Aug. 15, 1961 J. A. PIKE 2,996,225

SPOUT ATTACHMENT FOR CANS AND THE LIKE

Filed March 26, 1958

FIG.1

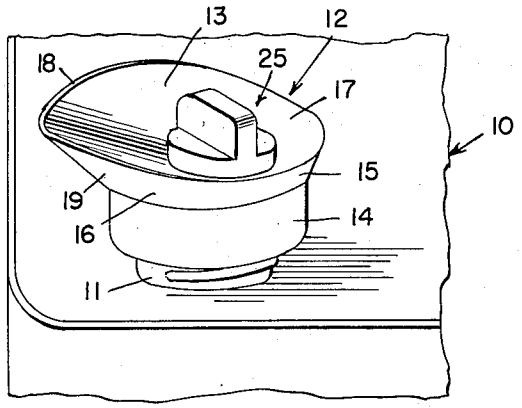


FIG.5

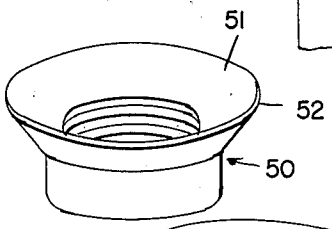


FIG.2

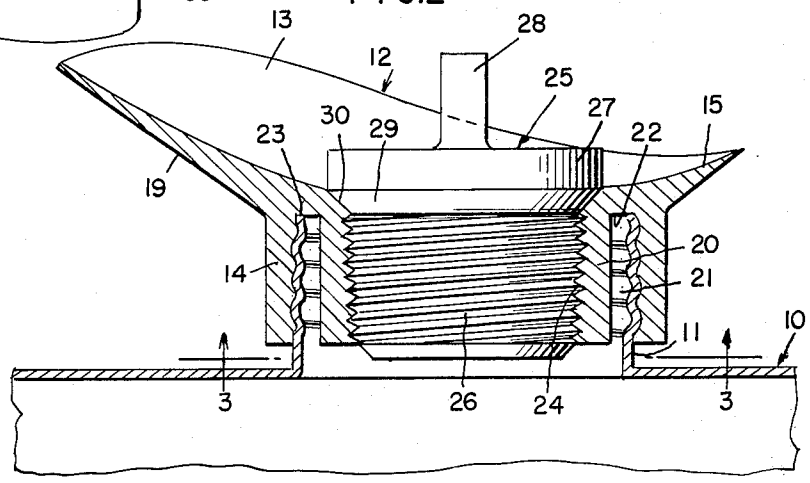


FIG.3

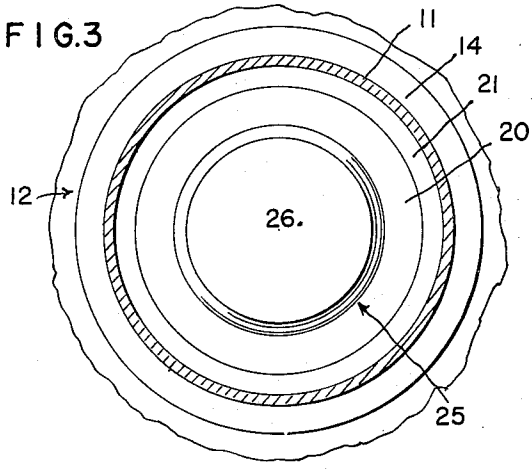
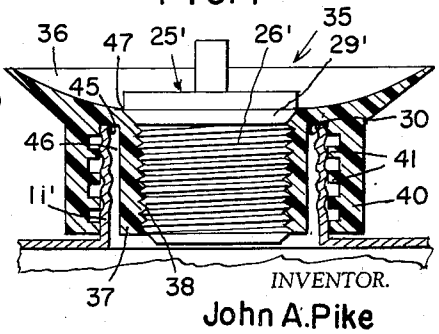


FIG.4



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SPOUT ATTACHMENT FOR CANS AND THE LIKE

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This invention relates to attachments for cans and similar articles and pertains more particularly to an improved construction of a pouring spout.

One of the objects of this invention is to provide a pouring spout attachment, particularly adapted for cans and similar articles, which embodies an internally screw threaded neck portion, and concentrically associated therewith a closure or plug receiving element adapted to threadingly engage with an externally threaded plug or closure whereby the contents of the can or the like will be effectively sealed when the component parts are interengaged.

Another object of this invention is to provide an improved pouring spout incorporating a spout portion provided with a pair of concentrically associated and depending annular collars, each of which is internally screw threaded to respectively receive the threaded neck of a can and to receive an externally threaded closure plug, the closure plug having a beveled annular upper portion engageable with a seat portion of the spout assembly to effect a seal therewith.

