R. TRETHAWAY.

POURING NOZZLE.

APPLICATION FILED JULY 10, 1912.

1,207,667.

Patented Dec. 5, 1916.

Fig. 1.

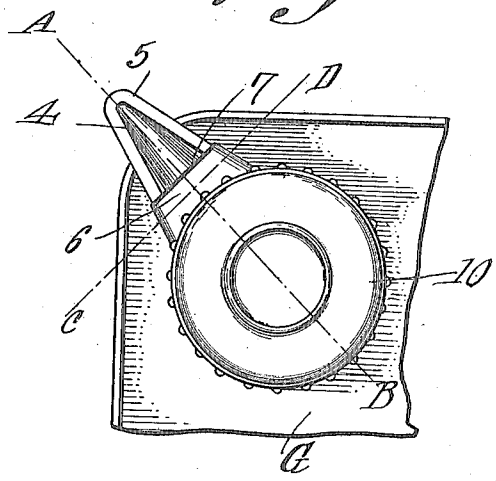


Fig. 2.

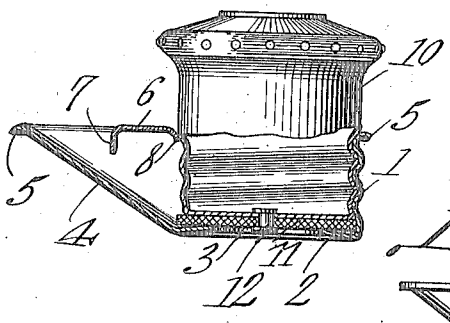


Fig. 6.

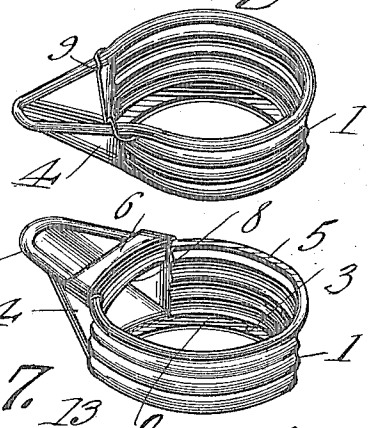


Fig. 7.



Fig. 4.

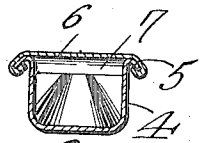


Fig. 3.

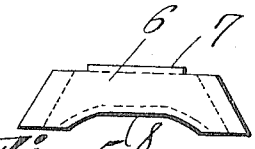


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

RICHARD TRETHAWAY, OF PARSONS, PENNSYLVANIA.

POURING-NOZZLE.

1,207,667. Specification of Letters Patent. Patented Dec. 5, 1916.

Application filed July 10, 1912. Serial No. 708,745.

To all whom it may concern:

Be it known that I, RICHARD TRETHAWAY, a citizen of the United States, residing at Parsons, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Pouring-Nozzle, of which the following is a specification.

This invention relates to pouring nozzles of that type particularly designed for use in connection with cans, one of the objects of the invention being to provide a pouring nozzle in the form of a threaded socket having an integral outstanding spout which intersects the threads of the socket, the bottom of the socket constituting a seat for a combined screw plug and valve.

A further object is to provide means whereby the spout is prevented from spreading and leakage between the wall of the socket and the plug is thus prevented.

A further object is to provide a screw plug of novel form which need not be entirely removed from the socket in order to permit the contents of the receptacle to flow into the socket and through the spout.

Another object is to provide a device of this character which is simple in construction, cheap to manufacture, and is made of the minimum number of parts.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings: Figure 1 is a plan view of a portion of a can having the present improvements combined therewith. Fig. 2 is a section on line A—B Fig. 1, said section being taken solely through the nozzle and its plug. Fig. 3 is a section on line C—D Fig. 1. Fig. 4 is a perspective view of the nozzle. Fig. 5 is a detail view of the blank from which the tie or brace is made. Fig. 6 is a perspective view of a modified form of nozzle. Fig. 7 is a side elevation of another modified form of nozzle.

Referring to the figures by characters of reference 1 designates a threaded socket having its bottom dished upwardly, as shown at 2, and formed with an opening 3. A spout 4 extends outwardly from the wall of the socket and is formed integral therewith, the continuity of the wall being interrupted where the spout extends therefrom so as to form an uninterrupted space through which fluid may flow from the socket 1 into the spout 4, said space extending throughout the height and width of the large end of the spout. It is obvious, of course, that the threads of the socket are likewise interrupted at this point. The upper or outer end of the socket 1, as well as the upper edges of the spout 4 are curved outwardly to form a flange 5 extending continuously around the nozzle.

