J. P. Ferris,

Lubricator.

No. 51,106. Patented Nov. 21, 1865.

Fig. 1.

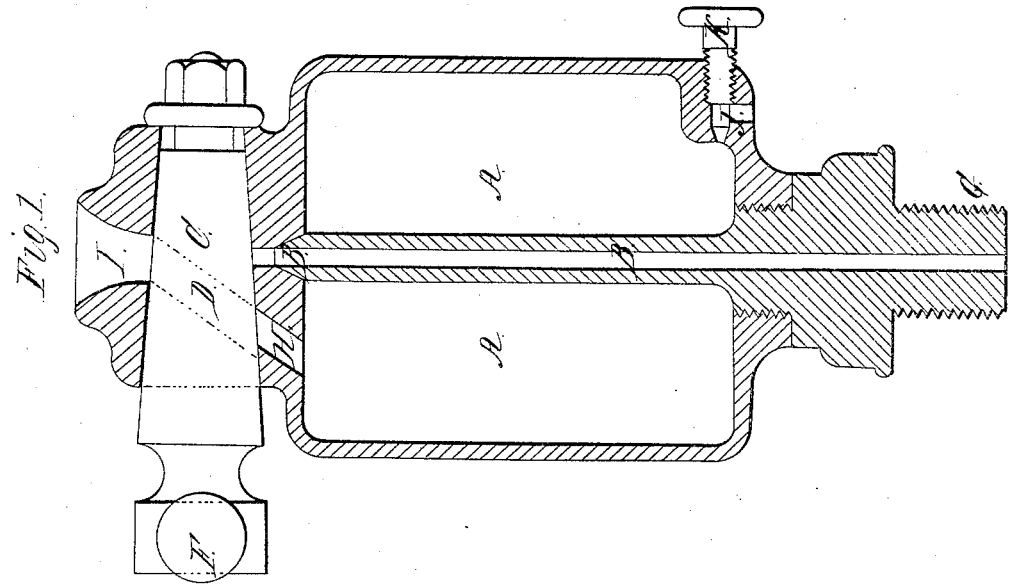
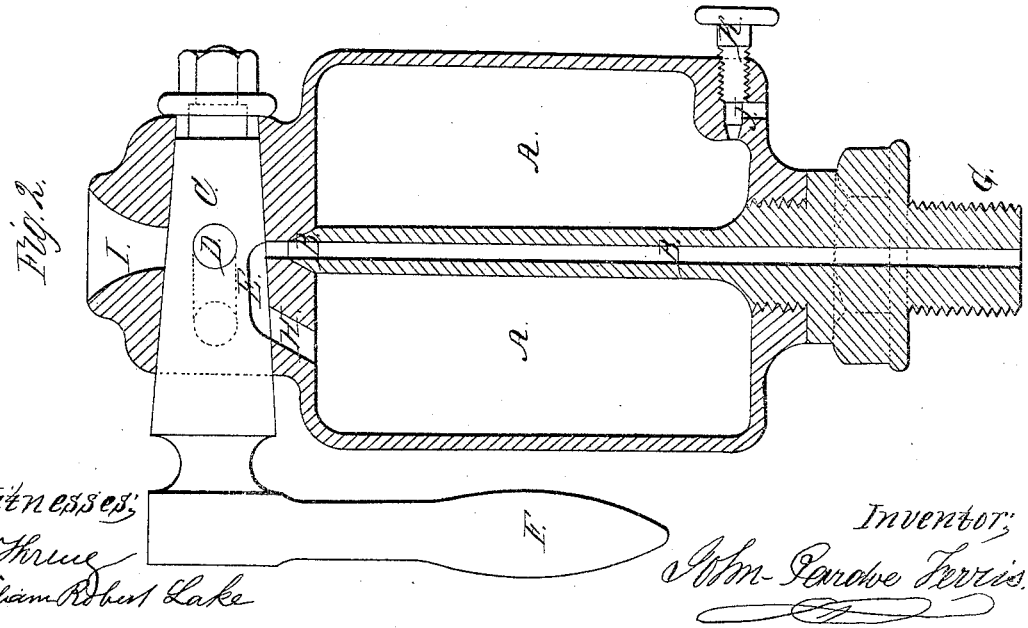


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN PARDOE FERRIS, OF LONDON, GREAT BRITAIN.

IMPROVEMENT IN LUBRICATORS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. **51,106**, dated November 21, 1865.

To all whom it may concern:

Be it known that I, JOHN PARDOE FERRIS, of the city of London, in the Kingdom of Great Britain, have invented a new and useful Lubricator for Steam-Engines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed sheet of drawings, making a part of this specification, in which—

Figure 1 represents a vertical section of the lubricator, with parts in position for filling; and Fig. 2 the same, with parts in position for lubricating.

Like letters refer to corresponding parts in each of the figures.

My improved lubricator is constructed to act only under pressure of steam, so that when the supply of steam to the engine is cut off and the working of the engine is stopped the oil ceases to flow. The oil is contained in the chamber A, the capacity of which chamber is proportioned to the amount of lubrication required. In this chamber is secured the tube B, forming a means of communication (when the lubricator is acting) between the chamber A and parts to be lubricated, and serving as a passage both for the admission of steam into said chamber and the escape of oil therefrom.

In the portion of the lubricator over the chamber A is fitted the plug C, in which are formed the passages D and E, said plug being provided with a handle, F, by which it is turned in position either for filling the chamber A with oil or for allowing the escape of the oil from said chamber to the parts being lubricated. The lubricator having been connected to the steam-pipe or other part of the engine by the screw G or other suitable means, the handle F is turned to the position represented in Fig. 1, thus bringing the passage D in the plug C to coincide with the hole H in the top of the chamber A, so that said chamber can be filled through the cup I, into which the oil is poured. The handle F is then turned to the position represented in Fig. 2, so as to bring the groove or passage E formed on the surface of the plug C to coincide with the hole H and tube B, thereby opening a communication between the chamber A and parts to be lubricated. When said parts are put in motion by the admission of steam thereto the steam passes through the passages B, E, and H into the chamber A, and is condensed therein. The water formed by the condensation of the steam, being heavier than the oil, must necessarily sink to the bottom of the chamber A, thereby causing the portion of oil displaced by said water to escape and flow through the passages H, E, and B to the parts requiring lubrication. By means of the plug D the supply of oil to the said parts can be regulated or altogether stopped, and the water accumulated in the chamber A can be drawn off through the hole J by unscrewing the plug K.

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

1. The passages B, E, and H for the admission of steam into the chamber A and the escape of the oil from said chamber to the parts being lubricated, constructed and arranged substantially as described.

2. The plug C, with passage D, in combination with the steam and oil passages B, E, and H, arranged and operating substantially as described.

JOHN PARDOE FERRIS.

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