wall 16, a top wall 17, a bottom wall 18, end walls 19 and a front wall 21, the front wall being provided with openings 22 to be closed by doors 23 provided on their margins with the customary sealing strips so that the compartment 14 is hermetically sealed when the doors are closed. The back, top, bottom, side and front walls of the upper compartment 14, as well as the doors 23, are of double wall construction and include spaced apart inner and outer panels 24 and 25 having a relatively thick layer of rock, wood or other thermal insulation material 26 therebetween.

As best shown in Fig. 2, a plurality of hanger

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arms 27 are arranged within the upper storage compartment 14 and these arms are parallel to each other and are spaced apart vertically and horizontally for purposes to be explained hereinafter. Each hanger arm 27 is fashioned from a tube of sheet material and is inclined upwardly forwardly from the back wall 16 on which it is mounted so as to dispose its free forward end closely adjacent to a door opening 22. It will thus be observed that, when the doors 23 are open, ready access may be gained to each of the hanger arms 27 so as to permit a roll of waxed paper 28 to be telescoped over each arm. Because said hanger arms are inclined downward rearward, said rolls gravitate towards the back wall of the cabinet and are thereby prevented from inadvertently slipping therefrom.

Adequate reinforcement is afforded the back wall 16 of the cabinet to prevent its being damaged or distorted due to the combined weight of the rolls of waxed paper 28 which might be carried on the plurality of hanger arms 27 mounted thereon and projecting inwardly therefrom. To this end, each vertical row of hanger arms 27 is rigidly connected to a frame 29. The frames 29 each preferably consists of a U-shaped channel having its vertically arranged intermediate portion extending throughout the entire length of the storage compartment back wall 16 and its leg portions 30 and 31 extending forwardly to a point adjacent to the front wall 21 between the inner and outer panels 24 and 25 of the top and bottom walls 17 and 18 respectively. In the present disclosure, four such frames are illustrated.

As best shown in Fig. 3, each hanger arm 27 is firmly secured to the inner back wall panel 24 and to the frame channel 29, by means of a bolt 32 which extends through an opening 33 in said back wall and said frame. The bolt 32 is secured firmly within the end of the hanger arm by having its head 34 seated against a washer 35 integrally secured, as by welding, to the open end of the hanger arm 27. A nut 36, threaded on the protruding end of the bolt 32, secures the hanger arm in place. Because the attached end of the hanger arm is cut on an angle the attached arm assumes its forwardly and upwardly inclined position. It should be quite evident, however, that other means than those illustrated may be utilized to firmly secure the hanger arms in place.

The interior of the upper storage compartment 14 is adapted to be refrigerated and to this end an evaporator coil 37 is arranged preferably adjacent to the upper end of the compartment 14. The evaporator is connected in a customary manner, as for example by means of conduits 38 and 39, illustrated in dotted lines in Fig. 1, to a condenser-compressor unit 41 enclosed within a machine compartment 13. A circulating fan 42 also is arranged within the storage compartment 14, preferably above the evaporator coil 37, so as to insure uniform circulation of refrigerated air throughout the interior of the storage compartment and around, between and through each roll of waxed paper 28 stored therein.

The cabinet 11 may be provided with a suitable bumper strip 43 or other protuberances arranged to prevent damaging the cabinet should it be brought up against a solid object. It should be obvious at this time that a conditioning cabinet of the kind disclosed herein is very efficient in use and that its use will result in a considerable

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saving of waxed paper inasmuch as each roll therein contained will be maintained at a temperature consistent with that required to maintain the paper in a condition suitable for use on wrapping machinery and that as a result thereof, the cost of maintaining and of supplying such machinery with waxed paper will be greatly reduced. Conventional thermostatic controls, not shown, may be provided in the refrigeration system to regulate the operation thereof.

Although a preferred embodiment of the invention has been shown in detail in the accompanying drawings and has been specifically described in the foregoing specification, it should be understood that the invention is capable of embodying a wide variety of modifications in detail structure without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. In a cabinet for conditioning sheet stock in rolls, a compartment having thermally insulated walls including spaced inner and outer panels, a frame, said frame including an intermediate portion arranged between the inner and outer panels of the compartment back wall and end portions extending into the spaces between the inner and outer panels of the compartment top and bottom walls, a plurality of hanger arms, and means to secure said hanger arms within said cabinet and to said frame.

2. In a cabinet for conditioning sheet stock in rolls, a compartment having thermally insulated walls including spaced inner and outer panels, a frame including an intermediate portion arranged between the inner and outer panels of the compartment back wall and end portions extending into the spaces between the inner and outer panels of the compartment top and bottom walls, a plurality of hanger arms, and means to secure said hanger arms within said cabinet and to said frame, said means coacting with the frame to secure it in place between said panels.

3. In a cabinet for conditioning sheet stock in rolls, a compartment having thermally insulated walls including spaced inner and outer panels, a frame including an intermediate portion arranged between the inner and outer panels of the compartment back wall and end portions extending into the spaces between the inner and outer panels of the compartment top and bottom walls, a plurality of hanger arms, and means to secure said hanger arms within said cabinet and to said frame, said means extending through the inner panel and being secured to the frame to join the hanger arm, panel and frame in a unitary assembly.

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