June 30, 1964 J. E. BLOOM 3,139,224

BOTTLE POURING ATTACHMENT WITH SWIVEL SPOUT

Filed Feb. 20, 1962

Fig. 1

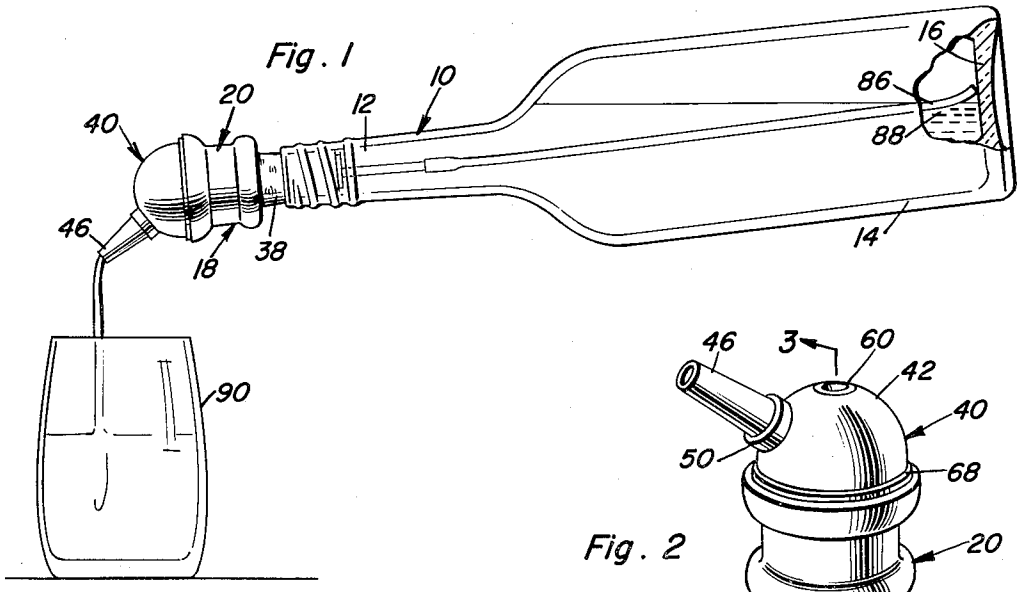


Fig. 2

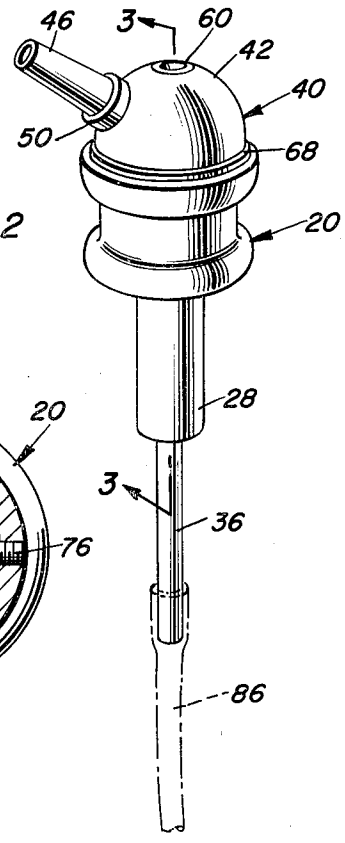


Fig. 3

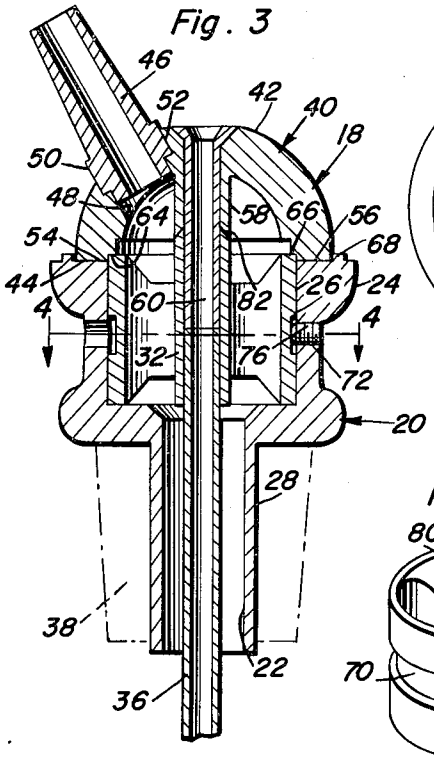


Fig. 4

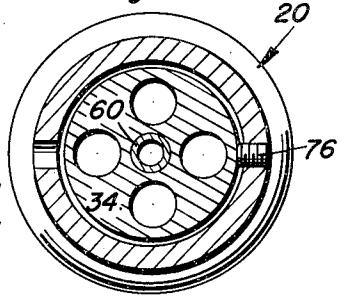
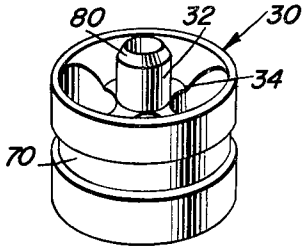


Fig. 5



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BOTTLE POURING ATTACHMENT WITH SWIVEL SPOUT

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This invention relates to a novel and useful bottle pouring attachment comprising an elongated body having a bore formed therethrough. The elongated body includes means on an end for securement in the neck of the bottle and is provided with a turret head on the other end having a pouring spout. The pouring spout projects laterally outwardly of the elongated body at approximately 45° relative to the longitudinal axis of the body and is weighted in order that whenever the bottle in which the pouring attachment is secured is disposed horizontally or with its neck end downwardly inclined the weight of the pouring spout will pivot the turret head in order to position the weighted pouring spout lowermost. In this manner, a bottle on which the pouring attachment is secured may be grasped in any manner and tilted to a neck downwardly inclined position in order to pour contents from the bottle without having to rotate the bottle about its longitudinal axis in order to position an angulated pouring spout in a downwardly opening position.

The bottle pouring spout attachment of the present invention may be constructed of numerous types of materials and may be manufactured and assembled in a plurality of different ways without departing from the spirit of the invention.

The main object of this invention is to provide a bottle pouring spout attachment which includes a body portion adapted for engagement with the neck of the bottle and a swivelly mounted pouring spout in order that the pouring spout will always be disposed lowermost when the bottle is horizontally disposed or in a neck downwardly inclined position.

