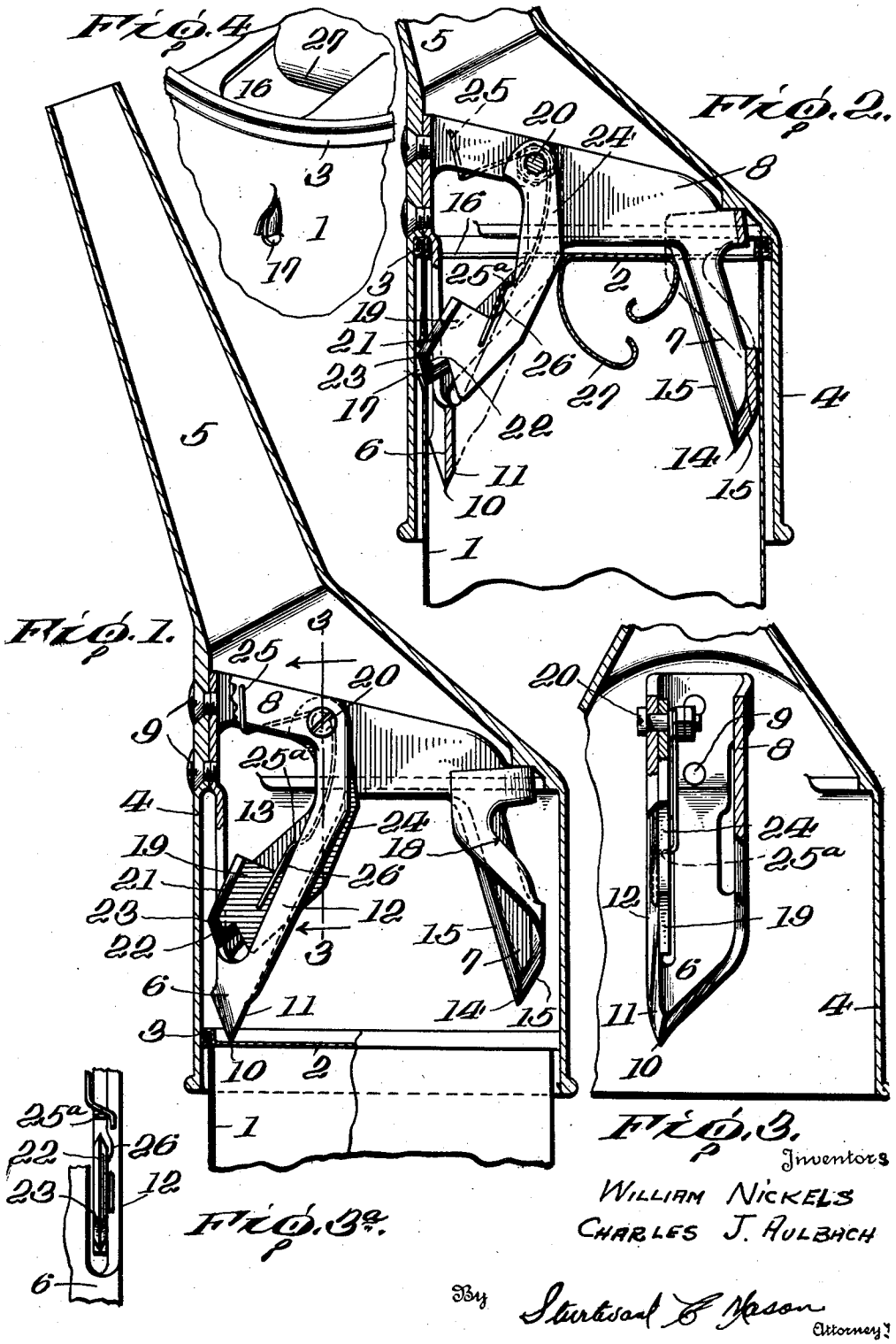
July 5, 1938. W. NICKELS ET AL 2,122,534

DEVICE FOR DISPENSING LUBRICATING OIL

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Fig. 5.

