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APPARATUS FOR COOLING AND DISPENSING LIQUIDS

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Fig. 1.

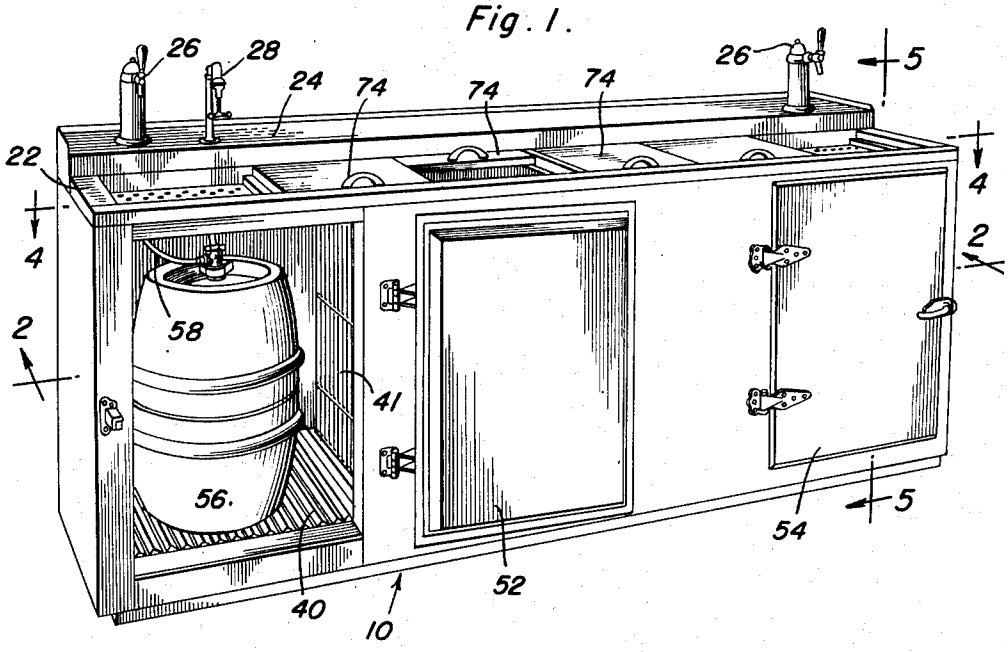


Fig. 8.

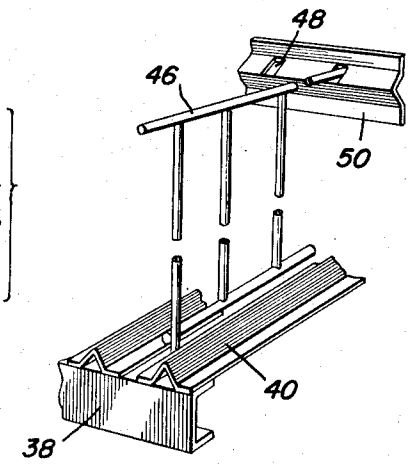
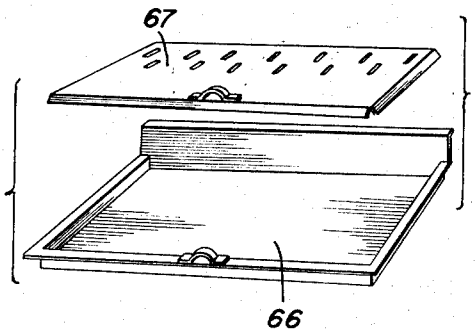


Fig. 7.



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Fig. 2.

