(No Model.)

J. A. WHEELER.

LUBRICATOR FOR ENGINE CYLINDERS.

No. 283,176. Patented Aug. 14, 1883.

Fig. 1.

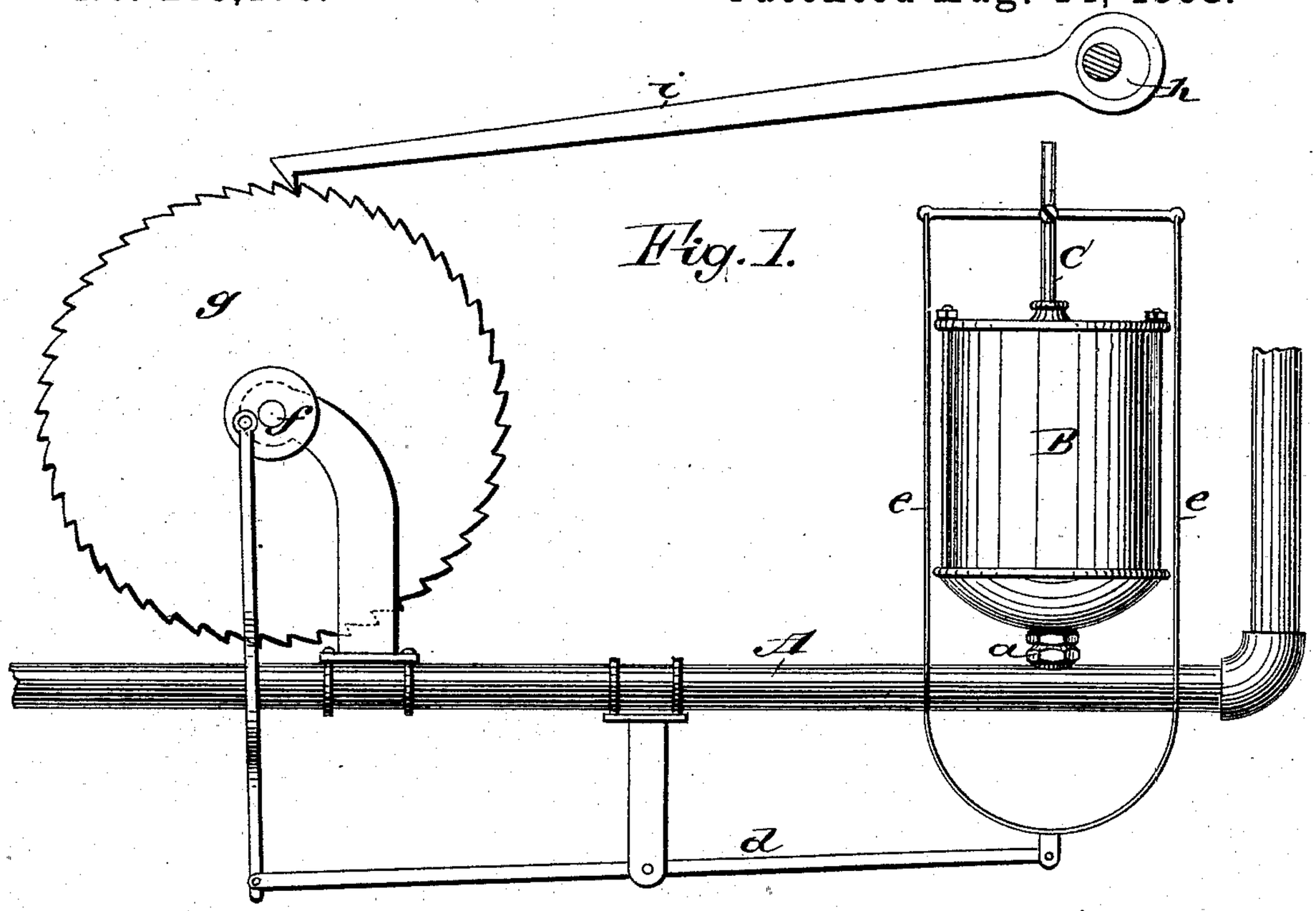
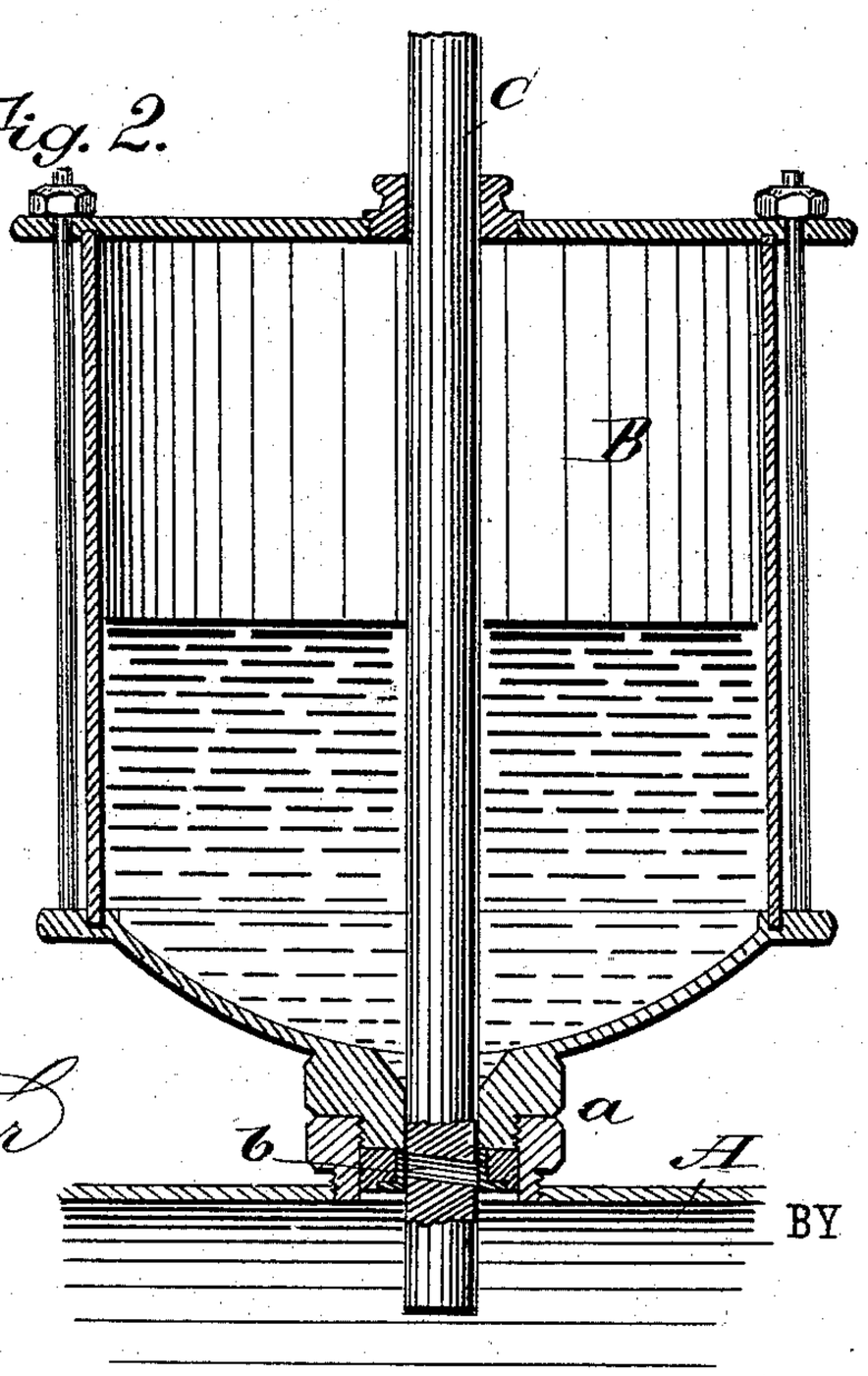


