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REFRIGERATED SPIGOT

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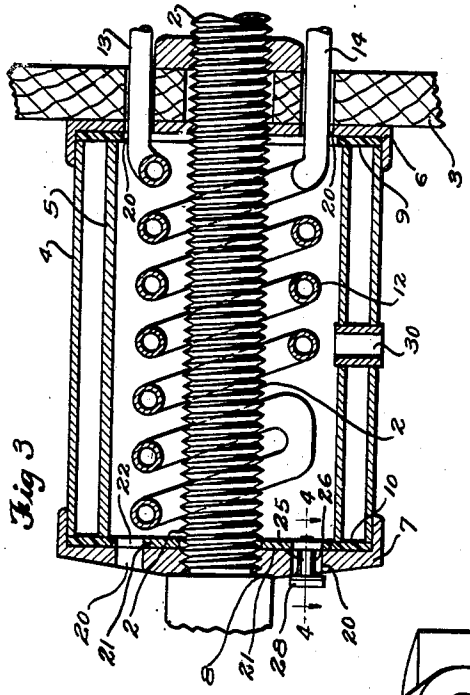


Fig 3



Fig 1

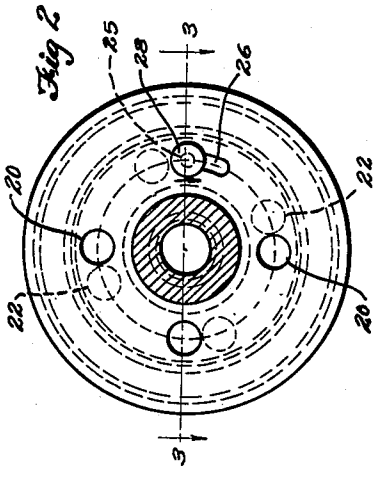


Fig 2

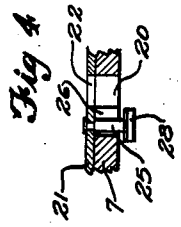


Fig 4

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## REFRIGERATED SPIGOT

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3 Claims. (Cl. 225—5)

This invention relates to improvements in liquid dispensing devices and more particularly to faucets, taps, spigots and the like, as employed for the dispensing of cold drinks; it being the principal object of this invention to provide means in connection with such devices for keeping them in a chilled or cooled condition, and also for keeping the liquid in the pipe connection opening into the tap or faucet in a satisfactorily cold condition.

Explanatory to the invention, it will be stated here that, in the usual cold drink dispensing equipment, there is no cooling means directly associated with the tap, or with the pipe connection opening thereto, regardless of the fact that the container for the supply of liquid to be dispensed is invariably kept in a refrigerated condition. Therefore, if there is any appreciable lapse of time between the uses of the dispensing equipment, the first liquid to be dispensed will be warmed from contact with the pipe connection and tap, and will therefore not be satisfactory as a drink. This is especially the case when the equipment stands over night without use, and it is customary, especially in the dispensing of beer to throw away that first drawn off.

In view of the above, it has been an object of this invention to provide a tap having a refrigerating means directly associated therewith for cooling the tap and that portion of the pipe connection immediately adjacent thereto.

More specifically stated, the invention resides in the provision of a refrigerated drum about the pipe connection adjacent the tap, and to provide the drum with air ports controlled by a damper which is adjustable to control frosting of the cooling coils to any extent desired.

Other objects of the invention reside in the details of construction and combination of parts and use of the device as will hereinafter be described.

In accomplishing these and other objects of the invention, I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawing, wherein—

Fig. 1 is a side view of a dispensing tap equipped with refrigerated means embodied by the present invention.

Fig. 2 is a cross sectional view on the line 2—2 in Fig. 1, showing the air ports in the drum.

Fig. 3 is a horizontal section of the cooling drum as seen on the line 3—3 in Fig. 2.

Fig. 4 is a detail of the damper adjustment.

