

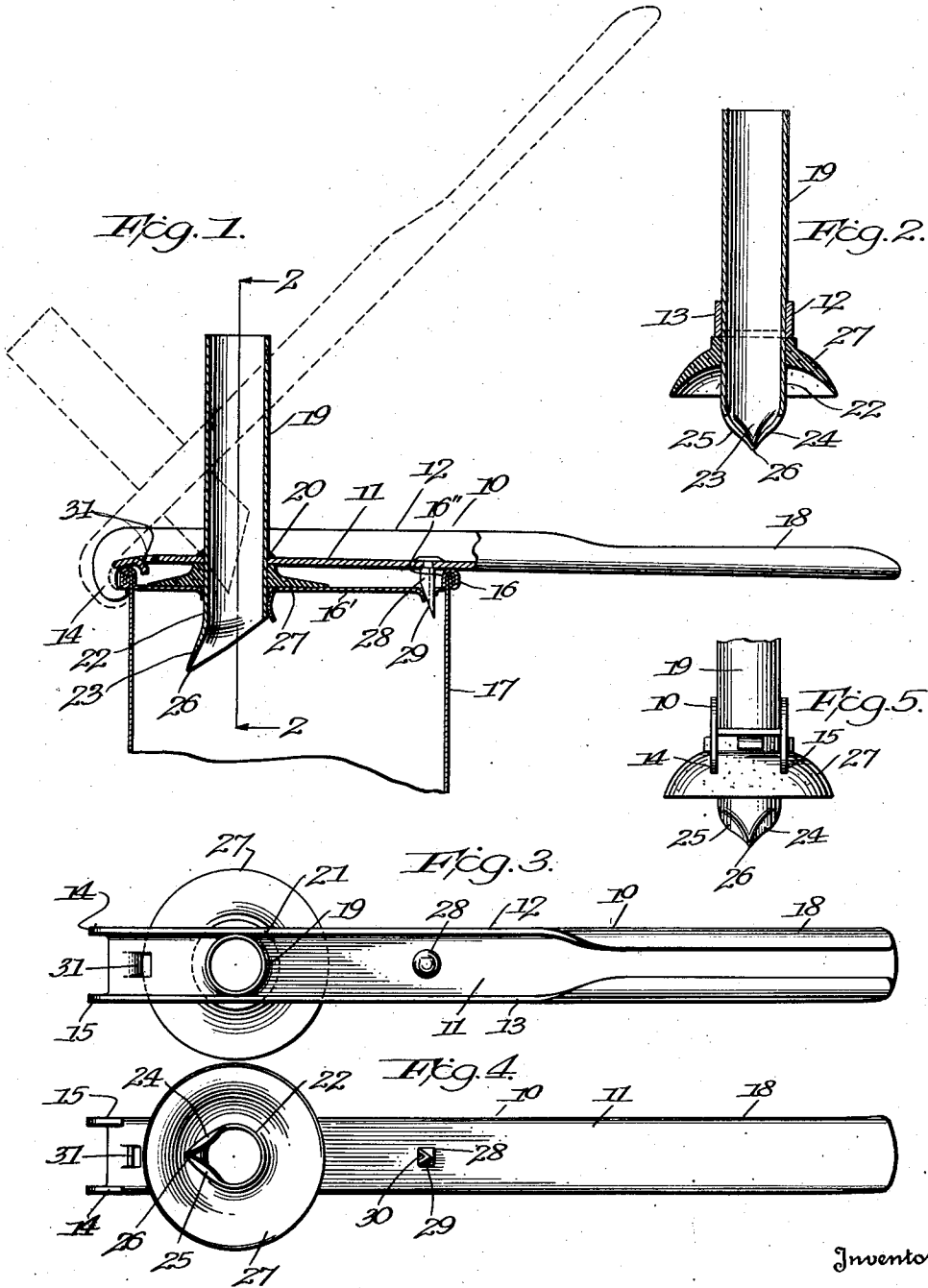
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CAN PIERCING AND SERVING DEVICE

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CAN PIERCING AND SERVING DEVICE

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10 Claims. (Cl. 221-23)

Our invention relates to can piercing and serving devices of the type comprising a pouring spout having a piercing portion adapted to be pressed through a can top to the interior of the can.

5 An object of the invention is to provide such a device of simple but efficient design, particularly adapted for use on cans containing pressure beverages, such as beer. Various features of the new device contribute to the attainment of the end sought and as these will be best understood from a description of a specific embodiment of the invention, we shall proceed with reference to the device as shown in the accompanying drawing.

15 In the drawing:

Figure 1 shows the new device partly in elevation and partly in longitudinal section, and the top portion of a can is also shown in cross section.

20 Figure 2 is a section substantially on the line 2-2 of Figure 1.

Figure 3 is a top plan view of the device.

