

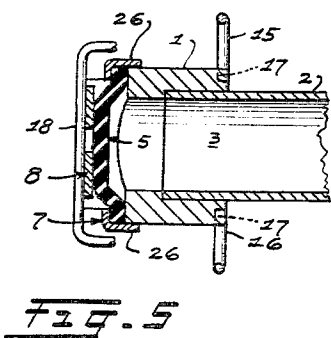
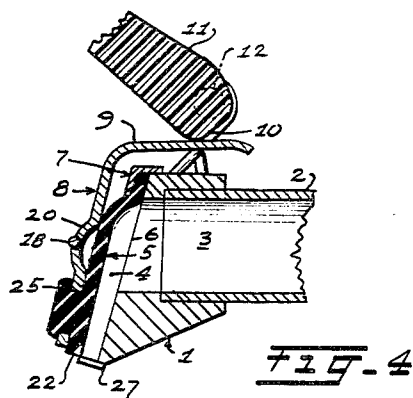
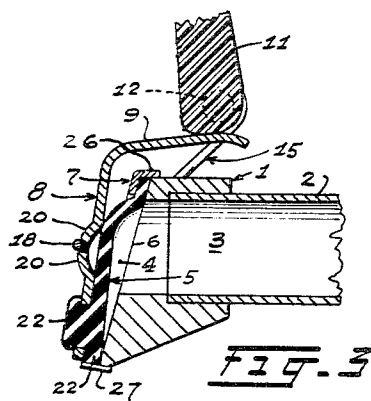
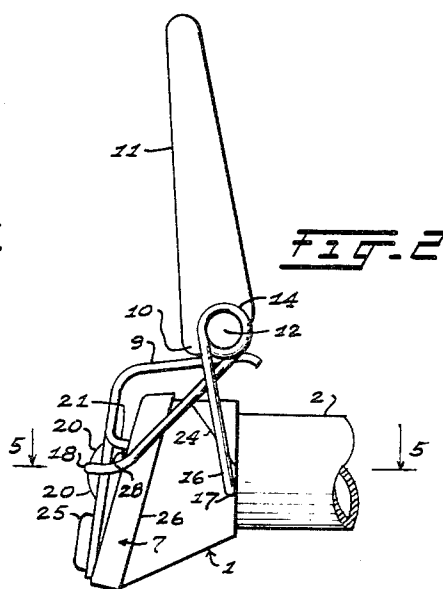
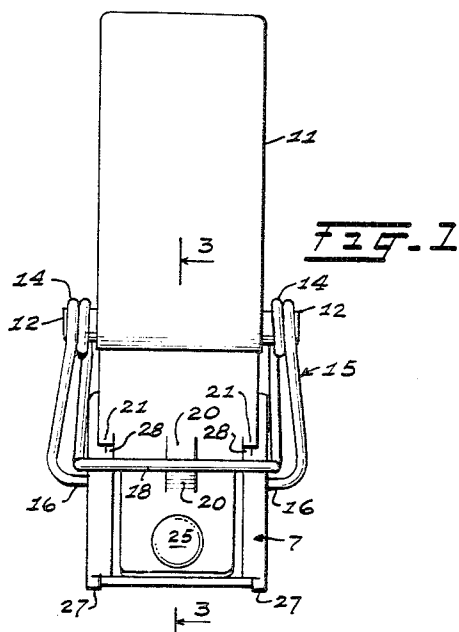
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2,935,291

SANITARY FAUCET

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INVENTOR.

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2,935,291

SANITARY FAUCET

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Original application August 15, 1955, Serial No. 528,190, now Patent No. 2,854,208, dated September 30, 1958. Divided and this application September 30, 1957, Serial No. 687,277

4 Claims. (Cl. 251-263)

The invention relates to a sanitary faucet and more particularly to a sanitary dispensing faucet having a closable spout with means for quick assembly of the faucet. This invention is related to the subject matter in my co-pending application Ser. No. 528,190, filed August 15, 1955, now Patent No. 2,854,208, of which this is a division.

The object of the invention is to provide a straight and open passage in the faucet body for easy cleaning, an accessible sealing surface at the end of the passage, and a removable pivoted lid serving as a stopper to close the passage.

Another object is to provide a novel faucet in which the faucet body and a pivoted closable lid cooperate to act as a spout and where such spot is closable at its mouth so that when the faucet is closed no surface that has been in contact with the dispensed liquid is exposed.

Another object is to provide a longitudinally split and separable spout and sealing means therefor.

Another object is to provide a diaphragm type seal with a lip to close the mouth of the spout.

Another object is to include resilient means to retain the sealing element relative to the faucet body and to bias it into a sealing position.

A further object is to construct a faucet that is self-closing, with means to keep it open in the extreme open position.

Other objects and advantages of this invention will be apparent from the following description considered in connection with the accompanying drawing submitted for the purpose of illustration and not to define the scope of the invention, reference being had for that purpose to the subjoined claims. In the drawing, wherein similar reference characters refer to similar parts throughout the several views:

Fig. 1 is a front elevation of a faucet embodying the invention;

Fig. 2, a side elevation thereof;

Fig. 3, a section taken on lines 3-3 of Fig. 1;

Fig. 4, the same section as Fig. 3, but showing the faucet in the open position; and

Fig. 5, a section taken on lines 5-5 of Fig. 2.

Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and arrangement of elements illustrated in the accompanying drawing, since the invention is capable of other embodiments and of being practised or carried out in various ways. Also it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not limitation.

Referring now to Figs. 1-5, the faucet comprises a faucet body 1 having a shank or conduit 2 leading to a conventional liquid or beverage container which is not shown as it is not a part of the invention. The connection of conduit 2 to the container may be fixed, or a conventional coupling may be used. Conduit 2 and body 1 are shown as being permanently joined together to form

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a single piece so that conduit 2 may be regarded as a part of body 1 having a common straight passage 3 communicating with the liquid container and leading to a spout passage 4 intermediate the body 1 and a diaphragm seal 5 of rubberlike material. The faucet body 1 has a face 6 on which the diaphragm seal 5 is seated. The latter is reinforced at its peripheral side and top flanges by an inverted U-shaped cap 7 which may be permanently bonded to diaphragm 5. The central portion and the lower lip of the seal at the mouth of the spout are backed by a backing plate 8 having an arm 9 extending upwardly to be engaged by a cam 10 of an operating lever 11 having trunnions 12 pivoted in coils 14 of a wire spring 15. The ends 16 of spring 15 are pivotally seated in sockets 17 of body 1 as shown by dotted lines in Fig. 5, while the central portion 18 of the spring 15 is seated on and presses against plate 8 to urge seal 5 into a closed position, as shown in Fig. 3. Small projections 20 struck out of the sheet metal of backing plate 8 serve to confine the central portion 18 of the spring to the place where it is seated on plate 8. The thrust exerted by portion 18 of spring 15 acts in a direction towards sockets 17, and the ends 16 react to remain seated in sockets 17. Plate 8 has a pair of short legs 21 struck out of the plate, resting and pivoting on cap 7 on a line above spring portion 18. Accordingly, the force of the spring acts through legs 21 against cap 7 to hold the side and top flanges of diaphragm seal 5 firmly against face 6, and through the lower portion of plate 8 to press the lip 22 of the diaphragm seal against face 6 to close the mouth of the spout. Thus spring 15 serves three distinct purposes, namely, to releasably hold seal 5 in the assembled position, to bias the mouth of the spout into a closed position, and to provide a bearing or pivotal support for lever 11. The spring permits the easy removal of the closure elements, as the ends of the spring can be easily snapped out of grooves 17 of body 1; letting the spring swing on its seat intermediate projections 20. To facilitate this removal, the upper part of body 1 is chamfered at 24 so that the ends of the wire are free of the body. Plates 8 could be bonded to seal 5, but where this is not desired, a grommet-like projection 25 on seal 5 engages a hole in plate 8 so that lip 22 can be lifted away from face 6 when the faucet is to be opened. The rim 26 of cap 7 fits over body 1 and at 27 it fits over the corners of the body without covering the mouth of the spout. This locates cap 7 and seal 5 in all directions relative to body 1. Downward movement of plate 8 is prevented by small projections 28 extending from cap 7 and abutting against the underside of legs 21.

Describing now the operation of the faucet, forward movement of lever 11, i.e. towards the left, depressing arm 9 causes plate 8 to rock on legs 21 so that lip 22 is pulled away from face 6. The flanges of the diaphragm seal 5 remain seated on face 6 so that only the mouth at the end of the spout passage is opened, as shown in Fig. 4. Spring 15 tends to return the faucet into a closed position, but if the lever is moved completely forward the faucet remains open. The relative positions of grooves 17, legs 21, and the seat between projections 20 are intended to give a uniform pressure of the flanges and lip of the diaphragm seal against face 6 of body 1.

Having thus described my invention, I claim:

1. A sanitary faucet for dispensing liquids including a fixed body having a face, a liquid passage in said body terminating at said face, a diaphragm seal having a peripheral flange in sealing contact with said face, a spout passage intermediate said diaphragm seal and said face in communication with said first mentioned liquid passage, said spout passage terminating in a mouth closable by a portion of said peripheral flange, a backing plate for said

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diaphragm seal and secured to said portion of said peripheral flange, a spring engaging said body and said backing plate to bias said mouth into a closed position, a cap fitting over said flange excepting said portion of said flange, said backing plate pivotally engaging said cap to transmit part of the force of said spring to said cap to thereby retain said flange covered by said cap in sealing contact with said face, and manually operable means to swing said backing plate about its pivotal axis away from said face to open said mouth against the force of said spring.

2. The construction as claimed in claim 1, said spring having axially aligned coils adapted to serve to pivotally support said manually operable means.

3. The construction as claimed in claim 1, said spring having axially aligned coils adapted to serve to pivotally support said manually operable means, said spring having ends turned inwardly and axially aligned to serve as trunnions and said body having axially aligned opposed sockets externally thereof so that said ends can be readily snapped

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into or out of said socket for ready assembly or removal of said spring to or from said body.

4. The construction as claimed in claim 1, said spring having axially aligned coils adapted to pivotally support said manually operable means, said manually operable means consisting of a lever having trunnions rotatably engaging said axially aligned coils and provided with a cam portion operatively engaging said backing plate to swing the latter about its pivotal axis.

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