July 28, 1942. W. B. JOHNSON 2,291,230

REMOVABLE SPOUT

Filed Oct. 1, 1941

Fig. 1

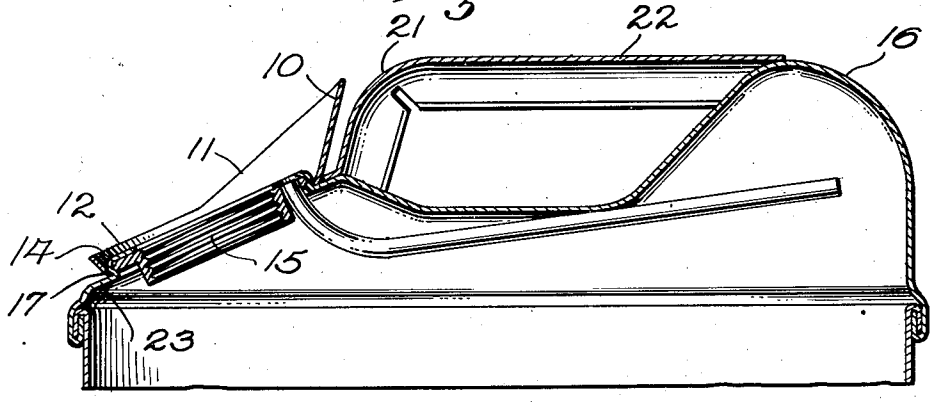


Fig. 2

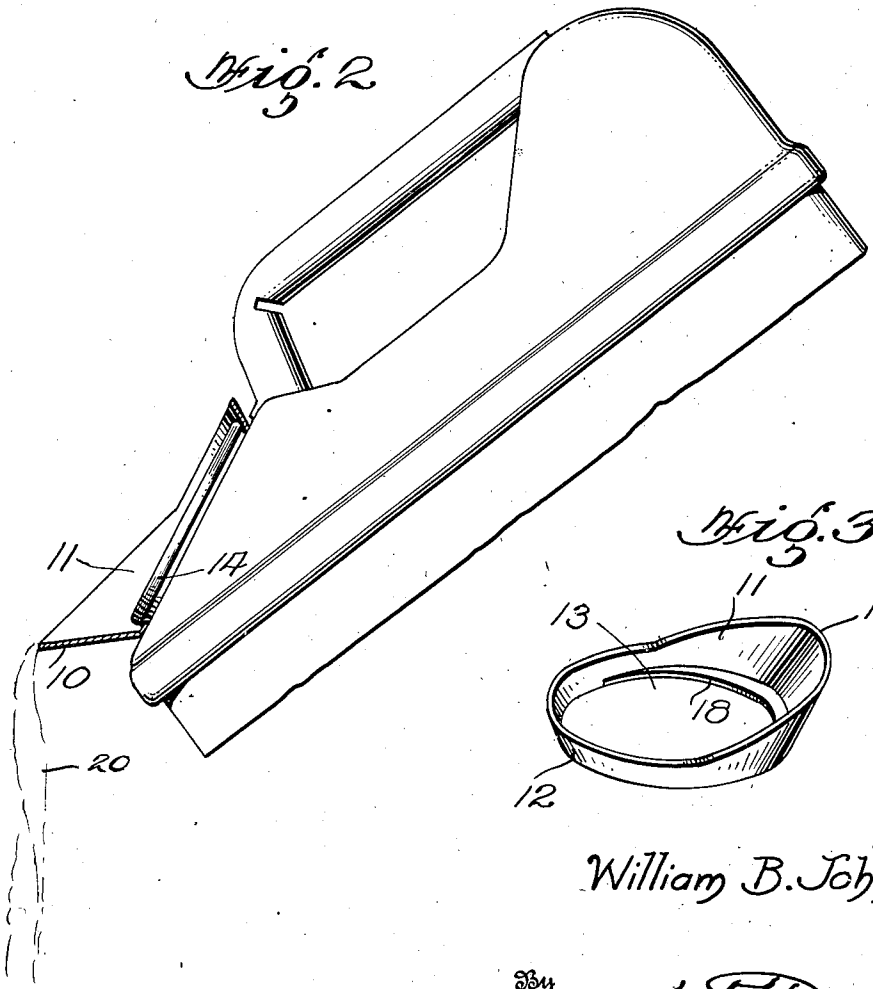


Fig. 3

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REMOVABLE SPOUT

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3 Claims. (Cl. 221—23)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

The invention described herein, if patented, may be manufactured and used by or for the Government for governmental purposes without the payment of any royalty thereon.