A further object of this invention, in accordance with the immediately preceding object, is to provide a means for mounting the pouring spout portion of the pouring attachment to the body portion in a manner whereby friction between the relative rotatable portions of the pouring attachment will be maintained at a minimum.

A still further object of this invention is to provide a bottle pouring attachment which may be readily adapted for use with bottles and other containers having different size neck openings.

A still further object of the invention is to provide a bottle pouring attachment in accordance with the preceding objects having its relatively rotatable components constructed in such a manner so as to substantially eliminate all possibility of fluids and the like being dispensed by the pouring attachment from leaking between the two relatively rotatable components.

A final object of this invention to be specifically enumerated herein is to provide a bottle pouring attachment which will conform to conventional forms of manufacture, be of simple construction and easy to use so as to provide a device that will be economically feasible, long lasting and relatively trouble free in operation.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part thereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a side elevational view of a conventional type of bottle shown with its neck portion slightly downwardly inclined and having a pouring attachment constructed in accordance with the present invention secured

therein and being utilized to pour liquid contents from the interior of the bottle into a tumbler, parts of the bottle being broken away and shown in section;

FIGURE 2 is a perspective view of the bottle pouring attachment disposed in an upright position;

FIGURE 3 is an enlarged fragmentary longitudinal vertical sectional view taken substantially upon the plane indicated by section line 3—3 of FIGURE 2;

FIGURE 4 is a horizontal sectional view taken substantially upon a plane indicated by section line 4—4 of FIGURE 3; and

FIGURE 5 is a perspective view of the bearing sleeve portion of the bottle pouring attachment.