Referring more in detail to the drawing—

1 designates what may be any of the usual types of liquid dispensing taps, faucets or spigots, which is connected through the mediacy of a section of threaded pipe 2 with a source of supply of liquid to be dispensed, not here shown. The pipe, as here illustrated, is threaded at one end into the housing of the tap and, at some distance therefrom, extends through a wall 3 which may be the wall of a refrigerating unit. In the present illustration, the distance between the wall and the tap would be several inches, and the intermediate portion of the pipe is enclosed coaxially within a surrounding drum of two or three inches diameter and comprising two slightly spaced coaxial cylinders 4 and 5 seated with their inner ends against a flanged base plate 6 and with their outer ends seated within a flanged closure plate 7 which is threaded onto the pipe 2 and clamped thereby against a shoulder 8 on the spigot housing. The opposite ends of the cylinders 4 and 5 are sealed by seating against gaskets 9 and 10 that are interposed between the plates 6 and 7 and the ends of the two cylinders.

Located within the cylinder 5 and surrounding the pipe 2, is a pipe coil 12, the ends of which coil are designated at 13 and 14, and are extended through the wall 3 and may then be connected in the circulating system of the cooling unit for the flow of a refrigerant therethrough.

With the device so constructed, the pipe coil may be kept in a refrigerated condition and the pipe 2 kept cold. Also, the tap will be kept cold by reason of its intimate connection with the pipe 2.

It has been found advantageous, insofar as cooling is concerned, to keep that portion of the coil 12 that is enclosed in the drum covered with frost. This may be accomplished by the admittance of air into the drum. This is provided for by the provision of a plurality of ventilating ports 20 in the plates 6 and 7 as seen best in Fig. 2, and by associating a damper plate 21 with the inside of the plate 7, provided with openings 22 adapted to be brought into or out of registration with the openings 20 by adjustment of the damper. The damper plate is revolubly fitted about the pipe 2 and has a stud 25 fixed therein and extending outwardly through an arcuate slot 26 in the plate 7 and equipped at its outer end with a button 28 through the mediacy of which it may be adjusted between open and closed positions.

There is also provided a drainage tube 30 in the lower side of the drum as seen in Fig. 3, through

which condensed moisture may drain from the drum, and which provides also for the drainage of moisture which would be incident to defrosting the equipment.

With the tap and cooling equipment so constructed it is possible to keep that portion of the pipe adjacent the tap in a refrigerated condition, and this, by reason of its close connection with the tap, will keep the latter in a satisfactorily cool condition so that every drink that is dispensed will be satisfactorily cooled.

It is usual in this arrangement, that the cylinders **4** and **5** be of metal. However, it may be desirable that they be of a transparent material such as glass or the like, in order that the condition of the coils may be easily observed.

Cooling equipment of this character may be made in various sizes and in different design without departing from the spirit of the invention, and also the details of construction of the damper may be varied; it being the gist of the invention to provide for satisfactorily cooling that portion of the connecting pipe which is next adjacent the spigot and to control, to a certain extent, the condition inside the cooling drum by the regulation of air circulation therein.

Having thus described my invention, what I claim as new therein and desire to secure by Letters Patent is—

1. A dispensing tap having a pipe connected thereto and adapted for connection with a source of supply of liquid to be dispensed, a cooling drum surrounding the pipe close to the tap, a cooling coil in the drum about the pipe therein and adapted to be connected with a source of cooling medium for circulation within the coil; said drum having means for controlling the circulation of outside air therein.

2. A dispensing tap having a supply pipe adapted for connection with a source of supply of liquid to be dispensed, a cooling drum coaxially surrounding the pipe close to the tap, a coil inside the drum surrounding the pipe and having its ends extended from the drum for connection with means for a circulation of a refrigerant through the coil, said drum having air ports therein and a damper plate adjustable to cover or uncover said ports.

3. A dispensing tap having a supply pipe adapted for connection with a source of supply of liquid to be dispensed, a cooling drum coaxially surrounding the pipe close to the tap, a coil inside the drum surrounding the pipe and having its ends extended from the drum for connection with means for a circulation of a refrigerant through the coil; said drum having a bottom drainage port and an end wall provided with a plurality of ports and a damper plate fitted to said end wall with ports therein, and a stud extended from said plate to the outside of the drum for adjusting the damper to cover or uncover the drum ports.

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