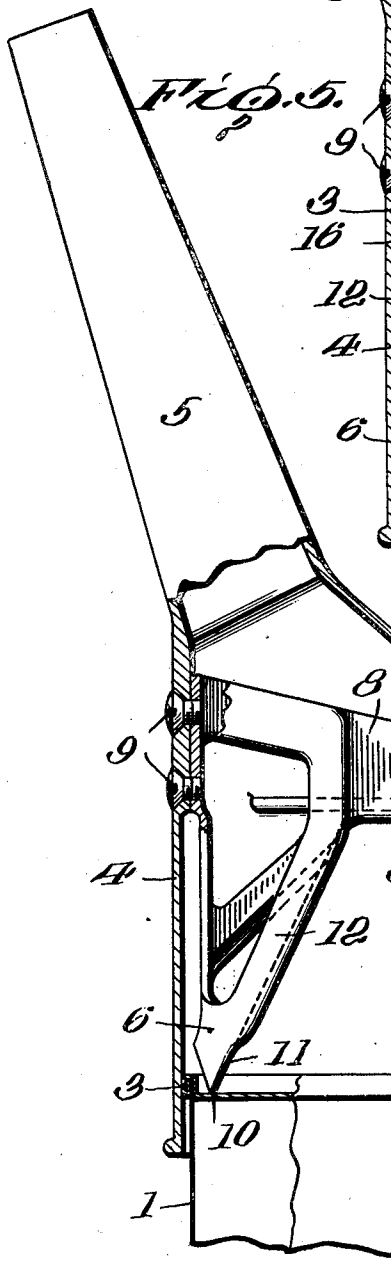



Fig. 6.

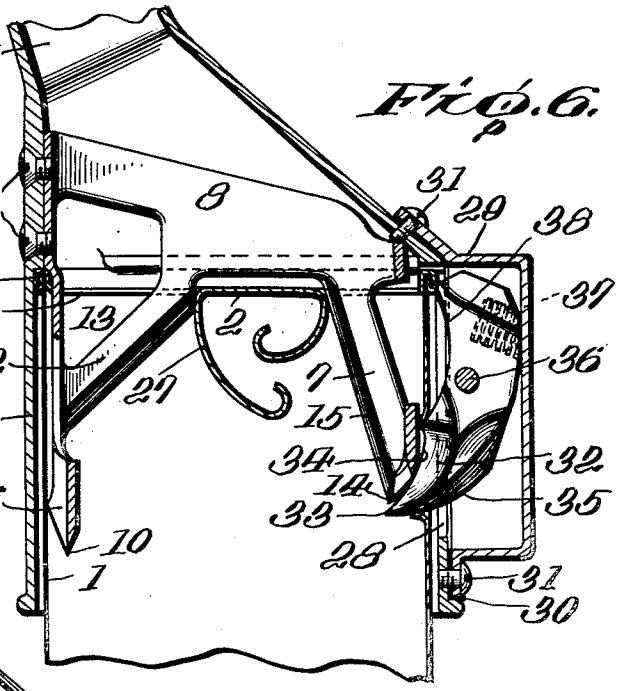
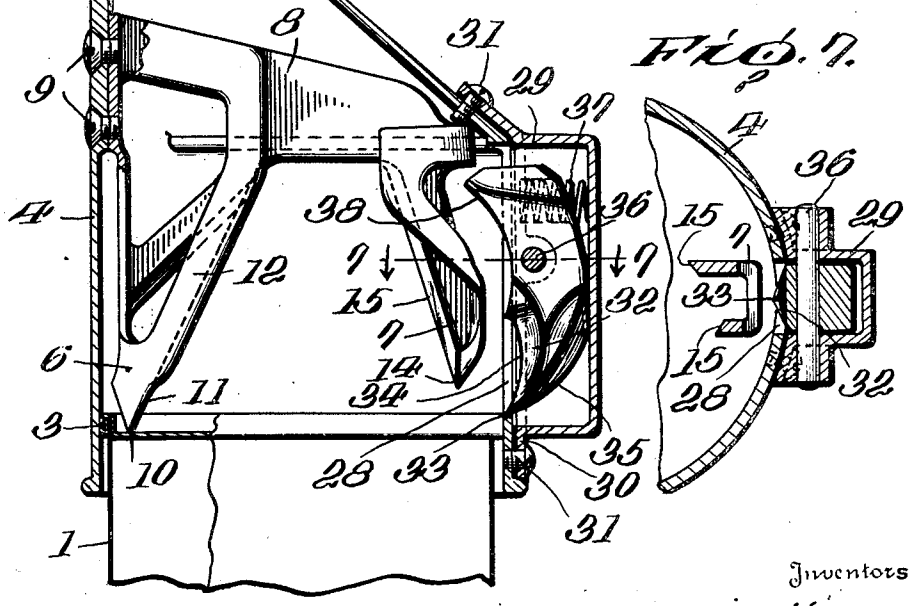



Fig. 7.




