Aug. 16, 1927. 1,639,326

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FAUCET

Filed Nov. 11, 1926

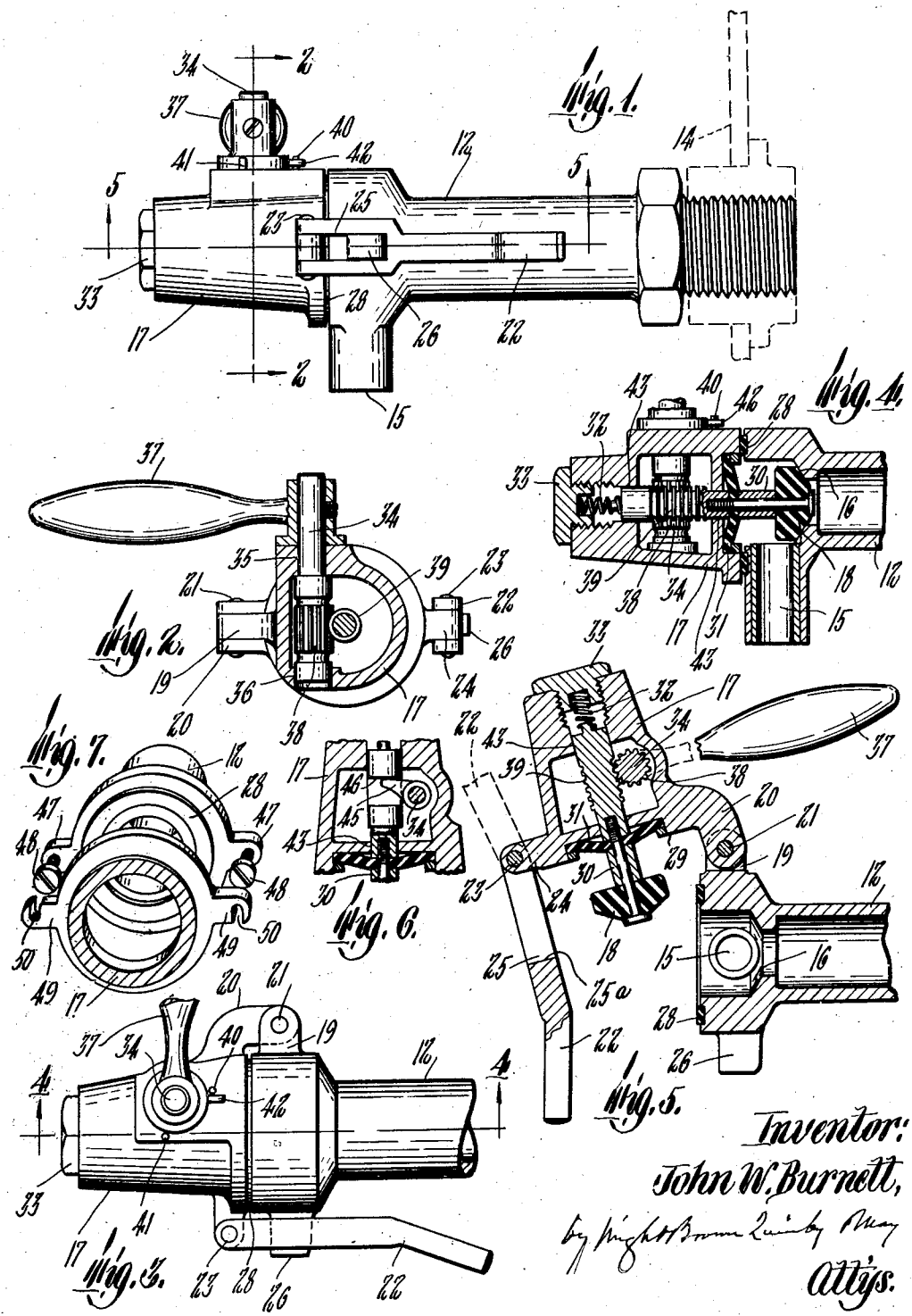


Fig. 1.