Another object of this invention is to provide an improved form of pouring spout attachment for cans in which the spout portion is provided with a pair of concentrically arranged and depending collars, in conformity with the preceding object, and wherein such collars are disposed in spaced relationship to define therebetween an annular chamber, with such chamber being of a vertical height less than the height of a can neck with which the spout attachment is associated so that the top edge of the neck will engage with and seal against the uppermost surface of said spout assembly defining such chamber.

With the above and other objects in view, the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawing and pointed out in the claims hereto appended, it being understood that various changes in the form, proportions, and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:

FIG. 1 is a perspective view showing a portion of a can and illustrating the improved spout attachment construction in accordance with this invention associated therewith;

FIG. 2 is an enlarged vertical section taken through the can and attachment assembly shown in FIG. 1 and illustrating details of internal construction of the attachment;

FIG. 3 is a horizontal section taken along the plane of section line 3—3 of FIG. 2;

FIG. 4 is a vertical section taken through a can and a modified spout attachment according to the invention; and

FIG. 5 illustrates a modified funnel configuration.

Referring at this time more particularly to FIG. 1, the reference numeral **10** indicates in general a portion of any conventional type of can or similar article which is provided with the usual externally screw threaded neck portion **11**. Associated with the neck **11** is the pouring spout attachment **12** which forms this invention. The attachment itself is beneficial in controllably pouring liquids from the can **10** and, in doing so, without danger of excess dripping. For example, the attachment is

extremely useful in connection with the more viscous fluids, such as maple syrup, honey and the like.

As is shown most clearly in FIG. 2, the attachment consists essentially of an upper lip defining portion **13** and an outer depending collar portion **14**, the latter of which is preferably, as shown, of cylindrical configuration and of slightly larger diameter than the diameter of the neck portion **11** of the can with which it is associated. The upper portion of the spout attachment extends generally radially outwardly from the outer collar **14** in overhanging relation thereto and projects substantially uniformly therefrom in the rear portion **15** and opposite side portions **16** and **17** thereof while the forward end portion **18** thereof projects a considerable distance outwardly from the collar **14**. The upper surface of the lip defining portion **13** is concave and it is preferred that the portions thereof which project outwardly from the collar portion **14** are thickest at their juncture with the collar and taper, in cross section, outwardly toward the peripheral free edge of such lip defining portion **13**. Therefore, the undersurface **19** of the lip defining portion may conveniently be formed of conical shape, as is shown.

Concentrically located with respect to the outer collar **14** and integrally attached thereto at its upper end is a depending inner collar **20** with the two such collars being disposed in spaced relation to define an annular chamber **21** therebetween. This chamber is of a width greater than the width of the can neck **11** and the outer collar **14** is internally screw threaded as shown to threadingly engage with the neck **11**. It is preferred that the two collar portions **14** and **20** terminate in substantially a common plane at their lower free edges and that the upper wall portion **22** of the attachment forming the upper confine of the chamber **21** be substantially flat so as to be engaged by the upper edge portion **23** of the can neck **11** so that a seal may be effected therewith. Of course, for this purpose, the vertical height of the chamber **21** is, of necessity, such as to be less than the vertical height of the neck portion **11** of the can.

The inner collar **20** is internally screw threaded as indicated by the reference character **24** and threadingly engaged thereon is a closure plug indicated generally by the reference character **25** and which has a lower screw threaded portion **26**, an intermediate sealing portion **27** and an upper handle portion **28**. It will be noted that the intermediate portion **27** is of larger diameter than the screw threaded lower portion **26** and that these two plug portions are joined by an upwardly tapering frusto conical portion **29** which is adapted to sealingly seat upon the beveled annular surface **30** formed in the lip portion of the attachment and leading into the internally threaded portion **24** of the inner collar **20**.

The handle portion **28** of the closure plug may be formed simply as a diametrically extending upraised and generally rectangular boss as shown so that the same may be gripped between the thumb and forefinger to turn the plug tightly against the seat **30** and form an effective seal thereby.

From the foregoing, it will be evident that the attachment forms an effective seal with the upper edge portion of the neck **11** and also forms an effective seal with the plug element **25** so that when the parts are properly interengaged, the contents of the can will be effectively sealed therein. At the same time, it is a relatively simple matter to remove the plug **25** and thus gain access to the interior of the can, whereby the contents may be poured from the same and the lip portion **13** of the attachment will effectively serve as an anti-drip pouring spout.

