

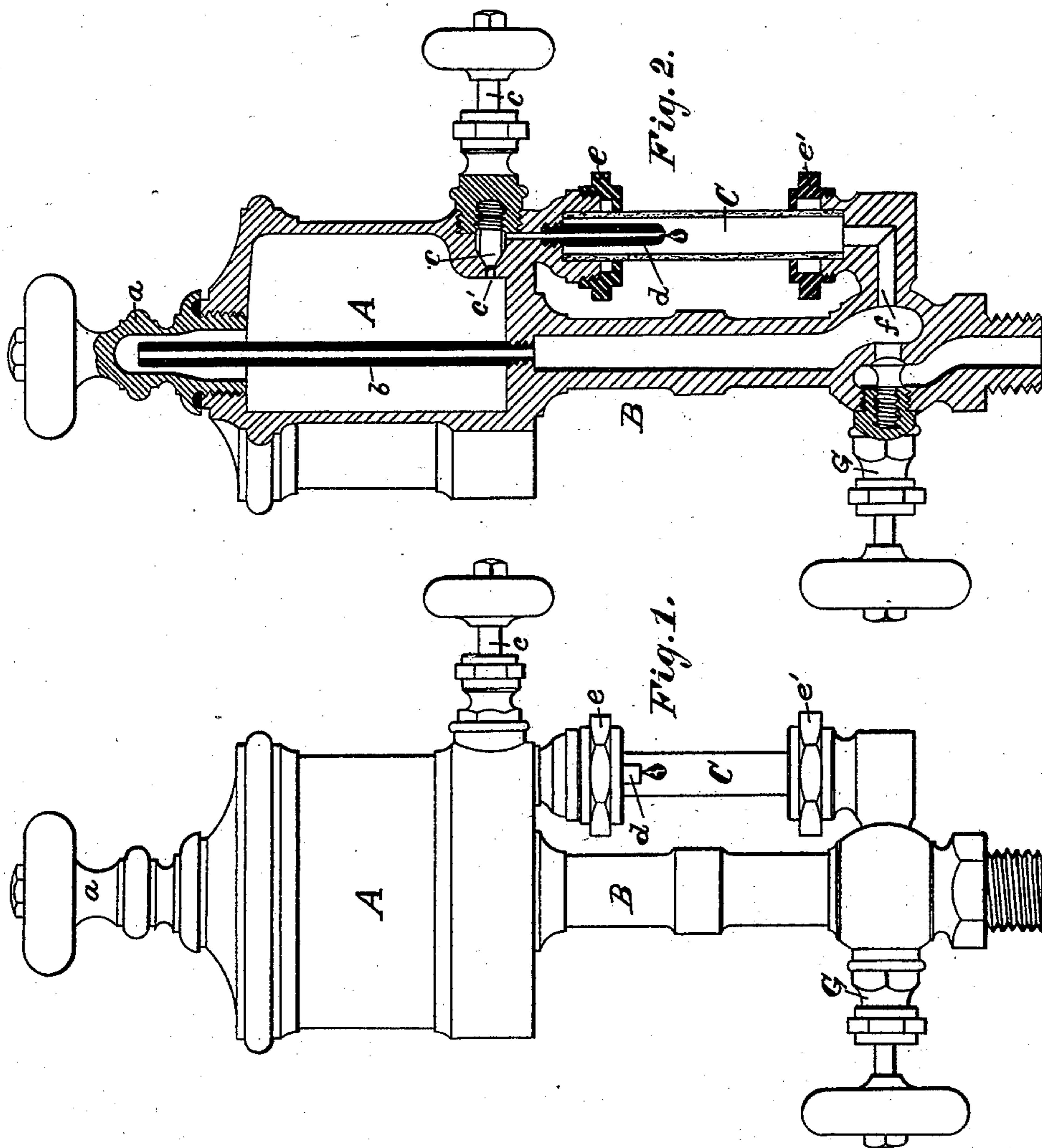
(No Model.)

