July 25, 1939. F. W. HOLDERLE ET AL 2,167,547

BEVERAGE DISPENSING APPARATUS

Filed May 16, 1938 2 Sheets-Sheet 1

Fig. 1

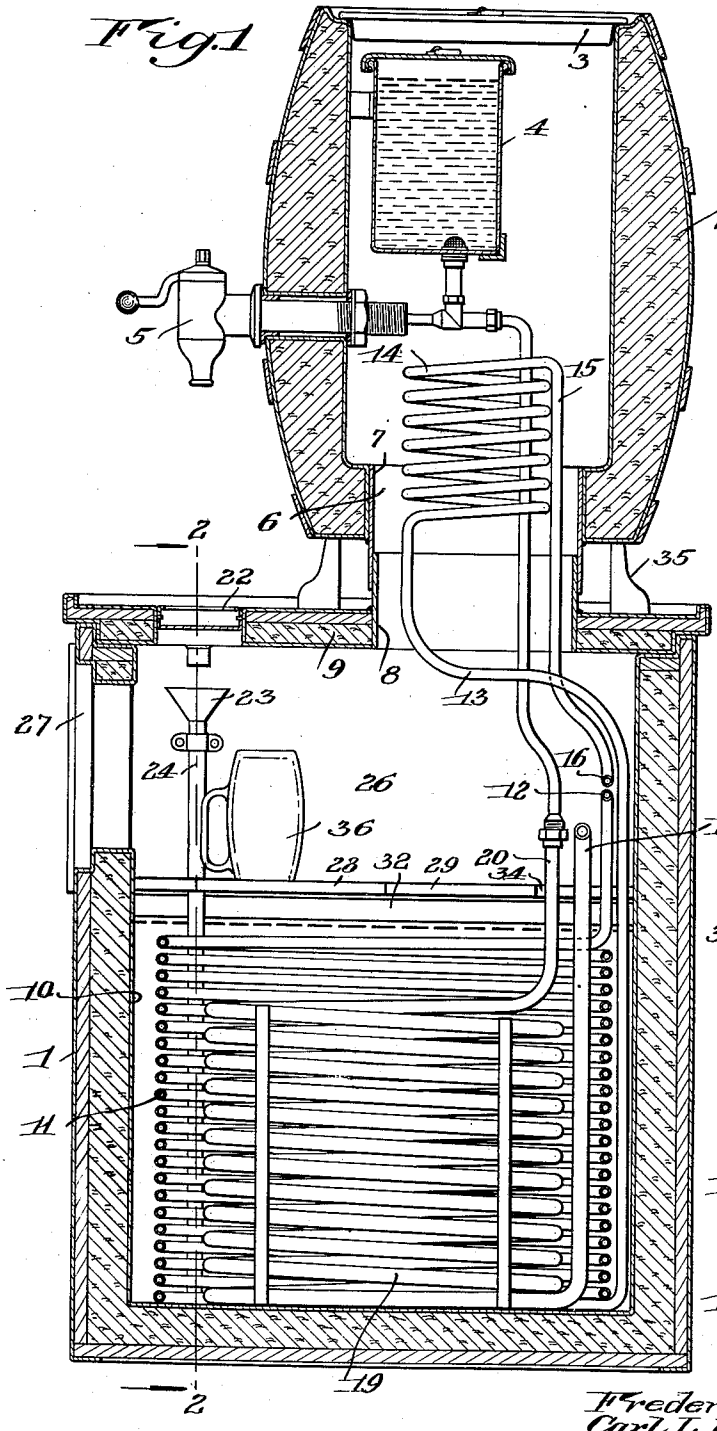
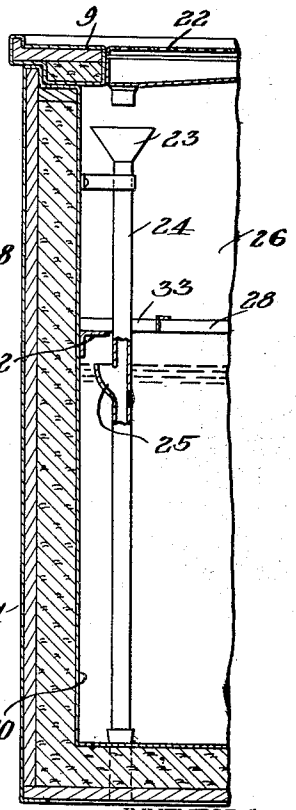


