E. A. NELSON.

ENGINE LUBRICATOR.

APPLICATION FILED FEB. 19, 1912.

1,173,209.

Patented Feb. 29, 1916.

Fig. 1.

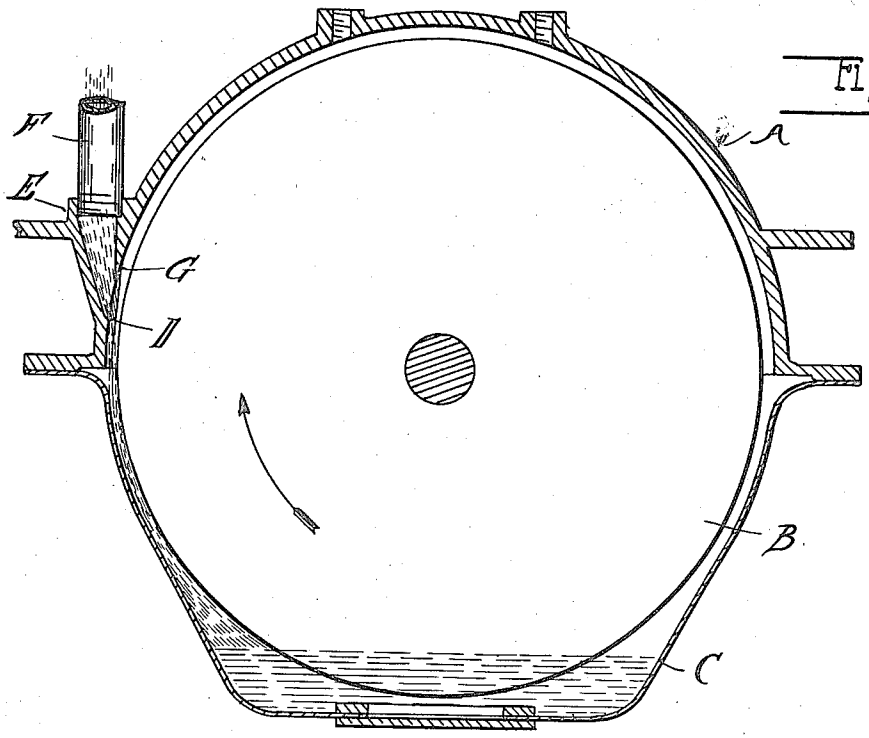
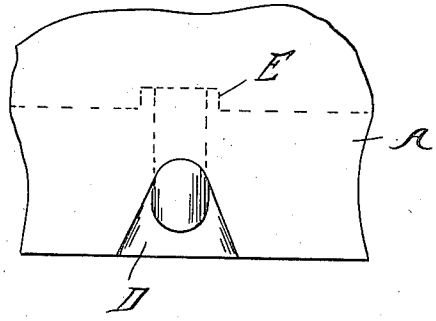


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

EMIL A. NELSON, OF DETROIT, MICHIGAN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HUPP MOTOR CAR CORPORATION, OF RICHMOND, VIRGINIA, A CORPORATION OF VIRGINIA.

ENGINE-LUBRICATOR.

1,173,209. Specification of Letters Patent. Patented Feb. 29, 1916.

Application filed February 19, 1912. Serial No. 678,673.

To all whom it may concern:

Be it known that I, EMIL A. NELSON, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Engine-Lubricators, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to lubricating systems for engines and has particular reference to the means employed for pumping the lubricant and propelling the same to the various bearings to which it is distributed.

To this end the invention consists in the peculiar construction of means co-acting with the revoluble fly-wheel of the engine as hereinafter set forth.

In the drawings, Figure 1 is a cross section through the engine casing adjacent to the plane of the fly wheel; Fig. 2 is a fragmentary elevation of the inner face of the casing showing the oil receiving pocket therein.

A is the engine casing and B is the revoluble fly-wheel therein. The lower part of the casing forms a receptacle C for holding the lubricant and into which a portion of the periphery of the fly-wheel is dipped. Consequently the revolution of the fly-wheel will cause the carrying up upon its periphery of a quantity of the lubricant.

To propel the lubricant carried by the fly-wheel to the desired point, the casing A has formed therein a pocket D which communicates with a nipple E on the outside of the case and from which a conduit F is led to the various points of distribution. The pocket D is of a tapering or wedge shaped form, the opening to the nipple being at the apex or contracted end of said pocket while the large end is of substantially the full width of the periphery of the wheel. The pocket D is formed in an inwardly extending lug G on the casing which extends into close proximity to the periphery of the wheel and the inclined edges of the pocket form strippers and deflectors which remove the adhering coating of oil from the wheel and direct it into the conduit.

With the construction just described, when the fly-wheel B is rotating at its usual rate of speed the lubricant adhering to the periphery of the wheel will be carried up into the pocket D where the inclined edges of said pocket will scrape off the adhering film and without checking the momentum which it has acquired while traveling on the wheel, will direct it into the conduit. As a result sufficient pressure is developed to raise the lubricant to the proper elevation and to force it to the bearings.

What I claim as my invention is:

1. The combination with an engine fly-wheel, of a housing for said wheel having a lubricant receptacle in the lower portion thereof, said housing being provided with a pocket having a substantially wedge-shaped opening thereto, the inclined edges of said opening being in close proximity to the wheel periphery to deflect the lubricant therefrom and converging in the general direction of rotation of said wheel, and an oil distribution conduit communicating with the contracted end of said pocket.

2. The combination with an engine fly-wheel, of a housing for said wheel having a lubricant receptacle in the lower portion thereof, said housing having a portion at the side extending in proximity to the periphery of the fly-wheel, said last-mentioned portion being provided with a substantially vertically-extending pocket of tapering form, the pocket being at its lower end of substantially the same width as the fly-wheel and contracted at its upper end with the opening at the contracted end, whereby the inclined edges between the ends deflect from the fly-wheel and discharge said lubricant upwardly in substantially the same direction of travel.

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

EMIL A. NELSON.

Witnesses:
FRANK E. WATTS,
JOHN W. PETERSON.