The present invention refers to a liquid container and more particularly to an improved and simplified pouring spout adapted to be applied to or removed from the filling orifice of a container.

The object of the invention is to provide a pouring spout of extreme simplicity, arranged to be detachably snapped over the flanged filling orifice in a metal container and arranged for instant application or easy removal.

A further object of the invention is to provide a pouring spout arranged to be shifted around the filling orifice whereby it may assume an operative position on one side of the orifice or be moved into an inoperative position closely adjacent other metal structures of the container in order to be well protected against damage when not in use.

Referring now more particularly to the drawing;

Fig. 1 is a fragmental, central sectional view of a sheet metal liquid container constructed in accordance with the principles of this invention, showing a pouring spout in inoperative position.

Fig. 2 is a fragmental side elevational view of a liquid container showing the pouring spout in its operative position.

Fig. 3 is a detail perspective view of the pouring spout.

The preferred embodiment of the present invention includes a spout consisting of a pouring lip 10 and side flanges 11, all formed integrally with an attaching band 12 arranged to cooperate to provide a central orifice 13 adapted to snap over and clamp on a flange 14 extending around a screw-threaded pouring opening 15 on the top of a sheet metal can or container 16.

It will be noted that the flange 14 has a slight undercut at 17 arranged to be engaged by the inner edges 18 of the orifice 13. It is considered within the range of this invention to provide the inner edges 18 in the form of an exact circle to be tightly fitted over the flange 14, but more specifically this invention contemplates that the orifice 13 shall normally be of a slightly elliptical shape, so that it may be sprung to assume a circular formation as it snaps over the flange and the spring tension in the metal will then tend to return it to its elliptical shape and thus lock it securely in the undercut 17 of the flange.

When in use, the pouring lip 10 is moved to the position illustrated in Fig. 2 where it serves to direct a stream of liquid 20 which is confined within the limits of the spout by the side flanges 11. It will be appreciated, however, that to be useful as a pouring spout it is essential that the lip 10 should project beyond the side walls of the container 16. This is very undesirable, however, when the spout is not in use, for the reason that when the lip is so projected it may be easily bent or damaged by contact with adjacent obstacles. To overcome these faults inherent in any stationary spout, the present spout is arranged to be rotated through one-half of a revolution on the flange 14, in such a manner as to bring the lip 10 closely adjacent the vertical portion 21 of the container handle 22, so that the handle structure serves to protect the relatively thin metal of the spout against damage.

It will be noted that the handle portions 21 and 22 cooperate with the side walls of the container to provide a substantially rectangular container shape, while the handle portion 21 and inclined front portion 23 of the container serve to define an indentation below the top and side dimensional limits of the container so that the spout 10 and the filler cap, if one is used, will be protected against damage from external forces.

To remove the spout, it is only necessary to grasp it firmly by the pouring lip 10 and snap it from the indentation 17 on the flange 14.

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

1. In combination, a sheet metal container, including side walls, top walls, and handle structures, arranged to define a generally rectangular container body; an inclined top panel and cooperating handle surfaces arranged to define a protective cavity within the normal rectangular limits of the container; a filling opening and flange positioned on the inclined top container surface, said flange including an undercut portion; and a pouring spout including a lip portion, side flanges and a retaining ring, all of integral construction of a single unitary piece of sheet metal and arranged to terminate in and define a central orifice adapted to fit over and interlock said flange, the inner orifice being of slightly elliptical shape adapted to assume a true circular shape under external pressure and to interlock with the undercut portion of the flange by the inherent spring properties of the metal of the spout.

2. In combination, a sheet metal container, including side walls, top walls, an inclined top panel and cooperating surfaces arranged to define a protective cavity within the normal rectangular

limits of the container; a filling opening and flange positioned on the inclined top container surface, said flange including an undercut portion; and a pouring spout including a lip portion, side flanges and a retaining ring, all of integral construction of a single unitary piece of sheet metal and arranged to terminate in and define a central orifice adapted to fit over and interlock said flange; the inner orifice being of slightly elliptical shape adapted to assume a true circular shape and to interlock with the undercut portion of the flange by the inherent tension or inherent spring properties of the metal of the spout.

3. In combination, a sheet metal container, including side walls, top walls, and handle structures, arranged to define a generally rectangular container body; an inclined top panel and cooperating handle surfaces arranged to define a protective cavity within the normal rectangular limits of the container; a filling opening and flange positioned on the inclined top container surface, said flange including an undercut portion; and a pouring spout including a lip portion, side flanges, and a retaining ring, all of integral construction of a single unitary piece of sheet metal and arranged to terminate in and define a central orifice adapted to fit over and interlock said flange.

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