Fig. 2.



WITNESSES:

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LUBRICATOR FOR ENGINE-CYLINDERS.

SPECIFICATION forming part of Letters Patent No. 283,176, dated August 14, 1883.

Application filed April 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, JONAS A. WHEELER, of Vandalia, Audrain county, and State of Missouri, have invented a new and Improved Lubricator for Engine-Cylinders, of which the following is a full, clear, and exact description.

The object of my invention is to provide for giving a regular and graduated supply of oil to engine cylinders and valves by automatic means operated by the engine; and it consists in the combination, with an oil-cup, of a plunger feed-rod, acting to supply a quantity of oil to the steam-pipe, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both figures.

Figure 1 is a side elevation of the lubricating apparatus, and Fig. 2 is a vertical section of an oil-cup fitted with the feeding-plunger.

A represents the steam-pipe of the engine, and B is an oil-cup attached on the steam-pipe by a stuffing-box, *a*, at the bottom of the cup.

C is a plunger-rod passing through the cup and through the stuffing-box *a*, so that the lower end of the rod enters the steam-pipe. In the lower end of the rod C is a cross-aperture, *b*, forming a cell of suitable size for receiving oil from the cup when the rod is raised, and from which the oil is removed by the steam when the aperture is carried through the stuffing-box into the steam-pipe by the downward movement of the rod.

For moving the rod C at regular intervals I provide the mechanism shown in Fig. 1. *d* is a lever carrying a yoke, *e*, at one end, which is connected to rod C, and the other end of the lever is connected to a crank, *f*, on a shaft which carries a ratchet-wheel, *g*. *h* is an eccentric which may be on the governor-shaft or otherwise operated from the engine, and *i* is the eccentric-rod, having the outer end hooked and engaging the ratchet-wheel *g*. The ratchet-wheel and lever are for reducing the speed to the desired extent, and may be in any suitable proportion, or any suitable mechanism may be provided for operating the plunger.

In the operation of the parts, as shown, the intermittent movement given to the ratchet-wheel by the eccentric rotates the crank-shaft, and the lever *d* is thus caused to move the plunger-rod C up and down. At the upward movement the aperture *b* is raised into the cup and becomes filled with oil, and being then moved down the oil is carried into the steam-pipe. A regular quantity of lubricant is thus supplied to the steam-pipe and by that to the cylinder, and the feed can be made to take place as often as necessary.

This lubricator will not become clogged, as sediment will be carried down and out with the oil, and there will be no waste of oil when the engine is at rest, as the operation of the rod will be at the same time stopped.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The lubricator for engine-cylinders, consisting of the plunger-rod C, passing through the oil-cup and provided with cell *b*, substantially as shown and described.

2. The combination of cup B, stuffing-box *a*, and feed-rod C, formed with cell *b*, and having connections for imparting to it a reciprocating movement.

3. In lubricators, the combination, with cup B and feed-rod C, provided with cell *b*, of lever *d*, ratchet-wheel *g*, crank *f*, and pawl *i*, pivoted on an eccentric and having a hooked end engaging the ratchet-wheel, substantially as described, for operation as specified.

JONAS A. WHEELER.

Witnesses:
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