

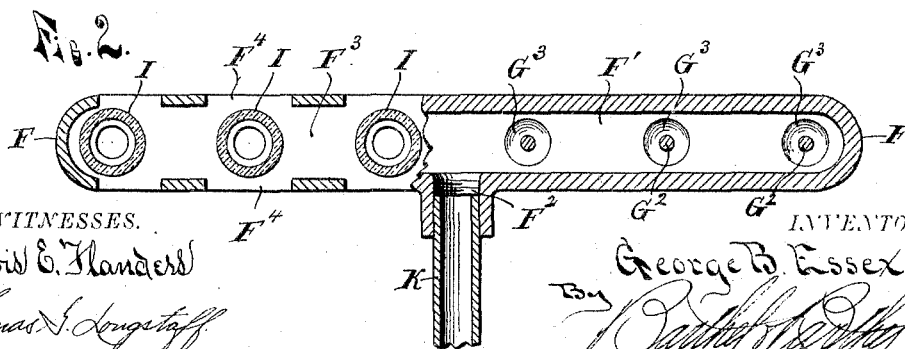
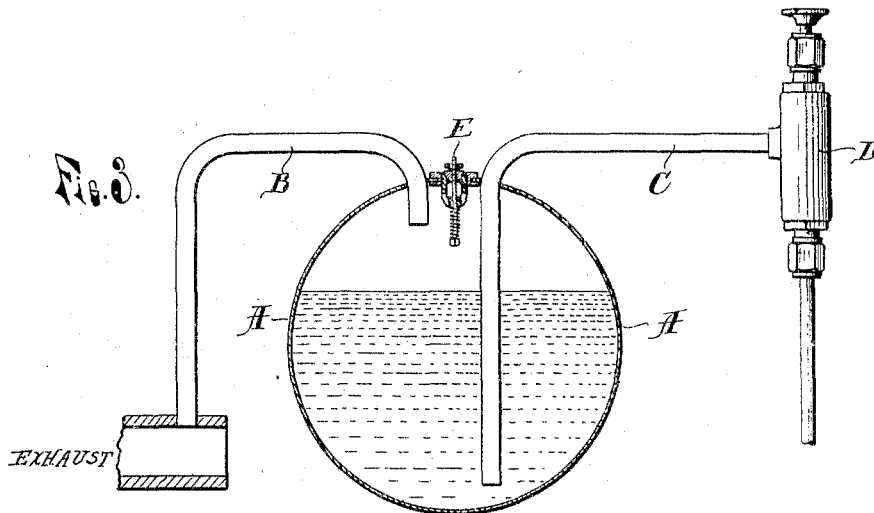
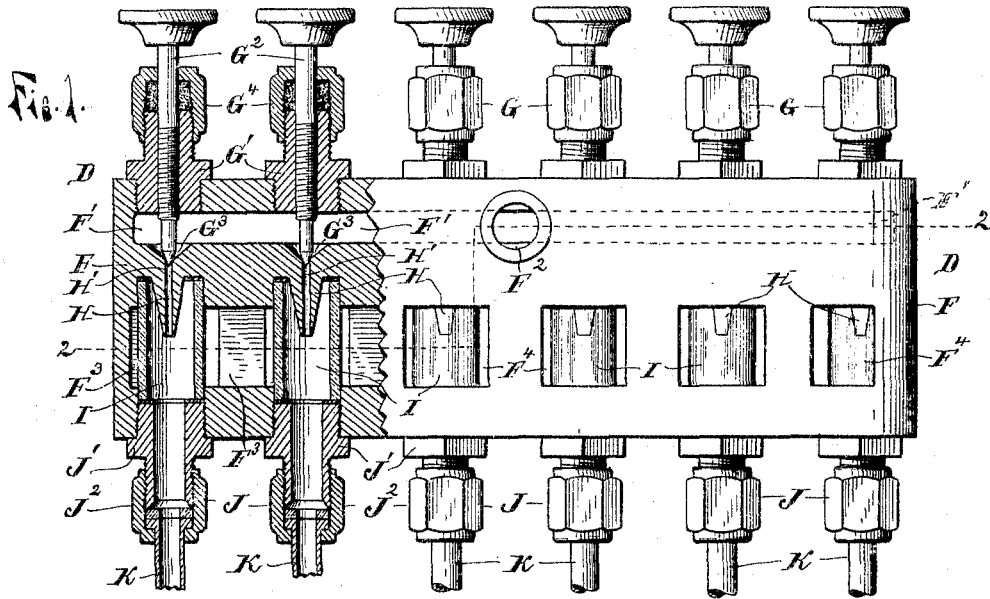
No. 767,047.

