

W. J. SCHLACKS.
SCREEN FOR LUBRICATOR PUMPS.
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1,413,066.

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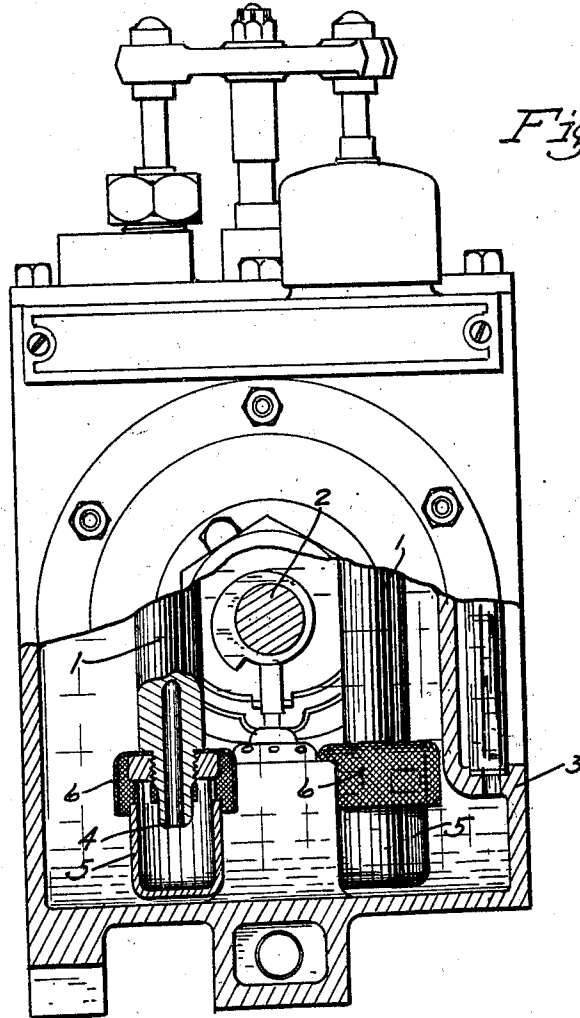


Fig. 1

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Specification of Letters Patent. Patented Apr. 18, 1922.

Application filed November 10, 1920. Serial No. 423,099.

To all whom it may concern:

Be it known that I, WILLIAM J. SCHLACKS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Screens for Lubricator Pumps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to force feed lubricators, and more particularly, to the portions of a force feed lubricator referred to in the patent to Harris, No. 1,271,035, patented July 2nd, 1918.

The present invention is made as an improvement over the structure disclosed and claimed in said patent. As set forth in said patent, it has been the practice to provide the intake of the oil pumps with a straining screen, which, for many reasons, was found objectionable. The patent to Harris disclosed an improved form of screen for use with such pumps and such screen, as clearly shown and described in the patent, and comprised a hood of sufficient size to extend over the top and surround the top of an open ended cylindrical well which was raised above the bottom of the oil reservoir. This construction necessitated the provision of an air equalizing member which, as shown in said patent, was made in the form of a small tube extending upwardly a considerable distance from the top of the hood.

It is an object of this invention to so improve the said screen or hood structure that the air or vent tube will be no longer necessary.

It is a further object of the invention to so construct the hood that it will have additional and important functions over the hood disclosed in the patent.

These and other objects of the invention will become apparent as the description proceeds in connection with the accompanying drawing, in which

The figure represents a portion of the lubricator pump shown in elevation with certain parts in section.

Referring to the drawings, a lubricator device of the type shown in the patent to Harris is illustrated, the same comprising oil pumping cylinders 1 in which reciprocating plungers are moved by being con-

nected to a yoke mechanism reciprocated by a cam and spring mechanism, operated by shaft 2. The casing 3, as shown, is designed to form an oil reservoir and the lower or intake ends of the cylinders 1 project downwardly into said casing. To prevent foreign matter which might be carried in the oil, from going into the intake end 4 of the pump cylinders, wells 5 are provided comprising cylinders with openings at or near their upper end through which the oil passes into the same, and these wells have a hood or umbrella member 6 extending down around the same a short distance below the opening therein. The heavy foreign matter in the oil will sink to the bottom of the casing 3 and will not enter the wells 5 or be drawn thereinto and is thus kept away from the intake, while any matter floating on the surface of the oil will also be prevented from entering the wells and reaching the intake by the hoods 6.

The wells 5 can either be made as part of the casing 3, as shown in the patent to Harris, or they can be made as shown in the present drawing, as separate members having lateral openings through the walls thereof near their upper ends, said ends being formed with a portion of considerable thickness which is centrally bored and threaded to be screwed into the bottom of the pump cylinders which are threaded to receive the same. With this arrangement, the casing can be made as a much simpler casting.

If the hood 6 were made solid, it would be necessary to furnish an air ventilating or pressure equalizing tube extending above the surface of the oil, as shown in the patent to Harris. This is made necessary on account of air being trapped under the hood and being taken into the oil pump. It has been found in actual practice that the small air tubes shown in the Harris patent are troublesome, being difficult to secure with sufficient rigidity and hence, after becoming bent and broken. The hoods 6 of the present structure are therefore provided with a multiplicity of small perforations.

With such perforations no air will be trapped in the hood and the function of the air ventilating tubes is thus retained. While the structure is much improved and simplified, the perforations are made sufficiently small so that no foreign matter which is large enough to injure or interfere with the pump can be taken therethrough. As there is con-

siderable suction in the wells 5, due to the pumping action, the perforated hood 6 will act as efficient strainers, and thus have an additional function over the hoods set forth in the Harris patent. Furthermore, even if the surface of the hood should become so clogged with material drawn thereagainst that it can no longer act as an efficient strainer, it will not require a ventilating tube, because when the case is refilled with oil, the pressure of the oil will act on any air that might be trapped in the hood and the air will be forced out through the perforations and separate any foreign matter from the outside of the hood.

It is thus seen that applicant has made a decided improvement on the structure shown in the patent to Harris and one which is not only an improvement in structure thereof, but which has additional and desirable functions. Generally stated, the invention consists in the matter shown and described and set forth in the appended claims.

What is claimed is:

1. In a lubricator pump, the combination with a reservoir having a well at its bottom, said well having openings leading thereinto near its upper end, of a suction tube extending down into said well and provided with a hood surrounding the upper portion of

said well but spaced therefrom and extending to a level below the opening into said well, said hood being provided with a plurality of small perforations.

2. In a lubricator pump, the combination with a casing having an oil reservoir, of a cylindrical well having inlet openings on the sides circumferentially spaced near the upper portion thereof, said openings being disposed at a considerable distance above the bottom of said casing, and a suction tube extending down into said well and to which the said well is attached.

3. A lubricator pump structure having in combination a casing forming an oil reservoir, a well in said reservoir having an inlet opening disposed a considerable distance above the bottom of said casing, a suction tube extending into said well and by which said well is carried and a perforated hood also carried by said tube and extending down over the well to a point below the inlet opening thereof.

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

WILLIAM J. SCHLACKS.

Witnesses:

SARAH E. SCHMID,
HARRIET MAGNUSON.