April 29, 1930. E. R. PETRIE 1,756,165

GRIPPING DEVICE FOR OIL CANS AND THE LIKE

Filed March 13, 1928

Fig. 1,

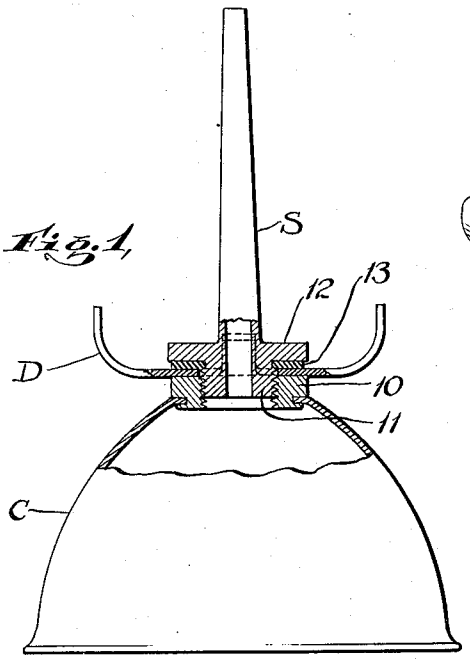


Fig. 2,

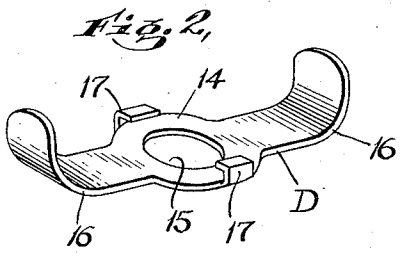


Fig. 3,

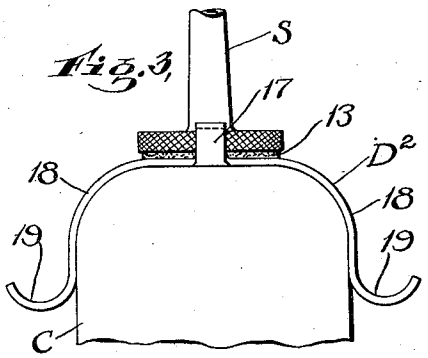


Fig. 1a,

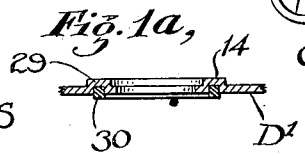


Fig. 4,

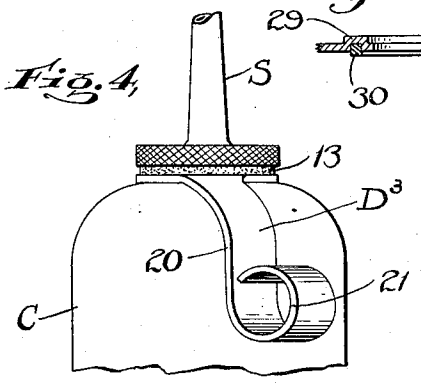


Fig. 5,

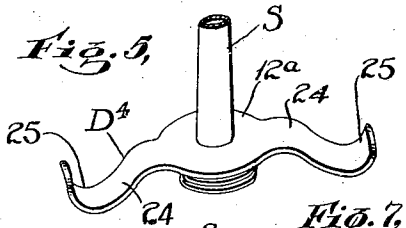


Fig. 7,

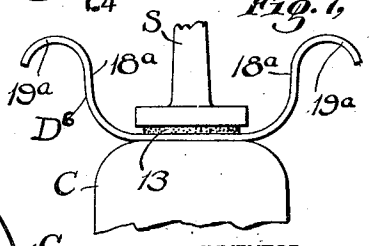


Fig. 8,

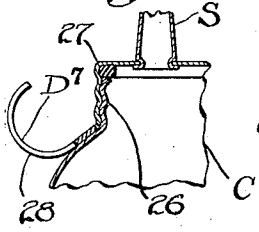
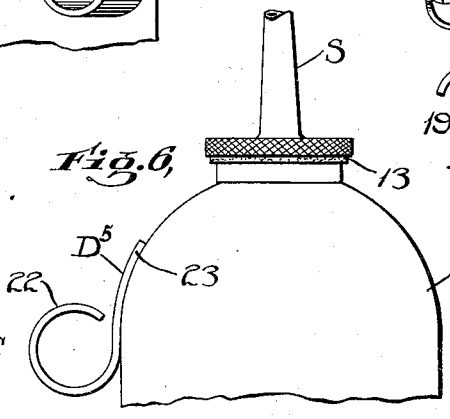


