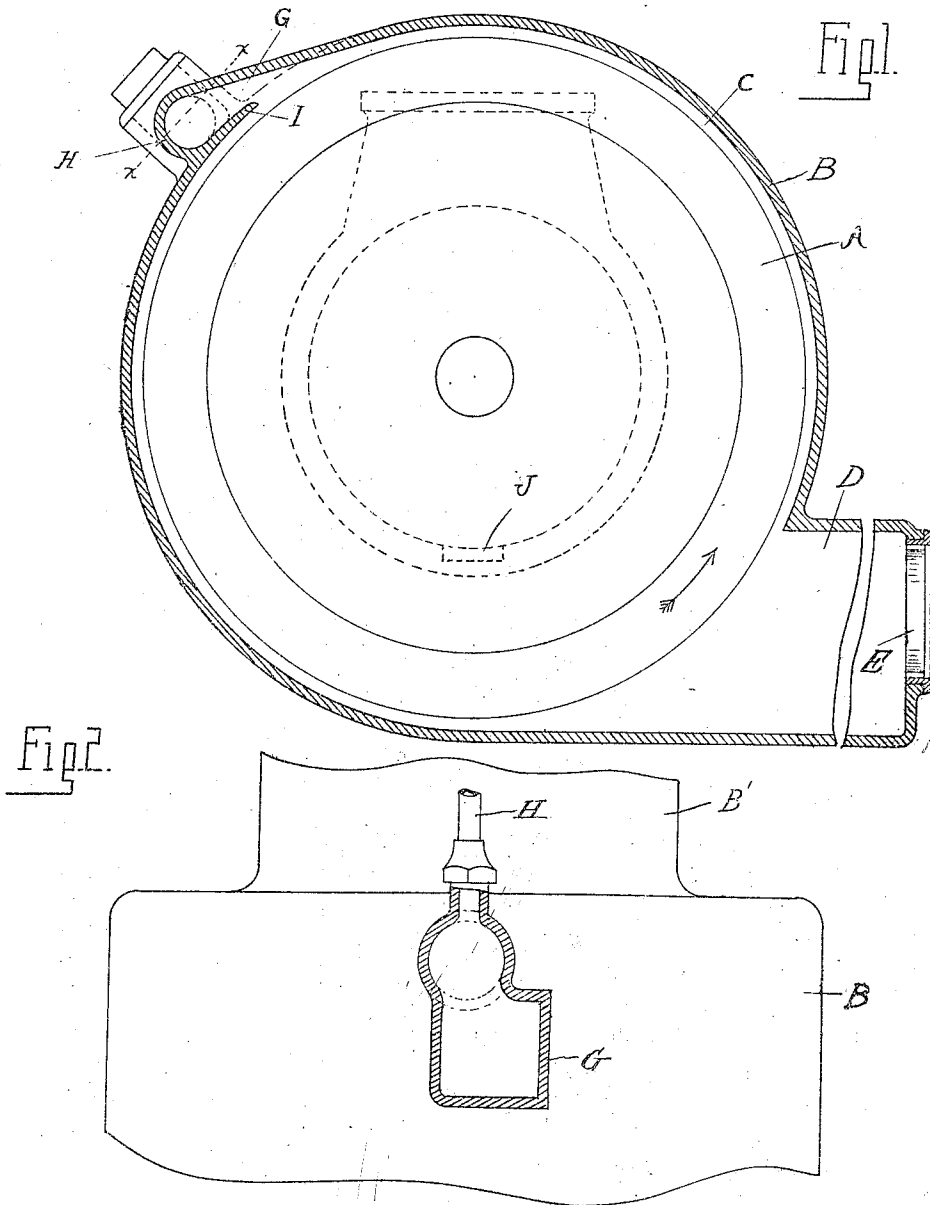


H. E. COFFIN.
LUBRICATOR.
APPLICATION FILED APR. 13, 1908.

1,045,772.

Patented Nov. 26, 1912.
2 SHEETS—SHEET 1.



Witnesses

W. E. Ford

James O. Barr

Inventor

Howard E. Coffin

By

Whitmore Hulbert Whitmore
Attys

H. E. COFFIN.
LUBRICATOR.

APPLICATION FILED APR. 13, 1908.

1,045,772.

Patented Nov. 26, 1912.