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2,122,534

## DEVICE FOR DISPENSING LUBRICATING OIL

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Application August 6, 1934, Serial No. 738,744

4 Claims. (Cl. 221—23)

The invention relates to new and useful improvements in a device for dispensing lubricating oil. It is a common expedient to package liquid products in hermetically sealed metal containers consisting of a body portion with ends double seamed thereto. Lubricating oil is being put up by the original distributors in sealed containers, sold at the filling stations where they are opened in the presence of the customers and emptied into the chamber where the oil is to be utilized for lubricating purposes. Various devices have been provided for opening the container for the dispensing of the lubricating oil. In the patent granted Alfred L. Kronquest May 30, 1933, Number 1,912,283, there is shown a device of this character wherein the cutting tool is placed within the body portion of a funnel so that when the container is lowered onto the container, an opening is formed through which the lubricating oil may be dispensed. The opening is formed in the container end. Unscrupulous dealers have made a practice of utilizing the empty containers from which oil has been dispensed through an opening in the end thereof for packaging inferior grades of oils and selling the same under the trade name on the empty container. This is accomplished by cutting the container body just below the double seam so as to remove the punctured end and the double seam which joins it to the body, after which the container body is flanged, filled and a new end double seamed thereto.

An object of the present invention is to provide a dispensing device for a container wherein simultaneously with the forming of the opening in the end, the side wall of the container body is punctured so as to render it unfit for re-use by an unscrupulous dealer.

In the drawings:

Figure 1 is a vertical sectional view through an oil dispensing device embodying the improvements and showing the said device as applied to a container preparatory to the severing of the end wall thereof.

Figure 2 is a view in part similar to Figure 1, and showing the oil dispensing device as fully seated on the container and as having severed the end wall and ruptured the side wall so as to render the container unfit for re-use.

Figure 3 is a sectional view on the line **3—3** of Figure 1.

Figure 3*a* is a detail showing a portion of the side wing of the main cutter and a portion of the cutting blade that penetrates the side wall of the container body in edge view.

Figure 4 is a detail in perspective showing a portion of the container which was opened by the dispensing device.

Figure 5 is a view similar to Figure 1 but showing a slightly modified form of cutter for puncturing the side wall of the container.

Figure 6 is a view similar to Figure 5 but showing the dispensing device fully seated and the side wall punctured.

Figure 7 is a sectional view on the line **7—7** of Figure 5.

The container for the lubricating oil is of the usual construction and consists of a body portion **1** to which an end **2** is secured by a double seam **3**. A similar end is secured by double seaming to the bottom of the container body. The dispensing device as shown in the drawings is of the type disclosed in the application filed by Alfred L. Kronquest, Serial No. 673,299, filed May 27, 1933 and now matured into Patent No. 1,966,350, granted July 10, 1934. It consists of a body portion **4** which is cylindrical and dimensioned so as to slip down over the container, making a loose fit therewith and covering a greater portion of the container. Attached to the body portion **4** is a spout **5** which is preferably located at one side of the body portion and is inclined thereto. This is to aid in the dispensing of the lubricating oil after the dispensing device has been attached to the container and inverted and the spout placed in the receiving pipe of the crank casing of an automobile.

Located within the body portion of the dispensing device is a cutter for severing the end wall **2** of the container. As shown there is a main cutter **6** for forming a pouring opening at the side of the container adjacent the spout and there is an auxiliary cutter **7** for forming an opening at the other side of the body of the dispensing device. Oil may be dispensed through either opening. Attached to the body wall of the dispensing device is a bracket **8** which is secured to the dispensing device by screws **9, 9**. Rigidly carried by this bracket **8** is the cutter **6**. Said cutter is preferably formed integral with the bracket **8** and includes a piercing point **10**, and cutting edges **11** which lead from the piercing point. The cutter is provided with side wings **12** and the cutting edges **11** lead along the faces of these side wings. The side wings are each provided with an opening **13** which aids in the draining of the oil from the container. The cutter is of the type shown in the Kronquest Patent 1,912,283 supra. The cutter **7** is also provided with a piercing point **14** and with cutting edges

15 leading therefrom. This cutter has wing portions and an opening 18 which is likewise for the purpose of aiding in the draining of the oil from the container. When the dispensing device is inverted or placed in the position shown in Figure 1 and forced down onto the container, the container end will be severed at opposite sides thereof by the cutters 6 and 7.