Fig. 4.

Fig. 2.

Fig. 7.

Fig. 6.

Fig. 5.

Fig. 3.

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Patented Aug. 16, 1927. 1,639,326

# UNITED STATES PATENT OFFICE.

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## FAUCET.

Application filed November 11, 1926. Serial No. 147,666.

This invention relates to a faucet constituting the outlet of a tank or reservoir containing the beverage decoction known as coffee. This decoction contains in solution an element, probably caffeine, which forms a viscous coating on the wall of the duct of a faucet used to dispense the beverage, the latter often remaining at rest in the faucet between periods of use thereof. This coating, if allowed to remain indefinitely, affects the taste of the beverage. It is therefore very desirable that the coating be removed frequently, and as often as once every day. Heretofore the construction of a coffee faucet has been such that removal of the faucet from the reservoir is necessary before cleaning, so that considerable loss of time is involved. Moreover an ordinary faucet cannot be conveniently cleaned internally, even when removed from the reservoir.

The object of the invention is to provide a faucet which includes a spout portion and a housing portion, and is adapted to be quickly opened to condition the liquid-conducting bore of the spout portion for convenient cleaning, without removal of the faucet from the reservoir, and quickly closed to condition the faucet for use.

Of the accompanying drawings forming a part of this specification,—

Figure 1 is a side view of a faucet embodying the invention.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a top plan view, a portion of the spout being broken away.

Figure 4 is a section on line 4—4 of Figure 3.

Figure 5 is a section on line 5—5 of Figure 1, showing the faucet opened to expose the bore of the spout seat and valve.

Figure 6 is a fragmentary section similar to a portion of Figure 5, showing alternative means for interengaging the rock-shaft and valve stem hereinafter described.

Figure 7 is a fragmentary perspective view, showing the housing portion of the faucet in cross section, and alternative means for separably connecting the housing with the spout.

The same reference characters indicate the same parts in all of the figures.

The casing of my improved faucet comprises a spout portion 12, adapted to be connected with a coffee reservoir 14, and including a discharge nozzle 15, and a valve seat 16, and a housing portion 17, having a valve 18, adapted to close on the seat 16, and means for opening and closing the valve. The spout and housing are preferably connected by a hinge which permits the separation of the housing from the spout, by a swinging movement of the housing, as shown by Figure 5. The hinge is located at one side of the faucet and preferably includes an ear 19 projecting laterally from the inner section, an ear 20 projecting longitudinally from the housing and offset therefrom, and a pintle 21 connecting the ears. The spout and housing are provided with complemental coupling members, one carried by the spout, and the other by the housing, said members being adapted to cooperate with the hinge in operatively connecting the sections, as shown by Figure 4, and separable from each other to permit the separation of the housing from the spout, and the exposure of the bore of the spout and the valve seat 16, as shown by Figure 5.

The coupling members preferably comprise a hasp 22, pivoted at 23 to an ear 24, projecting laterally from the side of the housing, opposite the hinge ear 20, the hasp being provided with a slot 25, and an ear 26, projecting from the side of the spout opposite the hinge ear 19, and arranged to enter the slot 25 when the hasp is swung to the position shown by Figure 3, the closed end $25^a$ (Figure 5) of the slot bearing on one edge of the ear 26, so that the inner end of the housing is clamped against the outer end of the spout.

To insure a liquid-tight joint between the spout and housing, I provide the spout with an annular end face, preferably formed by a compressible annular washer 28, partly inserted in a groove formed in the outer end of the spout, the housing being provided with an annular end face 29, complemental to and adapted to bear on said washer.