2 SHEETS—SHEET 2.

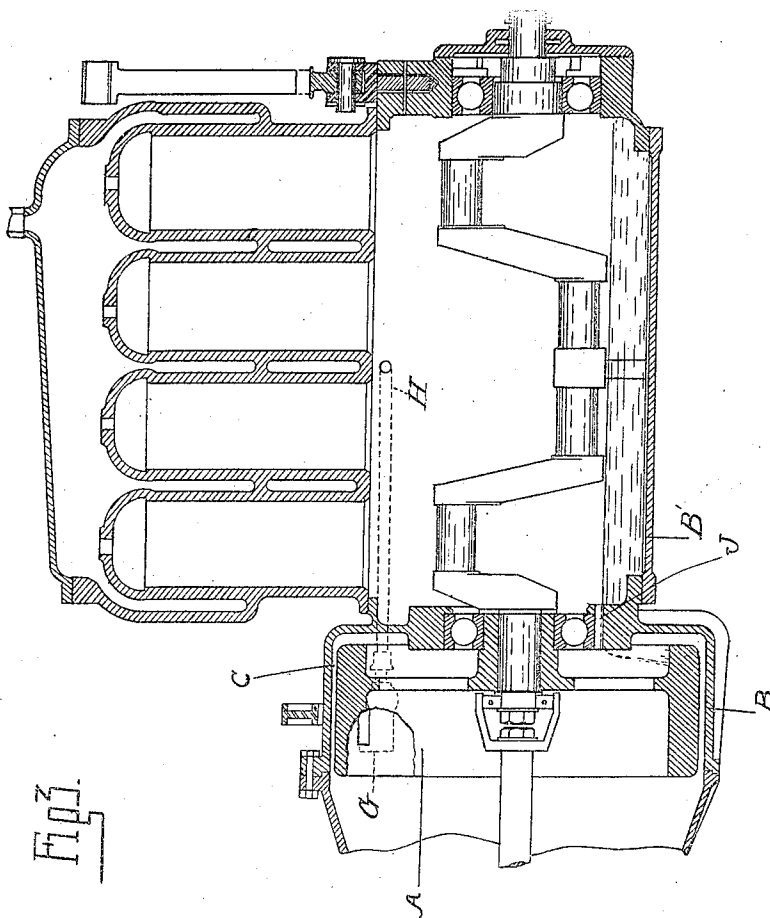


Fig. 1.

W. E. Ford
James P. Barry.

INVENTOR
Howard E. Coffin
By *Whitney Hubert Whitmore*
Attys

UNITED STATES PATENT OFFICE.

HOWARD E. COFFIN, OF DETROIT, MICHIGAN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
CHARLES E. WIFFLER, OF DETROIT, MICHIGAN.

LUBRICATOR.

1,045,772.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed April 12, 1908. Serial No. 428,753.

To all whom it may concern:

Be it known that I, HOWARD E. COFFIN, 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 Lubricators, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to lubricators more particularly designed for use in connection with engines, and the invention consists in the construction whereby the lubricant is propelled by a rotating wheel within an inclosing housing, as hereinafter set forth.

In the drawings Figure 1 is a vertical cross section through the housing for a motor showing the fly wheel thereof in elevation; Fig. 2 is a section on line $x-x$, Fig. 1, and Fig. 3 is a vertical longitudinal section through an engine casing to which my lubricator is applied.

In the construction illustrated, my improvements are applied to an engine, A designating the fly wheel thereof. B is an inclosing housing for the fly wheel which is separated from the periphery of the latter to form the annular channel C. The lower portion of this casing forms an oil well, which is preferably laterally extended by a portion D having a transparent plate or bulls-eye E at its outer end through which the level of the oil may be observed. At one point in the periphery of the casing is arranged a pocket G connected with a discharge conduit H which leads to the part to be lubricated. This pocket G has one end thereof tangential to the periphery of the case and there is also preferably provided a projecting flange I upon the opposite side of the pocket.

In operation the fly wheel A has a segment thereof immersed in the lubricant in the lower portion of the case, and consequently the rotation of the wheel will carry upward a portion of the lubricant which adheres to the peripheral portion of the wheel. This adhering lubricant will however be thrown off tangentially, and the effect is to produce a constant movement of the oil around the annular channel between the periphery of the fly wheel and the case

until the pocket G is reached. Here the oil will be fed outward into the conduit H.

As illustrated in Fig. 3 the lubricant propelled through the conduit H is discharged into a portion B' of the casing which constitutes the crank case of the engine. This crank case is of lesser diameter than the portion of the casing B containing the fly wheel, and the fly-wheel casing is provided with a channel J through which the lubricant may be returned into the fly wheel case. Thus the endless circulation of the lubricant is produced, said lubricant being elevated by the fly wheel and forced through the conduit H into the crank case, and after collecting in the bottom of the crank case being returned to the fly wheel case.

What I claim as my invention is:

1. The combination with a fly wheel, of a crank case having an annular enlargement at one end forming a housing for the fly wheel, and extending in proximity and substantially co-axial with said wheel, said annular enlargement being provided with an oil chamber in the lower portion thereof in which a portion of the wheel is immersed, an oil-receiving pocket adjacent its top and a tangential portion in its lower portion having a transparent panel, the oil being propelled into said pocket by centrifugal action.

2. The combination with a crank case, of a fly wheel housing adjacent thereto provided with an oil chamber in the lower portion thereof in which a portion of the wheel is immersed, an oil-receiving pocket adjacent the top of the fly wheel housing, the oil being propelled into said pocket by centrifugal action, and a conduit leading from said pocket to the crank case.

3. The combination with a crank case, of a fly wheel housing formed integral therewith provided with an oil chamber in the lower portion thereof in which a portion of the wheel is immersed, an oil-receiving pocket adjacent the top of the fly wheel housing, communicating with the crank case, the oil being propelled into said pocket by centrifugal action, and means for returning the surplus oil from the crank case to the fly wheel housing.

4. The combination with a revoluble wheel, of a casing inclosing the same provided with an oil chamber in the lower portion thereof in which a portion of the wheel
5 is immersed, a lateral extension in the lower portion of said casing extending forwardly therefrom, an oil-receiving pocket in said casing situated substantially diametrically opposite said lateral extension, said casing

from said lateral extension to said pocket 10 being in proximity to and co-axial with the periphery of the wheel.

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

HOWARD E. COFFIN.

Witnesses:

NELLIE KINSELLA,
JAMES P. BARRY.