Dec. 18, 1923. 1,478,094

H. D. BARRETT

OILING SYSTEM

Filed Dec. 30, 1922 2 Sheets-Sheet 1

Fig. 1.

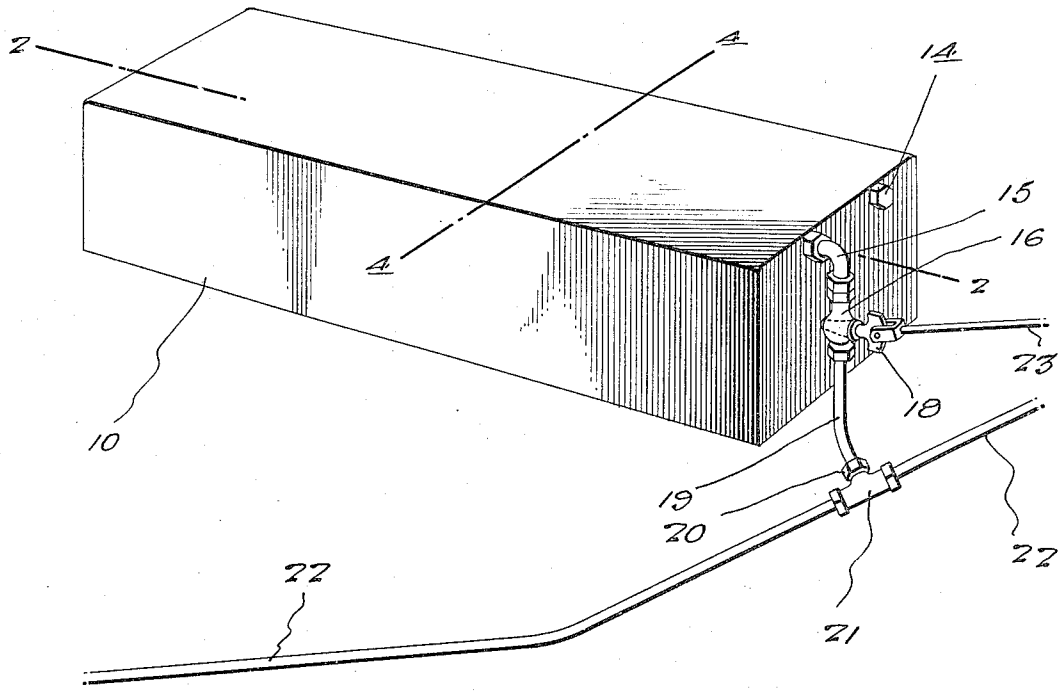
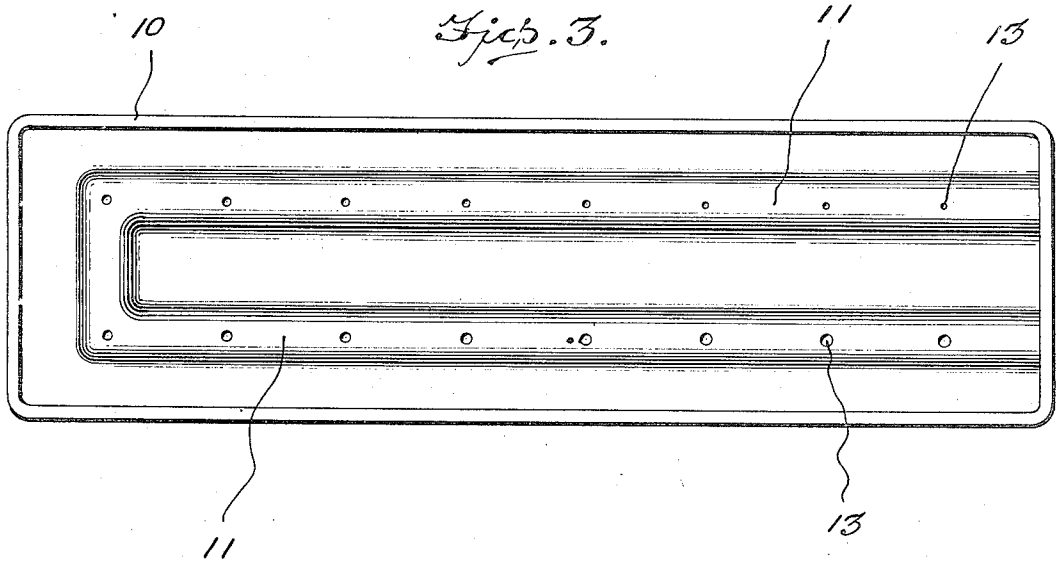


Fig. 3.



Paul M. Hunt.
H. Cullinan
WITNESS:

H. D. Barrett INVENTOR

BY Victor J. Evans

ATTORNEY

Dec. 18, 1923. 1,478,094

H. D. BARRETT

OILING SYSTEM

Filed Dec. 30, 1922 2 Sheets-Sheet 2

Fig. 2.

