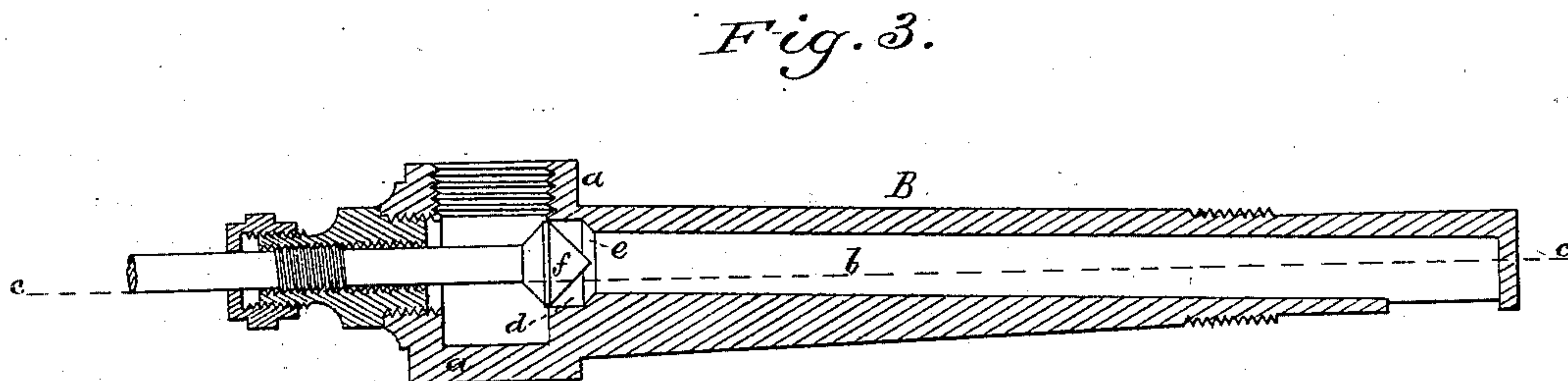
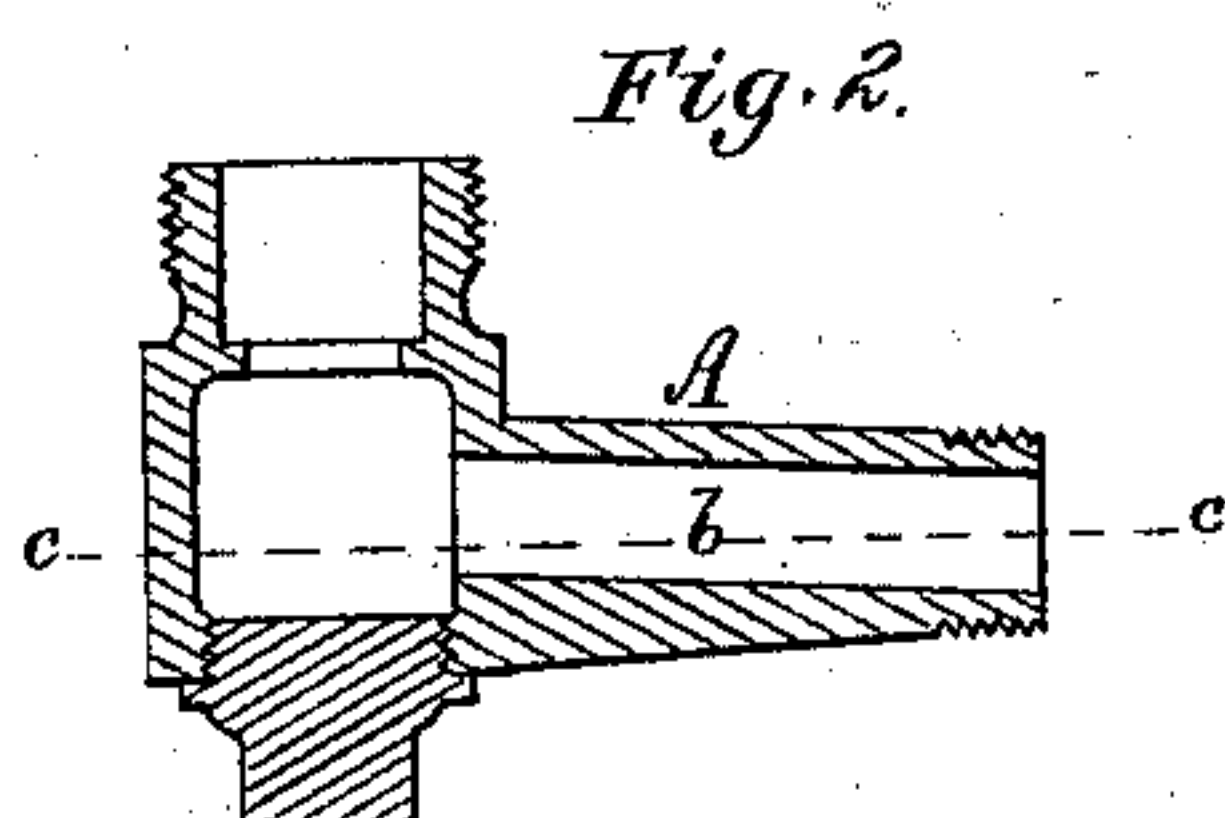
