

WILLIAM E. PHILLIPS.
Improvement in Lubricators.

No. 114,194.

Patented April 25, 1871.

Fig. 1.

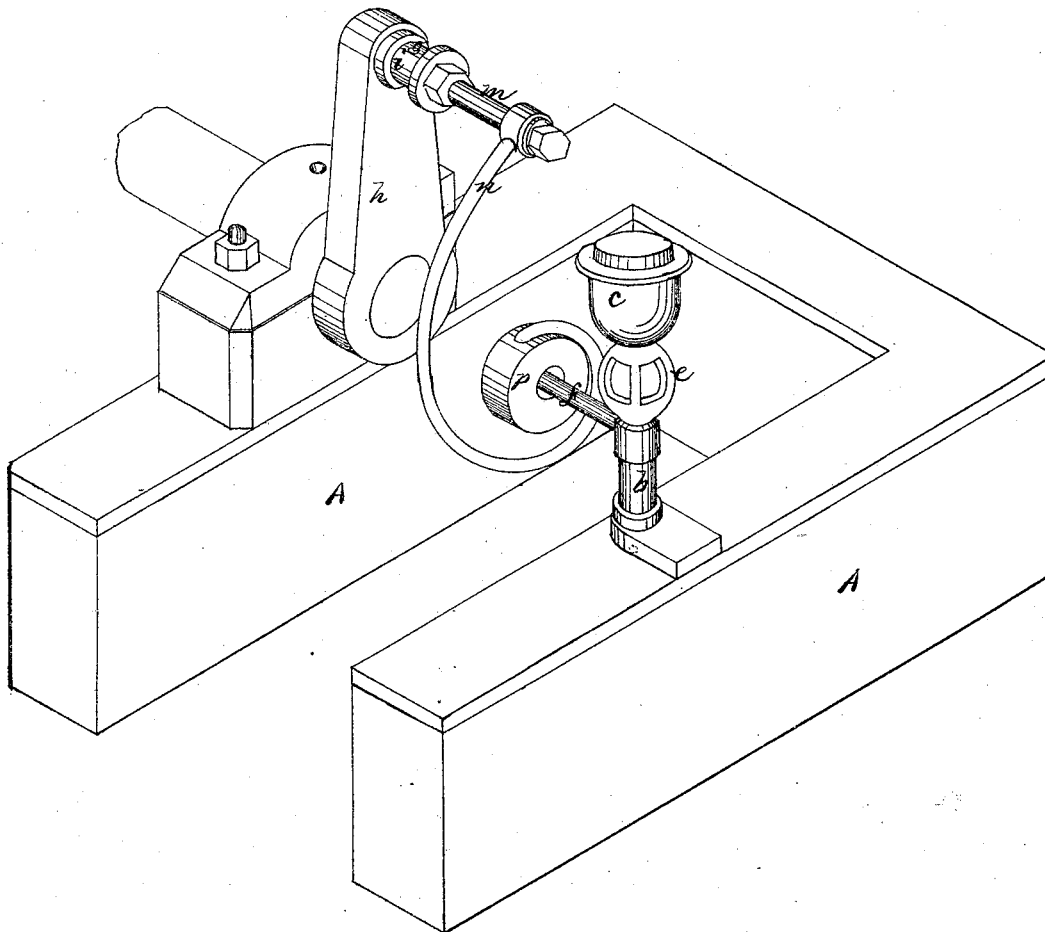
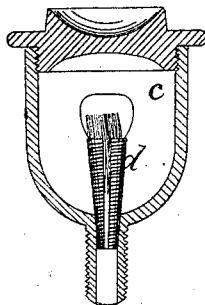


Fig. 2.



Witnesses.
Geo. N. Strong,
Wm. L. Runnels

Inventor.
Wm. E. Phillips
By his Atty
Dewar & Co.

United States Patent Office.

WILLIAM EATON PHILLIPS, OF SILVER CITY, IDAHO TERRITORY.

Letters Patent No. 114,194, dated April 25, 1871.

IMPROVEMENT IN LUBRICATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM EATON PHILLIPS, of Silver City, county of Owyhee, Idaho Territory, have invented an Improved Oilier; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

The object of my invention is to provide an improved oiler for machinery, by which I am enabled to regulate the amount of oil which is fed. The lower part of the cup is so arranged that the oil must drop through an open space after leaving the cup, so that it can be easily seen when it is feeding regularly.

My invention further consists in the use of a spiral or other suitably-shaped feed-pipe, which has its center in a line with the center of the shaft and takes oil from the cup at that point. The outer end of this feed-pipe connects with the crank-pin so as to lead the oil to the interior of the pin, and from thence it passes through small holes, or is led in other suitable manner to the journal of the box at the crank end of the pitman or connecting-rod, and I am thus enabled to oil the crank-pin without danger, and without stopping the engine, by the centrifugal force caused by its revolutions.

Referring to the accompanying drawing for a more complete explanation of my invention—

A is a portion of a bed-plate of a horizontal engine, to which my invention is here shown to be attached.

A short standard, *b*, rises from the side of the bed opposite the pillow-block of the crank-shaft, and upon the top of this standard the oil-cup *c* is fixed.

This cup may have any suitable form, and is provided with a hollow tapering tube, *d*, which is open at one side, and may have a wick, which serves at once to strain and convey the oil. By screwing the tube up or down the slot or opening at its side will be more or less opened, and the amount of oil which passes will be greater or lesser.

The cup *c* is mounted upon a globe or other suitably-shaped device, *e*, which itself rests on the standard *b*, and is formed with open sides, as shown, so that the amount of oil which is fed can be seen at any time at a glance.

A hollow arm, *f*, projects out at right angles from the bottom of the globe or the top of the standard, so as to be exactly in a line with the center of the crank-shaft *g*.

The crank *h* is keyed to the shaft in the ordinary manner, and has a crank-pin, *i*, to which the connecting-rod is attached.

From the end of the crank-pin a hollow pin, *m*, extends in a line with it, and the outer end of the spirally-curved pipe *n* fits over the pins *m*, as shown; or may be otherwise connected, so as to allow the oil to flow from the pipe to the interior of the pin *m* either regularly or intermittently.

From the pin *m* a small passage admits the oil to the crank-pin *i*, and a hole, *o*, allows it to flow out so as to lubricate the connecting-rod box.

In the present case the curved pipe *n* is made fast to the pin *m*, and its hub or center *p* is fitted to revolve about the arm *f* without contact. The oil from the cup *c* passes into the arm *f*, and thence drops into the hub *p*. From this hub the oil is thrown out through the pipe *n* by centrifugal force, and passes through the pins *m* and *i* to the journal.

By this device I am enabled to provide a safe and reliable oiler, which is especially adapted for use on the crank-pins of engines, where it can be used, and will operate surely and safely. The sides of the globe *e* may be glazed, to protect from dust, if desired.

Having thus described my invention,

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

1. The oil-cup *c*, having the tapering adjustable tube *d*, or equivalent, when constructed and operating substantially as herein described.

2. In combination with the regulating-cup *c*, the open globe or standard *e*, substantially for the purpose described.

3. The curved feed-pipe *n*, together with the arm *f* and the hollow pin *m*, or an equivalent device, when constructed to operate substantially as and for the purpose above herein described.

In witness whereof I have hereunto set my hand and seal.

WILLIAM E. PHILLIPS. [L. S.]

Witnesses:

WM. H. RUNNELS,
GEO. H. STRONG.