

Aug. 25, 1942.

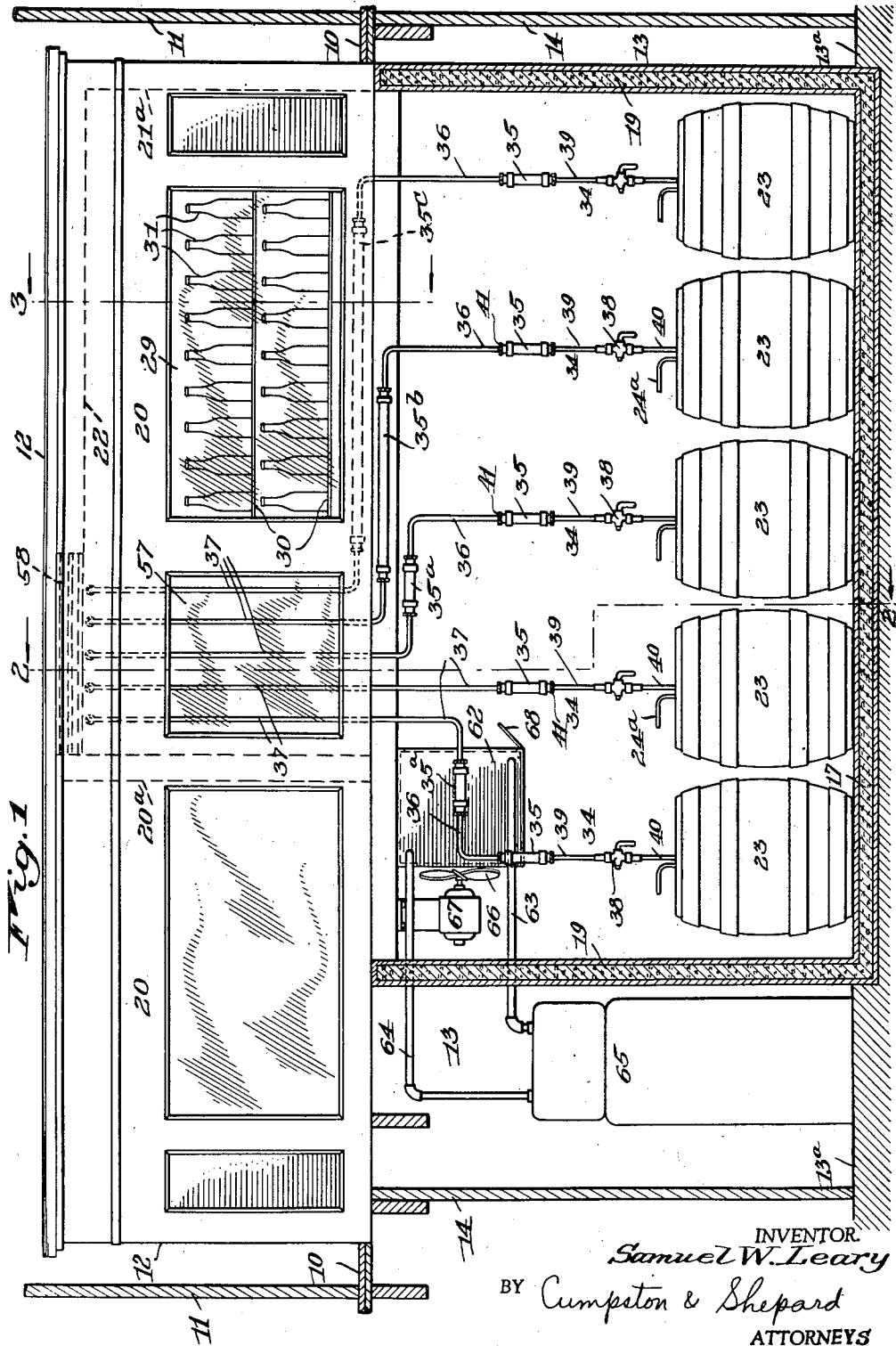
S. W. LEARY

2,294,119

APPARATUS FOR COOLING AND DISPENSING BEVERAGES

Filed July 17, 1941

2 Sheets-Sheet 1



INVENTOR
Samuel W. Leary
BY *Cumpton & Shepard*
ATTORNEYS

Aug. 25, 1942.

S. W. LEARY

2,294,119

APPARATUS FOR COOLING AND DISPENSING BEVERAGES

Filed July 17, 1941

2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

2,294,119

APPARATUS FOR COOLING AND
DISPENSING BEVERAGES

Samuel W. Leary, Rochester, N. Y.

Application July 17, 1941, Serial No. 402,773

2 Claims. (Cl. 62—141)

The present invention relates to apparatus for cooling and dispensing liquids such, for example, as beverages of various kinds and particularly beer, ale, and the like.