2 Sheets—Sheet 1.

W. A. BOYDEN.
SIGHT FEED LUBRICATOR.

No. 305,281.

Patented Sept. 16, 1884.



WITNESSES:

J. R. Simpson,
Geo. P. Allen.

INVENTOR:

WM. A. BOYDEN.

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G. A. Boyden

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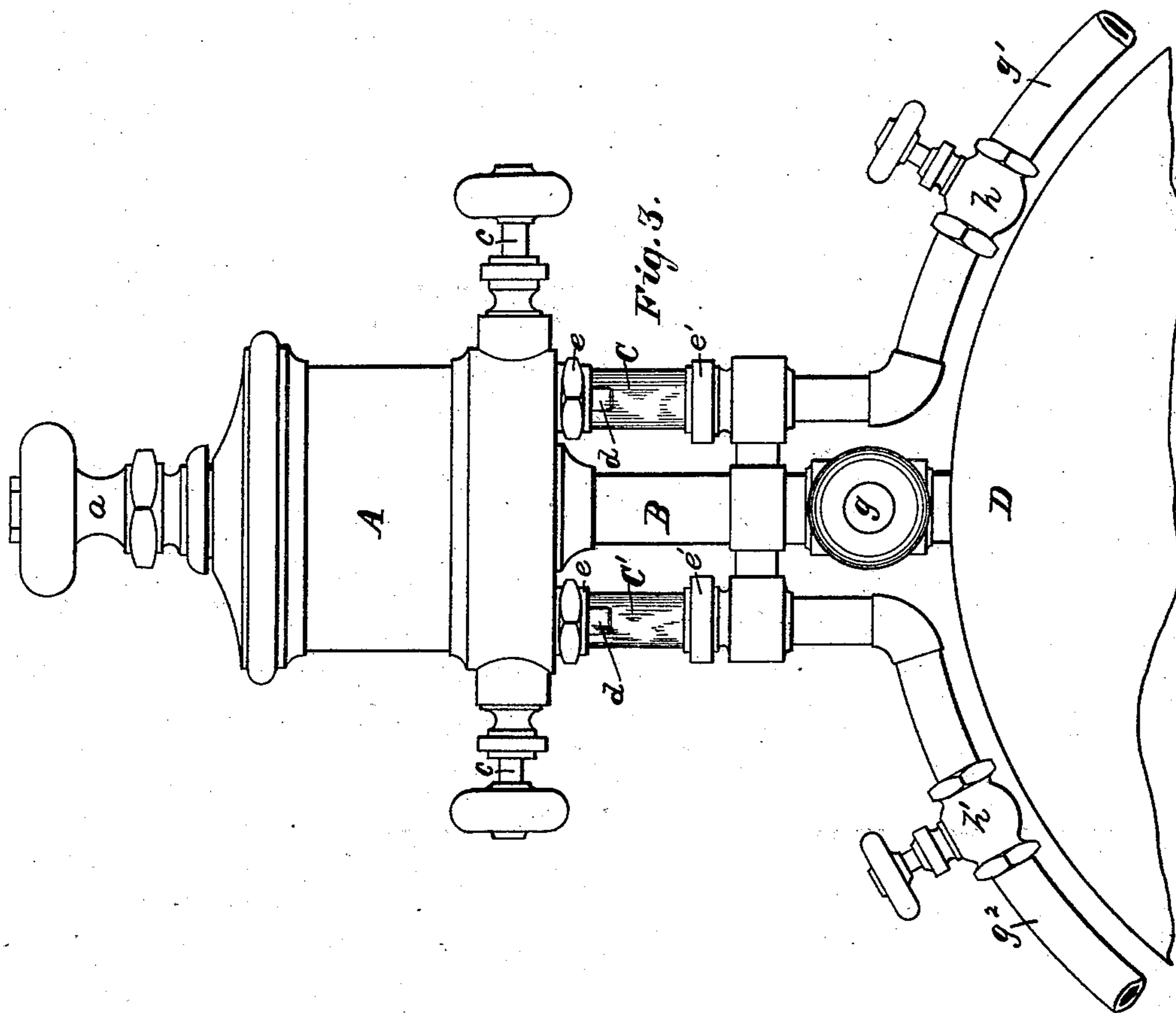
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UNITED STATES PATENT OFFICE.

