(No Model.)

C. WAGNER.

VALVE FOR OIL CANS.

No. 529,221. Patented Nov. 13, 1894.

Fig. 1

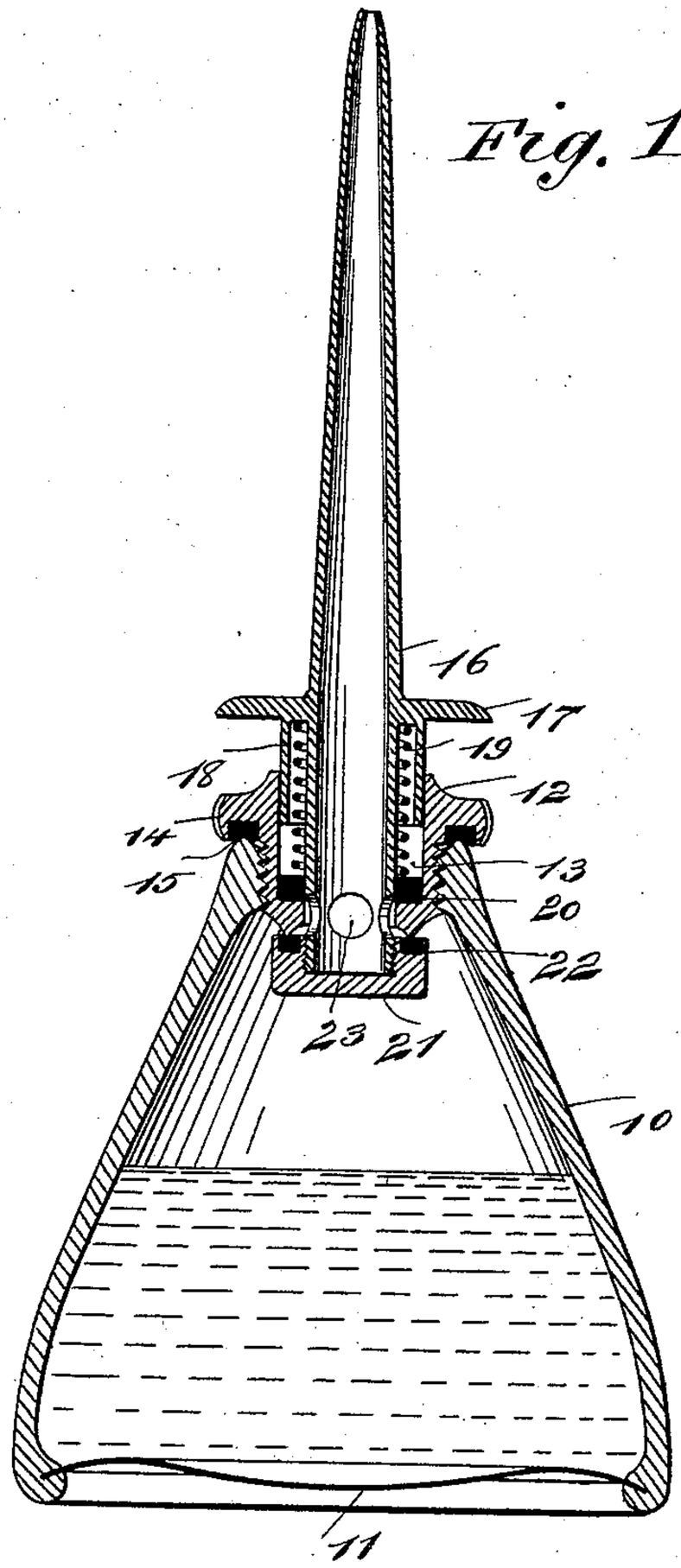
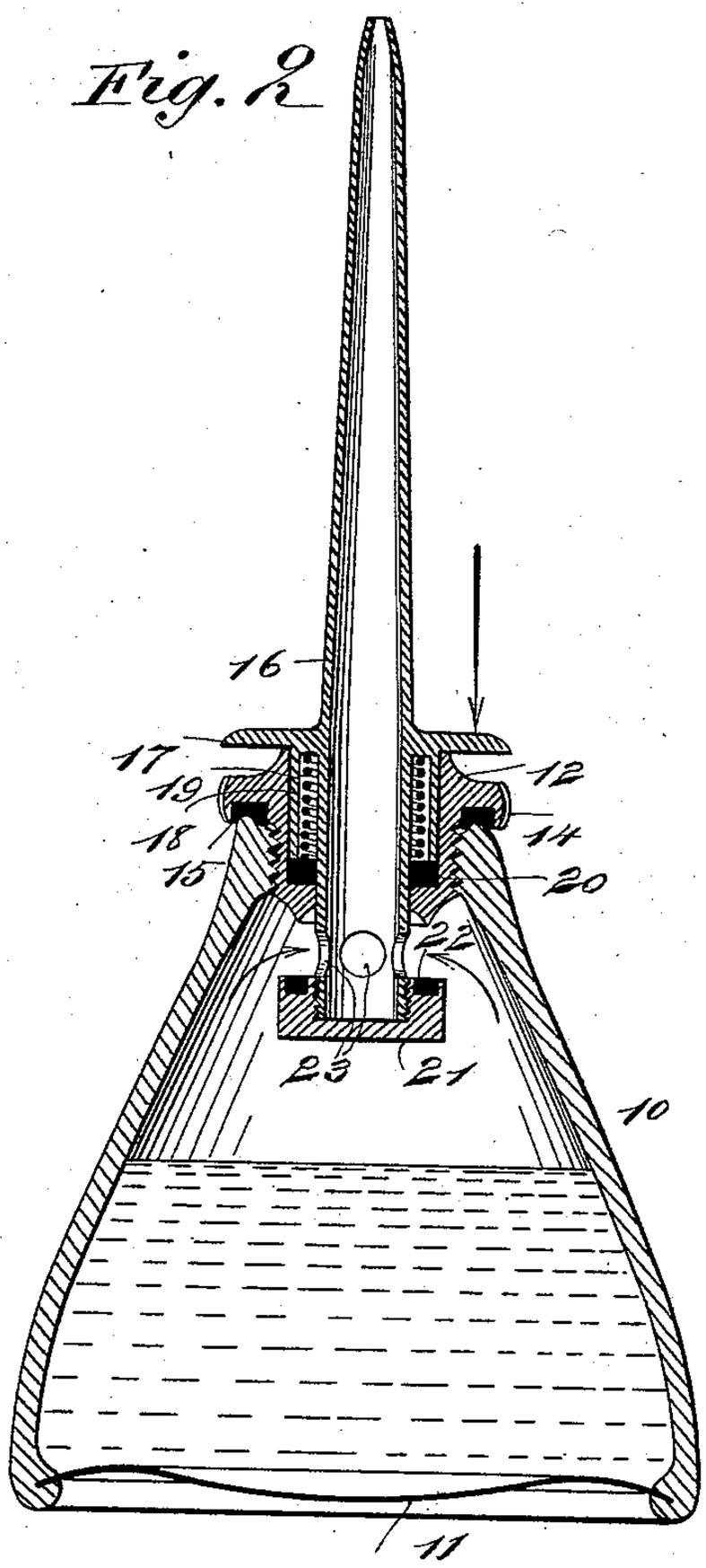


