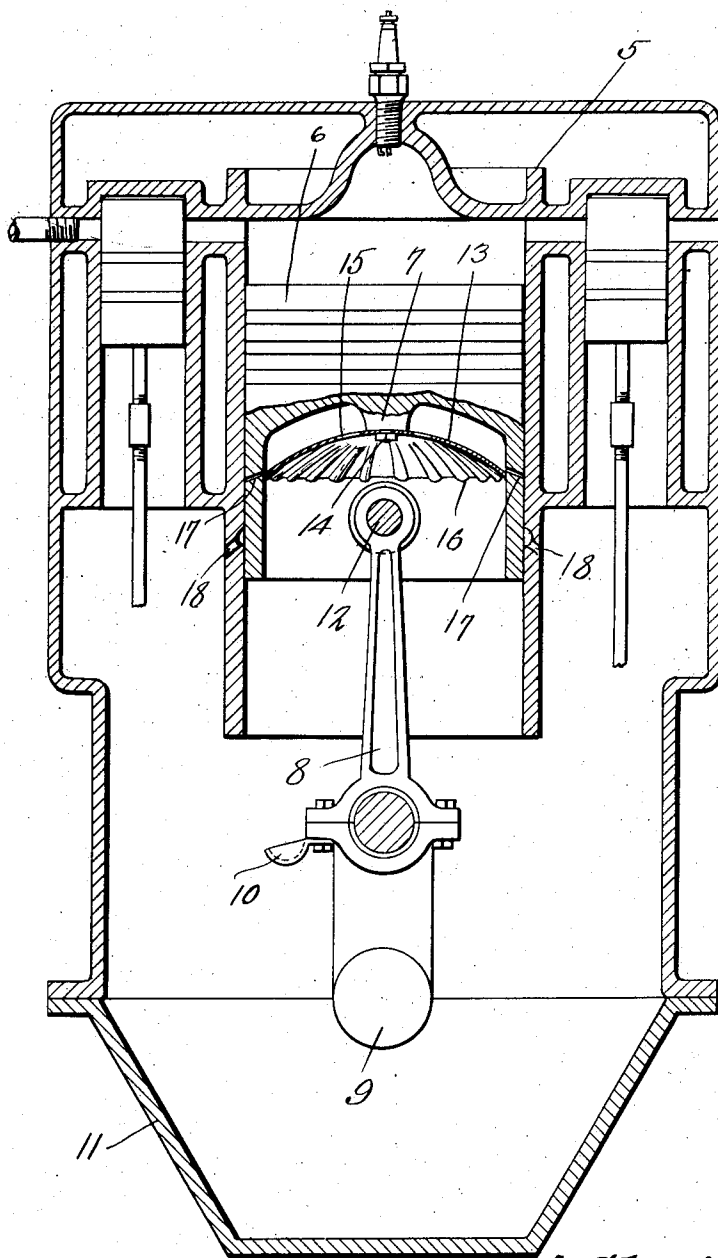


OILING SYSTEM.
APPLICATION FILED JULY 23, 1920.

Patented Jan. 4, 1921.

2 SHEETS--SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

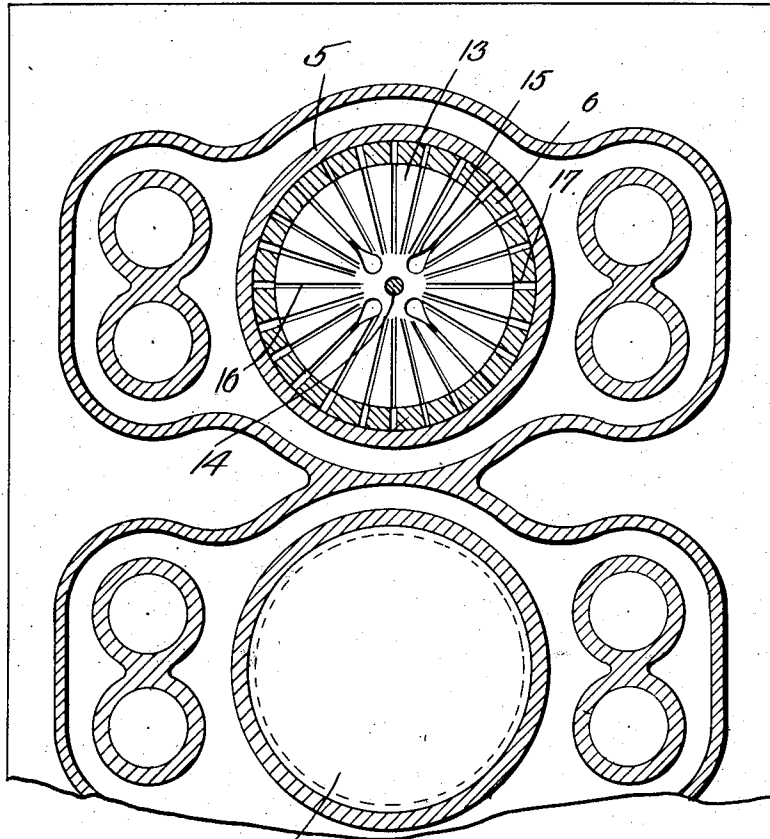


Fig. 2.

