

W. L. NEWBAKER.
LUBRICATOR.

APPLICATION FILED APR. 22, 1908.

928,686.

Patented July 20, 1909.

FIG. 2

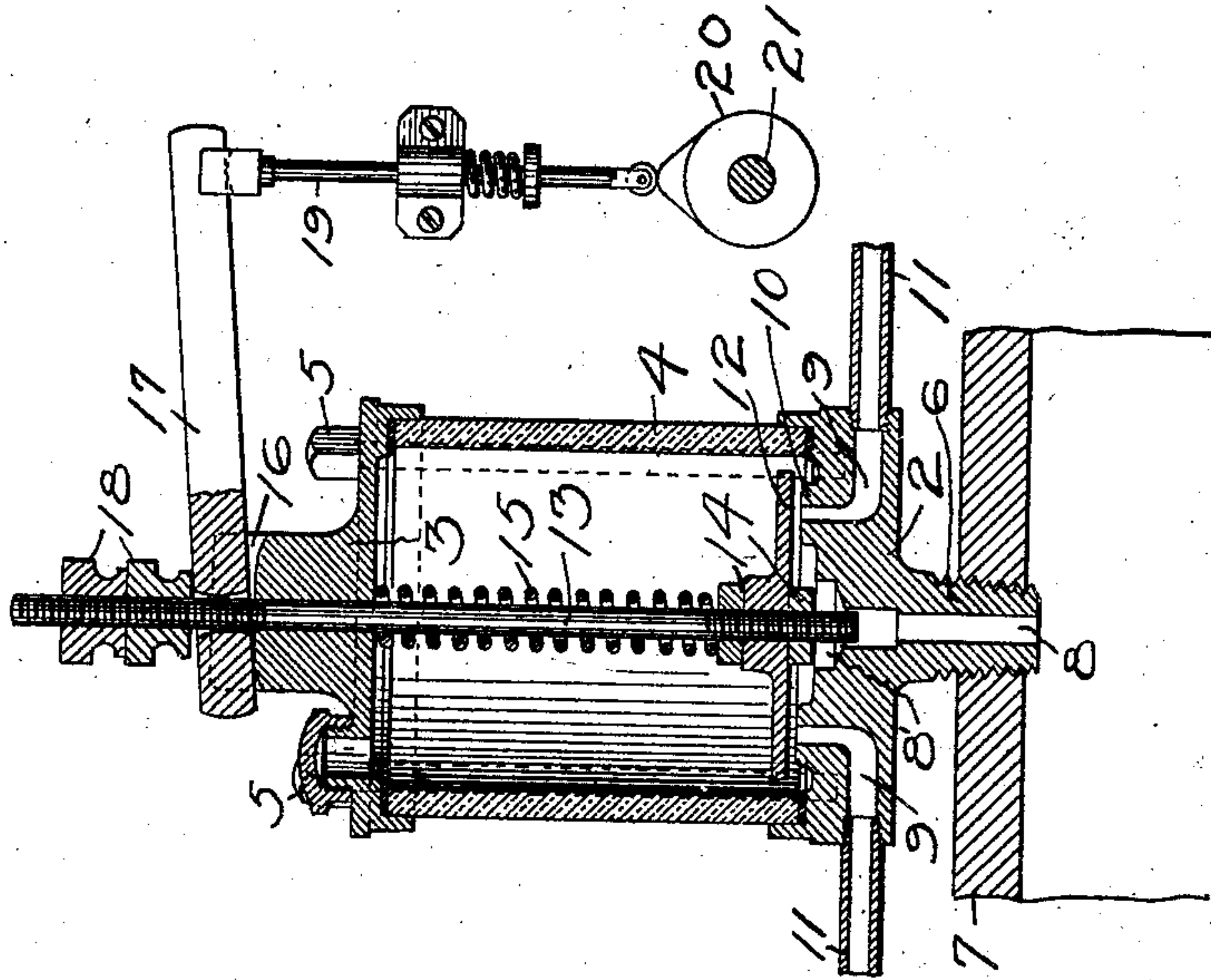


FIG. 1

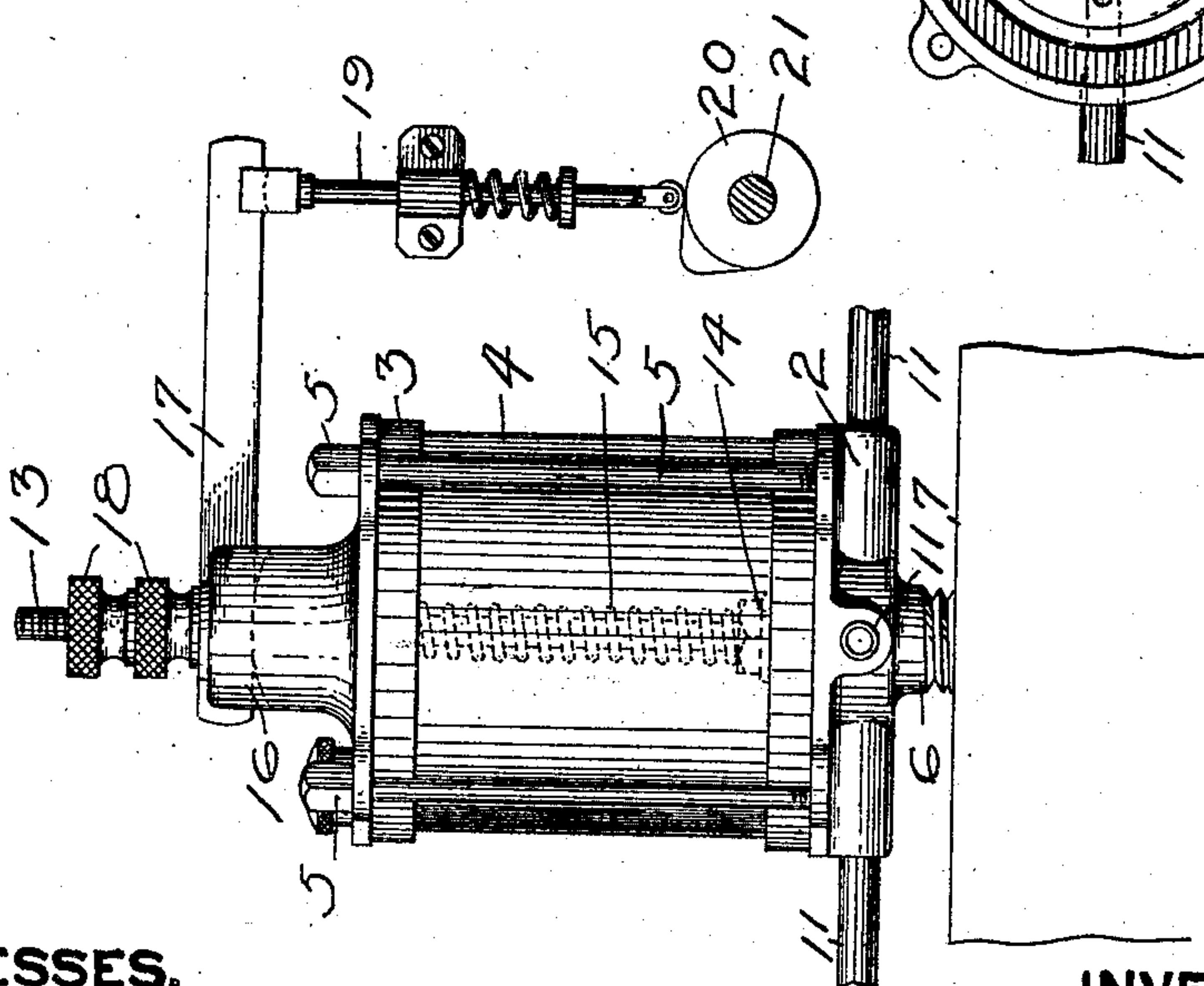
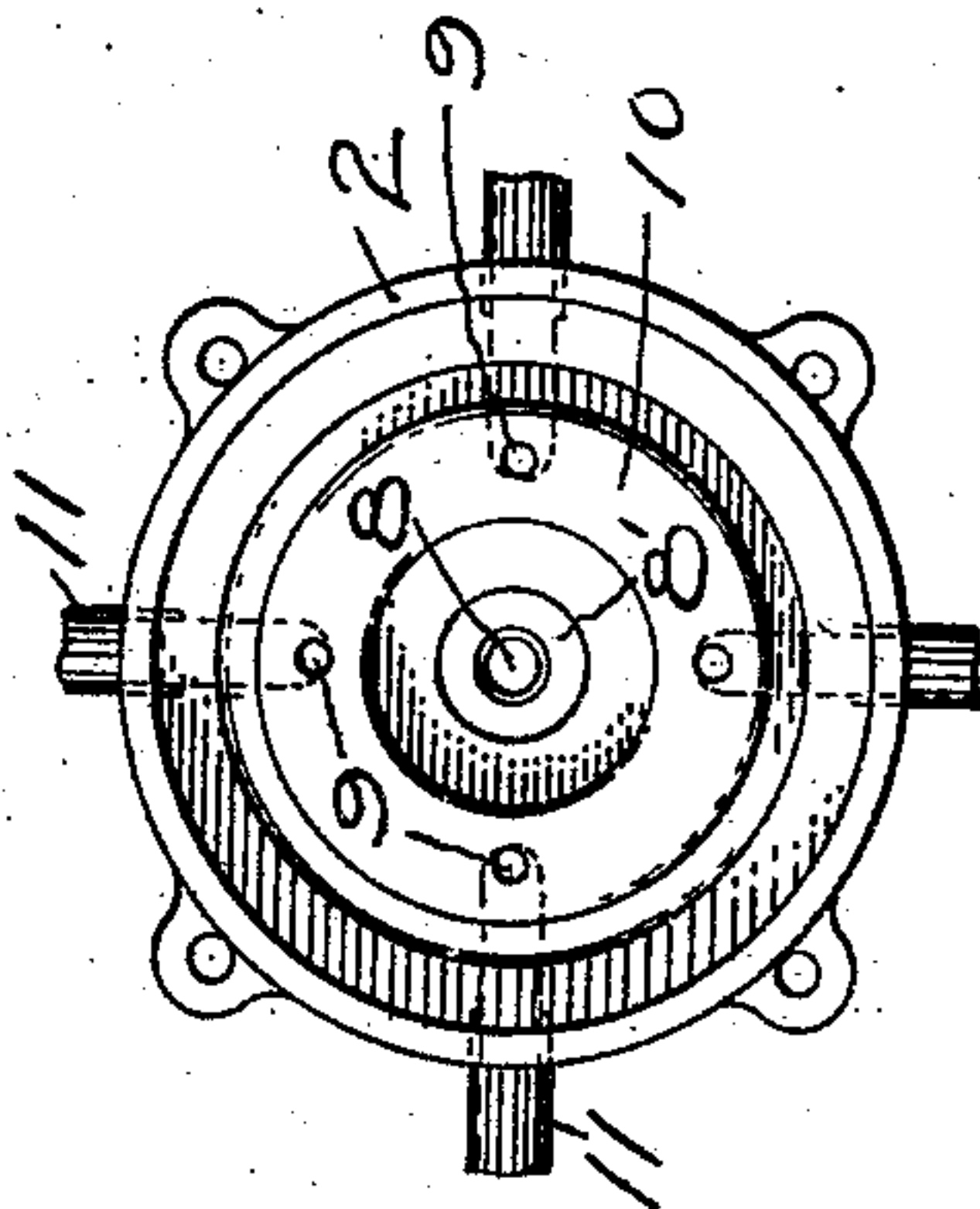