The valve 18 is provided with a stem 30, which is longitudinally movable in the outer section and constitutes an element of the valve-opening and closing means. The housing is provided with a flexible diaphragm 31, preferably of rubber, having a liquid-tight connection with the valve stem 30, and with the housing. The diaphragm constitutes a frictionless packing excluding liquid from the housing 17. The valve-operating means

preferably includes, in addition to the valve stem, a spring 32, interposed between an adjustable abutment 33 in the housing 17 and the valve stem, and adapted to close the valve on the seat 16, and a rock-shaft 34, journaled in bearings 35 and 36 (Figure 2) in the housing and provided with an operating handle 37. The rock-shaft and the valve-stem are interengaged by suitable connections, so that rotation of the rock-shaft in one direction opens the valve against the closing pressure of the spring 32.

The interengaging connections shown by Figures 2, 4 and 5, include gear teeth 38 on the rock-shaft, and gear teeth 39 on the valve-stem. The alternative interengaging connections shown by Figure 6, include a finger 45 on the rock-shaft, and a shoulder 46 on the valve-stem on which the finger bears, the shoulder being one end of a recess formed in the valve-stem.

The spout and housing may be separably connected by means other than the hinge and coupling members, shown by Figures 1, 2, 3, and 5, an alternative connecting means being shown by Figure 7. In this figure the inner section is provided with tapped ears 47, with which are engaged headed screws 48. The housing is provided with ears 49, having open slots 50. When the spout and housing, which are shown separated by Figure 7, are abutted together, the screws enter the slots and may be turned, to cause their heads to exert pressure on the ears 49, and thus press the meeting ends closely together and form a liquid-tight joint.

The turning movements of the rock-shaft may be limited by stop pins 40 and 41 (Figure 3) fixed to the rock-shaft, and a pin 42, fixed to the housing.

The valve-stem is guided in its movements by guides 43, in the housing 17. The spring 32 exerts sufficient pressure on the valve stem, in closing the valve, to turn the rock-shaft after the handle 37 is released by the operator.

The spring automatically projects the valve from the housing when the latter is displaced, as shown by Figure 5, so that the valve is automatically seated yieldingly on the valve seat 16, when the housing is moved to its operative position.

When the sections are separated, as shown by Figure 5, and the hasp 22 is swung backward, as shown by dotted lines, a brush or swab may be inserted in the bore of the inlet portion 12, to remove therefrom a coating deposited thereon.

I am not limited to the embodiments of the invention shown by the drawings, except as otherwise required by certain of the more limited claims hereto appended.

I claim:

1. An internally cleanable faucet, comprising a spout attachable to a reservoir, and having an annular outer end face, a recess surrounded by the end face, a valve seat within the recess and a laterally extending discharge nozzle communicating with the recess, between the end face and the valve seat, the bore of the spout being unobstructed and arranged to be cleaned by a swab inserted through the recess and the valve seat, a housing having internal guides and a complemental end face, means separably confining the housing in an operative position with its end face bearing on that of the spout, the housing being displaceable to an inoperative position, a valve having a stem movable in said guides, a spring acting on the valve stem to yieldingly project the valve from the housing, so that the valve is automatically seated on the valve seat of the spout by movement of the housing, to its operative position, a rock-shaft journaled in the housing and provided with an operating handle, and connections between the rock-shaft and valve stem, whereby when the shaft is rotated in one direction, the valve is opened against the closing pressure of the spring, the arrangement being such, that when the housing is displaced from its operative position, access of a swab to the bore of the spout is permitted.

2. An internally cleanable faucet, comprising a spout adapted for attachment to a reservoir and provided with an annular outer end face, a recess surrounded by said face, a valve seat within the recess, and a discharge nozzle between the end face and the valve seat, the spout being cleanable by a swab inserted through the recess and valve seat, an independently movable housing separably connected with the spout and having a complemental annular inner end face and internal valve-guiding means, a valve guided by the housing, valve-operating means carried by the housing, and means separably clamping the end face of the housing against the end face of the spout, to render the faucet operative and inoperative, the arrangement being such that when the faucet is operative, the valve is maintained in position to open and close the valve seat, and when the faucet is inoperative, access of a swab to the faucet bore is permitted.

In testimony whereof I have affixed my signature.

JOHN W. BURNETT.