Figure 4 is a bottom plan view of the device, and

25 Figure 5 is a front elevation.

Referring to the drawing, the device comprises a lever 10 which as here shown is in the form of a channel bar having the flat web portion 11 and the side flanges 12 and 13 which are perpendicular to the web 11. At one end of the lever the flanges 12 and 13 are extended beyond the web 11 and are bent across the latter to provide transversely projecting claws 14 and 15 whose hooked ends are adapted to be engaged under a fulcrum such as the bead 16 at the top of a can 17. At the opposite end of the lever 10 from the claws 14 and 15, the flanges 12 and 13 are bent inwardly as particularly shown in Figures 1 and 3 to provide a handle portion 18 which may be conveniently gripped.

40 Adjacent claws 14 and 15, web 11 is provided with a circular aperture whose diameter is about the same as the width of the web and in the aperture is inserted a pouring spout in the form of a tube 19. The tube 19 is disposed in perpendicular relation to web 11 and projects to either side of the latter. It is secured to the lever by welding or soldering, as at 20, Figure 1, to the aperture margins and also by welding or soldering, as at 21, Figure 3, to the side flanges 12 and 13 which the tube substantially contacts at diametrical points, as shown in Figure 3. With the tube thus secured to the web 11 and to the side flanges 12 and 13, it has a rigid and permanent association with the lever.

The portion 22 of tube 19 which projects transversely of the lever in the same direction as the claws constitutes the entering end of the tube. The extremity of this portion is cut on a bias as most clearly shown in Figure 1, and its longer side is faced toward the claws. The lower part of the said side is flared toward the claws as at 23, and the side portions are bent inwardly to form flanges 24 and 25, Figure 4, at either side of a piercing point 26. The bottom edge of the entering portion is substantially in a plane to which the flanges 24 and 25 are substantially perpendicular.

A rubber cup 27 has a central aperture which receives the entering portion 22 and tightly grips the latter to be retained thereon immediately adjacent web 11, which latter holds the cup against displacement in a direction away from point 26. In the normal condition of the cup as shown in Figure 2, its edge is in a plane at about the level of the upper end of the biased opening of the entering portion 22.

Between handle 18 and tube 19 a stud 28 is fixed in web 11 to project in the same direction as entering portion 22 of the tube. The stud 28 is given a point 29 by cutting it on a bias so that the point inclines away from tube 19. On its side toward tube 19 the stud 28 is provided with a longitudinally extending groove 30 which terminates at the web 11.

In use, the claws are engaged under the bead 16 of the can with the lever in the dotted line position of Figure 1, the point 26 resting on the can top 16', which, as here shown is in about the same plane as the bottom of bead 16. The point 26 is in a central longitudinal plane of the lever which is perpendicular to web 11. Consequently, the point 26 is symmetrically disposed relative to the claws 14 and 15 and when the lever is swung downwardly across the can top, there is no tendency for the lever to sway laterally and as a result the point 26 is forced accurately and cleanly through the can top.

The external wall of the entering portion 22 faced toward the claws is constantly closer to the claws from the point 26 toward the lever, that is, the distance between the fulcrum point and the entering portion becomes progressively greater as point 26 is approached. This means that as the entering portion passes through the can top its face toward the claws constantly bears on the can top metal between the said face and the claws so that the latter are constantly pulled toward the can to be firmly engaged under bead 16 at all times. At about the time the biased open-

ing of the entering portion is completely below the can top, the edge of the cup 27 engages the can top with a full circumferential contact about the entering portion 22, and from this point until the lever reaches the final full line position of Figure 1, there is a complete seal between the entering portion 22 and the can. If, before sealing contact is attained, liquid should spurt from the opening being formed in the can top, it will be deflected downwardly by cup 22.

Prior to the time the final position of Figure 1 is reached, the point 29 of stud 28 engages the can top and when the final position of the lever is reached the point extends within the can and groove 30 provides an air inlet. Since the groove terminates at the web 11 the latter will serve to deflect downwardly any liquid which may spurt upwardly through the groove. In view of the direction of the point 29 the latter, as it pierces the can top, will also act to pull the claws under the can head.

With the lever in final position its intermediate portion bears on the can top and since the device is firmly positioned by the claws and the piercing provisions, the lever and can may be readily held by one hand while the contents of the can are poured through the spout 19. The device may be quickly disengaged from the can by an upward swinging movement.

If desired, a curved tongue 31 may be struck from web 11 adjacent the claws, this tongue being designed to ride on the top of the bead 16 during the first part of the operative movement of the lever 10 and thus keep the claws operatively engaged under the bead shoulder.

It will be understood that the invention is susceptible of varied embodiment and accordingly we do not limit ourselves to details of construction and form except as in the following claims.

