Oct. 16, 1923. 1,470,978

W. C. HELCHER

POURING SPOUT FOR VESSELS

Filed June 12, 1922

Fig. 1.

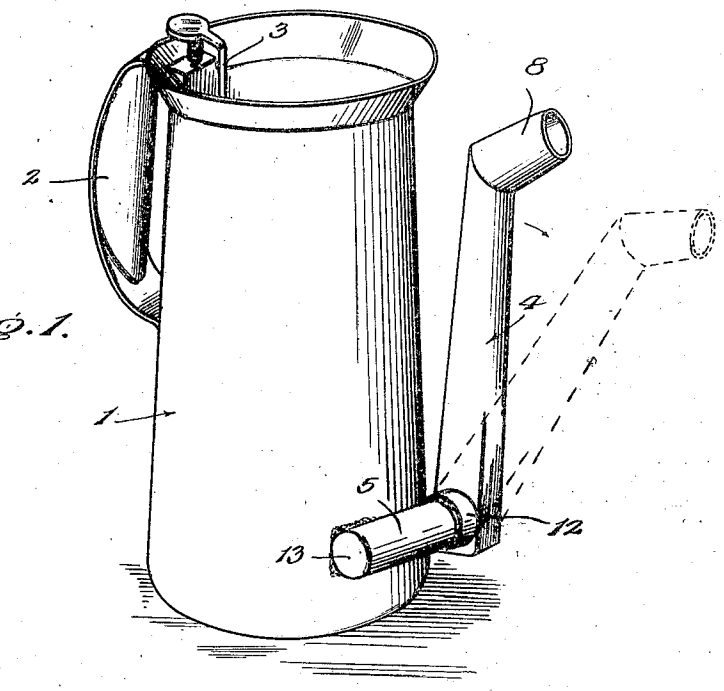
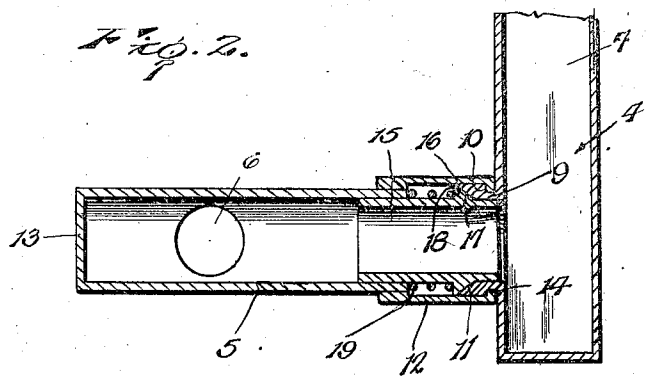


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM C. HELCHER, OF AKRON, OHIO.

POURING SPOUT FOR VESSELS.

Application filed June 12, 1922. Serial No. 567,795.

To all whom it may concern:

Be it known that I, WILLIAM C. HELCHER, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Pouring Spouts for Vessels, of which the following is a specification.

This invention relates to improvements in pouring or discharge spouts for measuring vessels and the like, and more particularly to that type in which the spout is placed in communication with the vessel near the bottom of the same and, when the vessel is supplied with liquid, is caused to assume an upright position but is adapted to be swung downwardly when it is desired to deliver the liquid from the vessel, such a spout, obviating, in most instances, the employment of a funnel and likewise rendering it unnecessary to tilt the vessel in order to pour its contents. The primary object of the present invention is to provide a novel joint for connecting the spout with the vessel and which joint will permit of free movement of the spout and yet will comprise parts cooperating in such manner as to effectually provide against any leakage of the liquid at the joint.

Another object of the invention is to provide a joint for a spout of the type specified which will embody means for automatically taking up wear between its parts and thus obviating the necessity of packing the joint or effecting other specific adjustments of parts.

In the accompanying drawings:

Figure 1 is a perspective view of the device embodying the invention;

Fig. 2 is a detail vertical sectional view through the joint.

In the drawings the numeral 1 indicates in general a vessel which may for example be a measuring cup of the type employed in supplying lubricating oil to automobile and other machine parts, and this vessel may be provided with the usual handle 2 and if desired with any suitable type of valve 3 for controlling the discharge of liquid from the vessel.