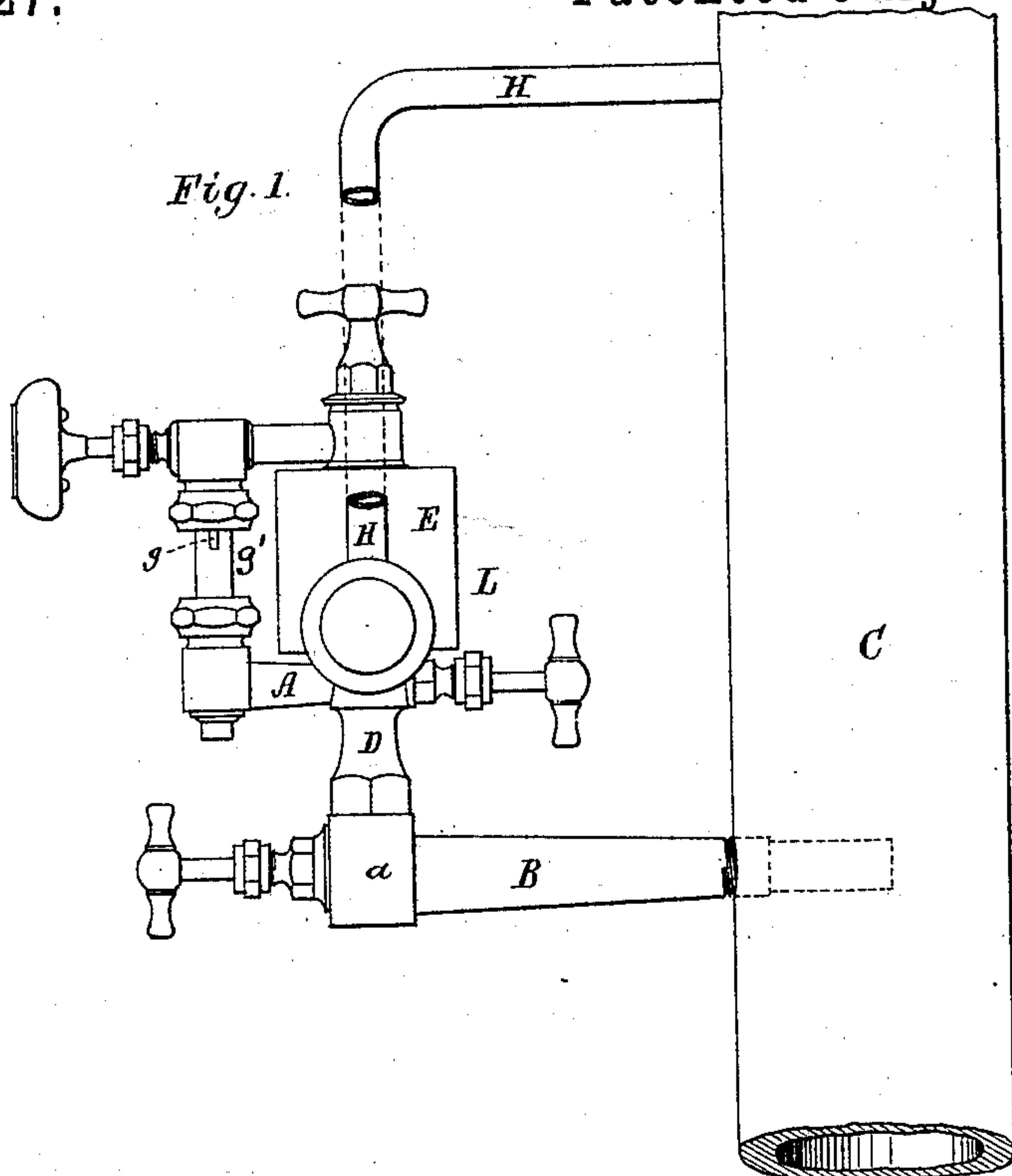