Referring now to FIG. 4, a modified attachment indicated generally by the reference numeral **35** is illustrated and includes an upper lip defining portion **36** which may

be similar to lip defining portion **13** of the device shown in FIG. 2. Attachment **35** is formed of a suitable flexible resilient substance, such as plastic and the like. A downwardly extending inner sleeve **37** is formed integral with portion **36** of the attachment and is substantially cylindrical, having screw threads **38** formed on the inner surface thereof. The interior of sleeve **37** communicates with an opening formed through the concave upper surface of the attachment, and a closure plug **25'** similar to plug **25** of the device shown in FIG. 2 having screw threads **26'** formed on the lower portion thereof is threaded into sleeve **37**.

Closure plug **25'** and attachment **35'** have cooperating beveled surfaces **29'** and **30'** respectively similar to surfaces **29** and **30** of the corresponding elements shown in FIG. 2, thereby providing a sealing engagement between these members. It should also be noted that both members **25** and **25'** taper inwardly in a downward direction as does the inner surface of sleeves **20** and **37** for effecting a better seal.

An outer downwardly depending sleeve **40** is formed integral with upper portion **36** of the attachment and has formed integral with the inner surface thereof a plurality of spaced inwardly extending substantially annular projections **41**. Projections **41** may be slightly deformed such that they adapt themselves to the outer threaded portion of the neck **11'** of the associated can. In this manner, the projections are suitable for use with cans having different screw threads and yet the projections insure that there will be an effective seal between the attachment and the neck of the can. The upper wall portion **45** of the attachment forming the upper confine of the chamber **46** between sleeves **37** and **40** is substantially flat as to be engaged by the upper edge portion **47** of the can neck **11'**, thereby providing a good seal between these portions.

Referring now to FIG. 5, a modified funnel configuration is disclosed wherein the body means indicated generally by reference numeral **50** is provided with an upper funnel portion **51** defining a substantially circular pouring lip **52** around the outer periphery thereof. Funnel portion **51** has a generally concave upper surface. The remaining components of the attachment **50** are identical with those of the devices shown in FIG. 2 and FIG. 4. The funnel configuration shown in FIG. 5 may also be employed in the attachments shown in FIGS. 2 and 4, and is especially adapted for use with the device shown in FIG. 2 wherein there is a positive threaded connection between the outer sleeve of the attachment and the neck of the can. When there is such a positive threaded engagement, there is a possibility that the forward end portion **18** of the funnel may not face in the proper direction when the attachment is fully threaded onto the neck of the can. A funnel having a substantially circular configuration as shown in FIG. 5 eliminates this problem. Attachment **50** is also adapted to receive a closure plug (not shown) similar to plugs **25** and **25'**.

It is apparent that the attachment according to the present invention provides an effective seal between the attachment and neck of the can, and at the same time the closure plug provides a simple means by which access can be gained to the interior of the can.

I claim:

1. A pouring spout and closure assembly for containers, comprising a generally elliptical body portion having a concave upper surface and provided with a generally centrally disposed opening, an integral inner sleeve rigid with said body portion and depending therefrom in concentric relation to said opening, said inner sleeve being internally threaded, a closure member threadedly engaged in said inner sleeve, an integral outer sleeve rigid with and depending from said body portion disposed in concentric relation to said inner sleeve, said outer sleeve being internally threaded to receive the neck of a container, said body having a bevelled annular surface surrounding said opening and disposed adjacent the threads formed in the upper inner portion of said inner sleeve, and said closure member having a beveled shoulder sealingly engaged with said beveled surface, said inner and outer sleeves defining an annular space therebetween and being joined by a portion integral with said body and defining a flat, downwardly facing annular sealing surface for sealingly engaging with the upper rim of a container neck.

2. In combination, a container having a neck projecting therefrom, said neck including a threaded portion projecting radially outward thereof and radially inward thereof, a pouring spout and closure assembly mounted on said neck, said pouring spout comprising a body portion having a concave upper surface and being provided with a generally centrally disposed opening formed therethrough, an inner sleeve formed integral with said body portion and depending therefrom in concentric relation to said opening, said inner sleeve being internally threaded, a closure member threadedly engaged in said inner sleeve for sealing the opening through said body, an outer sleeve formed integral with said body portion, and depending therefrom, said outer sleeve being substantially coextensive with said inner sleeve and being internally threaded, said outer sleeve being concentric to said inner sleeve and being spaced therefrom a distance substantially greater than the thickness of said neck whereby said neck is threadedly received by said internal threads on the outer sleeve, said body portion including a flat downwardly facing annular sealing surface disposed between said inner and outer sleeves, the upper rim of said container neck being seated against said last-mentioned surface for providing an effective seal therewith.

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