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C. A. M. NYSTROM.

DEVICE FOR FILLING BOTTLES, INK WELLS, &c.

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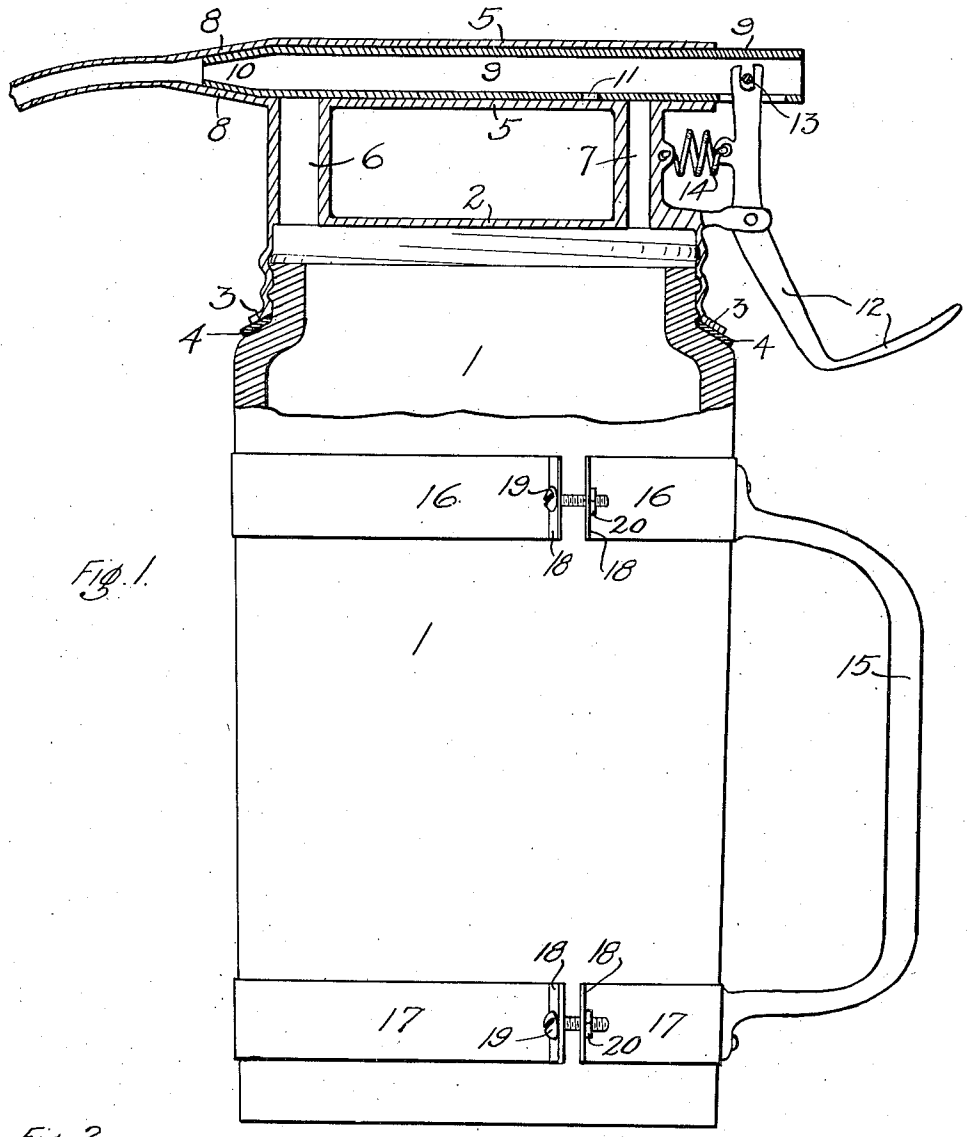


Fig. 1.

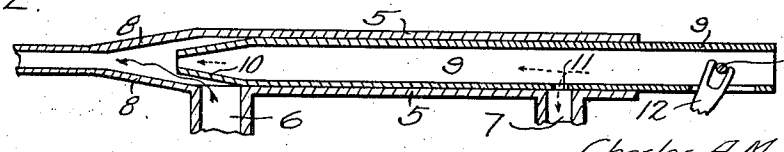


Fig. 2.

Witnesses

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CHARLES A. M. NYSTROM, OF TACOMA, WASHINGTON, ASSIGNOR OF TWO-THIRDS TO J. HENRY BECKMAN, OF SEATTLE, WASHINGTON, AND FRANK W. BECKMAN, OF PORTLAND, OREGON.

DEVICE FOR FILLING BOTTLES, INK-WELLS, &c.

No. 872,536. Specification of Letters Patent. Patented Dec. 3, 1907.

Application filed February 25, 1907. Serial No. 359,111.