Fig. 2



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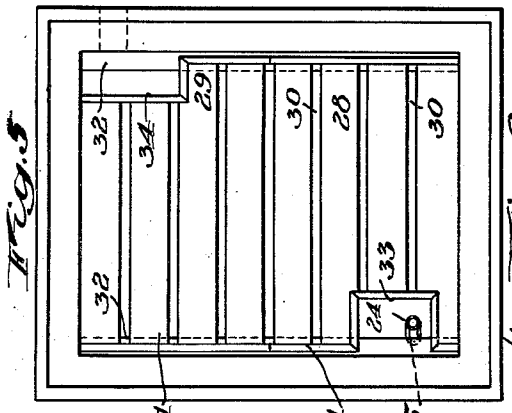


Fig. 5

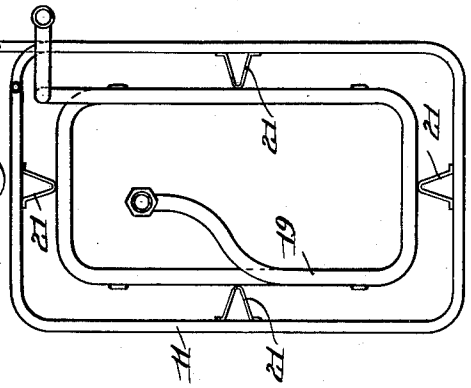


Fig. 6

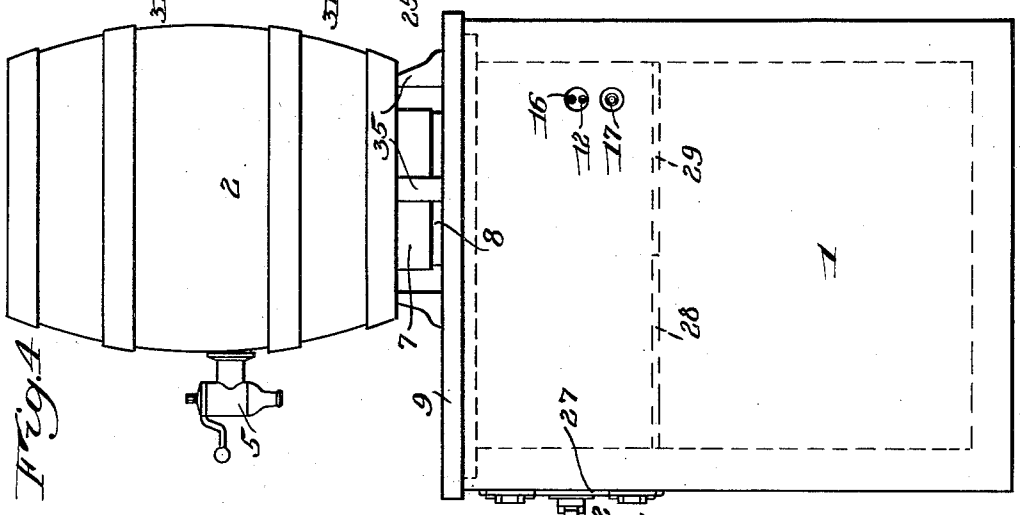


Fig. 4

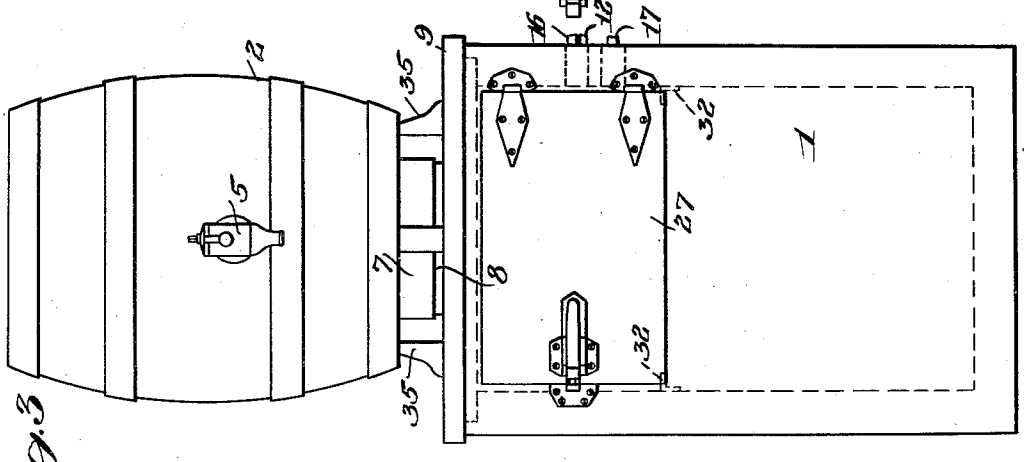


Fig. 3

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UNITED STATES PATENT OFFICE

2,167,547

BEVERAGE DISPENSING APPARATUS

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Application May 16, 1938, Serial No. 208,148

11 Claims. (Cl. 225—21)

This invention relates to beverage dispensing apparatus, and has to do more particularly with the type of construction that includes a housing simulating a barrel and surmounting a cabinet base, with a syrup container in the housing adapted to feed syrup to a mixing faucet that is also connected with a carbonated water line coming from the cabinet base, and the invention has for its object to afford a practical, efficient, and economical construction for effecting these purposes.

Heretofore in such dispensers, the barrel-like housing has been made of considerable size in order to provide for cooling devices arranged therewithin, and it is one of the purposes of this invention to reduce the size of the housing, placing the cooling instrumentalities within the cabinet base, and to mount the housing on the cabinet base and to connect these parts in such a way that the interior of the barrel-like housing and the syrup container therewithin will be kept sufficiently cooled at all times by circulation of cold air from the cabinet base therebeneath.

A further purpose of the invention is to afford, in conjunction with a structure of this type, a cooling chamber in the cabinet base for holding mugs, glasses, or the like, keeping them thoroughly chilled at all times, and utilizing for this purpose the cooling means that is employed to chill the carbonated water, and the syrup in the housing.

To these and other ends, the invention consists in the construction and arrangement of parts that will appear from the following description when read in conjunction with the accompanying drawings, the novel features being pointed out in the claims following the specification.