One object of the invention is to provide in combination with a beverage dispensing bar, improved means for cooling or refrigerating beer, ale, and other beverages, which is so combined with the bar as to afford a unitary and compact structure and one in which common refrigerating means is provided for cooling both the bar and the beverage holding containers or receptacles as well as the tubes or pipes for delivering the beer to the dispensing faucets.

A further object of the invention is to provide in apparatus of this class, a combined serving counter and storage compartment affording in effect a single refrigerating unit, having space for articles of food, bottled beverages, and a series of barrels or other receptacles containing the beverages, together with pipes or tubes for delivering the beverage to the dispensing faucets.

A further object of the invention is to provide in combination with front and back bars, a compartment below the level thereof for the barrels or beverage holding receptacles and in which construction each bar has a refrigerating chamber in open communication with said compartment, the latter having refrigerating means associated therewith for cooling the same and the said chambers.

A further object of the invention is to provide a unitary beverage cooling and dispensing bar of insulated construction, including an upper serving section and a combined storage and refrigerating section below the floor of the bar, as, for example, in a cellar beneath the same, the bar having one or more refrigerating chambers communicating with said compartment and the latter having a refrigerating unit associated therewith together with means for circulating the cold air therein and in said chambers for the purpose described.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Fig. 1 is a fragmentary part sectional elevation illustrating one embodiment of the invention;

Fig. 2 is a transverse sectional elevation substantially on line 2—2 of Fig. 1; and

Fig. 3 is a fragmentary transverse sectional

elevation drawn to an enlarged scale and taken on line 3—3 of Fig. 1,

The same reference numerals throughout the several views indicate the same parts.

Referring to the drawings 10 represents the floor and 11 certain of the side walls of a room containing the bar, the latter being designated generally by the reference numeral 12. Beneath the floor 10 is a cellar or basement 13, the floor of which is indicated at 13a, one or more of the side walls of the cellar being shown at 14, Figs. 1 and 2. Supported by the floor 13a is a refrigerating compartment 15 having top and bottom walls 16 and 17, side walls 18, and end walls 19, all formed of suitable insulating material for maintaining substantially uniform temperatures within the compartment, which constitutes a cooling chamber 15a, in open communication with the cooling chamber 12a of the upper or serving section 12 of the bar, the latter having front and rear walls 20 and 21, an upper horizontal wall 22, and also inner and outer end walls 20a and 21a, respectively, each formed of suitable insulating material.

The compartment 15 is provided with a door 19a in one of its end walls for closing and opening, provided to render the compartment accessible and through which the beer barrels 23 or other beverage holding containers or receptacles may be inserted and removed from time to time.

A back bar is shown in Fig. 2, designated generally by the reference numeral 25 and has a cooling chamber 26 in open communication with the cooling or refrigerating chamber 15a of the compartment 15. The walls of the back bar, including the door 27, are formed of suitable insulating material. The cooling or refrigerating chamber 26 is provided with a plurality of shelves 28 for supporting bottled beverages, dishes, and other articles as well.

The front wall of the serving counter 12 is provided with a window or transparent panel 29 preferably formed of a plurality of sheets of glass having insulating spaces 29a therebetween to prevent fogging of the glass, whereby to render the interior of the compartment 12a and the barrels therein visible. Suitably secured within said compartment are a plurality of shelves 30 for supporting the beverage containing bottles 31 or other articles which it may be desired to place within the compartment and which can be readily viewed through the window 29. The compartment 12a is also provided with a door 32 for closing an opening through which to insert the articles to be placed upon the shelves 30. By

providing the transparent panel or window 29, bottled beverages of various kinds and other articles as well may be displayed to advantage within the refrigerating compartment 12a from time to time.

The pipes or conduits for conveying the beer from the barrels 23 to the dispensing faucets 33 are formed of glass or vitreous material, it being understood that any desired number of the pipes may be provided, depending on the number of barrels or beverage holding receptacles to be used, five being shown in the present installation.

Owing to the fact that it is desirable to locate the dispensing faucets for the various pipes relatively close together, it is necessary to offset the opposite ends of each of a majority of the pipes, as shown in Fig. 1, and it is preferred to form each pipe of separate sections and to connect the sections by means of flexible or resilient couplings to permit one to be deflected relative to another in order to avoid having to so position the barrels as to accurately align the openings of the bungs with the lower sections of the pipes. Furthermore the sections are so constructed as to permit one to be readily disconnected from another in order that the lower section may be removed from the barrel when it is desired to substitute a full barrel for an empty one. The lower sections of the pipes are designated generally by the reference numeral 34, and the couplings for connecting them with the upper or intermediate sections by the reference numeral 35, these parts being the same in each case, for which reason a description of one will suffice for all.