FIG. 3



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM L. NEWBAKER, OF WILKINSBURG, PENNSYLVANIA, ASSIGNOR OF TWENTY-FIVE ONE-HUNDREDTHS TO ALBERT S. DUNCAN, OF WILMERDING, PENNSYLVANIA, AND FIFTEEN ONE-HUNDREDTHS TO CHARLES S. HENDERSON, OF EDGEWOOD PARK, PENNSYLVANIA.

LUBRICATOR.

No. 928,686.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed April 22, 1908. Serial No. 428,606.

To all whom it may concern:

Be it known that I, WILLIAM L. NEWBAKER, a resident of Wilkesburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Lubricators, of which the following is a specification.

The primary object of this invention is to provide an improved lubricator for dispensing oil only when the engine or other machine upon which it is mounted is in motion.

A further object is to provide for agitating the oil so that the same passes from the holder freely and without clogging.

Still a further object is to provide for the control of a series of oil ports or passages by a single valve mechanism which operates to admit oil to the several ports only when the machine to which the lubricator is applied is in motion.

Still a further object is to provide improved means for intermittently operating the lubricator valve.

In the accompanying drawings, Figure 1 is a side elevation of the lubricator, and Fig. 2 a vertical central section. Fig. 3 is a top plan of the bottom member of the oil receptacle.

Referring to the drawings, the oil receptacle is preferably of transparent oil-cup construction, and consists of bottom member 2, top member 3, and the glass tube or cylinder 4 sealed between the top and bottom members and secured by the clamping rods 5.