Fig. 6,



INVENTOR
Edward R. Petrie
BY
Howard E. Thompson
ATTORNEY

Patented Apr. 29, 1930 1,756,165

UNITED STATES PATENT OFFICE

EDWARD R. PETRIE, OF NEW YORK, N. Y.

GRIPPING DEVICE FOR OIL CANS AND THE LIKE

Application filed March 13, 1928. Serial No. 261,226.

This invention relates to the provision of a gripping attachment or finger piece for oil cans and similar discharge vessels; and the object of the invention is to provide a gripping device or finger piece which may constitute a part of the can structure or the spout of an oil can or be detachably or permanently coupled with one part of the can to provide means for securely holding the can in the operation of discharging oil or other products therefrom; a further object being to provide an attachment of the class specified fashioned from sheet metal and preferably disposed between adjacent faces of the can and the detachable spout of the can, and means for forming a seal between the parts coupled together to prevent the leaking of oil or other contents from the can; a further object being to provide an attachment of the class specified with clips for engaging the spout of the can to retain the same against displacement therefrom; and with these and other objects in view, the invention consists in a device of the class and for the purpose specified, which is simple in construction, efficient in use, and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Fig. 1 is a side and sectional view of an oil can showing one form of my gripping device mounted in connection therewith.

Fig. 1[a] is a sectional detail view, showing a modified method of constructing any of the several gripping devices shown.

Fig. 2 is a perspective view of the gripping device shown in Fig. 1, detached.

Fig. 3 is a side view of a part of the can showing a modified form of gripping device which I employ.

Fig. 4 is a view similar to Fig. 3 but showing another modification.

Fig. 5 is a perspective view of another form of gripping device which I employ.

Fig. 6 is a view similar to Fig. 4 showing another modification.

Fig. 7 is a view similar to Fig. 4 showing another modification; and,

Fig. 8 is a sectional, detail view showing a modified form of spout and can construction, as well as a modified form of gripping device.

In the accompanying drawing, the reference character C in all figures represents the can or vessel or a part thereof, the character S the spout of the can and the character D the gripping device or finger piece.

In Fig. 1 of the drawing, the can C is provided with an internally threaded discharge end 10 with which an externally threaded projecting sleeve 11 on the spout S is coupled, the spout having an enlarged collar or flange 12, facilitating the rotation thereof. Between this flange and the top of the discharge end 10 is arranged a suitable packing 13 and one of my improved gripping devices D.

The gripping device D shown in Figs. 1 and 2 is fashioned from sheet metal to provide a circular central portion 14 having an aperture 15 to receive the threaded sleeve 11, and laterally extending and upwardly curved finger pieces 16. The central circular body 14 is also provided at right angles to the finger pieces 16 with clip members 17 which are adapted to be folded around the flange 12 of the spout S to retain the device D against accidental displacement.

With the form of construction shown in Fig. 1 as in other forms of construction, shown for example in Figs. 3, 5 and 8, the thumb of the hand is placed upon the flexible bottom of the can C for flexing said bottom in the discharge of oil or other contents of the can through the spout S in the usual manner. To insure the can against displacement from

the hand, two fingers of the hand are passed through and around the finger pieces 16, thus insuring a positive grip on the can, and eliminating the commonly experienced displacement of the can from the hand in the use thereof, and especially when the outer face of the can becomes oily and slippery, which experience has many times proven costly, in the waste of time, and in the destruction of machinery, and further in injury to the operator in the attempt to grasp the can.