Referring now more specifically to the drawings, the numeral 10 generally designates a conventional bottle which includes a neck portion 12 and a lower body portion 14 which is provided with the bottom 16. The bottle pouring attachment of the instant invention is generally designated by the reference numeral 18 and includes an elongated body generally referred to by the reference numeral 20 which has a bore 22 formed longitudinally therethrough. The body 20 has a diametrically enlarged end portion 24 in which a counterbore 26 is formed and the other diametrically reduced end portion of the body 20 comprises a neck portion 28. It will be noted that the bore 22 is disposed substantially entirely within the neck portion 28.

A bearing sleeve generally referred to by the reference numeral 30 is snugly received in the counterbore 26 and includes a center tubular journal sleeve 32 which is supported concentrically within bearing sleeve 30 by means of a foraminated web 34. A tubular air bleed conduit 36 has one end secured in the end of the journal sleeve 32 adjacent the neck portion 28 and it will be noted that any suitable form of cork 38 may be engaged with the neck portion 28 in order to secure the attachment 18 within the neck 12 of the bottle 10.

The tubular air bleed conduit has an outer diameter considerably smaller than the inner diameter of the neck portion 28 and thus it may be seen that fluid to be dispensed may pass readily from the interior of the bottle 10 into the neck portion 20 by the bore 22 and into the interior of the bearing sleeve 30.

A tubular turret head is generally referred to by the reference numeral 40 and includes a closed end 42 and an open end 44. A pouring spout 46 has one end secured in a bore 48 formed in the closed end 42 of the turret 40 and it will be noted that the one end of the pouring spout 46 is provided with a weighted shoulder 50 which is received in the counterbore 52 formed in the outer end of the bore 48.

The end face 54 of the open end of the turret 40 is annular and defines a first thrust bearing surface which is disposed in sliding contacting relation with the end face 56 of the body 20 remote from the neck portion 28 thereof.

The turret head includes a tubular sleeve 58 which projects inwardly from the closed end 42 thereof and opens outwardly through the closed end 42. A tubular fastener 60 has one end secured in the journal sleeve 32 remote from the neck portion 28 and the other end is secured through the closed end 42 of the turret 40.

The end of the bearing sleeve 30 remote from the neck portion 28 projects slightly axially beyond the end face 56 of the body 40 and at least the peripheral edge portions thereof are received in a counterbore 64 formed in the open end 44 of the turret 40. The counterbore 64 defines an annular shoulder 66 against which the outer end of the bearing sleeve 30 abuts. Additionally, it will be noted that the end of the body 20 remote from the neck portion 28 has an axially projecting and annular rib dust rib 68 which projects from the end face 56 and snugly

receives the outer peripheral portions of the open end 44 of the turret 40.

The bearing sleeve 30 is provided with a circumferential groove 70 and a transverse bore 72 is formed in the body 20 and communicates at its inner end with the counterbore 26. A setscrew 76 is threadedly engaged in the transverse bore 72 for securing the bearing sleeve 30 within the counterbore 26.

As can best be seen from FIGURES 3 and 5 of the drawings the adjacent ends of the journal sleeve 58 are chamfered as at 80 and 82 respectively and at least portions of the chamfered ends are disposed in surface to surface contacting relation with each other.

In operation, the cork 38 may be secured to the neck portion 28 in an obvious manner and the attachment 18 may then be inserted in the neck 12 of the bottle 10. An elongated tubular member 86 first has one end telescoped over the outwardly projecting end of the air bleed conduit 36 and the other end thereof is disposed immediately adjacent the bottom 16 of the bottle 10 when the attachment 18 is secured in a neck 12 of the bottle. As the bottle 10 is tilted to a substantially horizontally disposed position as viewed in FIGURE 1, the weighted pouring spout 46 will cause the turret 40 to rotate about the longitudinal axis of the journal sleeve 32 to a position with the spout 46 disposed lowermost. Accordingly, it may then be seen that the bottle 10, after being picked up in almost any manner, may be tilted to a neck downward position in order to pour the fluid 88 from the interior thereof into the tumbler 90.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A bottle pouring attachment comprising an elongated body having a bore formed longitudinally therethrough including an enlarged counterbore at one end, a diametrically reduced neck portion on the other end of said body through which the end of said bore remote from said counter bore extends, a bearing sleeve snugly received in said counterbore and including a center tubular journal sleeve supported by a foraminated web, a tubular air bleed conduit having one end secured in the end of said journal sleeve adjacent said neck portion and projecting outwardly through the free end of said neck portion, a tubular turret head having a closed end and an open end, a pouring spout carried by said closed end and opening inwardly into the interior of said head, the end face of said open end being annular and defining a first thrust bearing surface disposed in sliding contacting relation with the end face of said one end of said body, said turret head including a tubular sleeve projecting inwardly from the closed end of said turret head and opening outwardly therethrough, and a tubular fastener having one end secured in the end of said journal sleeve remote from said neck portion and the other end secured through the end of said tubular sleeve remote from said journal sleeve.

