Aug. 28, 1945. F. KLEIN 2,383,724

SWING FAUCET

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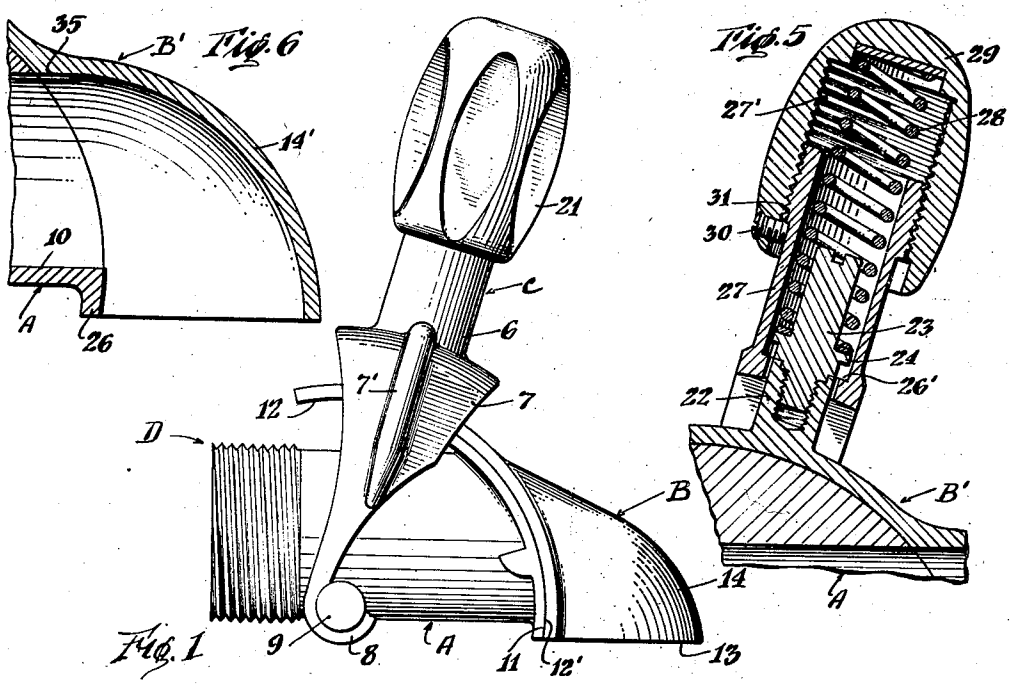


Fig. 6

Fig. 5

Fig. 1

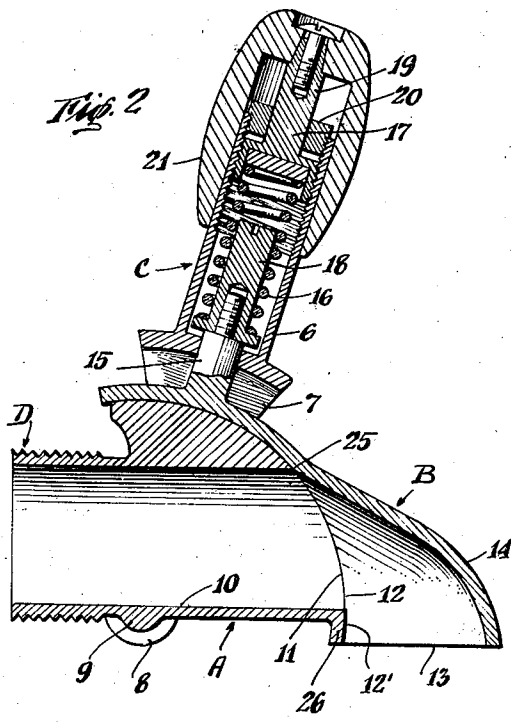


Fig. 2

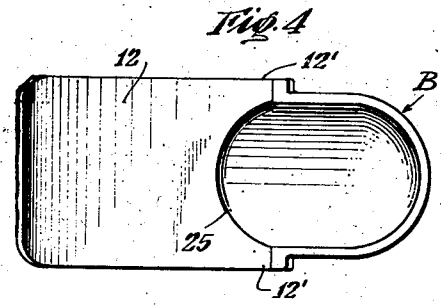


Fig. 4

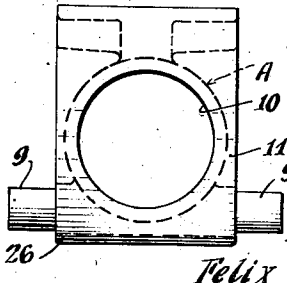


Fig. 3

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SWING FAUCET

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2 Claims. (Cl. 251—19)

This invention relates to faucets, and particularly to faucets as used on food kettles and the like.

The object of the invention is to provide a faucet structure which will be clean and efficient in use and inexpensive to manufacture, a fixed body portion of the faucet providing a straight flow of the material and a pivoted spout portion being removable as a single unit.

In the accompanying drawing illustrating the invention,

Fig. 1 is a side view;

Fig. 2 is a central sectional view;

Fig. 3 is an end view of the body portion of the faucet;

Fig. 4 is a view of the spout portion of the faucet as seen detached and viewed from the bottom of Figs. 1 and 2; and

Figs. 5 and 6 are sectional views of a modified form of spout portion.

In the embodiment of the invention illustrated in the drawing, the faucet comprises a body portion A, a spout portion B with handle portion C, the body portion A having the threaded end D fitting fluid tight into the kettle or other container.