Fig. 2



WITNESSES:

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VALVE FOR OIL-CANS.

SPECIFICATION forming part of Letters Patent No. 529,221, dated November 13, 1894.

Application filed February 20, 1894. Serial No. 500,889. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WAGNER, of New York city, in the county and State of New York, have invented a new and useful Improved Valve for Oil-Cans, of which the following is a full, clear, and exact description.

My invention relates to an improved valve for the spout of an oil can, or other receptacle from which liquid is to be discharged through a spout in graduated quantity; and has for its objects, to provide a novel, simple valve attachment for the spout of a jet oil can, which affords reliable and convenient means for the discharge of any desired quantity of oil from the can, prevents leakage while using the device, and effectually seals the receptacle against accidental discharge of its contents.

To these ends, my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in both of the views shown.

Figure 1 is a sectional side view of an oil can and the improvement thereon, in a closed condition; and Fig. 2 is a sectional side view of the improved valve on a jet oil can also shown in section, the valve being adjusted for a discharge of the liquid contents of the can.

The body 10 of the oil can, may be shaped as represented, or be given any other form that may be preferred, the style shown being selected as a convenient shape to illustrate the application of the improvement.

As indicated, the can body 10, is coniform, and is provided with a thin bottom wall 11, which for the effective operation of the can should be constructed of elastic metal, and so fashioned as to render it retractile when subjected to pressure from the outer surface near its center. The converged upper end of the can body is centrally apertured and internally threaded, the diameter of said orifice being sufficient in dimension to permit the nut block 12, to engage with it, the latter having a substantially cylindrical and externally threaded body that fits the threaded aperture mentioned.