2. The combination of claim 1 wherein said pouring spout is disposed at an angle of approximately 45° relative to the longitudinal axis of said sleeve journal.

3. The combination of claim 2 wherein said pouring spout extends laterally of said turret head and away from said open end thereof.

4. The combination of claim 1 wherein said end face of said one end of said body includes an axially and outwardly projecting and annular dust rib concentric with the longitudinal axis of said journal sleeve, said dust rib snugly receiving said open end of said turret head.

5. The combination of claim 1 wherein the outer end of said bearing sleeve remote from said neck portion projects slightly outwardly beyond the corresponding end face of said body, said opening of said turret head including a shallow counterbore in which at least the outer peripheral portion of said outer end of said bearing sleeve is snugly and rotatably received.

6. The combination of claim 1 wherein said bearing sleeve is removably secured in said body counterbore.

7. The combination of claim 1 wherein said pouring spout is disposed at an angle of approximately 45° relative to the longitudinal axis of said sleeve journal, said pouring spout extending laterally of said turret head and away from said open end thereof, said spout being weighted so as to have a tendency to rotate said turret to a position with said spout disposed lowermost when the longitudinal axis of said journal sleeve is horizontally disposed.

8. The combination of claim 1 wherein the adjacent ends of said journal sleeve and tubular sleeve are chamfered and have portions of said chamfered and have portions of said chamfered ends disposed in surface to surface contacting relation with each other.

9. The combination of claim 8 wherein the outer end of said bearing sleeve remote from said neck portion projects slightly outwardly beyond the corresponding end face of said body, said opening of said turret head including a shallow counterbore in which at least the outer peripheral portion of said outer end of said bearing sleeve is snugly and rotatably received.

10. The combination of claim 9 wherein said pouring spout is disposed at an angle of approximately 45° relative to the longitudinal axis of said sleeve journal, said pouring spout extending laterally of said turret head and away from said open end thereof, said spout being weighted so as to have a tendency to rotate said turret to a position with said spout disposed lowermost when the longitudinal axis of said journal sleeve is horizontally disposed.

11. The combination of claim 10 wherein said end face of said one end of said body includes an axially and outwardly projecting and annular dust rib concentric with the longitudinal axis of said journal sleeve said dust rib snugly receiving said open end of said turret head.

12. A bottle pouring attachment comprising an elongated body having a bore formed longitudinally therethrough including an enlarged counterbore at one end, foraminated web means extending across said counterbore and including a centrally disposed tubular journal sleeve, a tubular air bleed conduit having one end secured in the end of said journal sleeve adjacent the other end of said body and projecting outwardly through the free end of said other end of said body, a tubular turret head having a closed end and an open end, a pouring spout carried by said closed end and opening inwardly into the interior of said head, the end face of said open end being annular and defining a first thrust bearing surface disposed in sliding contacting relation with the end face of said one end of said body, said turret head including a tubular sleeve projecting inwardly from the closed end of said turret head and opening outwardly therethrough, and a tubular fastener having one end secured in the end of said journal sleeve remote from said other end of said body and the other end secured through the end of said tubular sleeve remote from said journal sleeve.

References Cited in the file of this patent

UNITED STATES PATENTS

2,512,813	Sodders	June 27, 1950
3,061,151	Clare	Oct. 30, 1962