WILLIAM A. BOYDEN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO THE
McNAB & HARLIN MANUFACTURING COMPANY, OF NEW YORK, N. Y.

SIGHT-FEED LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 305,281, dated September 16, 1884.

Application filed June 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. BOYDEN, a citizen of the United States, residing at Jersey City, in the State of New Jersey, have invented certain new and useful Improvements in Sight-Feed Lubricators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in sight-feed lubricators; and the object of my improvements are to provide means by which the pressure on the oil is equalized by admitting steam thereon, by placing the sight-feed where it can be conveniently seen and the mechanism readily controlled which regulates the lubricator; also, to so construct the several parts that they are not liable to get out of order or clog in working. I attain these objects by the mechanism and construction as shown in the accompanying drawings, in which—

Figure 1 is a side elevation; Fig. 2, a vertical section; Fig. 3, as arranged to lubricate both valves and cylinders of a locomotive.

Similar letters refer to similar parts throughout the several views.

The oil-chamber A is supported on the central column, B, and is provided with a steam-pipe, *b*, which delivers the steam above the oil, and which projects up and into a central hollow cap, and a regulating-valve, *c*, whose port is in a position that any sediment that may be in the oil will pass downward, and by the exit-port *c'* settle in the bottom of the chamber A, thereby preventing any clogging of the exit-port, which in working is only slightly opened and, as heretofore, liable to receive the sediment, causing great annoyance by an irregular or the stoppage of the flow, and which, when once set, it is absolutely necessary that it should continue to discharge regularly; otherwise the parts to be lubricated become heated and cut.

The sight C is placed laterally to the column B and below the chamber A, and consists of a glass tube, C, provided with a drip-tube, *d*, which leads from the exit-port *c'*, suitable connections, *e* and *e'*, and the way *f*, which connect with the central column, B.

To the column B is attached a valve, G, which regulates the passage of the steam and a cut-off when not in use.

As shown in Fig. 3, the cup is arranged to lubricate both valves and cylinders of a locomotive, and is attached to the boiler D, with an intervening valve, *g*, and provided with a double set of sight-feeds, C and C', one leading to each steam-chest by the pipes *g'* and *g''*, provided with valves *h* and *h'*, whereby either or both the valves or cylinders may be oiled from a single chamber.

In operating my invention, before filling the cup, close both valves, remove the cover, and pour in the oil. Replace the cover and open the lower valve wide; then regulate the flow of oil by opening the upper valve. The feed can be regulated so as to draw off the condensed steam with the oil, so that when all the oil is used there is no condensation in the cup, and it is ready to be refilled.

Having fully described my invention, what I claim, and wish to secure by Letters Patent, is—

1. The combination of a central steam-port opening above the oil, and a horizontal exit-port below the oil, with a sight-feed, for the purpose as herein set forth.

2. The combination, with a central steam-pipe, *b*, projecting into the cap *a*, of the central cap, *a*, the horizontal exit-port *c'*, and the sight-feed C.

3. The oil-cup A, combined with the central hollow supporting-column, B, internal upright steam-pipe, *b*, lower oil-discharge opening, *c'*, valve *c*, downward-extending drip-pipe *d*, sight-tube C, and an outward-extending separate oil-discharge pipe, *g'*, having an independent valve, *h*, substantially as herein shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM A. BOYDEN.

Witnesses:

G. A. BOYDEN,
JAS. L. THOMSON.