The cylindrical nut block is recessed from the upper end of a proper depth, in circular form, said cylindric chamber 13, being axially coincident with the exterior of the nut block, and so diametrically proportioned as to produce a surrounding shell of proper thickness. Near the upper edge of the nut block 12, a circumferential flange 14 is projected from the block, having a suitable diameter and thickness, and preferably the peripheral edge of this circular flange is milled to roughen it so as to provide a thumb and finger hold for the easy rotation of the nut block while inserting or removing the same from the can body. An annular recess is formed in the lower side of the flange 14, of a suitable depth and width to receive and retain the joint ring 15, that is provided to have contact with the upper edge of the can neck, so as to seal the joint between it and the nut block 12.

The spout 16, may be straight, as shown, or curved in the body near the point of discharge for liquid from the can, and at a suitable distance from the lower end of its cylindrical body, a circular flange 17 is formed on or secured thereto, which is designed to afford a finger hold for the manipulation of the device in service.

From the lower side of the flange 17, an inverted spring cup 18 is projected, which is cylindrical and concentric with the spout body that it surrounds, a sufficient annular space intervening these parts to receive the spiral spring 19. The exterior diameter of the cup 18 is such as will adapt it to have a loose fit in the circular recess or chamber 13, of the nut block 12.

A joint ring 20, made of any proper material is seated in the bottom of the chamber 13, its central hole being of a size to receive the body of the spout that extends below the spring cup and passes loosely through the bottom wall of the nut block 12.

On the lower end of the spout 16, a thread is formed for the reception of the cupped and interiorly threaded sealing disk 21, that is recessed in its top face near the edge to hold the yielding joint ring 22, which ring is

designed to impinge the sharpened lower edge of the nut block 12, when the spring 19 is allowed to expand, this relative position of parts being shown in Fig. 1. Above, and near to the disk 21, the wall of the spout 16 is perforated, one or more holes 23 being therein formed for the passage of oil.

In use, it will be seen that if the operator grasps the can and applies thumb pressure to the spring bottom 11, with the fingers of the same hand pressing at the same time on the circumferential flange 17, the spiral spring 19 will also be compressed until the lower edge of the spring cup 18 is seated on the joint ring 20, and seals the joint between the cup and wall of the nut block 12. A depression of the flange 17 serves to slide the spout 16 down so as to remove the disk 21 from the nut block 12, and expose the perforations 23 so that the oil in the can body may be discharged from the spout, and at the same time the spring cup engages the ring 20, thereby preventing leakage around the latter. As the normal position of the parts serves to seal the lower end of the nut block 12 that is then in contact with the yielding joint ring in the disk 21, while the perforations 23 are inclosed by the disk, it will be evident that if the can is thrown over or inverted, no oil will escape from its spout.

By providing a nut block 12 of sufficient diameter, the hole in the top of the can body within which it is located, affords a convenient filler aperture for the can when the nut block and attachments are removed from the latter, so that a separate filler hole is dispensed with.

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

1. A valve mechanism for oil cans comprising the tubular externally threaded cap 12 having an external flange 14 grooved in its lower face and containing a packing ring 15 to engage the upper edge of a can neck, the bottom of the cap 12 having a central opening, a packing ring 20 in the bottom of the cap concentric with said opening, a nozzle 16 of less diameter than the bore of the cap 12 and extending down through and closely fitting the opening in the bottom thereof, lateral openings 23 being formed in the lower portion of the nozzle, a cap 21 screwed upon and closing the lower end of the nozzle, a flange 17 on the nozzle above the cap 12, and having on its under side a depending tubular flange 18 extending at its lower end into the upper open end of the cap 12 and closely fitting it, the cap 21 preventing the flange 17 from rising out of the cap 12, and a spiral spring in the annular space within the flange 18, substantially as described.

2. An oil can comprising the body provided with an internally threaded upper end, a threaded tubular cap 12 screwed therein and having an external flange 14 provided with an annular groove in its under side containing a packing ring engaging the upper edge of the body, the bottom of the cap being provided with a central opening and a packing ring 20 therearound, said cap being provided on its under face with an external annular seat, the nozzle 16 of less diameter than the interior of the cap 12, extending dowu through the opening in the bottom thereof, and provided with lateral openings in its lower portion, a screw cap 21 closing the lower open end of the nozzle and provided in the upper side of its flange with an annular recess containing a packing ring 22 seating upwardly against the annular seat on the lower end of the cap 12, a flange 17 on the nozzle above the cap 12 and having a depending tubular flange 18 extending at its lower end into and closely fitting the upper end of the bore of said cap 12 and a spring 19 in the annular space within said flange 18, substantially as described.

CHARLES WAGNER.

Witnesses:
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JNO. M. RITTER.