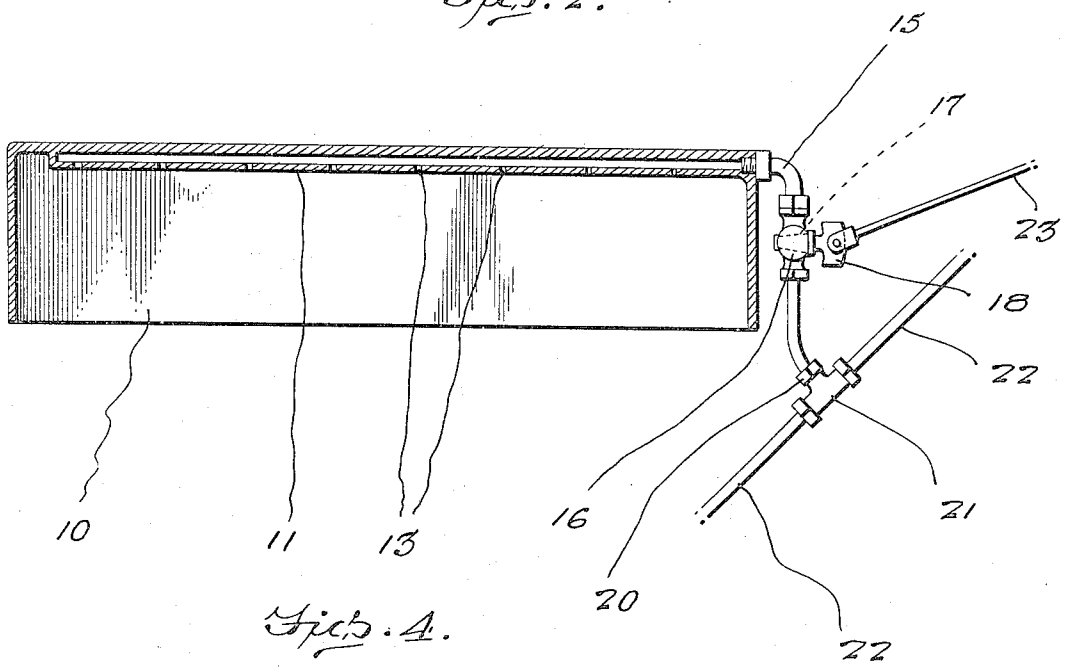


Fig. 4.

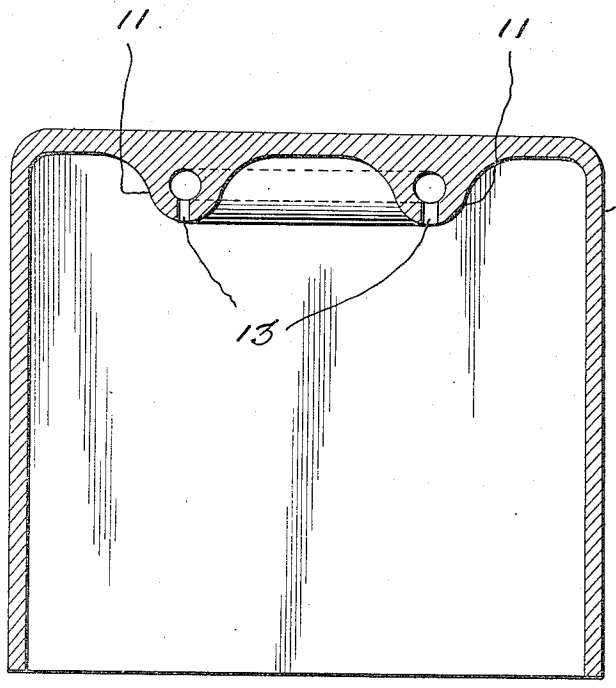
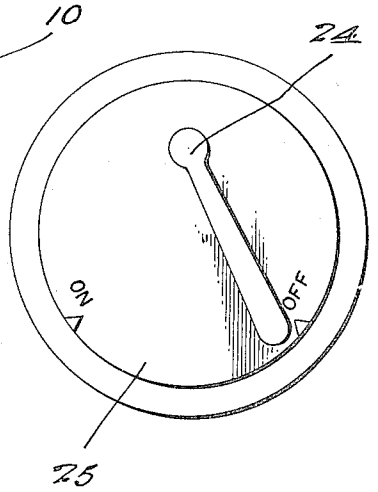


Fig. 5.



Paul M. Hunt.
E. E. Sullivan
WITNESS:

H. D. Barrett
INVENTOR
BY Victor J. Evans
ATTORNEY

Patented Dec. 18, 1923. 1,478,094

UNITED STATES PATENT OFFICE.

HARRY D. BARRETT, OF NILES, MICHIGAN.

OILING SYSTEM.

Application filed December 30, 1922. Serial No. 609,962.

To all whom it may concern:

Be it known that I, HARRY D. BARRETT, a citizen of the United States, residing at Niles, in the county of Berrien and State of Michigan, have invented new and useful Improvements in Oiling Systems, of which the following is a specification.