In the drawings:

Fig. 1 is a vertical sectional view of a beverage dispensing apparatus constructed in accordance with a preferred embodiment of the invention;

Fig. 2 is a detail sectional view on line 2—2 of Fig. 1;

Fig. 3 is a front elevation;

Fig. 4 is a side elevation;

Fig. 5 is a plan view of the cabinet base with its top removed, and

Fig. 6 is a plan view of the unit including the carbonated water circulating and cooling coils, before assembling in the apparatus.

Referring more particularly to the drawings, in which like reference characters refer to the same parts throughout the several views, 1 designates the cabinet base, while 2 is the barrel-like housing surmounting and arranged upon the cabinet base and provided with a removable cover 3. The cabinet base and housing may be insulated as usual in this type of construction. 4 designates a syrup tank supported within the housing 2 and connecting with the mixing faucet 5 to which carbonated water is supplied in the manner that will appear presently.

The housing 2 is provided with an air circulating opening 6 of substantial size in its bottom, said opening being surrounded by a sleeve 7 secured thereto and extending beneath the bottom of the housing for telescoping engagement with a sleeve 8 that is fixedly secured in a corresponding opening in the top 9 of the cabinet base, the sleeves 7 and 8 together forming an air circulating conduit connecting the cabinet base with the interior of the housing 2.

Arranged within the base is a tank 10 adapted to be filled with water in any convenient way up to the level indicated in dotted lines, and within said body of water is a cooling coil 11 which receives any suitable cooling medium in the form of gas or otherwise, fed in through a suitable inlet 12 from a source of supply, thence downwardly through the coil 11, and upwardly through conductor 13 to a coil 14 located within the housing 2, between the bottom of said housing and the syrup tank 4.

