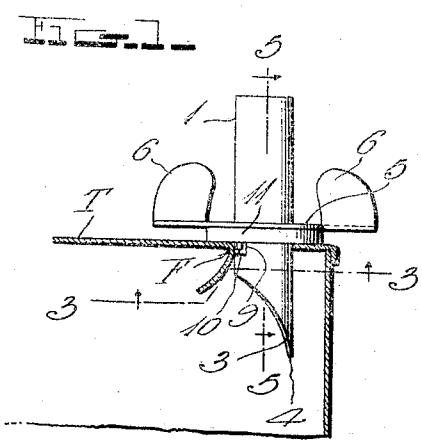
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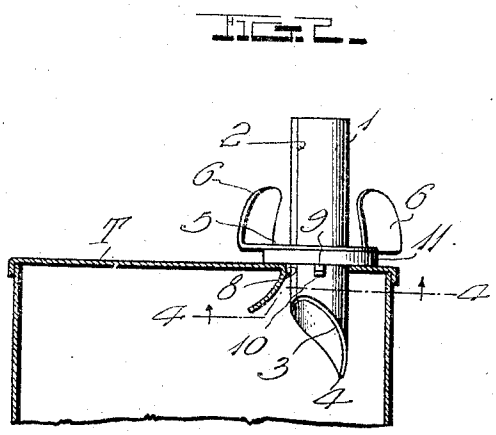
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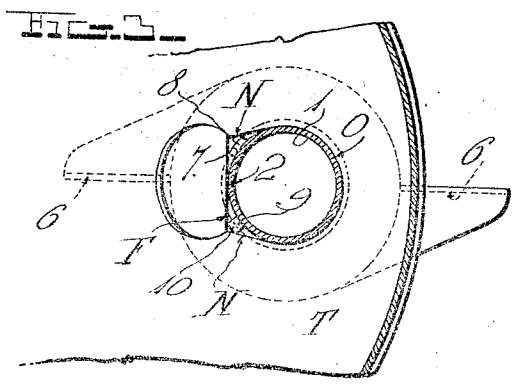
W. L. WHITESIDES

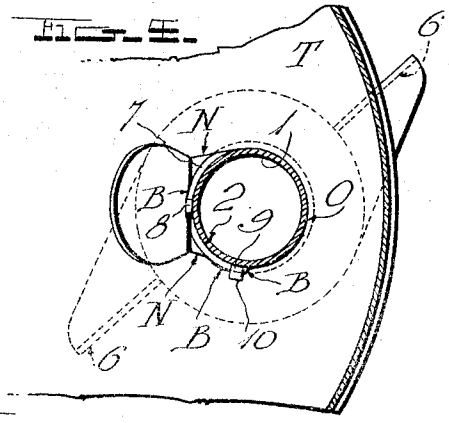
POURING SPOUT

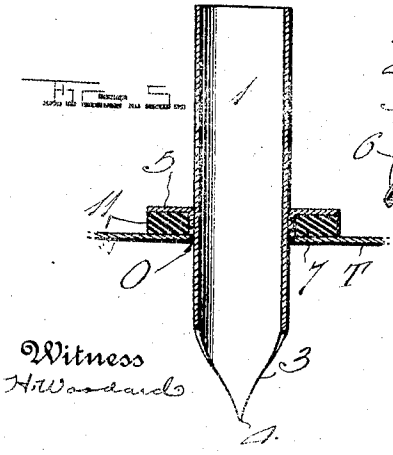
Filed Feb. 19, 1925

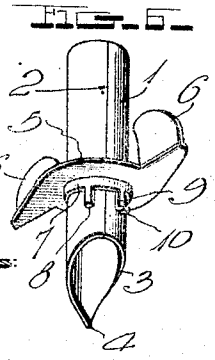


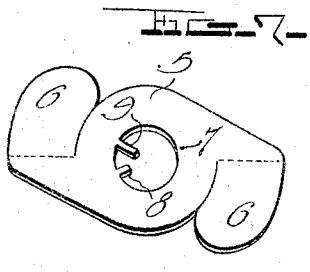












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Patented Mar. 9, 1926. 1,576,388

UNITED STATES PATENT OFFICE.

WALTER LUNSFRED WHITESIDES, OF LONG BEACH, CALIFORNIA.

POURING SPOUT.

Application filed February 19, 1925. Serial No. 10,398.

To all whom it may concern:

Be it known that I, WALTER L. WHITESIDES, a citizen of the United States, residing at Long Beach, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Pouring Spouts; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in pouring spouts of the type which may be quickly and easily applied to or removed from a metal can, the device being intended primarily for use in connection with cans of evaporated and condensed milk, although its use is by no means so restricted.

The object of the invention is to provide an extremely simple and inexpensive device of the class set forth which may be forced through the top of the can to form an opening in the latter and will tightly engage the edges of such opening to effectively hold the device upon the can, when said device is given a partial turn, after insertion.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, the description being supplemented by the accompanying drawing.

Figure 1 is a side elevation showing the device immediately after its lower end has been forced through the top of the can.

Figure 2 is a view similar to Fig. 1 showing the spout turned and interlocked with the can top.