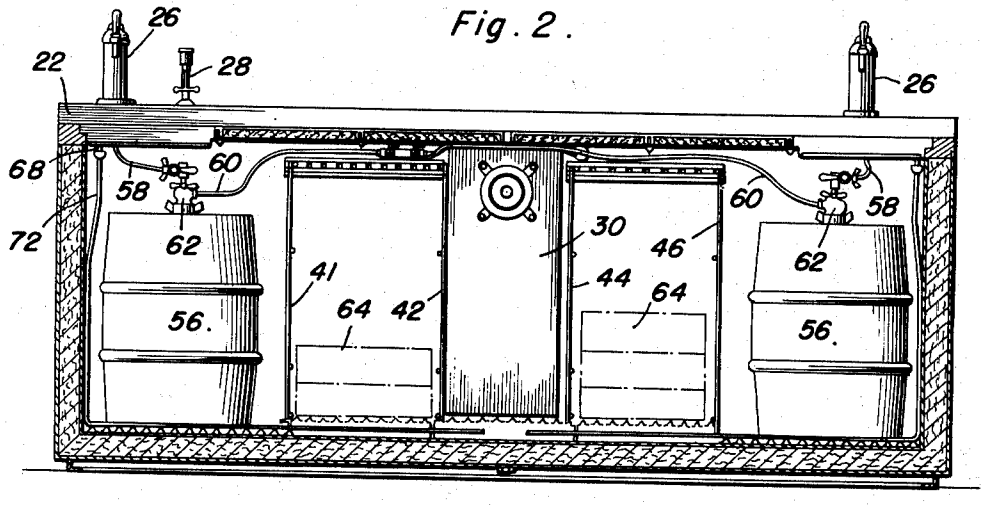
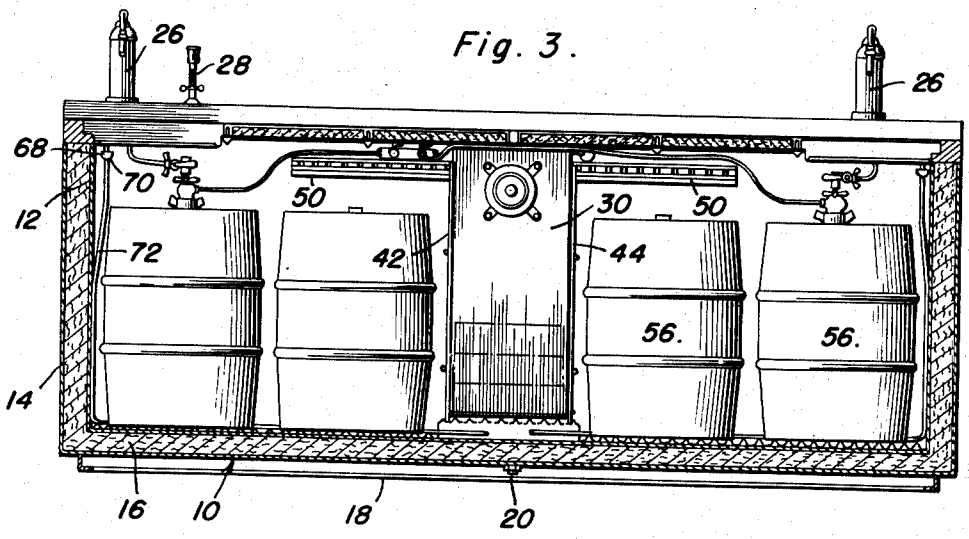


Fig. 3.



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Fig. 4.

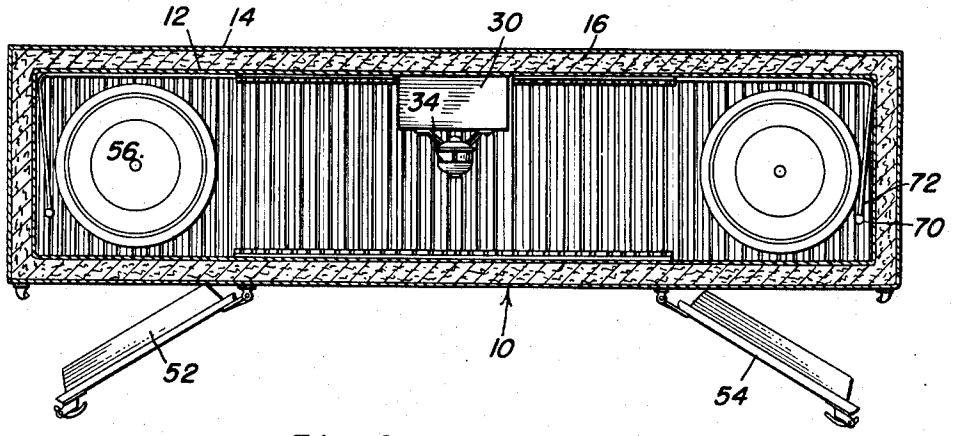


Fig. 6.