PATENTED AUG. 9, 1904.

G. B. ESSEX.
LUBRICATOR.

APPLICATION FILED FEB. 12, 1903.

NO MODEL.



WITNESSES.
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UNITED STATES PATENT OFFICE.

GEORGE B. ESSEX, OF DETROIT, MICHIGAN.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 767,047, dated August 9, 1904.

Application filed February 12, 1903. Serial No. 143,049. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. ESSEX, 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.

This invention relates to improvements in lubricators, and especially to that class of lubricators known as "multiple oilers;" and its object is to provide a lubricator of the class which is especially adapted for use on automobiles of the explosive-engine type, the construction being such as to require no especial attention, as the flow of oil is automatically controlled so that when the engine is stopped the flow of oil will cease.

It is also an object of this invention to so construct the device that the sight-feed and the supply-tank thereof are entirely separate from each other, so that each may be located in the most desirable place; and a further object of the invention is to provide a simple and cheap multiple sight-feed which is easily assembled and may be supported in any convenient place, all as hereinafter more fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the multiple sight-feed of the oiler with portions broken away to show the construction; Fig. 2, a section of the same on the line 2 2 of Fig. 1, and Fig. 3 is a view illustrating the manner of connecting the sight-feed and its supply-tank with the engine.

A is a suitable oil-supply tank, which may be located wherever desired, preferably where it will be kept warm by the heat from the engine, and is connected by a pipe B with the exhaust of the engine at any suitable point so that a portion of the discharge will pass through said pipe into the top of the tank and create a pressure therein. An oil-supply pipe C extends through the top of the tank and downward therein to near its bottom, so that the oil in the tank will be forced by the pressure in the tank upward through said pipe C to the multiple sight-feed D, to which said pipe is connected at its opposite end. A valve

E is provided in the top of the tank, so that should the pressure in said tank become too great it will open, and as said pipe B is connected to the exhaust valve, passage, or muffler of the engine at a point where the exhaust-pressure is nearly uniform the pressure in said tank will vary but little while the engine is running; but when the engine is shut down the pressure in the tank will immediately run down, as there is no check-valve in the pipe B, and no more oil will be fed.

The multiple sight-feed D consists of a suitable casting or head F, which is cored out near its upper end to form a longitudinal duct or chamber F', with which the pipe C communicates through the opening F², and said casting is cored out near its lower end to form a chamber F³, which chamber is formed with lateral sight-openings F¹ through the sides of the casting. A series of holes are bored in the upper end of the casting, through the wall thereof, into the duct F', and into these holes are screwed a series of needle-valve fittings G, consisting of nipples G', through each of which passes a screw-threaded stem G², having a needle-point at its lower end to engage a seat G³, formed in the bottom of the duct, and a milled head on its outer end, said nipples also being provided with packing-nuts G⁴.

Projecting downward into the chamber F³ from the wall separating the duct F' from said chamber are the integral nipples H, and a small hole H' is bored from the seat G³ through said wall in the axis of each of said nipples to conduct the oil from the duct F. A series of holes are also bored through the wall at the lower end of the casting into the chamber F³ to receive a series of glass sight-tubes I, which engage recesses surrounding the nipples H in the upper wall of the chamber and are held in place by suitable fittings J, screwed into said holes, which fittings J consist of the hollow nipples J', provided with the packing-nuts J² to secure the ends of the tubes K thereto, said tubes being provided to conduct the oil to the various parts to be lubricated.

The needle-valves being set in a row and close together in the casting and said casting being just thick enough to receive said valves, a very compact device is secured, which may be read-

ily attached to the dashboard of the vehicle-body, where the feed may be watched and regulated, the sight-openings F¹ exposing the glass tubes to view.

5 Having thus fully described my invention, what I claim is—

In a multiple oiler, the combination with an oil-supply tank; of a multiple sight-feed consisting of a casting formed with a longitudinal
10 oil-duct near its upper end, a chamber near its lower end, openings on the side walls of said chamber, small holes through the wall between the duct and chamber, nipples extending downward into the chamber, recesses in
15 the wall around said nipples, and holes in the

lower wall of the chamber in line with the nipples; a series of needle-valve fittings secured to the upper end of the casting and having valve-stems extending across the duct and engaging seats in the small holes, sight-tubes
20 engaging the recesses around the nipple at one end and the holes in the wall below the chamber at their opposite ends, fittings within the said holes and tubes secured to said fittings.

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

GEORGE B. ESSEX.

Witnesses:

OTTO F. BARTHEL,
LEWIS E. FLANDERS.