July 12, 1938. J. C. MILLER 2,123,656

COMBINATION DISPENSING NOZZLE AND METER

Filed July 6, 1936

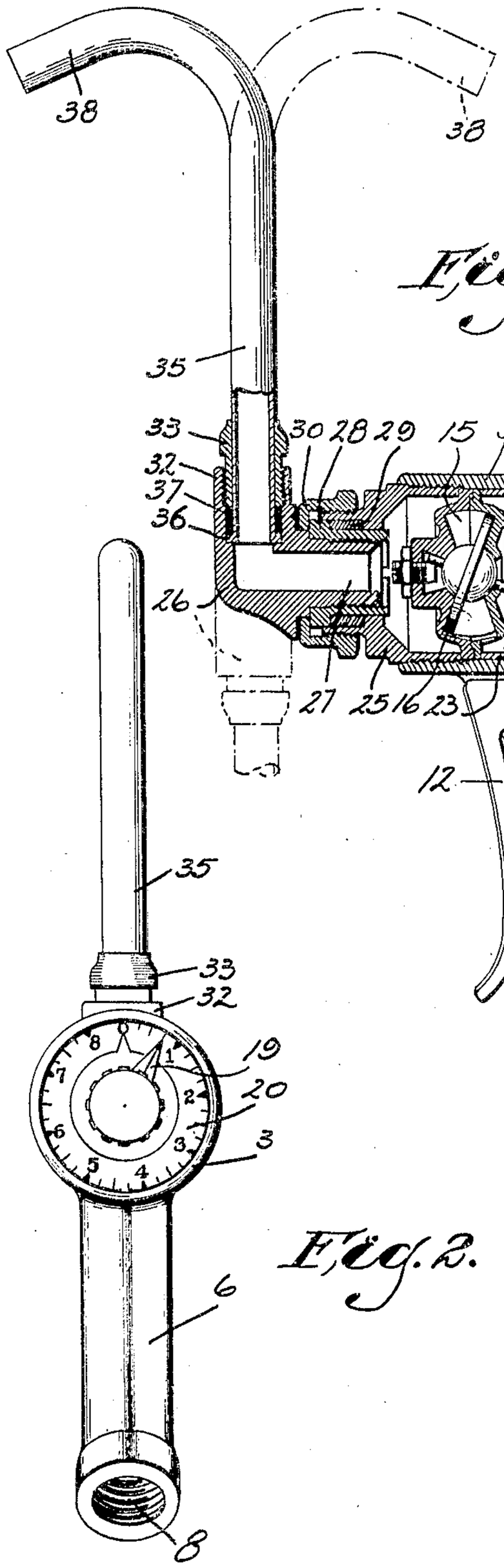

Fig. 1.

Fig. 2.

INVENTOR
Jacob C. Miller
BY
Wheeler, Wheeler & Wheeler
ATTORNEYS

Patented July 12, 1938

2,123,656

UNITED STATES PATENT OFFICE

2,123,656

COMBINATION DISPENSING NOZZLE AND METER

Jacob C. Miller, Milwaukee, Wis., assignor to Badger Meter Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin

Application July 6, 1936, Serial No. 89,003

3 Claims. (Cl. 221—95)

This invention relates to improvements in combination dispensing nozzles and meters. The device herein disclosed is a specific improvement on the disclosure of my co-pending application Serial No. 50,143 filed November 16, 1935, entitled "Lubricant metering and dispensing."

It is the object of the present invention to provide a particular arrangement of the nozzle with respect to the meter casing to facilitate the use of the device in reaching otherwise inaccessible locations.

In the drawing:

Figure 1 is a view principally in an axial section and partially in side elevation showing my improved device.

Figure 2 is an end elevation thereof.

Like parts are identified by the same reference characters throughout the several views.

The device includes a casing or barrel 3 which is internally shouldered at 4, and is integrally closed at one end 5. Adjacent the closed end there is an integral extension from the side of the barrel in the form of a pistol grip handle 6 having an internal passage 7 communicating with the interior of the barrel and provided at 8 with a hose coupling. Within the passage is a plug 9 providing a valve seat engaged by the valve 10 under compression of the combination spring and strainer 11. The lever 12 pivoted to the handle immediately adjacent the barrel engages the valve stem to open the valve against the compression of the spring 11.

Within the barrel I provide a conventional casing 15 containing the usual fluid operated motor 16 which drives a register gear train 17 to transmit motion to an indicator shaft 18. This shaft passes through the closed end 5 of the barrel and frictionally drives an indicator 19 with reference to an interchangeable dial 20.

The register gear train 17 is mounted in a frame which comprises two plates 21 and 22, the former being the bottom of a cup-shaped member 23 which is engaged by the motor casing 15 to hold it against the shoulder 4. The plates 21 and 22 have registering apertures 24 through which the grease or other material to be metered and dispensed passes.

The motor casing 15 and the register gear train frame are held in place by the screw threaded plug 25 which is fixed in an open end of the barrel 3. An elbow fitting 26 has its leg portion 27 extended into the plug 25 and provided with a bushing member 28 swiveled in the plug and shouldered to retain the packing 29 which the plug carries. A retaining ring 30 screwed to the plug engages the end of bushing 28 to maintain the parts in assembly while permitting the elbow fitting 26 to be revolved about the axis of the barrel to the position shown in dotted lines.

The other leg portion 32 of the elbow fitting is internally threaded to receive a packing gland 33 within which the dispensing nozzle 35 is swiveled. A head 36 at the end of the nozzle bears against an internal shoulder of the elbow fitting and supports the packing 37. The nozzle has a terminal portion 38 preferably curved for somewhat more than ninety degrees as shown, and this terminal portion may be swung about the axis of leg 32 of the elbow fitting to various rotative positions, one of which is illustrated in dotted lines.

The particular disposition and mounting of the nozzle, the elbow fitting, and the barrel with reference to each other, is regarded as important in permitting the operator of the device to obtain access to apertures requiring lubrication and which would otherwise be inaccessible.

I claim:

1. In a device of the character described, the combination with a barrel and shouldered means at the end thereof providing a bearing, of a fitting provided with a bushing connected to the fitting and fitted to said bearing and having a complementary shoulder, packing confined between said shoulders, and a retaining nut engaging said bushing and in threaded connection with the barrel.

2. In a device of the character described, the combination with a barrel, an elbow provided with means maintaining it in swiveled connection with the end of the barrel, and a nozzle provided with means maintaining it in swiveled connection with the elbow, of a handle projecting laterally from the barrel and provided with a supply passage communicating through the barrel and the elbow with the nozzle, a valve in the handle and a valve lever connected with the handle and operatively engaging the valve for the opening thereof.

3. In a device of the character described, the combination with a barrel, an elbow provided with means maintaining it in swiveled connection with the end of the barrel, and a nozzle provided with means maintaining it in swiveled connection with the elbow, of a handle projecting laterally from the barrel and provided with a supply passage communicating through the barrel and the elbow with the nozzle, a valve in the handle and a valve lever connected with the handle and operatively engaging the valve for the opening thereof, said barrel having a closed end opposite said elbow and being provided internally with metering mechanism in the path of flow through the barrel and including a gear train and driven shaft, the latter projecting through the closed end of the barrel and having an external indicator.

JACOB C. MILLER.