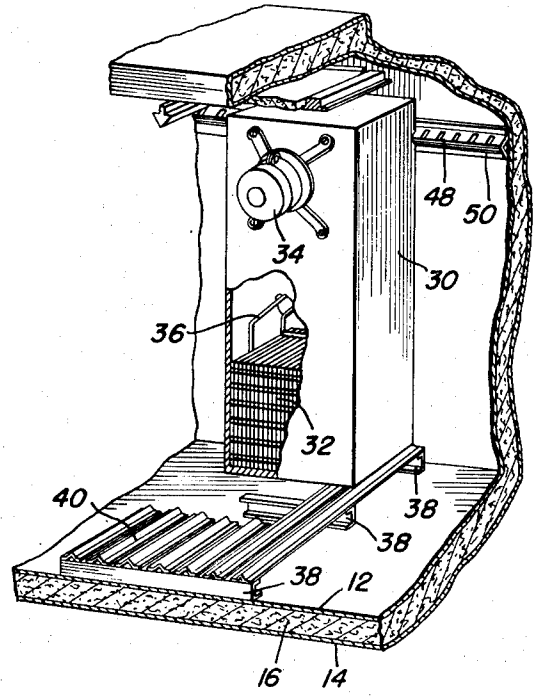
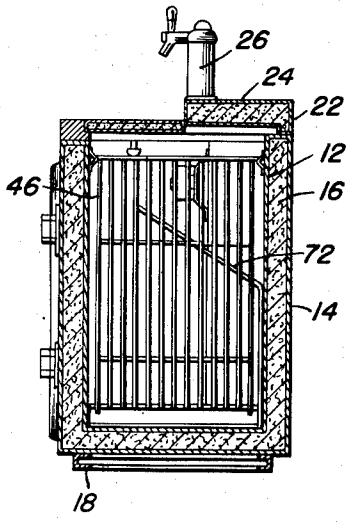


Fig. 5.



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Patented Sept. 9, 1952

2,610,101

UNITED STATES PATENT OFFICE

2,610,101

APPARATUS FOR COOLING AND DISPENSING LIQUIDS

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Application August 31, 1948, Serial No. 47,112

3 Claims. (Cl. 312—236)

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This invention comprises novel and useful improvements in apparatus for cooling and dispensing liquids and more specifically pertains to a convertible beverage cabinet for cooling and dispensing beverages, in a readily adaptable and convertible arrangement.

The principal object of this invention is to provide a compact cabinet particularly adapted to the storage, cooling and dispensing of beverages regardless of whether the beverages are bottled, canned, barreled, or packaged or any combination of these.

An important feature of the invention resides in the provision of a compact cabinet of the type known as a Club Bar, wherein there is contained a refrigerating apparatus, storage space for barrels of beverage, further storage space for packages, cans or bottles of liquids all in a readily accessible manner.

A further feature of the invention resides in the provision of an apparatus as set forth in the foregoing paragraph wherein adequate provision is made for supplying compressed air to barrels of beverages together with further apparatus for dispensing the contents thereof as desired; and wherein the arrangement is such as to give easy access to the barrels for servicing or removing the same, and wherein ample provision is made for satisfactorily refrigerating the same.

Yet another feature of the invention contemplates the provision of an apparatus as set forth in the foregoing features wherein the interior of the apparatus is divided by removable positions into various interchangeable compartments particularly adapted to accommodate and store different types of beverage containers.

A still further important feature of the invention comprises the provision of a refrigerating coil, a fan for circulating air over the coil and forcing the cooled air throughout the device to effectively refrigerate the various containers of liquid stored therein.

Yet another feature of the invention envisions the provision of an apparatus in conformity with the above mentioned features wherein improved arrangements are provided for collecting and discharging spilled liquids, the contents of broken or leaking containers and the like, with a minimum of inconvenience and wherein the various parts thereof may be readily moved when it is desired to obtain access to any of the compartments of the device.

These, together with various ancillary features and objects of the invention which will later become apparent as the following description proceeds, are attained by this device, a preferred embodiment of which has been illustrated by way of example only in the accompanying drawings, wherein:

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Figure 1 is a frontal perspective view, showing a satisfactory embodiment of an apparatus in accordance with the principles of this invention, one of the compartment doors of the cabinet being shown in its open position, and showing the manner of storing a barrel of liquid therein;

Figure 2 is a vertical longitudinal sectional view through the embodiment of Figure 1 taken substantially upon the vertical plane of the section line 2—2 of Figure 1, and disclosing one manner of arranging the compartments in the interior of the cabinet for storing barrels and packages of beverages therein;

Figure 3 is a view similar to Figure 2 but showing certain of the interior partitions removed to illustrate another arrangement in which the liquid containers may be effectively stored within the cabinet;

Figure 4 is a horizontal sectional view taken substantially upon the plane of the section line 4—4 of Figure 1 and illustrating in plan view the arrangement of liquid containers shown in Figures 1 and 2;

Figure 5 is a vertical transverse sectional detail view taken substantially upon the plane of the section line 5—5 of Figure 1;

Figure 6 is a fragmentary perspective view through a central portion of the cabinet and illustrating certain structural details of the refrigerating mechanism and of adjacent storage compartment;

Figure 7 is a group perspective view showing elements of a removable tray used with the invention; and

Figure 8 is a fragmentary perspective view showing certain structural features of the removable partitions and bottom trays of the device.