We claim:

1. A can piercing and serving device comprising a lever having at one end a pair of laterally spaced, downwardly projecting claws engageable under a fulcrum portion provided on a can, a pouring spout in the form of a tube projecting transversely through the lever in both directions and secured thereto, said tube having an entering portion projecting downwardly from the lever and terminating in a piercing point disposed in a vertical median plane between the claws, and means for providing an air inlet in the can top comprising a downwardly projecting pointed stud secured to the lever on that side of said entering portion remote from said claws, said stud having its surface facing said claws disposed on a plane inclined downwardly and rearwardly away from the claws, and a groove extending longitudinally thereof, said groove being closed adjacent the lever, the inclined surface on said stud serving to hold the claws in engagement with said fulcrum portion.

2. A can piercing and serving device comprising a lever having at one end a pair of laterally spaced, downwardly projecting claws engageable under a fulcrum portion provided on a can as the lever is operatively swung downwardly over the can top, a pouring spout in the form of a tube projecting transversely through the lever in both directions and secured thereto, said tube having an entering portion projecting downwardly from the lever and terminating in a piercing point disposed in a vertical median plane between the claws, said point serving to pierce the can top and enter the can as the lever is operatively swung downwardly, the external wall of the

entering portion of the tube faced toward said claws being constantly closer to the claws from its extremity substantially to the lever so that as the lever is operatively moving the entering portion of the tube constantly bears against the can top metal between the tube and claws whereby to hold the latter in engagement with said fulcrum portion.

3. A can piercing and serving device comprising a lever having at one end a pair of laterally spaced, downwardly projecting claws engageable under a fulcrum portion provided on a can, a pouring spout in the form of a tube extending transversely through the lever and secured thereto, said tube having an entering portion projecting downwardly from the lever, the wall of said entering portion faced toward said claws having its end portion flared toward said claws and its sides at said end portion bent inwardly whereby to form a piercing point.

4. A can piercing and serving device comprising a lever having at its sides at one end a pair of spaced downwardly projecting claws engageable under a fulcrum portion provided on a can as the lever is operatively swung downwardly over the can top, and a pouring spout in the form of a tube extending transversely through the lever and secured thereto, said tube having an entering portion projecting downwardly from the lever, said entering portion having a piercing point which is disposed in a vertical median plane relative to said claws.

5. A can piercing and serving device comprising a lever constituted by a channel bar having a central web and side flanges, said flanges at one end of the lever being continued beyond said central web and bent to form transversely projecting claws engageable under a fulcrum portion provided on a can, and a pouring spout in the form of a tube extending transversely through said web and secured thereto, said tube having an entering portion projecting from the lever in the same direction as the claws, said entering portion having a piercing point at its extremity.

6. A can piercing and serving device comprising a lever constituted by a channel bar having a central web and side flanges, said flanges at one end of the lever being continued beyond said central web and bent to form transversely projecting claws engageable under a fulcrum portion provided on a can, and a pouring spout in the form of a tube extending transversely through said web and secured thereto, said tube having an entering portion projecting from the lever in the same direction as the claws, said entering portion having at its extremity a piercing point which is symmetrically disposed relative to said claws.

7. A can piercing and serving device comprising a lever constituted by a channel bar having a central web and side flanges, said bar having at one end a transversely projecting claw engageable under a fulcrum portion provided on a can, and a pouring spout in the form of a tube passed through an opening in said central web and secured to the margins of said opening and to said side flanges, said tube having an entering portion projecting from the lever in the same direction as said claw, said entering portion having a piercing point at its extremity.

8. A can piercing and serving device comprising a lever constituted by a channel bar having a central web and side flanges, said flanges at one end of the lever being continued beyond said central web and bent to form transversely pro-

- jecting claws engageable under a fulcrum portion provided on a can, and a pouring spout in the form of a tube passed through an opening in said central web and secured to the margins of said opening and to said side flanges, said tube having an entering portion projecting from the lever in the same direction as said claws, said entering portion having a piercing point at its extremity.
- 10 9. A can piercing and serving device comprising a lever constituted by a channel bar having a central web and side flanges, said flanges at one end of the lever being continued beyond said central web and bent to form transversely projecting claws engageable under a fulcrum portion provided on a can, and a pouring spout in the form of a tube passed through an opening in said central web and secured to the margins of said opening and to said side flanges, said tube having an entering portion projecting from the lever in the same direction as said claw, said entering portion having at its extremity a piercing point which is symmetrically disposed relative to said claws.
- 10 A device of the class described comprising a lever having at one end a pair of transversely spaced claws engageable under a bead at the top of a can, and a tongue projecting from the lever between the claws and adapted to ride on the top of the bead during the first part of the operative swing of the lever whereby to hold said claws under said bead.
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