In other types of cans, the body portions of which are of greater depth, I provide a gripping device d^2 as seen in Fig. 3 of the drawing, wherein the laterally extending arms 18 are directed downwardly from the periphery of the can, and are provided with curved or hook ends 19 which are arranged at a convenient distance from the lower end of the can to receive the fingers of the hand.

In the structure shown in Fig. 3, the clips 17 are also employed and the construction is otherwise identical with the structure shown in Figs. 1 and 2, with the exception that the internally threaded part of the can receiving the spout S is arranged within the can structure and does not project in the manner shown in Fig. 1. This also applies to the structure shown in Fig. 4.

In Fig. 4, the device D^3 differs from the device D shown in Figs. 1 to 3, in that a single finger piece 20 extends from one side of the central body of the device, and downwardly from the periphery of the can and terminates in a ring or loop 21 in which one finger of the hand may be placed to positively grip the can and permit of its being carried about from place to place. With this construction, it will be apparent that the hand need not necessarily encircle the can, it being preferred that the index finger be passed through the loop 21 with the thumb engaging the flexible bottom of the can.

In Fig. 6 of the drawing, the device D^5 consists of a loop 22 soldered, braced, riveted or otherwise secured to one side of the can C by means of an attaching plate portion 23. In Fig. 7 of the drawing, I have shown a modification of the structure shown in Fig. 3 wherein the gripping device D^6 has been inverted, the clips 17 being omitted. When in inverted position as seen, the device may be used in carrying the can from place to place or in suspending the same over a suitable support. The device D^6 in Fig. 7 has the laterally extending arms 18^a and the curved finger pieces 19^a.

In Fig. 5 of the drawing, I have shown the gripping device D^4 as constituting part of or a structure integral with the spout S, for example the flange portion 12^a of the spout is extended to form laterally directed members 24 having upwardly curved ends 25 to receive the fingers of a hand. These finger pieces may also be used in securing the spout onto the can and removing the same therefrom.

In Fig. 8, I have shown a modified structure of the can C and spout S wherein the can has an upwardly directed externally threaded tubular discharge 26 in connection with which an internally threaded cup-shaped member 27 on the spout S is mounted. In this construction, I have formed the finger piece or finger pieces 28 of the device, one only being shown, integral with the cap 27 and extending from the lower edge of the threaded portion thereof, thus making the gripping device integral with the spout as in the construction shown in Fig. 5.

In practice, it may be found necessary to use in conjunction with the usual packing 13 of cans of the class described, a supplemental packing which may be mounted in connection with the central body portion of the gripping device D, especially as constructed in Figs. 1, 2 and 3, 4 and 7 of the drawing. In accomplishing this result, an annular recess 29 is formed in one face of the central body by pressing, stamping or in any other manner in which recess a packing ring 30 is mounted.

While I have described my invention as applied specifically to oil cans, it will be understood that the same may be applied to cans of this class for discharging material or substances of any kind or class in liquid, granular or powdered form. While I have shown a number of methods of carrying my invention into effect, it will be understood that I am not necessarily limited to these details, and various changes in and modifications of the construction herein shown and described may be made within the scope of the appended claims, without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A gripping device for containers of the class described comprising a central apertured body portion, and a finger piece part extending from said body portion, and spaced clips on said body portion for retaining the same in connection with a support.

2. A gripping device for containers of the class described comprising a central apertured body portion, laterally disposed arms extending from the body portion and terminating in curved ends forming finger pieces, and spaced clips on said body portion for retaining the device against displacement from a support.

3. A device of the class described comprising an elongated strip of sheet metal, the end portions of which are curved to form finger pieces, the central portion of said strip being enlarged and provided with an aperture and the enlarged portion of the strip

having spaced clips for retaining said device in connection with a suitable support.

4. The combination with a container part and a spout part in direct screw threaded engagement with the container part, of a gripping device interposed and retained between adjacent surfaces of said parts, and means on said device and engaging one of said parts for retaining the same against displacement from said part when the separate parts are detached.

In testimony that I claim the foregoing as my invention I have signed my name this 27th day of February, 1928.

EDWARD R. PETRIE.