(No Model.)

F. S. SOMES & S. H. KIMBALL.
LUBRICATOR.

No. 282,127.

Patented July 31, 1883.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANK S. SOMES AND SAMUEL H. KIMBALL, OF BOSTON, MASSACHUSETTS,
ASSIGNORS, BY MESNE ASSIGNMENTS, TO SAID KIMBALL.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 282,127, dated July 31, 1883.

Application filed May 22, 1883. (No model.)

To all whom it may concern:

Be it known that we, FRANK STANWOOD SOMES and SAMUEL HALE KIMBALL, of Boston, in the county of Suffolk, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Steam-Engine Lubricators; and we do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a front view of a lubricator provided with our improvement, and adapted to the induction-pipe of an engine. Fig. 2 is a longitudinal section of the upper drain-pipe, and Fig. 3 is a similar section of the lower drain-pipe and its regulating-valve.

The lubricator on which our invention rests is of the kind or class known under the name of the "sight-feed" lubricator, wherein the oil, after passing from the reservoir, drops through a transparent glass tube, in order to enable a person, by looking upon such tube, to ascertain whether or no the dropping of the oil within it may be properly taking place.

Our improvement has reference to the main and auxiliary drain-pipes, which in the drawings are shown at A and B, the latter of which leads directly into the steam-pipe C and aids in supporting the lubricator L. The lesser or auxiliary drain-pipe leads into the vertical educt D, that is screwed into the head *a* of the drain-pipe B, and extends down from the bottom of the oil-reservoir E.

In carrying out our improvement the lesser or each of the said drain-pipes, instead of having its outer surface concentric with its bore and inclined therewith, is, as shown, tapering or conical, and has the axis of its bore inclined relatively to the axis of it, (the said pipe,) which, when the lubricator is in use, is arranged horizontally, the axis of the oil-reservoir being vertical. This construction and arrangement of the pipe, besides affording a stronger support for the part sustained by it, gives a much better appearance to the lubricator than it would

have were each of its drain-pipes cylindrical and inclined to the horizon, and having a bore concentric with the outer surface of the pipe.

In Fig. 2 the inclined bore of the drain-pipe is represented at *b*, the axis of the pipe being indicated by the dotted line *c c*.

In Fig. 3 the main drain-pipe B is shown as having its bore *b* inclined to the axis of the pipe, which is represented by a dotted line at *c c*, such bore leading out of a valve-chamber, *d*, that opens into the chambered coupling-head *a*, and has its axis horizontal when the lubricator is in use. This valve-chamber has a conical valve-seat, *e*, at the mouth of the bore, and to operate with such seat there is applied to the said head a valve, *f*, adapted to screw against the seat, and with such to regulate the discharge of oil. The inclination of the bore of each drain-pipe is to facilitate the passage of the oil through it and prevent obstruction thereto by condensation of steam in the pipe. The oil that may be received into the chambered head of the pipe B will pass from such into and through the bore of such pipe and enter the steam-pipe, and by the steam passing through such pipe will be carried into the engine.

The duct for leading steam from the steam-pipe into the oil-reservoir E is shown at H. By condensation of such steam in the said reservoir the oil will be borne upward therein and forced therefrom in drops down through the nipple *g* in the glass observation-tube *g'*.

We claim—

The combination of steam-pipe C, steam-duct H, oil-reservoir E, glass observation-tube *g'*, nipple *g*, educt D, and drain-pipes A and B, such drain-pipes tapering on the outside and having the bores inclined to their axes.

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Witnesses:

R. H. EDDY,
E. B. PRATT.