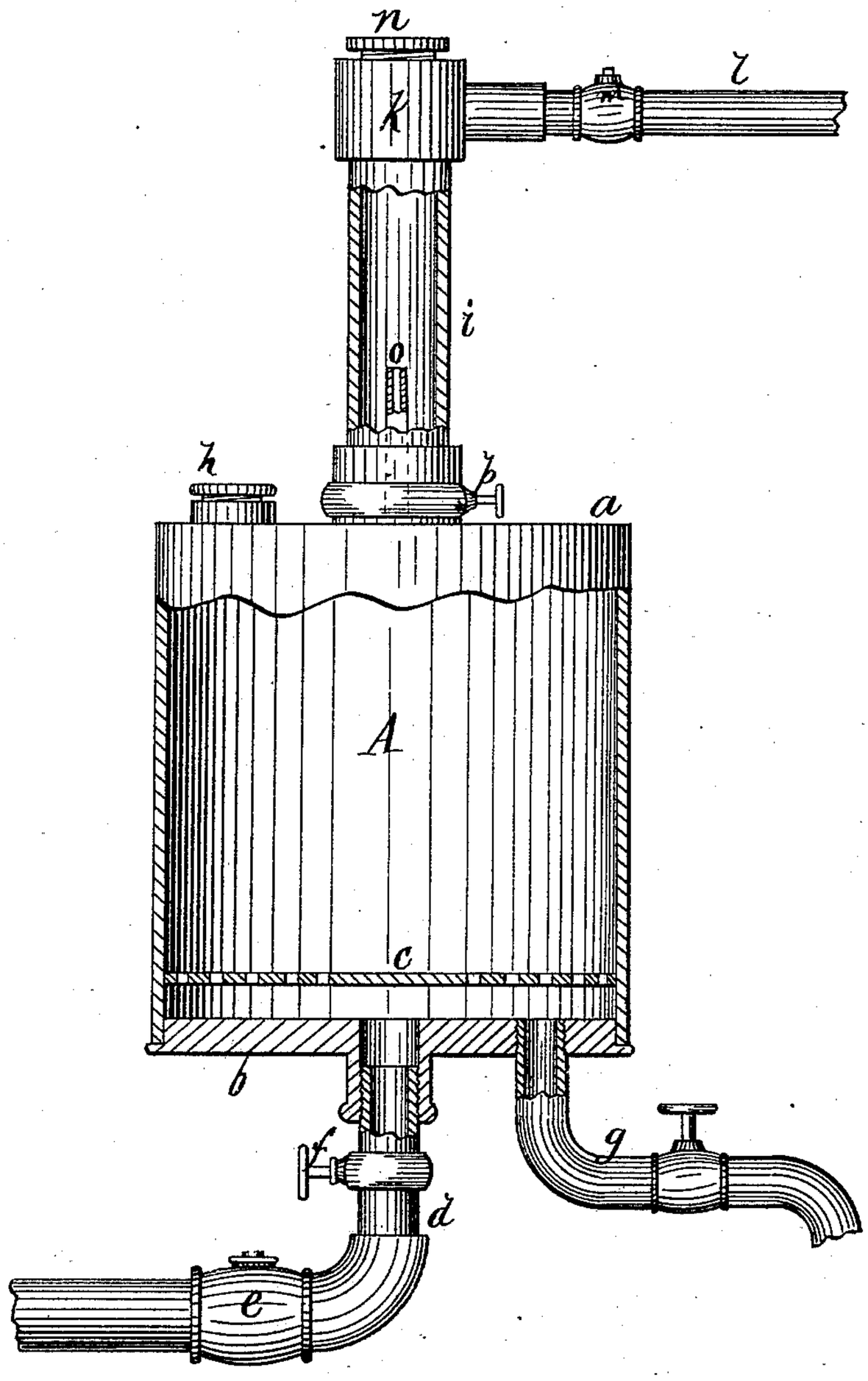
P. BARCLAY.

Lubricator for Steam-Engine.

No. 223,092. Patented Dec. 30, 1879.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

PETER BARCLAY, OF EAST BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND WILLIAM H. CLEGG, OF SAME PLACE.

IMPROVEMENT IN LUBRICATORS FOR STEAM-ENGINES.

Specification forming part of Letters Patent No. **223,092**, dated December 30, 1879; application filed May 29, 1879.

To all whom it may concern:

Be it known that I, PETER BARCLAY, of East Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Lubricator for Steam-Engines, of which the following is a specification.

My improvements relate to lubricators for steam-engines wherein the oil is caused to flow in regulated quantities by means of steam-pressure.

The invention consists in the perforated bottom of cup, whereby may be obtained a general pressure on the oil without any condensing-tube in the cup.

The construction and operation will be described in connection with the accompanying drawing, wherein I have shown a sectional elevation of a lubricator constructed in accordance with my invention.

Similar letters of reference indicate corresponding parts.

A is the oil-cup, having a cap, *a*, closed bottom *b*, and inner perforated bottom, *c*, that is fitted a short distance above the bottom *b*. The steam is passed up through the perforated bottom, so as to obtain a general pressure upon the oil in the cup, and thereby allow said oil to be easily regulated through the water-gage.

d is a steam-pipe connected to the bottom *b*, and passing to a boiler, steam-chest, or other suitable place, for supplying steam below the perforated bottom *c*, which pipe is fitted with a check-valve, *e*, and stop-cock *f*. *g* is a drain-pipe and cock from the bottom of the oil cup, and *h* is a screw-stopper in the top of cup A, which can be removed for filling the cup.

On the cap *a* a socket is formed to receive a glass tube, *i*, that is held in place and packed around its connection with the cap *a* by a nut in any desired manner, and at its upper end the tube *i* is fitted with a metal coupling, *k*, from the side of which passes the oil-pipe *l* to the engine-cylinder or other surface that is to be lubricated. In the pipe *l* is a check-valve, *m*.

The tube *i* is to be filled with water through an opening in coupling *k*, closed by a screw-plug, *n*.

A small tube, *o*, projects from the top of the oil-cup A into the lower end of tube *i*, and the oil passes through this tube *o* into the water. A stop-cock, *p*, is fitted in the tube *o*, to regulate the amount of oil passing through.

Steam, being admitted to the bottom of the cup A by the pipe *d*, strikes the imperforate middle of bottom *c*, and is diffused under the oil, so as to exercise a more general pressure, while the oil is forced out by the tube *o* a drop at a time, or in a stream, according as cock *p* is adjusted, and the oil rises through the water in tube *i* and passes off by the pipe *l*.

The quantity of oil passing through the glass tube can be readily observed and the flow regulated, as desired. The oil is thus supplied in regulated quantities only as fast as required, so that the waste is reduced to a minimum.

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

In a lubricator, the combination, with the oil-cup A, having a discharge-tube, *o*, at the top, of the inner perforated bottom, *c*, and steam-supply pipe *d*, substantially as and for the purposes described.

PETER BARCLAY.

Witnesses:

LEMUEL B. BURRILL,

WILLIAM H. CLEGG.