Referring now more specifically to the accompanying drawings, wherein like numerals designate similar parts throughout the various views, the numeral 10 is employed to designate generally a cabinet or housing which as desired may be formed with casters to lend portability of the same or may be constructed as a relatively stationary housing. As shown best in Figures 2 and 3, this cabinet preferably includes an inner shell 12 and an outer shell 14, which are spaced from each other and filled with suitable insulating material as indicated at 16, to thereby enable the device to more efficiently serve as refrigerated container.

The bottom of the cabinet 10 is preferably provided with supporting members 18, to thereby raise the device a sufficient distance above the floor to obtain access to a drain fitting 20 of a construction and purpose to be later set forth. It is to be further understood that suitable casters or other wheeled supports may be provided for lending portability to the device as mentioned above, these being of a conventional nature and hence not being illustrated in the drawings.

As shown in Figure 1, in conjunction with Figures 2 and 3, the cabinet is open at its upper end and provided with a top 22 which top may be provided with a shelf 24 constituting a support for glasses or other items, and having beverage dispensing spouts 26 of a conventional design together with a known type of refrigerated water dispenser 28.

Housed within the interior of the cabinet 10 and preferably at its mid-point and adjacent a back wall thereof, as will be best seen by reference to Figures 4 and 6, is a refrigerating apparatus which comprises a casing 30 within which are housed suitable liquid refrigerating coils 32, preferably of a finned nature, this housing being provided with an electric fan indicated at 34 at its upper end and suitable openings not shown whereby the fan may draw air into the upper portion of the housing from the interior of the cabinet 10, force this air downwardly over the finned cooling coil 32, and discharge this air beneath the bottom of the housing into the lower portion of the cabinet.

Since the cooling fan and finned cooling coils may be of a known design, the specific detailed structure of the same is regarded as of no consequence in so far as this invention is concerned and hence has not been illustrated in complete detail, it being merely necessary to remark that the cooling coils 32 are provided with suitable inlet and discharge conduit such as that indicated at 36 whereby a refrigerating medium preferably of a conventional type may be circulated through the coils 32 for chilling or refrigerating the air forced downwardly therethrough by means of the fan unit 34. If desired, an additional cooling coil may be provided in the casing 30 in connection with the water discharge spout 28, whereby refrigerated water may be dispensed as desired.

As will be further seen by reference to Figures 3, 5 and 6, the bottom of the inner shell 12 of the cabinet 10 is provided with a plurality of longitudinally extending channel-shaped supporting members 38 which serve to support the corrugated or slatted removable tray sections 40 in a vertically spaced position relative to the base or bottom of the inner shell 12, in order to provide air channels or passages beneath the trays 40 and above the bottom wall of the shell 12, it being intended that these longitudinally extending passageways shall constitute conduits by means of which the chilled or refrigerated air from the casing 30 may be conducted to both sides from the center of the cabinet for cooling and chilling the contents of the cabinet 10.

Suitable grill-like partitions 41, 42, 44 and 46 may be supported upon the removable bottom trays 40 and engage in notches 48 in a longitudinally extending bar 50 secured to the back inner wall of the cabinet.

As illustrated more clearly in Figure 8, the grill 46 may have one of its horizontal upper frame members extended into a detachable seating engagement in one of the sockets 48 of the longitudinal bar 50, or one or more of its vertical members may be detachably received in apertures or recesses in the removable bottom trays 40, as will be seen from Figure 5.

As shown in Figures 1 and 4, the cabinet is preferably provided with a pair of hinged doors 52 and 54 which give access to the endmost compartments whereby barrels 56 of beverage or the like may be easily inserted into or removed from the compartments of the cabinet.

It is intended that the barrels inserted into the two end compartments shall be connected in a known manner as by flexible conduits 58 to the dispensing spouts 26, and by means of suitable fittings and other flexible connections 60 with a source of air under pressure whereby the contents of the barrels may be maintained under pressure for dispensing as desired in a known manner. It is thus merely necessary to remove the fittings 62 from the barrels in order to remove the barrels for exchange or other purposes as desired.