Extending downwardly from bottom member 2 is the threaded supporting extension 6 which may be screwed into a cylinder, bearing, or other part of the machine or engine, of which a fragmentary part is shown at 7. An oil discharge port 8 may open downwardly through bottom 2 and extension 6, with the upper end of the port enlarged within the bottom surface of the receptacle, as indicated at 8'. Port 8 may constitute the principal or cylinder lubricating port, as when the device is applied to an engine.

It is characteristic of the invention that a plurality of discharge ports extend outwardly from the bottom of the receptacle. As here shown, these additional ports 9 open upwardly through a circular raised surface 10 on the receptacle bottom, with pipes or ducts 11 extending outwardly therefrom to

bearings or other portions of the machine or engine requiring lubrication.

Within the receptacle is the plate-like valve head 12 having a flat under surface which normally seats on surface 10, thus closing ports 9 and the central port 8, and preventing oil from discharging through any of them. Valve 12 is secured to the upwardly extending stem 13 by means of nuts 14, the stem extending downwardly through and beneath the valve head and entered in depression 8' and the upper portion of port 8, thereby guiding the valve while moving vertically so that it cannot become displaced. A spring 15 holds the valve normally depressed and seated on surface 10, with the oil shut off from all of the ports. Stem 13 projects upwardly through top member 3 and through the transverse bearing slot 16 formed therein. Mounted to oscillate vertically in this slot is lever 17 having an aperture in which the stem loosely fits, with lock nuts 18 clamping the stem and lever in the desired adjustment.

Various means may be provided for operating lever 17. That here shown consists of a link or rod 19 depending from the lever and adapted to be intermittently raised by a cam or knocker 20 on shaft 21. This shaft may be driven by the engine or other machine to which the lubricator is applied, or said rotating part may consist of any movable portion of the engine or machine. For each revolution of the shaft and its cam, lever 17 is raised and with it the valve against the pressure of the spring, thus opening the several oil discharge ports. The backward or spring-return movement of the valve following the release of lever 17 by the cam operates to shut off the oil from all of the ports, and at the same time the action is such as to force or advance oil therethrough. The form of bearing at the upper end of the receptacle in connection with the loosely connected lever provides for a certain and positive operation. The tension of the spring closes the valve instantly when the release takes place. Thus, all the discharge ports are controlled by a single valve which is normally closed, so that the lubricator is thoroughly automatic in its action and requires absolutely no attention on the part of the operator.

While I have here shown and described the preferred embodiment of the oil receptacle and its discharge port-controlling valve, the ports may be variously arranged and the valve may be variously constructed and operated without departing from the invention.

I claim:—

1. In a lubricator, the combination of an oil receptacle including a member forming the bottom thereof, said member surfaced to provide a valve seat with a plurality of oil passages opening upwardly therethrough, the bottom member also formed with a depression, a valve adapted to engage the seat and close all of said passages, and operating mechanism connected to the valve from above and projecting therethrough with the projecting portion entered in said depression when the valve is closed.

2. In a lubricator, the combination of an oil receptacle having a central bottom depression with an oil passage leading from the depression, the surface of the bottom surrounding the depression forming a valve seat with a series of oil passages opening therethrough, a disk-like valve seating on said surface for closing all of the passages, and valve operating means.

3. In a lubricator, the combination of an oil receptacle having a central bottom depression with an oil discharging port leading from the depression, the bottom having a flat surface surrounding the depression with oil-discharge ports opening through

said surface, a valve having a flat under face seating on the flat surface, a stem for the valve extending into the central depression, a spring for opposing upward movement of the valve, and valve opening means.

4. In a lubricator, the combination of an oil receptacle having a central bottom depression with an oil passage leading from said depression, the bottom having a surface surrounding the depression with a series of discharge ports opening upwardly there-through, a valve seating on said surface and shutting off the oil from all the ports, a spring for opposing upward movement of the valve, and valve opening means.

5. In a lubricator, the combination of an oil receptacle having a discharge port, a vertically movable valve within the receptacle for normally closing the port, the valve having a stem projecting upwardly through the top of the receptacle and the latter formed with a transverse slot through which the stem extends, a rocking lever mounted to oscillate in the slot and loosely connected to the stem, a spring for holding the valve normally closed, and means for actuating the lever to open the valve against the pressure of the spring.

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

WILLIAM L. NEWBAKER.

Witnesses:

J. M. NESBIT,

ALBERTA REAHARD.