J. C. SWAYKUS & A. TKACZ.

LUBRICATING DEVICE.

APPLICATION FILED AUG. 11, 1917.

1,272,569.

Patented July 16, 1918.

2 SHEETS—SHEET 1.

FIG. 1.

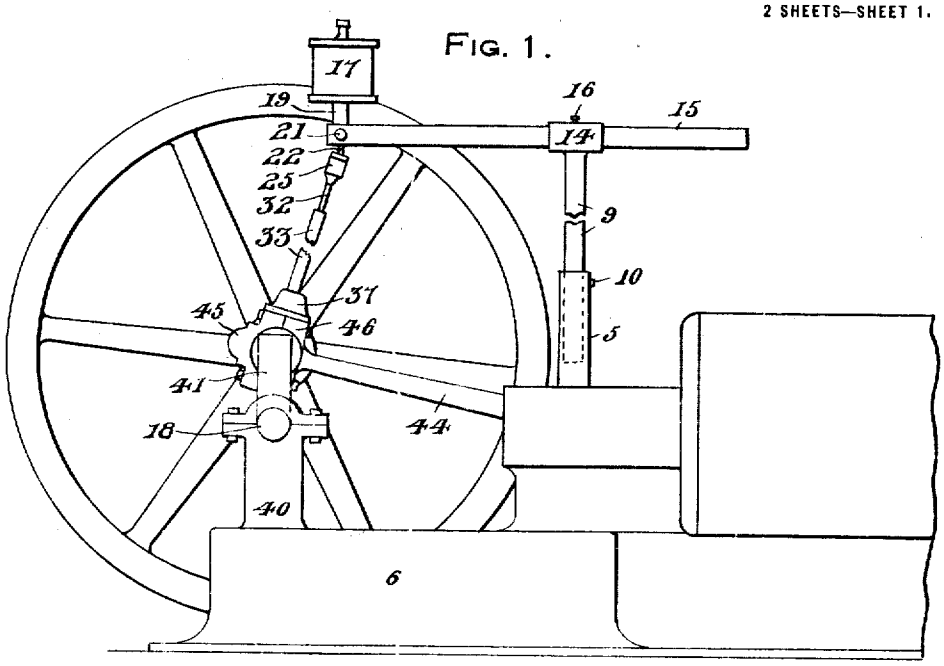
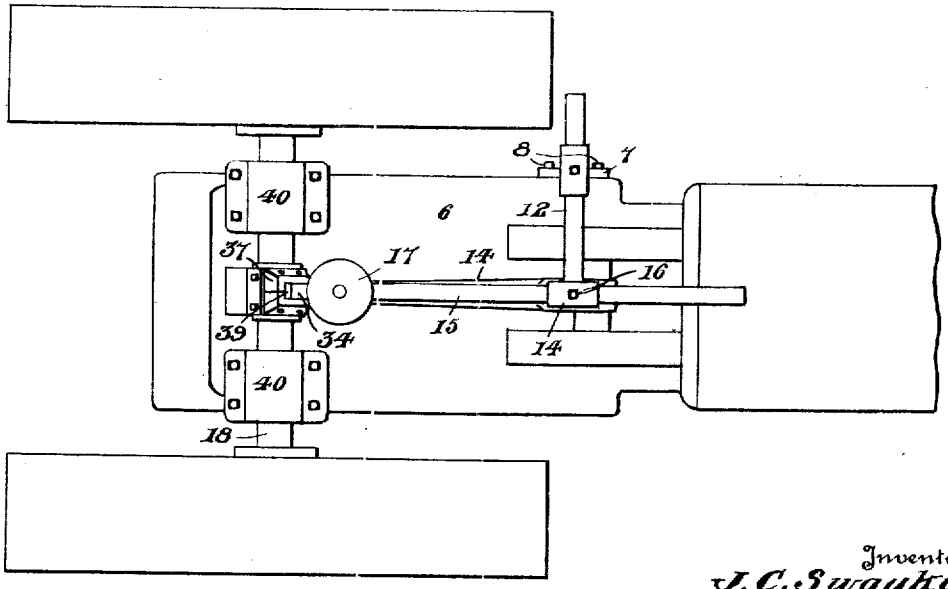


FIG. 2.



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2 SHEETS—SHEET 2.

FIG. 3.

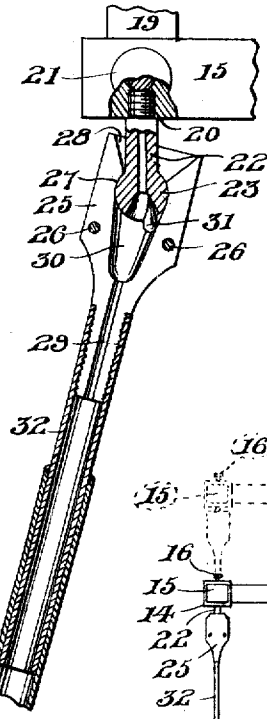


FIG. 4.

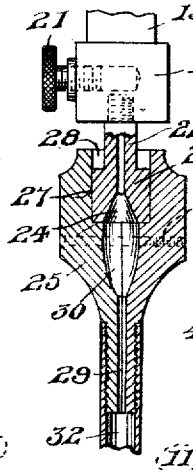


FIG. 5.