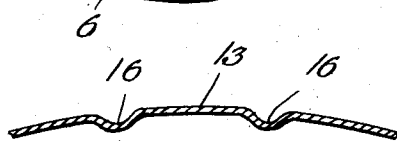


Fig. 3.

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UNITED STATES PATENT OFFICE.

ROBERT F. FORKNER AND ALEXANDER STRAIGHTIFF, OF PRINCETON, WEST VIRGINIA.

OILING SYSTEM.

1,364,102.

Specification of Letters Patent.

Patented Jan. 4, 1921.

Application filed July 23, 1920. Serial No. 398,455.

To all whom it may concern:

Be it known that we, ROBERT F. FORKNER and ALEXANDER STRAIGHTIFF, citizens of the United States, residing at Princeton, in the county of Mercer, State of West Virginia, have invented a new and useful Oiling System, of which the following is a specification.

This invention relates to internal combustion engines, and it is the primary object of the invention to provide an improved means for lubricating the cylinders of the engine, the device being of a construction to eliminate any possibility of the excessive lubrication of the cylinders.

A further object of the invention is to provide a novel form of means for throwing the lubricating oil to the walls of the cylinders to insure the lubrication of the cylinders.

A still further object of the invention is the provision of means of this character which may be readily and easily applied to engine constructions now in use.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:—

Figure 1 illustrates a longitudinal sectional view through a cylinder block, showing a device constructed in accordance with the present invention, as applied.

Fig. 2 illustrates a transverse sectional view.

Fig. 3 illustrates a sectional view of the oiling disk.

Referring to the drawings in detail, the reference character 5 designates a cylinder in which is mounted a piston indicated by the reference character 6, and which is of the usual construction, the same being provided with an integral bracket member 7 formed at the base thereof, for purposes to be hereinafter more fully described.

The usual connecting rod is indicated by the reference character 8, which connects the piston 6 and the crank shaft 9, there being provided a cup indicated by the reference

character 10 carried at one end of the connecting rod, which cup is designed to pick up oil contained in the crank casing 11 and throw the same to the inner surfaces of the cylinder walls.

Disposed above the wrist pin 12, is an oiling disk indicated by the reference character 13, which oiling disk is secured to the bracket 7 as by means of the bolt and nut indicated at 14, the disk being shown as concavo-convex, the concaved surface being disposed toward the lower end of the piston.

This disk is also provided with openings 15 formed adjacent to the central portion thereof, the openings being however in communication with predetermined grooves indicated at 16, which are formed in the disk, to convey oil which is thrown through the openings 15 by the cup 10, to the periphery of the disk, where the same passes through the inclined openings 17 formed in the piston wall, so that the oil will be delivered directly to the cylinder wall.

In order that the excessive oil will be drained into the crank casing, openings 18 are provided in the cylinder wall, and through which openings the oil is permitted to pass from the inner surface of the cylinder wall to the outer surface thereof, where the same falls into the crank casing.

In the present showing, valves of the piston type are employed, and it might be further stated, each of these valves may be supplied with a device as described for throwing the oil to the walls of the valve casings.

Having thus described the invention, what is claimed as new is:—

1. In combination with an engine cylinder and the piston operating therein, said piston having openings formed in the side walls thereof, an oiling disk positioned under the openings and carried by the piston, said disk having openings formed adjacent to the center thereof and means for throwing oil to the oiling disk and through the openings.

2. In combination with an engine cylinder, piston and connecting rod, a lubricating means including a concavo-convex oiling disk carried by the piston, said disk having central openings, said piston having openings formed in the side walls thereof, said disk having the periphery thereof dis-

posed below the openings to discharge oil into the openings, and means carried by the connecting rod for throwing oil to the oiling disk.

- 5 3. In combination with the cylinder, piston and connecting rod of an internal combustion engine, said piston having a bracket, an oiling disk supported by the bracket and having openings formed therein, said disk
10 having a plurality of grooves, the piston having openings in communication with the

grooves to receive oil from the grooves, and means carried by the connecting rod for throwing oil to the oiling disk.

In testimony that we claim the foregoing 15 as our own, we have hereto affixed our signatures in the presence of two witnesses.

ROBERT F. FORKNER.

ALEXANDER STRAIGHTIFF.

Witnesses:

G. E. AKERS,

D. N. AKERS.