June 17, 1924. 1,498,362

A. W. DOWD

LUBRICATING SYSTEM

Filed May 19, 1923 2 Sheets-Sheet 1

Fig. 1.

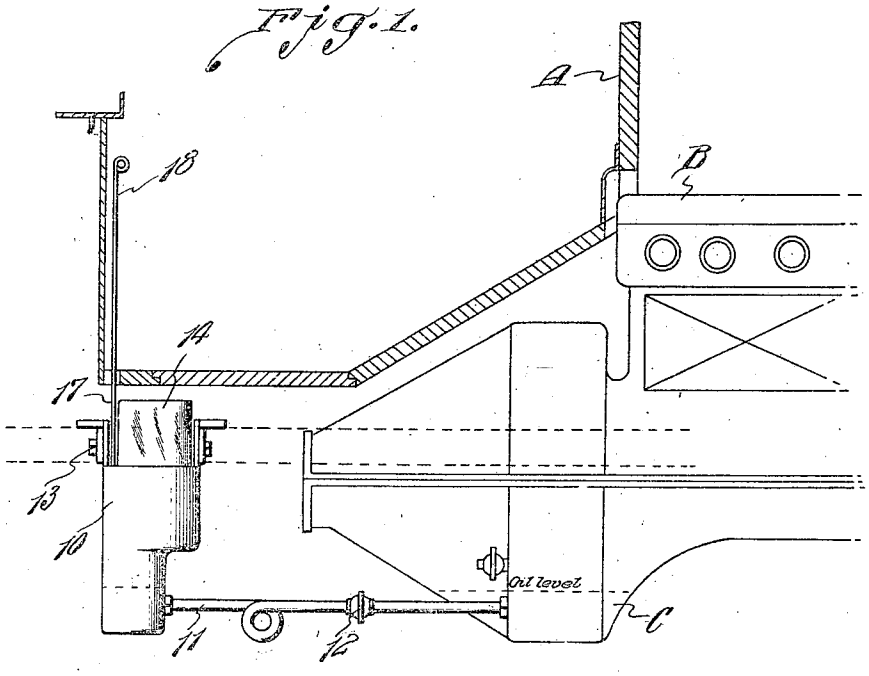
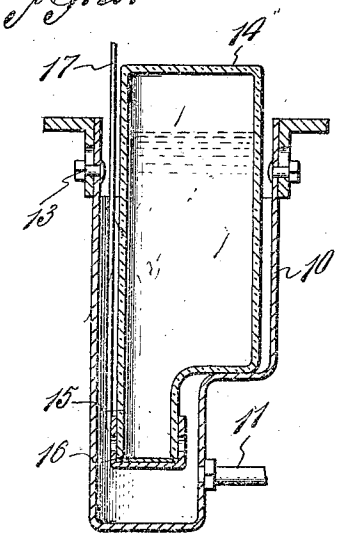


Fig. 2.



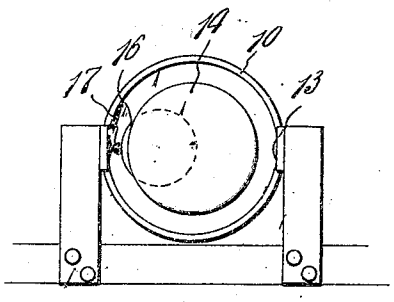


Fig. 5.

A. W. Dowd
INVENTOR

BY Victor J. Evans
ATTORNEY

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Fig. 3.

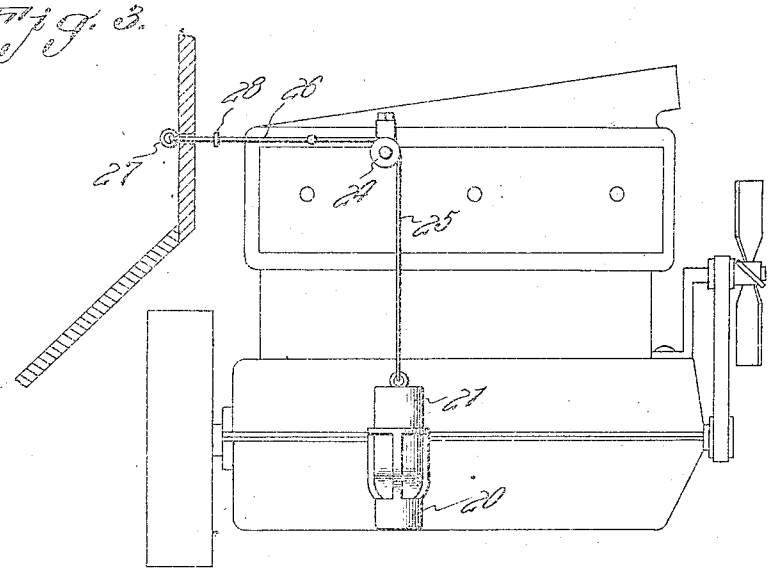


Fig. 4.

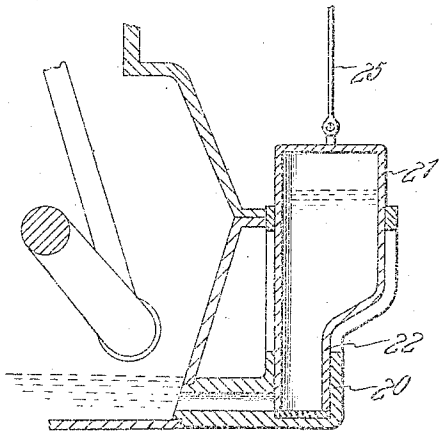
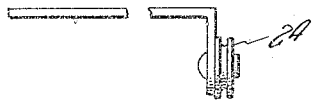


Fig. 6.