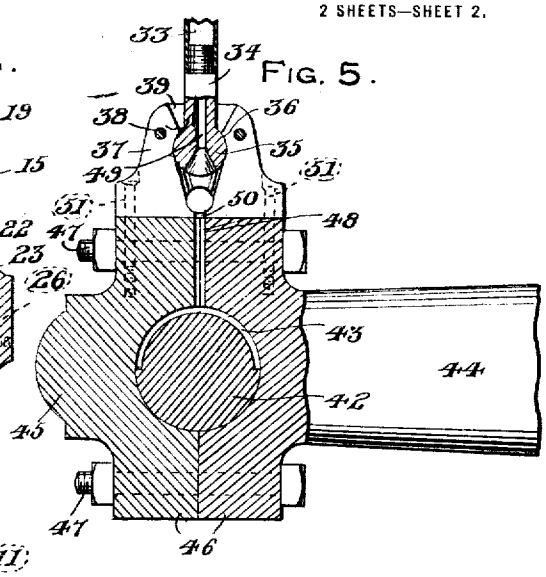


FIG. 6.

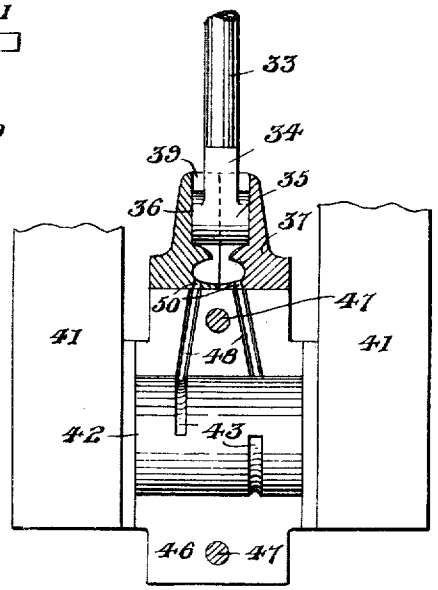
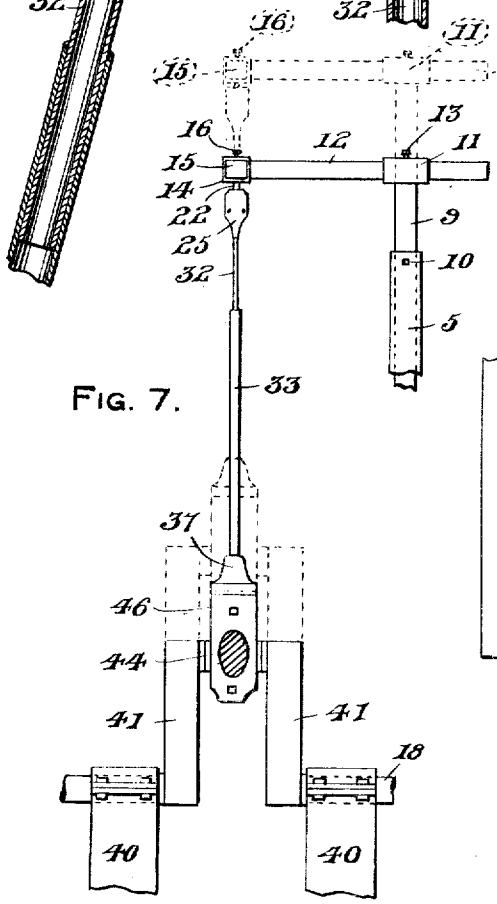


FIG. 7.



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LUBRICATING DEVICE.

1,272,569. Specification of Letters Patent. Patented July 16, 1918.

Application filed August 11, 1917. Serial No. 185,665.

To all whom it may concern:

Be it known that we, (1) JOHN C. SWAYKUS and (2) ALEX TKACZ, (1) a citizen of the United States, (2) subject of the Emperor of Austria, residing at Lackawanna, in the county of Erie and State of New York, have invented certain new and useful Improvements in Lubricating Devices, of which the following is a specification.

This invention relates to certain new and useful improvements in lubricators of that class in which lubricant is continuously fed from a stationary oil-cup to a rapidly moving part of a machine, such as a crank pin.

Heretofore each lubricator of this type had to be specially constructed for and carefully adjusted to the particular machine with which it was to be used, as no support for the oil-cup was devised to accommodate for the varying "throws" of different sized and shaped crank-pins of different machines.

It is the especial object of the present invention to provide a supporting structure for the oil-cup of this type of lubricator, whereby the same may be secured to a machine without predetermining the exact point where the same should be, in operation, and whereby the same may be subsequently easily and quickly adjusted to such point.

A further object is to insure a proper discharge of the lubricant upon the crank pin.

With these general objects in view and others that will be apparent as the nature of the invention is better understood, the same consists in the novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and then claimed.

In the drawings forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views,

Figure 1 is a side elevation of a portion of an engine with the present invention in its operative position thereon, one of the fly wheels of the engine being removed.