The cooling medium passes from coil 14 downwardly through conduit 15 to outlet 16, and in this manner the water in the tank 10 is kept continually in a cold state and cools the carbonated water, while coil 14 serves at the same time additionally to cool the interior of the housing 2, so that the syrup within the tank 4 is always at a proper temperature to be mixed with the carbonated water. The temperature within the housing 2 is further lowered by circulation of cold air from the cabinet base upwardly through the conduit connecting the base and housing, thus serving to keep the carbonated water supply and syrup supply adequately chilled at the points where they enter the mixing faucet 5.

The carbonated water is supplied from any suitable source through an inlet 17 to a pipe 18 which passes downwardly and connects with coil 19 located in the body of cold water, and from the upper end of the coil 19 extends the pipe 20 that leads upwardly through the conduit connecting the cabinet base and housing, to the mixing faucet 5. The cooling coil 11 and water coil 19 are separated and held in proper relation by V-shaped spacing elements indicated at 21 in Fig. 6, and permanently attached to the coils by welding or in other suitable fashion.

22 designates a drain plate under the mixing faucet 5 beneath which there is a discharge outlet to a funnel 23 at the top of a conductor 24 which may lead to a sewer connection or other outlet, and the pipe 24 is also provided with an inlet opening 25 which affords an overflow for the water in the tank 10 to prevent the same from going above this level when being filled.

In structures of this character, it is desirable to afford a chilling chamber for the glasses or mugs used for serving the beverage, and to accomplish this, there is provided a cooling chamber 26 at the upper part of the cabinet base above the cooling liquid, access to this chamber being had through the door 27. Arranged within the cooling chamber 26 are two removable floor sections indicated at 28 and 29, each comprising a series of relatively wide supports or strips separated by narrow openings 30, the supports being united by the side rails 31 which are adapted to rest upon the supporting ledges 32. The section 28 is cut away at one front corner, as indicated at 33, to accommodate the aforementioned pipe 24, while section 29 is cut away at one rear corner, as indicated at 34, to accommodate the upwardly extending carbonated water and cooling pipes. The spaces 30 between the wide supports of the shelf sections permit the draining of any water therethrough into the body of water in the tank underneath. 35 designates feet at the bottom of the housing, for supporting the same on the top of the cabinet base.

With this construction, the mugs or glasses indicated at 36 are kept cold, and are quickly available for serving a beverage from the faucet 5. The syrup and carbonated water are likewise kept constantly in a properly chilled state, and by housing the cooling means in the bottom of the cabinet base and providing an air conduit between the cabinet base and the housing thereabove, it is possible to employ a smaller housing for the syrup container, occupying less space and at the same time providing a practical and economical construction that will enable dispensing soft drinks such as root beer in a more efficient, satisfactory and economical manner than heretofore.

While the invention has been described with reference to the particular embodiment disclosed, it is not confined to the details set forth, and this application is intended to cover such modifications or departures as may come within the purposes of the invention or the scope of the following claims.

We claim:

1. A beverage dispensing apparatus comprising a cabinet base having an opening of substantial size in its top, a housing on said base having an opening of substantial size in its bottom registering with the first mentioned opening, connections between the base and housing around said openings affording an air circulating conduit therebetween, said conduit being open at the top and bottom affording free circulation from the interior of the base to the interior of the housing, a syrup container in the housing, a faucet on the housing connected with said syrup container, a cooling coil in the cabinet base extending upwardly through said conduit into the housing, and a carbonated water conductor extending through said cabinet base and upwardly through said conduit into the housing where it is connected to said faucet.

2. A beverage dispensing apparatus comprising a cabinet base, a housing on said base, an air circulating conduit connecting the base and housing, said conduit being open at the top and bottom affording free circulation from the interior of the base to the interior of the housing, a syrup container in the housing, a faucet on the housing connected with said syrup container, a cooling coil in the cabinet base extending upwardly through said conduit into the housing, and a carbonated water conductor extending through said cabinet base and upwardly through said conduit into the housing where it is connected to said faucet.

3. A beverage dispensing apparatus comprising a cabinet base having an opening of substantial size in its top, a housing on said base having an opening of substantial size in its bottom registering with the first mentioned opening, connections between the base and housing around said openings affording an air circulating conduit therebetween, a syrup container in the housing, a faucet on the housing connected with said syrup container, a water tank in the cabinet base, a cooling coil in said water tank, a cooling coil in the housing connecting with said cooling coil in the base, and a carbonated water conductor located in said water tank in the base and having a conduit extending upwardly into the housing where it is connected to the faucet.

