O. W. OLSON.

PRIMING CUP.

APPLICATION FILED MAY 28, 1920.

1,358,237. **Patented Nov. 9, 1920.**

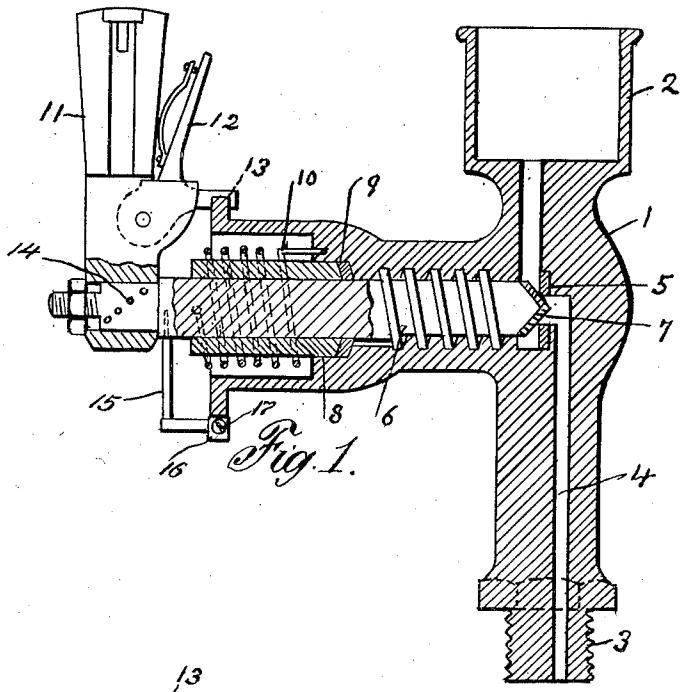

Fig. 1.

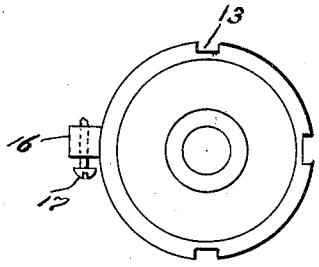

Fig. 2.

INVENTOR.
O. W. Olson
BY
L. O. Fowler
ATTORNEYS.

UNITED STATES PATENT OFFICE.

OLOF WILLIAM OLSON, OF NEW YORK, N. Y.

PRIMING-CUP.

1,358,237. Specification of Letters Patent. Patented Nov. 9, 1920.

Application filed May 28, 1920. Serial No. 385,079.

To all whom it may concern:

Be it known that I, OLOF WILLIAM OLSON, a citizen of the United States, and resident of New York, in the county of New York and State of New York, have invented a certain new and useful Priming-Cup, of which the following is a specification, the same being a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to valves and particularly to a valved priming cup adapted to be used in connection with internal combustion engines, and one object of the same is to provide a simple, efficient and inexpensive device which is neat in appearance and which is especially applicable to automobiles, motor cycles, motor boats, air craft, etc.

With this object and other new and useful objects and purposes which will be described below, in view, the invention consists in the construction, arrangement and operation of parts hereinafter set forth.

In the drawings, illustrative of one embodiment of the invention, which accompany and form a part of this specification,

Figure 1 is a view in section of a valve constructed according to my invention; and

Fig. 2 is an elevation of my notched flange.

Referring particularly to the drawings, the numeral 1 denotes the body or shell of the valve which is mounted on the engine cylinder in the ordinary manner, which has an upper cup member 2 and a threaded end 3 whereby the device may be secured to an engine.

The valve has a vertical bore 4 extending through the same in which a valve seat or port preferably comprising a steel plate 5 is formed. The valve also has a threaded rod 6 located transversely in the valve and coöperating with the opening in the bore to constitute the valve proper, the inner end of the said rod preferably being formed with a steel plate 7, the parts 5 and 7 constituting reinforcing means. A gland 8 surrounds the rod, and packing 9 may be used in order to secure a tight joint.