The spout portion B is fitted to pivotally slide on the body portion A and is held thereon by the attached handle portion C having outwardly protruding cylinder 6 and the inwardly extending yoke portion 7 with the ends 8 of the yoke forming recesses pivoting the handle C on the lugs 9 on each side of the body portion A, with or without the reinforcing rib 7'. The passage 10 through the body portion A is generally cylindrical in form and the end of the body A is formed with a cylindrically arcuate surface 11 cooperating with a similar under surface 12 of the spout B. This surface 12 (Fig. 4) extends down at 12' to the lower end 13 of the spout and the surfaces 12, 12' are finished on a cylindrical arc corresponding to the arc of the surface 11. Between the surfaces 12' on each side the spout B is bulged outward to form the discharge portion 14 of the spout receiving the flow of material from the passage 10 in open position of the faucet as shown in Figs. 1 and 2.

The outwardly extending projection 15 of the spout B carries the handle portion C as shown, this projection 15 fitting within the cylinder 6 of the handle with spring 16 between the projection and the cylinder. A piston member 17 fits within the cylinder and retains the spring 16 therein, the piston in turn being retained by the annular stay nut 20 threaded into the end of the cylinder 6, and the inner end of the spring 16 transferring its thrust to the projection 15 through the flanged pin 18 threaded on to the reduced end of the projection 15. The expansion of the spring presses resiliently outward on the piston 17 and cylinder 6, this pressure being taken by the hooked ends 8 of the yoke 7 against the lugs 9 of the body A. The inward pressure of the spring against the projection 15 maintains the surfaces 11, 12 in yielding contact at all times.

The piston 17 has a rod portion 19 extending through the annular nut 20 and at its outer end carries the hollow handle knob 21 sleeved on the outer surface of the cylinder 6. Turning of the knob 21 acts through the screw threading 17' to vary the pressure on the spring 16 and obtain the desired pressure between the surfaces 11, 12, clockwise turning of the knob 21 increasing this pressure. To remove the spout the pressure on the spring is first relieved by turning of this knob 21 counter-clockwise and then inward pressure is applied to the knob compressing the spring 16 so that the hooked ends 8 of the yoke 7 may be disengaged from the lugs 9 to free the spout portion from the body portion of the faucet, permitting the parts to be thoroughly exposed for cleaning. The spout is reassembled in place by bringing the surface 12 into correspondence with surface 11 and then compressing the knob 21 to re-engage the hooked ends 8 of the lugs 9.

In the modified form shown in Figs. 5 and 6 the spout portion B' carries a projection 22 internally threaded to receive the stud 23 flanged as indicated at 24 to engage the internal shoulder 26' of the cylinder 27. Spring 28 is housed within the cylinder 27 and the handle knob 29 threaded and screwed on the cylinder 27 as shown and retained thereon by the set screw 30 bearing against the shoulder 31 of the handle sleeve. Turning of the knob 29 controls the spring pressure between the surfaces 11, 12 and provides for the removal of the spout as above explained in connection with Fig. 2. The spout portion 14' as shown in Fig. 6 is rounded out on the arc of a circle and brought in at 35 substantially in line with the bore 10 of the faucet body A.

In operation the material discharging through the straight passage 10 of the body A flows readily out through the spout B without meeting any restriction or obstruction. The outlet for the flow is entirely clear in the position of the spout as shown in Figs. 1 and 2. Restriction of the flow is attained by moving the spout clock-

wise to bring the edge 25 (Fig. 4) of the surface 12 more and more over the end of the passage 10, thus progressively closing off the end of the passage until at least the edge 25 passes entirely over the end of the passage 10 and reaches the lip portion 26 of the surface 11, the surface 12 being located over the end of the passage 10 to close it tightly under the resilient pressure of the spring 16.

Leakage and dripping is avoided, the final closure making a clean cut-off of the passage 10 and an easy and thorough discharge of the residual material in the spout portion B.

The faucet of this invention is easily manipulated for thorough control of the discharge of fluid or other material and maintains itself clean and free from the accumulation of material on the surfaces of the faucet. The parts are easily disassembled, the spout and handle portions being readily releasable by simply pressing inward on the handle knob so that the spring pressure on yoke ends 8 is released for disengagement of the yoke from the studs 9, the spout and handle being then removable as a single unit and this removal being accomplished by a single hand of the user. When removed all of the cooperating surfaces are exposed for a thorough cleaning without special tools of any sort and the spout-handle unit is similarly readily replaced and locked in place after cleaning by positioning on the body portion A and pressing inward on the handle knob to hook the ends 8 over the cooperating studs 9.

I claim:

1. A swing faucet comprising a tubular body portion having a straight cylindrical bore from end to end and terminating at one end in a lower lip and adapted to be connected to a fluid supply at the other end, a pivot means adjacent the under surface of said tubular body portion for attachment of a relatively movable spout portion, a curved end portion on said body concentric with said pivot means so that said lower lip of the end of the tubular portion protrudes forward, a closure and spout unit having an upper closure portion concentric with said end portion and slidable to upper and lower positions on said curved end portion of said body and comprising a lower spout portion registering with the end of said tubular portion and curving downward and terminating at substantially the level of said lip in the upper open position of the closure to form a downwardly directed orifice and correspondingly direct the outflow of said fluid from said straight bore, and a handle portion connected to said pivot means and having a spring pressed portion engaging against said closure and spout unit to resiliently connect said unit and said pivot means.

2. A swing faucet as set forth in claim 1 in which the spout is U-shaped in cross section with the ends of the U engaging the curved end portion of said tubular body.

FELIX KLEIN.