The spout for the vessel is indicated in general by the numeral 4 and comprises in its structure a fixed tubular member 5 which is secured in any suitable manner to the outer side of the wall of the vessel 1 near the bottom of the vessel and is provided with an opening 6 by which it is placed in communication with the interior of the vessel. The spout further comprises an adjustable or swinging member 7 of the tubular form illustrated in the drawings and preferably provided with an angularly directed discharge end 8. At its inner end the spout 7 is provided with a short lateral branch 9 formed exteriorly with a circumscribing shoulder 10 which faces in the direction of the inner end of the branch. Also the branch is formed interiorly with a conical or beveled seating surface 11 which extends circumferentially. The member 5 is formed or provided with a collar extension 12 projecting from one end thereof, this end of the member 5 being open and the opposite end being closed, as indicated by the numeral 13. The collar extension 12 is provided at its end with an inwardly directed annular flange 14, and the parts are assembled with this end portion of the collar extension rotatably fitting the shouldered outer end of the flange 9 and with the flange 14 seating behind the shoulder 10. In this manner the spout 7 is connected with the member 5 for swinging adjustment and may be caused to assume a substantially perpendicular position, as shown in Fig. 1 or may be swung downwardly to assume a more or less horizontal position and so as, in the first instance, to provide against discharge of liquid from the vessel and in the latter instance to permit of such discharge.

In order to prevent leakage of the contents of the vessel at the joint provided between the spout 7 and the member 5, a nipple 15 of hollow cylindrical form is fitted at one end into the open end of the member 5 and at its other end into the branch 9 of the spout, and this nipple is provided upon its outer surface near its last-mentioned end with a circumscribing flange 16 having a conical seating surface 17 and a more or less abrupt shoulder 18, oppositely located. The seating surface 17 of the nipple 15 rests against the seating surface 11 of the branch 9 and the parts are held firmly and snugly in this mutual engagement through the medium of a coil spring 19 which is disposed upon the nipple 15 and bears at one end against the end of the member 5 and at its other end against the shoulder 18, the spring being housed within the collar extension 12, as clearly shown.

From the foregoing description of the

invention it will be evident that the spring 19 will at all times hold the nipple 15 so shifted within the joint as to cause its seating surface 17 to bear in a fluid tight manner against the seating surface 11 of the branch 9, and any wear which occurs between these contacting surfaces is compensated for by the expansion of the spring. In this manner while the spout 4 may be freely swung between its upright and lowered positions, the joint which provides for such movement is of such construction as to preclude any possibility of leakage of the contents of the vessel at the joint.

Having thus described the invention, what is claimed as new is:

1. A discharge spout for measuring vessels and the like comprising, in combination with the vessel, a fixed tubular member in communication with the vessel, a spout having a lateral branch provided with a seating surface, means connecting the said branch of the spout with the said tubular member for rotative movement, and a nipple arranged within the said member and spout branch and having a seating portion contacting the seating surface of the branch.

2. A discharge spout for measuring vessels and the like comprising, in combination with the vessel, a fixed tubular member in communication with the vessel, a spout having a lateral branch provided with a seating surface, means connecting the said branch of the spout with the said tubular member for rotative movement, a nipple arranged within the said member and spout branch and having a seating portion contacting the seating surface of the branch, and a compression spring bearing between the said member and the nipple and maintaining the seating surfaces of the parts in mutual engagement.

3. A discharge spout for measuring vessels and the like comprising, in combination with the vessel, a fixed tubular member in communication with the vessel, a spout having a lateral branch provided with a seating surface, means connecting the said branch of the spout with the said tubular member for rotative movement, a nipple arranged within the said member and spout branch and having a seating portion contacting the seating surface of the branch, and a compression spring bearing between the said member and the nipple and maintaining the seating surfaces of the parts in mutual engagement, the extension being provided with a circumscribing shoulder and the said member being provided with a collar extension having a flange engaging behind the shoulder.

In testimony whereof I affix my signature.

WILLIAM C. HELCHER. [L. S.]