The present invention has particularly to do with a cutting member which will penetrate or rupture the side wall of the container beneath the double seam so as to destroy the wall sufficiently to prevent the body wall being cut just below the double seam 3 and then re-flanged and an end attached thereto, and thus the container reused for unscrupulous purposes.

In Figure 4 of the drawings a portion of the container 1 is shown. The opening formed by the cutter 6 is indicated at 16. The body wall 1 is shown in this figure as having been ruptured at 17. This completely destroys the body wall so that it cannot be cut just beneath the double seam and reused in the manner referred to above. This cutter for rupturing the side wall of the body portion is shown in Figures 1 to 4 and includes a cutting blade 19 which is pivoted at 20 to the wing 12 of the cutter 6. A pivot bolt extends through the wing to the cutter blade. This cutting blade 19 has a cutting edge 21 and also a cutting edge 22. These cutting edges are inclined to each other and meet to form a piercing point 23. The cutting blade 19 is carried by a shank portion which has a cam-shaped face. This cam-shaped face is indicated at 24. There is a spring 25 which surrounds the pivot bolt on which the shank is mounted and one arm of this spring engages beneath the bracket 8 while the other arm of the spring extends across the shank at 25a, and the end thereof overlies the wing 12 alongside of the cutting blade 19. There is also formed in the shank a laterally projecting lug 26 which contacts with the inner face of the wing 12. The spring will normally force the blade to the position shown in Figure 1, with this lug in contact with the wing 12 which limits the movement of the blade in a clockwise direction.

When the dispensing device is forced down onto the container, the piercing point 10 will first enter the container end 2 and will cut an opening such as indicated at 16 in Figure 4, rolling the metal between the lines extending in from the double seam downwardly and inwardly as indicated at 27 in Figure 4. It is the cutting edges 11 extending along the side of the wings that sever the metal in the container end and the wing members force the cut-out portion downwardly and inwardly as noted above. The cam-shaped portion 24 of the shank of the cutting blade 19 projects farther inward toward the center of the dispensing device than the wing 12. This cam-shaped portion, however, is located back from the piercing point 10 a considerable distance so that the opening will be formed and nearly completed before this cam-shaped portion of the cutting blade 19 contacts with the metal portion 27 of the container end. The contact of this cam-shaped face 24 with the metal portion 27 will force the cutter to the position shown in Figure 2 and thus will cause the piercing point 23 to contact with the side wall and the cutting edges 21 and 22 to cut said side wall as indicated at 17 in Figure 4. The double seam always projects over the side wall slightly and therefore the side wall of the container body is spaced slightly away from the inner face of the body portion of the dispensing device. This leaves sufficient room for the cutting of the metal at 17 in the manner described above. When the dispensing device is withdrawn, then the cam-shaped face 24 is released from contact with the metal portion 27 and the spring will move said cutting blade 19 to its retracted position.

It will be noted that this cutting blade for severing the side wall is mounted on the bracket 8 which supports the cutters 6 and 7. The bracket may be released from the container body and removed, and when removed it will carry with it this cutting blade which penetrates the side wall of the container body. In other words, the three cutting blades are all mounted on the same bracket as a unit and may be removed and replaced in the body portion of the dispensing device at will.

In Figures 5 to 7 of the drawings there is shown a slightly modified form of the invention. In this form of the invention the cutter for penetrating the side wall is mounted independently of the cutters for severing the end wall and is so disposed in the dispensing device as to cut the body wall from the outside inwardly. The body portion 4 of the dispensing device and the spout 5 are similar in construction to that described above. The cutter 6 and the cutter 7 are likewise similar in construction and they are carried by a supporting bracket 8 attached to the body portion of the dispensing device by screws 9, 9. The side wall of the dispensing device adjacent the cutter 7 is provided with an opening 28 and a housing 29 covers this opening 28. Said housing 29 is formed with a flange 30 extending all the way around the housing, and this flange is disposed along the sides of the opening 28. Screws 31 passing through the flange secure the housing to the body portion 4 of the dispensing device so that the opening is completely closed by this housing. Located within the housing 29 is a cutting blade 32. The cutting blade is provided with a piercing point 33 and cutting edges 34 and 35 leading therefrom.