Fig. 2 is a plan view of the device shown in Fig. 1.

Fig. 3 is an enlarged detail view, partly in vertical section, showing the pivotal connection between the inner conveying tube and the bracket.

Fig. 4 is a view similar to Fig. 3, taken at right angles thereto.

Fig. 5 is an enlarged detail view, partly in vertical section, of the crank-pin and parts associated therewith.

Fig. 6 is a vertical sectional view of the parts shown in Fig. 5, taken at right angles to the plane of section thereof, and

Fig. 7 is an end elevational view of the device, the engine pitman being in vertical section and parts being broken away, an adjustment of certain parts being shown by dotted lines.

In carrying out the present invention, a post 5 is vertically secured to one side of the engine base 6 by any suitable means such as a plate 7 and bolts 8, see Fig. 2. This post is preferably hollow and vertically slidable therein is a rod 9 held in adjusted positions by a set screw 10. The upper end of the rod 9 is provided with a transversely positioned tubular portion 11 and slidable therein transversely of the engine frame is another rod 12 held in adjusted positions by a set screw 13. The inwardly extending end of the rod 12 is provided with a tubular portion 14 and slidable therein for adjustment longitudinally of the engine frame is a rod 15 held in adjusted positions by a set screw 16.

An oil-cup 17 of any suitable design is suitably secured to the end of rod 15 which extends to a point above and adjacent the crank shaft 18 and the outlet neck 19 of said cup is positioned so that the port therein registers with a passage 20 through the rod 15 which may be provided with a suitable valve 21 to control the flow of lubricant therethrough. Screwed into the passage 20 is a short pipe 22 whose lower end is provided with a cylindrical enlargement 23 and whose passage is enlarged as at 24. A two-part member 25, whose complementary formed sections are secured together by bolts 26, is provided with a socket 27 to pivotally receive the cylindrical enlargement 23 and said member 25 is provided with a slot or enlarged opening 28 to provide a clearance for the pipe 22 when the member 25 is oscillated relative thereto. A passage 29 is formed in the member 25 and the upper portion of this passage is enlarged as at 30 so that at no time will the passage 24 be closed and the drops of lubricant will be directed upon the face of the passage at the portion 30 as shown at 31 in Fig. 3.

The member 25 is screwed or otherwise

secured in a section of pipe 32 which is slidably telescoped into a slightly larger section of pipe 33 which is screwed onto a short pipe 34 similar to the pipe 22 and whose cylindrical enlarged portion 35 is pivotally received by the socket 36 of a two-part member 37 as shown in Figs. 5 and 6. The complementary formed sections of member 37 are suitably secured together, as by bolts 38, and the same is provided with a slot or enlarged opening 39 to provide a clearance for the pipe 34 when the same is oscillated relative thereto.

The crank shaft 18 is suitably journaled in brackets 40 upon the base 6 and is provided with a crank 41 whose crank pin 42 is provided with two grooves 43 which are spaced and each of which extend approximately half way around the circumference of the pin. The pitman 44 is provided with a wrist or collar whose two members 45 and 46 are secured together by bolts 47. The upper meeting faces of these members 45 and 46 are provided with grooves 48, only one of which registers with a groove 43 at a time and both of which are in constant communication with the passage 49 in the pipe 34 through openings 50 in the member 37 which is secured to the wrist or collar members by means of screws 51.

In Fig. 7, we have illustrated in dotted lines the utility of providing the vertical adjustment of rod 9 to accommodate the lubricator or stationary parts thereof to the varying throws of cranks of different machines, it being obvious that the longer the crank is, the greater the distance is that the oil-cup must be supported above the base 6.

When the parts are in assembled relation, the post 5 is secured to the base 6 and the rods 12 and 15 are quickly adjusted to position the oil-cup above adjacent and midway between the ends of the pin 42, thus easily obtaining a proper alinement of the parts as desired and in an obvious manner. When the engine is in operation the valve 21 may be opened and the lubricant allowed to flow therefrom to the ports 48 and at every revolution of the crank shaft the grooves are alternately filled with lubricant which seeps out and is thus most effectively distributed over the crank pin.

While the form of the invention herein shown and described is what is believed to be the preferred embodiment thereof, it is nevertheless to be understood that minor changes may be made in the form, proportion and details of construction without departing from the spirit and scope of the invention as claimed.

What we claim as new is:—

1. In combination, a crank pin provided with a plurality of spaced arc-shaped circumferential grooves, a wrist provided with a plurality of ports therethrough, each arranged to intermittently register with one of said grooves, and means to supply lubricant to said ports.

2. In a lubricating device including a hollow supporting means, a rod having one end adjustably mounted in the hollow support, and provided at its upper end with a tubular member, a second rod slidably and adjustably mounted in said tubular member and having a tubular member at one end, a third rod adjustably and slidably mounted in the last named tubular member, a valve in the last named rod, means for controlling the valve, an oil cup carried by said last named rod and in communication with the valve, said rods providing means whereby said oil cup may be adjusted vertically, transversely and longitudinally relative to a machine.

In testimony whereof we affix our signatures.

JOHN C. SWAYKUS.
ALEX TKACZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."