The partitions 41 and 42 and 44 and 46 define two storage compartments on opposite sides of the refrigerating apparatus in which it is contemplated that canned, bottled or packaged beverages may be stored in the form of racks or trays as indicated in dotted lines at 64, for refrigerating the same and storage until ready for use.

The top 22 of the cabinet is provided with suitable openings in which are removably received splash and drainage trays over the barrels of the outer or inmost compartments, these trays consisting of a removable basin 66 and a strainer plate 67 detachably received therein as suggested in Figure 7 and shown in Figure 1. The flanges of the basin 66 are received on suitable shoulders in the cover 22 whereby the trays and their strainer plates may be readily removed as desired, and retained in stationary position beneath the spouts 26, 28 and above the compartments containing the barrels 56.

Thus, any accidental spilling of the beverage during dispensing of the same is removed by drainage through the drain plate 67 into the basin 66 and from thence by the discharge pipes or conduits 68 which have a loose sliding fit in an enlarged funnel or cup-shaped upper end 70 of the drain pipe 72 which extend down the sides of the cabinet, then towards the back of the same as shown in Figure 4, and terminate adjacent the center of the cabinet from whence the same may be removed through the discharge fitting 20. Likewise, any liquids spilled in any of the compartments will pass through the bottom trays 40 and along the preferably slightly slopping bottom of the cabinet 10 towards the above mentioned discharge pipe 20.

Suitable removable covers 74 are further provided with suitable openings on the cover 22 to obtain access to the above mentioned end compartments, as well as to the compartments adjacent the refrigerating apparatus 30, whereby the packaged liquids may be removed therefrom as desired.

Obviously, the device readily lends itself to various advantageous arrangements of partitions therein, since clearly one of the bottom trays 40 together with one or more of the partitions 41, 42, 44 and 46 may be removed as desired to eliminate the various storage compartments and enable one or more of the same to be dispensed

with whereby more barrels 56 may be accommodated as shown in Figure 3.

It will be noted that when the corresponding bottom tray and partition is removed from one or more compartments, the barrel placed therein will rest on the floor of the cabinet, whereby the air circulated by the above mentioned conduits between the channel members 38 will directly contact the lower ends of the barrels for better cooling of the contents thereof.

From the foregoing, the manner of constructing and operating the device will be readily understood and further explanation is believed to be unnecessary. However, since many changes and modifications will be obvious to those skilled in the art after a consideration of the foregoing specification and the accompanying drawings, it is not desired to limit the invention to the exact construction shown and described, but all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A cabinet having a bottom wall, a side wall and a top wall, a rail extending longitudinally of said side wall and having longitudinally spaced notches therein, floor racks including support members extending longitudinally of said bottom wall and transversely disposed laterally spaced strips defining slots therebetween attached to said support members, a partition having a depending projection receivable in the slots defined by said strips, said partition having a horizontal extension receivable in one of said notches in said rail, said strips including inverted V-shaped members having outwardly directed flanges thereon, said partition resting upon the flange adjacent the slot through which said depending projection extends.

2. A refrigerating and dispensing apparatus comprising a cabinet having a bottom wall, side wall and a cover, a rail extending longitudinally of said side wall and having longitudinally spaced notches therein, floor racks including support members extending longitudinally of said bottom wall and transversely disposed laterally spaced strips defining notches therebetween attached to

said support members, a partition having a depending projection receivable in the slots defined by said strips, said partition having a horizontal extension receivable in one of said notches in said rail, said strips including inverted, V-shaped members having outwardly directed flanges thereon, said partition resting upon the flange adjacent the slot through which said depending projection extends, and refrigerating means communicating with the passage formed between said rack and said bottom wall.

3. A cabinet having a bottom wall, a side wall and a top wall, a rail extending longitudinally of said side wall, said rail comprising a V-shaped member including a pair of diverging legs having outwardly directed end flanges thereon, said rail being secured to said side wall by means of said flanges, the upper leg of said V-shaped member having longitudinally spaced notches therein, floor racks including support members extending longitudinally of said bottom wall and transversely disposed laterally spaced strips defining slots therebetween attached to said support members, a partition having a depending projection receivable in the slots defined by said strips, said partition having a horizontal extension receivable in one of said notches in said rail, said partition resting upon the strip adjacent the slot through which said depending projection extends.

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