Nov. 17, 1942. T. SUTTON 2,302,273

REFRIGERATED FAUCET

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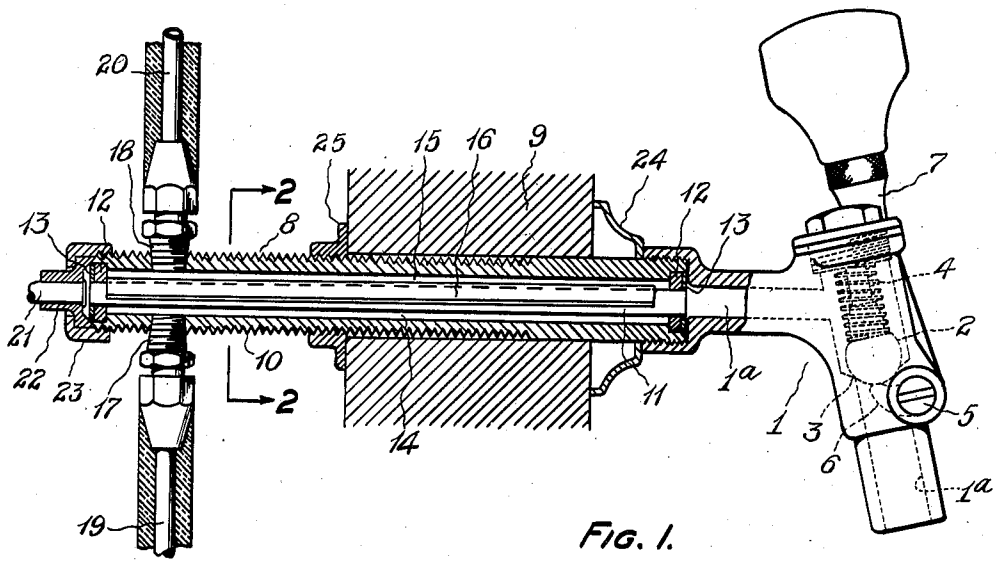


FIG. 1.

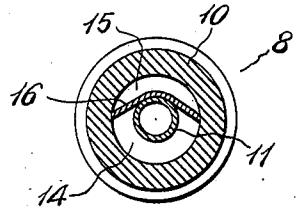


FIG. 2.

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REFRIGERATED FAUCET

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5 Claims. (Cl. 225—5)

This invention relates to faucets of the class used for drawing beverages and which are commonly mounted on an upright panel through which the shank of the faucet extends for connection to the liquid line on the rear side of the panel.

In the dispensing of beverages on draft, such for example as beer, it is highly desirable to maintain all of the liquid delivered into the drinking glass from which it is consumed at a suitably low temperature to insure palatability. This is not difficult where the beverage is being continuously drawn and does not have an opportunity to warm up in the faucet and adjacent pipe connections to the cooler, but ordinarily the drawing of the beverage is intermittent and the first glass or two of beverage drawn following an idle period is likely to be of a higher temperature than is desirable.

The general object of the present invention is the provision of a specially constructed faucet adapted to be effectively cooled so that beverage drawn through it will always be dispensed at a suitably low temperature.

A further object of the invention is the provision of a faucet construction of the character last referred to which is simple in construction and adapted to be easily and conveniently assembled on and removed from its supporting panel.

Other objects more or less incidental or ancillary to those noted above will be apparent from the following description.

The invention consists in certain features of construction and combinations of parts set forth in the following description in connection with the accompanying drawing of a preferred form of construction and defined in the appended claims.

In the drawing:

Fig. 1 is a vertical axial sectional view of a faucet embodying the invention with some of the parts shown in elevation.

Fig. 2 is an enlarged section on the line 2—2 of Fig. 1.

Referring in detail to the construction illustrated, the casing structure of the faucet preferably, though not necessarily, is formed in two main sections, namely, a faucet body proper and a shank portion. As illustrated, the faucet body proper is designated as an entirety by the numeral 1 and has a passage 1^a therethrough for the liquid to be drawn. As to valve mechanism, the faucet may be of any suitable construction insofar as the present invention is concerned. As shown, the faucet body is provided with a valve 2 which is pressed upon a seat 3 by a spring 4. An operating shaft 5 has a valve-lifting arm 6 and the usual hand lever 7. By swinging the hand lever forward the valve is lifted off its seat to open the faucet in well known manner.