Each of the pipes, with the exception of the second from the left in Fig. 1 includes in addition to the inner sections 34, an intermediate section 36 and an outer section 37, the intermediate and outer sections being connected by couplings, as shown in Fig. 1, which are of similar construction except where they differ in length, the two short couplings being indicated at 35a, and the next in length at 35b, and the longest at 35c. It will be further understood that the couplings connecting the outer and intermediate sections of the pipes are the same as the couplings 35, except in cases where they are of different lengths. The inner or lower section 34 of the second pipe from the left of Fig. 1 has only one upper section connected therewith which is also designated by the reference numeral 37. Furthermore, the lower sections 34 of the pipes are provided with similarly constructed valves 38 for controlling the flow of the liquid through the pipes. The lower sections 34 of the pipes each includes upper and lower glass tubes 39 and 40, respectively, which are separated by and suitably connected with the valve 38 by similarly constructed packing nuts 41 screwed on the threaded portions of the valve.

The sections 40 of the glass tubes which are extended through the bungs are provided with inlet openings through which the beverage enters the pipes for discharge to the faucets under pressure of air or gas in the barrel which is delivered thereto through a supply hose or tube 24a connected with a suitable supply source, not shown.

The upper glass sections 37 of the pipes have their outer ends extended through and disposed at right angles to the rear wall 21 of the counter or serving section of the bar, said ends each being disposed in a short pipe section also extended through said wall. Screwed on the outer end of the pipe section is the dispensing faucet 33. Below the faucets 33 is a shelf 56 for the

drinking glasses or other receptacles which it may be desired to place thereon.

The outer glass tubes 37 of the delivery pipes are placed relatively close together, as previously stated, and directly opposite the same the front wall of the bar is provided with a window 57, preferably formed of a plurality of glass plates having insulating spaces 57a therebetween which serve to prevent fogging of the glass.

A similar window 58 is provided in the top wall of the bar directly over the outlet ends of the delivery pipes, as shown in Figs. 1 and 2, said window having a plurality of sheets of glass separated by insulating spaces 58a which also serve to prevent fogging of the glass.

It will be understood that the interior of the refrigerating compartment and the barrels and pipes therein may be readily viewed by looking downwardly through the windows 29, 57, and 58 whereby the customer may be informed as to the sanitary conditions of the compartment containing the beverage holding receptacles.

Any suitable refrigerating means may be provided for cooling the compartment containing the beer holding receptacles and the refrigerating chambers of the front and back bars communicating therewith. The means provided for this purpose in the present disclosure comprises a cooling coil 61 disposed in an open ended frame or casing 62 suitably secured within the cooling chamber 15a of the compartment 15, preferably adjacent one end thereof, as shown in Fig. 1. The coil is connected by means of the pipes 63 and 64 with a suitable refrigerating unit 65 of any well known type adapted for circulating a refrigerant through the coil. In order to properly distribute the air cooled by the coil 61, a fan 66 is disposed at one end of the casing 62 containing the coil, the fan being connected with and adapted to be rotated by an electric motor 67 to force the air from the casing into the cooling chamber 15a.

In order to insure proper circulation of the air within the chambers of the front and back bars, an outwardly and upwardly inclined deflecting plate 68 is disposed at the bottom of the casing 62 which serves to direct a considerable portion of the air discharging from the casing upwardly within said chambers, which are at all times in open communication with the barrel holding chamber 15a.

It will be understood that the upper wall 16 of the compartment 15a, Fig. 2, may, if desired, be used as a platform for the attendant of the bar, or as supporting means for a floor mat or covering on which to stand.

This application is a division of my United States patent application, Serial No. 154,418, filed July 19, 1937, for Apparatus for cooling and dispensing beverages.

I claim:

1. A unitary beverage storage cooling and dispensing bar comprising a dispensing section including a serving bar, a back bar section, a storage and cooling section located beneath said dispensing section and back bar section, and a platform for the bar attendant between said dispensing section and said back bar section formed by at least a part of the upper wall of said storage and cooling sections, said three sections having insulated walls and being in open communication with each other, and refrigerating means including a circulating fan for circulating cool air through said sections to maintain a predeter-

mined uniform temperature throughout said section.

2. A beverage storage, cooling, and dispensing bar comprising a hollow serving bar section, a hollow back bar section, a floor between said sections on which a bar attendant may stand while working at either of said sections, a storage and cooling section located partly beneath said floor and extending upwardly in open com-

munication with the spaces within said serving bar section and back bar section so that said three sections form, in effect, communicating parts of a single chamber, said chamber having insulated walls, refrigerating means within said chamber, and means for circulating air in said chamber to keep all parts thereof substantially at a uniform refrigerated temperature.

SAMUEL W. LEARY.