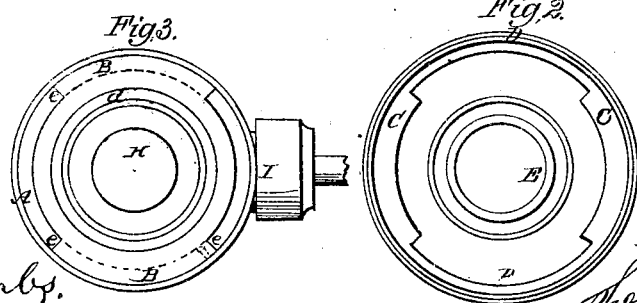
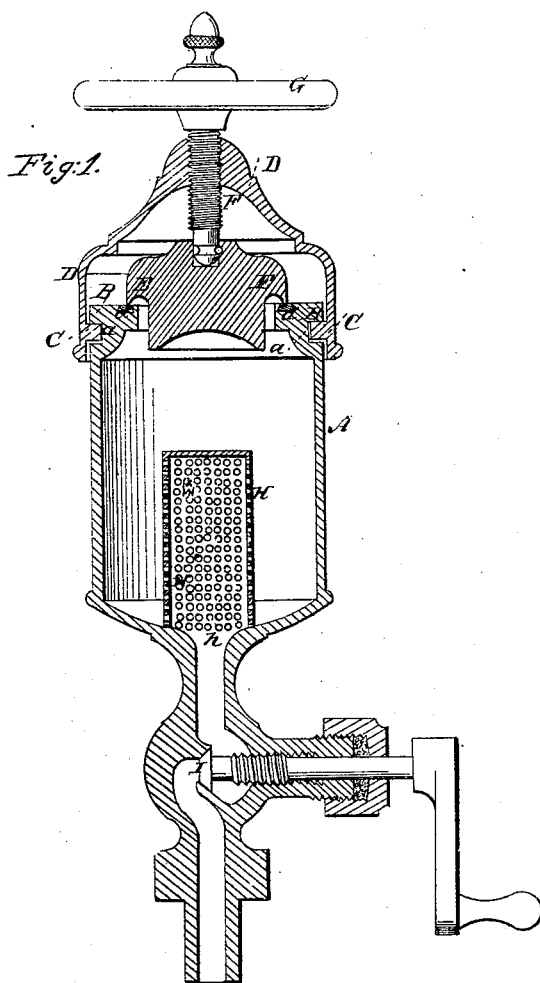


*J. Storer,*  
*Lubricator.*

*N<sup>o</sup> 53,195.*

*Patented Mar. 13, 1866.*



*Witnesses:*

*J. H. Courly.*  
*A. Leclerc.*

*Inventor*

*John Storer*

# UNITED STATES PATENT OFFICE.

JOHN STORER, OF NEW YORK, N. Y.

## IMPROVEMENT IN LUBRICATORS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. 53,195, dated March 13, 1866.

*To all whom it may concern:*

Be it known that I, JOHN STORER, of the city, county, and State of New York, have invented a new and useful Improvement in Lubricators; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a central vertical section of a lubricator constructed according to my invention. Fig. 2 is an inverted plan of the cover of same; and Fig. 3 is a plan view of the cup with the cover removed.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to lubricators for the use either of oil or of tallow or suet.

It consists in a certain construction of and mode of fitting and securing a removable cap or cover, whereby provision is made for its speedy attachment and removal.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the shell, cup, or reservoir of the lubricator, intended to be attached at the bottom to the steam-cylinder or other part of an engine or other machine or apparatus to be lubricated, with an interposed globe-valve or cock, I, to regulate the supply of lubricating material.

D is the removable cap or cover, which gives a finish to the upper part of the instrument, and serves as an abutment for the screw F, which is turned by a hand-wheel, G, or other handle to operate an inner lid or valve, E, by which the top of the cup or reservoir is closed steam and air tight.

Around the upper part of the exterior of the cup A there is a groove, *a*, and the projection or flange B above this groove has provided in it two openings, *e e*, Fig. 3, each extending about one-fourth of the way round the cup for the passage of two projections, C C, Figs. 1 and 3, provided around the interior of the bottom of the removable cap D. By placing the cap on the top of the cup with the projections C C opposite the openings *e e*, and dropping it down to bring the projections

C C into the groove *a a*, and then turning the cap a short distance to bring the said projections under the flange B and against a stop, *b*, Fig. 3, in the groove *a*, the cap is attached to the cup.

The screw F is fitted to a female screw-thread in an opening in the center of the cap D, and it has the inner lid or valve, E, attached to it concentrically in such manner that the said lid or valve will be removed and replaced with the cap D, but that the screw may turn freely in the said lid or valve.

In the top of the cup A there is a groove, *d*, fitted with soft metal to form a seat, on which the lid or valve E may be made to fit air and steam tight when the screw F is screwed down after the attachment of the cap D.

To remove the cap D and air and steam tight lid or valve E, it is first necessary to give a partial turn backward to the screw for the purpose of loosening the cap D, then to turn the cap till the projections C C come opposite the openings *e e* in the top flange, and lift off the cap.

When the cap has been put on again and turned to bring the projections C C under the flange B a slight turn of the screw secures the cap, and at the same time brings the lid or valve E tight on its seat. This removal and replacement of the cap and lid can be effected more expeditiously than the removal and replacement of any of the covers in common use on lubricators.

H is a small cylinder of sheet metal with perforated sides, arranged in the center of the lower part of the cup A over the outlet-opening. The perforations in this cylinder are small, but so numerous that their aggregate area is equal to that of the full opening of the valve I, yet they will not allow the lubricating material to pass them in bulk, and will prevent any choking up of the outlet-passage.

The periphery of the cylinder may be covered with cloth or lamp-wick, or other fibrous material, which will form a perfect strainer and make the lubricating operation very gradual without diminishing the opening of the valve I or outlet-passage.

The cylinder affords better provision for the

application of a fibrous strainer or percolater than is afforded by any other form of perforated surface.

What I claim as my invention, and desire to secure by Letters Patent, is—

The cap D, with projections C C, the valve or inner lid, E, and the screw F, in combina-

tion with each other and with the groove *a* and openings *e e* in the upper part of the cup, substantially as herein specified.

JOHN STORER.

Witnesses:

J. W. COOMBS,

A. LE CLERC.