To all whom it may concern:

Be it known that I, CHARLES A. M. NYSTROM, a citizen of the United States of America, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Devices for Filling Bottles, Ink-Wells, &c., of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to devices for filling bottles, etc., and is more particularly an improvement in Patent No. 832,499 and has for its objects to simplify the construction and to increase the efficiency of said patented device, and further to provide a handle which is adjustable around the jar so that in whatever position the top may be screwed into, the handle can be brought so as to be opposite the spout. I attain these objects by the devices and mechanisms illustrated in the accompanying drawing in which

Figure 1 is an elevation of a jar to which my device is secured, the upper portion of the figure being shown in section; Fig. 2 is a section of a portion of the apparatus showing the parts in the positions occupied when the jar is in use.

Similar numerals of reference refer to similar parts throughout the several views.

The jar 1 is preferably constructed with slightly tapered sides, being larger at its upper end than at its lower end, and is provided with a screw thread cast into the outer surface of its neck. The top 2 of the jar is formed in one piece and is screwed to the jar by having overhanging sides provided with suitable screw threads engaging the screw threads on the neck of the jar. The lower edge of the overhanging sides of the top 2 is bent outward to form a shoulder 3 adapted to press against a rubber washer or ring 4, engaging the shoulder of the jar close to the neck, so as to prevent the admission of air or the leakage of liquid through the joint between the jar and the top. The open-ended outer tube 5 is connected to the removable screw top 2 by means of the outlet tube 6 and the air inlet tube 7 and is cylindrical in form in its main body, but is tapered at 8 just beyond the point where the outlet tube 6 joins it, so that the spout from which the liquid flows is of smaller diameter than the main body of the tube. Within the outer tube 5 is placed the inner tube 9, open from end to end and fitting the tube 5 easily, provided with a tapered end 10 fitting accurately in the tapered part 8 of the main tube. This tube 9 is adapted to slide longitudinally within the tube 5 from the position shown in Fig. 1, where the parts are in their closed position, to the position shown in Fig. 2 when the parts are in their open position. The tube 9 is provided with a small passage or air hole 11 in its lower side in such position therein that the hole 11 registers with the passage in the air inlet tube 7 only when the tube 9 is in its open position. The tube 9 is moved longitudinally within the tube 5 by means of a thumb-lever 12 pivoted to an extension to the top 2 and entering the tube 9 through a slot made therein near its end, and engaging therein a small pin 13 secured in the tube 9. The thumb-lever 12 is acted on by the spring 14 so as to constantly press the tapered end 10 of the tube 9 into close contact with the tapered part 8 of the main tube 5.

The handle 15 is secured to two straps 16 and 17 each of which is of such length as to pass almost around the jar 1 and each of which has its adjacent ends turned outward to form lugs 18. The two clamping screws 19 pass through each pair of lugs 18 and are provided with nuts 20 so that the straps 16 and 17 may be loosened or tightened by turning the nuts 20 on the screws 19. Having screwed the top 2 down on the neck of the jar so as to compress the rubber washer 4, it will often be found that the handle of the jar needs shifting slightly to one side or the other in order to bring it into proper position relatively to the thumb-lever 12. The handle may then be shifted by loosening the straps and moving it to its proper position when the straps may again be tightened.

My device operates in the following manner: While the parts are in their closed position it is impossible for any of the liquid to leak out because of the tapered parts 8 and 10 which effectually close all connection between the outlet tube 6 and the spout; and also it is impossible for any air to enter the jar, since the tube 9 fits the tube 5 and since the hole 11 is out of register with the tube 7. Thus the jar is really sealed so as to effectually prevent the evaporation of the liquid and stop any deterioration thereof due to exposure to air. When, however, the thumb

lever 12 is pressed down, so as to draw the tube 9, to separate the tapered parts 8 and 10 and to bring the hole 11 into register with the tube 7, then free connection is made between the jar 1 and the spout by way of the tube 6 around the tapered end 10 of the tube 9 and through the tapered part 8 of the tube 5 and at the same time the air has free access both to the inside of the jar and to the liquid flowing out of the spout.

Having described my invention what I claim is:

The combination of a jar, a closure therefor, an open-ended tube mounted thereon and having a tapered end and communicating with said jar by passages near its ends, an inner tube fitting within said open-ended tube and tapered at one end to fit in said first taper and extending out from the other end of said outer tube and open at its ends, an air passage through the side of said inner tube and adapted to register with one of said first passages only when said tapered parts are separated, and a thumb-lever pivoted to said closure and engaging the extended end of said inner tube to withdraw said tapered parts from each other.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES A. M. NYSTROM.

Witnesses:
M. H. COREY,
ALICE M. BOWIE.