4. A beverage dispensing apparatus comprising a cabinet base having an opening of substantial size in its top, a collar secured in said opening and extending thereabove, a housing on said base having an opening of substantialy size in its bottom, a collar secured in said opening and extending therebelow in telescoping relation to the first mentioned collar, a syrup container in the housing, a faucet on the housing connected with said syrup container, a water tank in the cabinet base, cooling means in said water tank, and a carbonated water conductor in said water tank and extending upwardly therefrom into the housing where it is connected to said faucet.

5. A beverage dispensing apparatus comprising a cabinet base, a housing on said base, an air circulating conduit connecting the base and housing, a syrup container in the housing, a faucet on the housing connected with the syrup container, a water tank in the cabinet base, cooling means in said tank, a carbonated water conductor in said tank extending upwardly into the housing and connected to said faucet, and a cooling chamber in the base above said water tank.

6. A beverage dispensing apparatus comprising a cabinet base having an opening of substantial size in its top, a collar secured in said opening and extending thereabove, a housing on said base having an opening of substantial size in its bottom, a collar secured in said opening and extending therebelow in teiescoping relation to the first mentioned collar, a syrup container in the housing, a faucet on the housing connected with said syrup container, a water tank in the cabinet base, a cooling coil in said water tank, a carbonated water conductor in said water tank and extending upwardly therefrom into the housing where it is connected to said faucet, a cooling chamber located in the cabinet base above said water tank, a door for closing said cooling chamber, and a plurality of floor sections arranged at the bottom of the cooling chamber.

7. A beverage dispensing apparatus comprising a cabinet base having an opening of substantial size in its top, a collar secured in said opening and extending thereabove, a housing on said base having an opening of substantial size in its bottom, a collar secured in said opening and extending

therebelow in telescoping relation to the first mentioned collar, a syrup container in the housing, a faucet on the housing connected with said syrup container, a water tank in the cabinet base, a cooling coil in said water tank, a carbonated water conductor in said water tank and extending upwardly therefrom into the housing where it is connected to said faucet, a cooling chamber located in the cabinet base above said water tank, a door for closing said cooling chamber, a plurality of floor sections arranged at the bottom of the cooling chamber, and a cooling coil in the housing communicating with the cooling coil in the base, one of said floor sections in the cooling chamber having an opening through which the vertical conductors of the cooling medium and carbonated water extend.

8. A beverage dispensing apparatus comprising a cabinet base, a housing on said base, an air circulating conduit connecting the base and housing, said conduit being open at the top and bottom to afford free circulation from the interior of the base to the interior of the housing, a faucet on the housing, a cooling coil in the base extending upwardly through said conduit into the housing, and a carbonated water conductor in the base extending upwardly through said conduit into the housing and connected to said faucet.

9. A beverage dispensing apparatus comprising a cabinet base, a housing on said base, an air circulating conduit connecting the base and housing, said conduit being open at the top and bottom affording free circulation from the interior of the base to the interior of the housing, a faucet on the housing, a cooling coil in the base and extending upwardly through said conduit into the housing, a carbonated water conductor in the base extending upwardly through said conduit into the housing and connected to said faucet, and a cooling chamber in the base at the upper portion thereof.

10. A beverage dispensing apparatus comprising a cabinet base, a housing on said base, an air circulating conduit connecting the base and housing, said conduit being open at the top and bottom affording free circulation from the interior of the base to the interior of the housing, a syrup container in the housing, a faucet on the housing connected with the syrup container, a cooling coil in the lower portion of the base and extending upwardly through said conduit into the housing, a carbonated water conductor in the base extending upwardly through said conduit into the housing and connected to said faucet, and a cooling chamber in the base at the upper portion thereof.

11. A beverage dispensing apparatus comprising a cabinet base, a housing on said base, an air circulating conduit connecting the base and housing, said conduit being open at the top and bottom affording free circulation from the interior of the base to the interior of the housing, a faucet on the housing, a water tank in the cabinet base, a cooling coil in said tank extending upwardly through said conduit into the housing, a carbonated water conductor in said tank extending upwardly through said conduit into the housing and connected to said faucet, and a cooling chamber in the base above said water tank.

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