This cutting blade is pivotally supported on the rod 36 which is fixed to the housing. There is a spring 37 seated in the recess in the cutting blade and bearing against the inner wall of the housing which normally turns the cutting blade in a counterclockwise direction as viewed in Figure 5. The blade contacts with the inner wall of the housing so as to limit the swinging movement thereof. When in its limited swinging position, the point 33 is completely housed in the slot 28 so that said point will not contact with the double seam of the container when the dispensing device is located on the container. The inner face of the cutting blade above the pivot rod 36 is cam-shaped as indicated at 38. When the cutting blade is in the position shown in Figure 5, this cam-shaped face extends through the slot into the body of the dispensing device. When the dispensing device is placed over the container, this cam-shaped face 38 will contact with the double seam and will rotate the cutting blade 32 so as to cause the piercing point to contact with the container wall and to pierce and cut the container wall. This forms an opening in the container wall which destroys the container for reuse in the manner described above.

In order to equip the dispensing device of the type shown in the Kronquest Patent 1,912,283, supra, all that is necessary is to cut a slot in the side wall of the body portion thereof and provide

threaded openings to receive the screws, so that the housing with the cutter mounted therein may be attached to the outer face of the body portion of the dispensing device. In other words, this housing with the cutter is a unit which may be attached to and readily removed from the dispensing device.

It will be apparent from the above that when either form of cutting device is used for penetrating the side wall of a container during the cutting operation which forms the dispensing openings in the end wall, said body wall will be so ruptured and at a point so far below the double seam that it will be impossible to cut the container end for re-flanging and attaching a new end thereto. Therefore, the container is destroyed to the extent that it cannot be re-used by an unscrupulous dealer for packaging an inferior grade of oil under the trade name which the empty containers bear. Inasmuch as the cutting point which pierces the side wall of the container operates within the body portion of the dispensing device, any oil which may drain through the opening formed in the side wall will be directed by the body portion of the dispensing device into the spout and dispensed with the oil passing out through the openings in the container end.

It is obvious that the improved device for penetrating the side wall may be used with other types of dispensing devices and with other types of cutters for cutting the openings formed in the end wall. The essential feature of the invention resides in providing a means which will rupture and destroy the side wall of the container when it is opened for the dispensing of the oil. Many changes may therefore be made in the details of construction and the arrangements of the parts without departing from the spirit of the invention as set forth in the appended claims.

Having thus described the invention, what we claim as new and desire to secure by Letters Patent, is:

1. An oil dispensing device including a body portion adapted to receive the end of a sealed container from which oil is to be dispensed, a pouring spout attached to said body portion, a cutter located within said body portion for forming a dispensing opening in the end of said container when the dispensing device is applied to the container, and a cutting member carried by the dispensing device and movable into the opening formed in the end of said container and operated by contact with said end for forming an opening in the side wall of the container when the dispensing device is applied thereto.

2. An oil dispensing device including a body portion adapted to receive the end of a sealed container from which oil is to be dispensed, a pouring spout attached to said body portion, a cutter located within said body portion for forming a dispensing opening in the end of said container when the dispensing device is applied to the container, and a cutting member carried by said dispensing device and disposed so as to pass down into the container through said opening and having means contacting with the container for causing said cutting member to form an opening in the side wall of the container when the dispensing device is applied thereto.

3. An oil dispensing device including a body portion adapted to receive the end of a sealed container from which oil is to be dispensed, a pouring spout attached to said body portion, a supporting bracket mounted within said body portion, a cutter carried by said bracket and adapted to penetrate the end of the container for forming a dispensing opening therein, and a cutting member carried by said bracket and movable through said opening and operated by contact with the container end for forming an opening in the side wall of the container when the dispensing device is applied thereto.

4. An oil dispensing device including a body portion adapted to receive the end of a sealed container from which oil is to be dispensed, a pouring spout attached to said body portion, a bracket supported within said body portion, a cutter carried by said bracket having a piercing point and side wings provided with diverging cutting edges leading from said point and adapted to penetrate the end of said container and form a pouring opening therethrough, said cutter having an opening formed therethrough, a cutting member pivotally supported on one of said wings and having a cutting edge adapted to be moved through said opening and in contact with the side wall of the container when passed through said opening, said cutting member having a cam face adapted to contact with the container end for moving said cutting member to sever the container wall, a spring for retracting said cutting member, and a means for limiting the retracting movement of said cutting member arranged so that said cutting blade is normally housed inside of said cutter.

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