Inasmuch as the socket 1 would ordinarily tend to spread open by reason of the break in the wall thereof, a tie device has been provided to prevent this undesirable action. One form of tie device has been illustrated in Figs. 1 to 5 inclusive. This tie consists of a metal strip 6 the ends of which are bent under and clamped into engagement with the side flanges of the spout 4 close to the wall of the socket 1. That portion of the strip between the sides of the spout is formed with a straight front flange 7 projecting between the walls of the spout so as to prevent said walls from being pressed toward each other, and a back curved flange 8 which lies close to the socket 1 and forms practically a continuation of the upper portion of the wall of the socket. This strip thus bridges the spout and, obviously, prevents the walls of the spout from either moving toward each other or spreading apart. Instead of utilizing a short tie strip such as shown in Figs. 1 to 5 inclusive, a ring such as illustrated at 9 in Fig. 6 may be used, this ring being clenched in any suitable manner to the upper edge portion of the socket 1 and to the sides of the spout 4 so as to thus hold the spout walls against movement toward of from each other.

For the purpose of closing the nozzle, a screw plug, such as shown at 10, is used, this plug being provided, at its lower end, with a disk 11 of leather or the like preferably clenched at its center to the plug by means of a rivet 12 or other suitable fastening means. It will be apparent that when the plug 10 is screwed into the socket 1, the disk 11 will be caused to bind upon the upwardly

dished bottom portion of the socket 1 so as thus to close the opening 3. By partly unscrewing the plug the disk 11 will be moved off of the dished bottom 2 and liquid will thus be free to flow through the opening 3, between the bottom 2 and the disk 11, and into the spout 4. As the socket 1 cannot spread open, because of the tie device used, it will be seen that there is no danger of liquid leaking between the walls of the plug and the socket and the said plug is always maintained positively in engagement with the threads of the socket. It is to be understood of course that the socket 1 is to be soldered or otherwise secured to the can, shown at G. Importance is attached to the fact that it is not necessary to remove the plug in order to open the nozzle and, therefore, there is no danger of the plug becoming lost or dirty.

Importance is attached to the fact that the socket and its nozzle are stamped in a single piece of metal and there are thus no parts to get out of place or which are liable to leak. The tie 6 is the only additional piece necessary in the manufacture of the nozzle and this can be secured without the use of solder, simply by clamping the inturned end portions thereof into engagement with the flange 5, as shown and described. Thus it will be seen that the device can be manufactured very cheaply and is both durable and efficient.

The ring used for reinforcing the nozzle can be integral therewith instead of in a separate piece. This form has been illustrated in Fig. 7 wherein an outturned flange 13 is shown extending along the free edge of the socket 1 and along the free edges of the spout, this flange obviously serving to prevent the socket from spreading apart where its wall is interrupted by the space opening into the spout. Obviously various other means may be used for preventing the socket from spreading without departing from the spirit of this invention.

For the purpose of excluding dirt, etc., from the spout, a hinged cover can be connected to the tie or cross brace. This construction is so obvious that it is not deemed necessary to illustrate the same.

What is claimed is:—

1. A pouring nozzle including a plug engaging socket and a spout both stamped in a single piece of metal, said spout extending outwardly from the socket, the continuity of the wall of the socket being interrupted throughout the height of the wall by the space at the inner end of the spout.

2. A pouring nozzle including a plug engaging socket and a spout both stamped in a single piece of metal, said spout extending outwardly from the socket, the continuity of the wall of the socket being interrupted throughout the height of the wall by the space at the inner end of the spout, and a tie device bridging the inner end of the spout.

3. A pouring nozzle including a plug engaging socket and a spout both stamped in a single piece of metal, said spout extending outwardly from the socket, the continuity of the wall of the socket being interrupted throughout the height of the wall by the space at the inner end of the spout, and a tie device bridging the inner end of the spout, said tie device having means projecting into the spout for holding the walls of the spout spaced apart.

4. A pouring nozzle including an interiorly threaded socket and a spout extending from the socket and intersecting the threads, said spout and socket being stamped in a single piece of metal, and means formed from a separate piece bridging the spout adjacent the socket for holding the walls of the spout against movement toward or from each other.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

RICHARD TRETHAWAY.

Witnesses:
G. W. REYNOLDS,
G. S. MORGAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."