A spring 10 normally maintains the rod 6 in engagement with the seat 5. The said rod has an operating handle 11 which carries a spring dog 12 constructed and arranged to engage an upper notch 13 cut in the flanged end of the body of the valve whereby the valve member is normally maintained in a closed relation. By pressing the dog 12 and turning the handle 11 downwardly, and thereby partially rotating the rod, the said dog will engage a lower notch 13 and hold the valve member in an open relation.

In case the engine works sluggishly, the opening of the valve will serve to allow what products of combustion may remain in the cylinder to escape, thereby permitting a clean fresh charge to be supplied to the engine. By my invention the motor may also be readily primed for starting purposes, especially in cold weather the device being such that it may be operated by simply pressing the handle. In order to prime the engine it is only necessary to push the handle down thereby permitting gas in the cup to pass through the vertically disposed bore to the cylinder.

This device will be found to be convenient in cases where internal combustion engines operate upon very heavy oil as the engine may be started upon a lighter and more volatile liquid.

By the use of my invention the difficulty heretofore found by reason of the sticking of the valve by the choking up of the same with carbon is obviated, inasmuch as the pointed end of the valve forms the only point of contact of the same with the valve seat and as the gas passage lies exterior of and at one side of the said parts.

The point of contact between the end of the valve and the valve seat 5 may be adjusted by a pin inserted in one of the orifices 14 of the handle, whereby the rod 6 and handle 11 are attached together. In case of any wear the position of the rod, when in closed relation, may be advanced by inserting the said pin in an orifice rearward of the former one, which pin may enter the single coöperating orifice in the rod. Inasmuch as when the dog 12 is raised from the notch 13, the handle 11 is swiftly carried around until the said dog engages a new notch, I have found it desirable, especially when the said movement serves to close the valve, to regulate the degree or force of contact of the parts. A convenient way to accomplish this is to provide the handle 12 with a stop device, as an arm 15, the movement of which handle, together with that of the rod, is controlled by the said

spring shall strike adjustable means, as a screw 17, carried by a part 16 of the valve body.

I wish it to be understood that I do not desire to be limited to the particular use or the exact details of construction shown and described, for obvious modifications will occur to persons skilled in the art.

What I claim as my invention is:—

1. In a device of the class described, a valve body having means for attachment and a cup at opposite ends, and an internal passage, a valve member, a spring to control the valve whereby the passage may be opened and closed, a handle for the valve, and a spring device attached to the handle to engage the valve body to control the degree of opening or closure of the valve and to lock the latter.

2. In a device of the class described, a valve body having means for attachment and a cup at opposite ends, and an internal passage, a valve member, a spring to control the valve, whereby the passage may be opened and closed, a handle for the valve, and a spring device attached to the handle to engage the body of the valve to control the degree of opening or closure of the valve and to lock the latter, the valve having a pointed end and forming the only point of contact with the valve seat.

3. In a device of the class described, a valve body having means for attachment and a cup at opposite ends, and an internal passage, a valve member, a spring to control the valve, whereby the passage may be opened and closed, a handle for the valve, and a spring device attached to the handle to engage the body of the valve to control the degree of opening or closure of the valve and to lock the latter, the valve having a pointed end and forming the only point of contact with the valve seat, the end of the valve and the valve seat having reinforcing means.

4. In a device of the class described, a valve body having means for attachment and a cup at opposite ends, and an internal passage, a valve seat in the passage, and a valve member having a pointed end forming the only point of contact with the valve seat, the valve being threaded and having a spring controlled handle to hold the pointed end of the valve member against or removed from its seat at will.

5. In a device of the class described, a valve body having means for attachment and a cup at opposite ends, and an internal passage, a valve seat in the passage, and a valve member having a pointed end forming the only point of contact with the valve seat, and a stop device carried by the valve member and an adjustable stop means on the valve body.

Signed at New York in the county of New York and State of New York this 21st day of May, A. D. 1920.

OLOF WILLIAM OLSON.