The faucet body 1 is screwed to the front or outlet end of the shank structure which is designated as an entirety by the numeral 8 and extends through the supporting panel 9 which may, for example, constitute a part of a bar fixture. The shank structure comprises an externally-threaded outer tube 10 and an inner beverage-conducting tube 11 which is supported at each end of the outer tube by a metal ring 12, each of these rings being joined to the end portions of the outer and inner tubes by solder 13 so as to form a liquid-tight annular space between the outer and inner tubes. This space is divided longitudinally into two passages 14 and 15 by a partition 16 which is formed of a strip of sheet metal bent on longitudinal lines as shown in Fig. 2 and has its lateral edges in snug engagement with the inner surface of the outer tube 10 and the central part of its lower surface in snug engagement with the top side of the inner tube 11. At the rear end of the shank structure the partition 16 extends to the ring 12 but at the front end of the shank it terminates short of the front ring 12 so that the two longitudinal passages 14 and 15 between the inner and outer tubes communicate with each other at the front end of the shank structure.

At its rear end the outer shank tube is formed on its lower and upper sides, respectively, with inlet and outlet passages, the former to receive an inlet nipple 17 and the latter an outlet nipple 18 to which insulated inlet and outlet pipes 19 and 20, respectively, may be attached. An insulated beverage supply pipe 21 is connected by means of an hermetically-joined flange fitting 22 and a coupling 23 to the rear end of the shank.

The faucet is provided with a detachable ring or flange 24 which fits over the front end of the shank portion to engage the adjacent end of the faucet body 1 and the front face of the supporting panel 9. The threaded outer tube of the shank is also provided with a flanged nut 25 to engage the rear face of the supporting panel 9 and secure the faucet firmly in place.

In mounting the faucet in the supporting panel the faucet body 1 is separated from the shank structure and the latter is inserted through the opening in the supporting panel from the rear side of the panel, the ring 24 is placed on the front end of the shank and the faucet body is then screwed on the shank. Thereupon the clamping nut can be tightened up in the usual manner.

Finally, the pipes 19, 20 and 21 are connected to the faucet.

By conducting cold water or other liquid of suitably low temperature through pipe 19, passages 14 and 15 and out through pipe 20 the entire shank structure can be maintained at a relatively low temperature and any beverage on draft standing in the inner shank tube 11 is very effectively kept cool. Furthermore, since the faucet body proper is short and compact and in intimate metallic contact with the front end of the effectively-cooled shank structure the said faucet body also is effectively cooled.

While I prefer the faucet casing structure built up from a number of parts rather than an integral cast structure and also prefer the particular form of built-up construction illustrated, it will be understood that in all respects there can be wide variation of the construction without departing from the invention as defined in the appended claims.

What I claim is:

1. In a dispensing faucet, a shank structure adapted to extend through an apertured mounting panel and formed at its rear end to be operatively connected to a source of liquid to be dispensed, said structure comprising an outer tubular part, an inner tubular part located in the outer part with an intervening space between the inner surface of the outer part and the outer surface of the inner part, said inner part constituting a conduit section for the liquid to be dispensed, two annular end walls joining together the front ends of the outer and inner parts and the rear ends of said parts, respectively, partition means extending lengthwise of the shank and dividing the said intervening space into two longitudinally extending passages, said passages having communication with each other at the front end of the shank and one of them having an inlet opening at the rear end of the shank and the other having an outlet opening at the rear end of the shank, whereby cooling liquid can be passed continuously from the rear end to the front end and thence again to the rear end of the shank so as to extract heat from the inner tubular part thereof and effectively cool liquid therein.

2. A structure as claimed in claim 1 in which said structure constitutes a unit formed at its front end to be connected to the body of the faucet.

3. A structure as claimed in claim 1 in which the outer and inner tubular parts of the shank are separately formed and have their ends connected liquid tight by the annular end walls.

4. A structure as claimed in claim 1 in which the partition means of the shank is formed by a strip of sheet metal having its longitudinal edges engaging the inner surface of the outer tube of the shank and one of its faces in engagement with the outer surface of the inner tube of the shank.

5. A structure as claimed in claim 1 in which the outer and inner tubular parts, the annular end walls and the partition are separately formed parts.

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