A. W. Dowd

INVENTOR

BY Victor J. Evans

ATTORNEY

WITNESS:

Patented June 17, 1924. 1,498,362

UNITED STATES PATENT OFFICE.

ANDREW W. DOWD, OF SUNNYSIDE, UTAH.

LUBRICATING SYSTEM.

Application filed May 19, 1923. Serial No. 640,210.

To all whom it may concern:

Be it known that I, ANDREW W. DOWD, a citizen of the United States, residing at Sunnyside, in the county of Carbon and State of Utah, have invented new and useful Improvements in Lubricating Systems, of which the following is a specification.

This invention relates to lubricating systems and has for its object the provision of novel means for maintaining the proper oil level within an internal combustion engine, particularly those used in automobiles, the device being however capable of employment in conjunction with steam engines.

An important object is the provision of lubricating means which includes an oil reservoir mounted as an auxiliary or accessory to the engine and equipped with means for permitting oil to flow from the reservoir into the crank case of the engine when desired.

An additional object is the provision of lubricating means of this character which is capable of modification for use under different conditions and which will be simple and inexpensive to manufacture and install, easy to operate, a great time and labor saver and a general improvement in the art.

With the above and other objects and advantages in view the invention consists in the details of construction to be hereinafter more fully described and claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a view through a portion of an automobile showing the engine thereof and illustrating one form of my device in applied position,

Figure 2 is a vertical sectional view through this form of my device,

Figure 3 is a view similar to Figure 1 showing a modified form and

Figure 4 is a vertical section therethrough.

Figure 5 is a plan view of the oil container and Figure 6 is a detail.

Referring more particularly to the drawings the letter A designates a portion of an automobile and B represents the engine which is here illustrated as being of a very popular type but which might be of any other make as my invention is adapted for use in connection with any engine which carries a supply of oil within its crank case C. In carrying out my system I provide a receptacle 10 of sheet metal or other suitable material and of any desired size and shape, which receptacle is of a more or less well like nature at its bottom and connected with the crank case of the engine below the normal oil level by means of a pipe 11 provided with a check valve 12. The receptacle 10 is provided with any suitable means for mounting it at any convenient location on the frame or other portion of the automobile and in order to permit changing of the normal oil level to suit the notions of the individual owner it is preferable that the mounting be adjustable such as is disclosed at 13. The receptacle 10 is of greater size at its top than at its bottom so as to constitute a proper support for a container 14 which may be a glass jar, bottle, can or the like and which is disposed in the receptacle 10 in inverted position with its neck 15 extending partly into the well.

The control means comprises a cup 16 which is located within the well portion of the receptacle and which is carried by an elongated handle 17 which extends upwardly to any desired height and which may, if preferred, have connected therewith a flexible member, rod or the like indicated at 18 which may lead to any convenient point on the dash of the vehicle to be grasped by the operator for moving the cup 16. The mouth of the container is in the same plane with the normal or proper oil level in the crank case but by shifting the position of the entire device by means of its support 13 it is apparent that the mouth may be raised or lowered so as to raise or lower the normal oil level.

In the operation it will be seen that whenever it is desired to replenish the oil supply within the crank case, the engine should be idle and the car should be standing level. The operator then moves the cup 16 downwardly out of engagement with the mouth of the container and oil within the container will then flow into the well and pass through the pipe 11 into the crank case. When the level in the crank case is in the same plane as the mouth of the container, the flow of oil will automatically cease and the cup 16 is then brought up into engagement with the neck of the container so that more oil cannot flow into the crank case when the engine is subsequently operated or when the car runs down hill, sways or performs other movements.

In Figures 3 and 4 I have shown a modified form of the device in which the container itself is movable instead of stationary as in the first described form. In this variation I provide a cup like receptacle 20 which may be formed integrally with the crank case or formed separately and mounted thereon or thereadjacent and necessarily communicating therewith either directly or through a pipe. This receptacle is arranged below the normal level of oil in the crank case. In conjunction with the receptacle I use a container 21 of suitable material having an outlet neck 22 and this container is of course initially filled with oil and may be supported within any suitable frame indicated at 22 which will not only prevent it from being damaged but will also operate to guide it when it is moved.

The movement of the container to bring it out of engagement with the cup 20 so that oil will flow thereinto may be effected by any one of a wide variety of means, though a convenient method is to provide a pulley 24 located at any suitable point and having trained thereover a flexible member 25 which has one end connected with the container and which has its other end connected with a short rod 26 slidable through the dash of the vehicle and equipped at one end with an operating ring or button 27 and at its other end with a stop 28.

In the operation of this form it will be seen that when it is desired to replenish the oil supply in the engine, the operator grasps the handle member 27 and exerts a pull which results in lifting the container 21 so that the oil therein will flow into the cup 20 and thence into the crank case. When the oil level in the crank case reaches normal, it will reach the mouth of the container and seal it so that further flow will be prevented. The inverted container is then allowed to move downward into the cup.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a simply constructed and easily installed and operated lubricating device which will be a manifest advantage in point of simplicity and convenience.

While I have shown and described the preferred embodiment of the invention it is of course to be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention I claim:

1. In a lubricating device for engines, a receptacle connected and communicating with the crank case of the engine to be lubricated, a container mounted above and adapted to discharge into said receptacle, and means for controlling outlet of oil from the container, said means comprising a cup member disposed below the mouth of the inverted container and movable into and out of engagement therewith, and a handle on said cup member.

2. In a lubricating device for engines, a receptacle connected and communicating with the crank case of the engine, a container mounted within said receptacle in inverted position whereby its outlet will be disposed downwardly, and a manually movable cup telescoped upon the lower end of the container and normally seating thereagainst to prevent discharge of the contents, said cup having its side wall formed with holes.

In testimony whereof I affix my signature.

ANDREW W. DOWD.