Figure 3 is a horizontal sectional view on line 3—3 of Fig. 1 looking in the direction of the arrows.

Figure 4 is a view similar to Fig. 3 but cut on line 4—4 of Fig. 2.

Figure 5 is a vertical sectional view taken on line 5—5 of Fig. 1.

Figure 6 is a perspective view of the device with the gasket removed.

Figure 7 is a perspective view of the blank from which certain parts are formed.

In the drawing above briefly described, the numeral 1 designates a metal tube which is preferably formed from a single sheet of metal, with its edges meeting as indicated by the line 2. The lower end of this tube is obliquely cut as indicated at 3 and is provided with a sharp penetrating point 4. When this lower end of the tube is forced through a can top (T on the drawing), it forms an opening O in said top, folds the metal from the opening inwardly on the line F, and forms two angular notches N at the ends of this folding line. This formation, imparted to the can, is instrumental in establishing the proper connection between said can and the invention, as will hereinafter appear.

A flat collar 5, preferably formed of sheet metal, surrounds the tube 1 above its oblique lower end and is preferably formed with integral upstanding wings 6 which constitute finger-pieces by means of which the entire device may be turned after the tube end has been forced through the can top. In the preferred form of construction, the inner portion 7 of the collar 5 is downwardly stamped to provide a flange which tightly surrounds the tube 1, and the lower edge of this flange is provided with a pair of integral fingers 8 and 9 which are spaced apart circumferentially of the tube, are located at the short side of the latter, and constitute means for securing the device to the can. Preferably, the finger 9 is somewhat longer than the finger 8 and its lower end is bent laterally outward as indicated at 10, to engage the lower side of the can top, in a manner hereinafter described.

A gasket 11, preferably formed of highly elastic rubber, surrounds the flange 7 and tube 1 and contacts with the lower side of the collar 5, said gasket being greater in thickness than the width of the aforesaid flange, but being sufficiently thin to leave the ends of the fingers 8 and 9 exposed, as will be clear from Figs. 1 and 2.

The parts 5, 6, 7, 8 and 9 are all preferably formed from a single metal stamping as shown in Fig. 7, and these parts are forced over the tube 1, or the tube is forced through the flange 7, so that the parts occupy the relative positions shown in Fig. 6. Then, the entire device is by preference tinned or given some other suitable metallic coating, so that the coating will effectively secure the parts together and seal all seams against leakage. When the gasket 11 is now applied, the device is in readiness for sale and use.

When the pointed lower end of the tube 1 is forced through the can top T, the opening O is formed in the manner above set forth, and the metal from this opening is folded into the can. Just as soon as the notches N

are formed, the fingers 8 and 9 pass through them, and when the gasket 11 seats against the can top, the entire device is turned, so that the lateral end 10 of the finger 9 underlies the can top. At the same time, both fingers 8 and 9 bind frictionally against the edge wall of the opening O, the finger 8 contacting with the fold F. During the turning of the tube, the metal at the edges of the opening O will of course be forced back to some extent by the fingers 8 and 9, as indicated at B in Fig. 4.

By constructing the device in the novel manner shown and described, or in a similar way, an article is produced which is not only extremely simple and inexpensive, yet is desirable in every way, may be quickly and easily attached or detached, and may be readily kept clean and sanitary.

As excellent results are obtainable from the details disclosed, they are preferably followed. However, within the scope of the invention as claimed, modifications may of course be made.

I claim:

1. A pouring spout comprising a metal tube having an obliquely cut end adapted to be forced through a metal can top to form a substantially circular opening, to fold the metal from the opening into the can and to provide angular notches at the ends of the fold; a metal collar surrounding said tube, a gasket surrounding the tube in contact with the lower side of said collar, and a pair of circumferentially spaced fingers extending longitudinally of the tube immediately under the collar and disposed in close proximity to said tube, said fingers projecting below the gasket for reception in the above named notches, the lower end of at least one of said fingers being turned outwardly in a direction substantially radially of the tube to engage the lower side of the can top when the tube is turned, the two fingers being then adapted to bind against the edges of the opening cut by said obliquely cut tube end, said tube, collar and fingers being rigidly connected for movement as a single unit.

2. A structure as specified in claim 1; said collar being formed by a piece of metal separate from the tube-forming metal, said fingers being integral with and bent downwardly from the inner end of said collar.

3. A structure as specified in claim 1; said collar being formed by a piece of metal separate from the tube-forming metal and having a downwardly projecting continuous flange surrounded by the aforesaid gasket but terminating above the lower surface of the latter, said fingers being integral with said flange at their upper ends.

4. A can spout comprising a metal tube having a cutter formed on one end and adapted to be forced through a metal can top to form an opening, a collar encompassing said tube and disposed in a plane at right angles to the tube axis, one of the edges of said collar being provided with a continuous flange projecting laterally from one side of said collar and tightly surrounding said tube, and a pair of wings formed on said collar and extended therefrom at right angles whereby said tube may be turned for the purpose described.

In testimony whereof I have hereunto affix my signature.

WALTER LUNSFRED WHITESIDES.