This invention aims to provide an efficient means for lubricating over head valves of internal combustion engines, and also their rocker arms and push rods, and means being designed to convey a small quantity of lubricant from a suitable source to a perforated pipe arranged above the head of the motor and from which pipe the oil is allowed to drip onto the parts to be lubricated.

In carrying out the invention, I provide the usual cover or casing for valves in over head motors, with the perforated pipe above referred to, and couple this pipe with the main oil conduit associated with the oil pump, so that the oil in addition to being pumped about the system in the usual manner, is also pumped into the perforated pipe associated with the casing or cover, the communication being controlled by a valve operable from the dash board of the vehicle, so that any qauntity of lubricant can be conveyed to the perforated pipe.

The nature and advantages of the invention will be better understood when the following detailed description is read in connection with the accompanying drawings, the invention residing in the construction, combination and arrangement of parts as claimed.

In the drawings forming part of this application, like numerals of reference indicate similar parts in the several views, and wherein:

Figure 1 is a view in elevation of the cover above referred to showing the position of the perforated pipe and its association with the other parts of the invention.

Figure 2 is a longitudinal sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a view looking into the cover or casing.

Figure 4 is a transverse sectional view taken on the line 4—4 of Figure 1.

Figure 5 is a view of the handle for controlling the valve and the dial adapted to be mounted on the dash board of the vehicle.

All valve in head motors are generally equipped with a removable cover or casing concealing the valves from view, and which casing must be removed in order to lubricate the valves, rocker arms and push rods. These parts are then lubricated by a hand oiler and it is a well known fact that when cold cylinder oil is applied to hot valves, it causes them to gum, this causes the valves to remain open with a consequent loss of power.

It is therefore the purpose of the present invention to eliminate the necessity of removing the cover for the purpose of lubricating the parts mentioned, by providing a construction of means whereby oil in proper quantities is conveyed to a position above the valves and allowed to drip upon the latter, and also the rocker arms and push rods. The cover or casing for the motor is indicated at 10, and is of well known construction. This casing has a top wall made a little thicker than the usual cover or casing, to permit a pipe of substantially U-shaped formation to be embedded therein. The parallel portions 11 of this pipe open at the end of the cover or casing 10, while the underside of each parallel portion is provided with a longitudinal series of openings 13 which communicates with the interior of the casing or cover as clearly illustrated. It will be noted that the openings 12 gradually increase in size from one end of the casing to the other, the smaller openings being arranged adjacent the open ends of the parallel portions 11 of said pipe. One end of the pipe is closed by a removable plug 14, while the other end of the pipe has associated therewith an elbow 15. This elbow is suitably coupled to a valve casing 16 in which operates a rotary plug valve 17, the handle of which is indicated at 18. A flexible tube 19 extends from one end of the valve casing and is associated with the intermediate portion 20 of a T-shaped coupling indicated at 21, the ends of which coupling being associated with the adjacent ends of the main oil line sections 22 which is coupled with the oil pump of the motor (not shown). Consequently, when the motor is in operation, a certain quantity of oil passing through the oiling system is conveyed through the tubing 19 into the pipe embedded in the casing or cover 10, and this oil is then allowed to drip through the perforations 12 onto the parts to be lubricated. The communica-

tion between the tubing 19 and the perforated pipe is controlled by the valve 17, so that only such quantities of oil as desired is permitted to enter the perforated pipe, and then only as the oil has been properly heated incident to the operation of the motor. For this purpose I provide a valve operating rod 23 which has one end connected to the head or stem 18 of the valve. The rod projects through an opening in the dash board of the vehicle not shown, and is equipped with a handle or lever 24, adapted to be moved across the dial 25 having marked thereon the words "Off" and "On". The valve is normally closed, but when it is desired to lubricate the parts mentioned, the handle 24 is shifted to its open position, thereby opening the valve for the purpose mentioned. After the necessary amount of oil has been admitted to the perforated pipe, the valve is closed by returning the handle to its normal position. By reason of the fact that the openings 12 in the pipe 11 are graduated in size, the oil is allowed to remain in the parallel portions of said pipe an appreciable length of time inasmuch as the oil drips through these openings onto the valves, rocker arms and push rods as these parts are in motion. The invention provides a very simple and yet practical means for lubricating the parts mentioned without the operator leaving his seat in the vehicle.

While it is believed that from the foregoing description, the nature and advantages of the invention will be readily apparent, I desire to have it understood that such changes may be resorted to when desired as fall within the scope of what is claimed.

Having thus described the invention, I claim:

The combination with a valve in the head engine cover, of a substantially U-shaped pipe arranged longitudinally of the cover and embedded therein, the parallel portions of said pipe being perforated, and opening into the interior of the cover, said perforations being successively increased in diameter from one end of the pipe to the other, one end of said pipe being closed, an oil line, a conduit terminally connected with the oil line and the other end of said pipe, a valve arranged in said conduit for controlling said communication, and a valve operating rod associated with the valve, whereby the latter can be operated from a remote point.

In testimony whereof I affix my signature.

HARRY D. BARRETT.