(No Model.)

I. SEILER.

DEVICE FOR FEEDING ILLUMINATING FLUIDS.

No. 303,671. Patented Aug. 19, 1884.

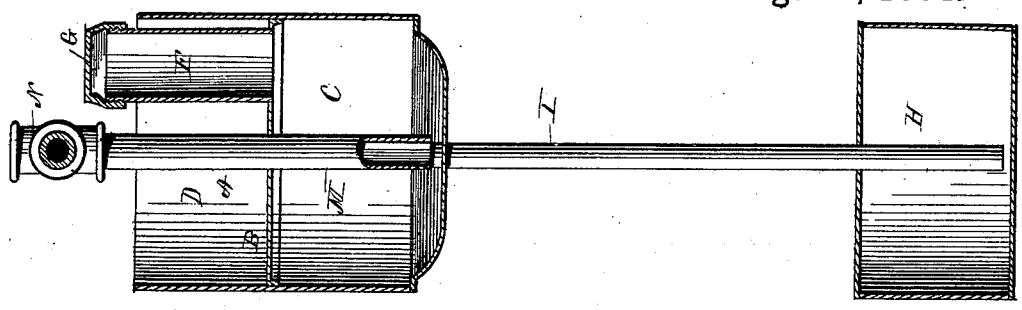


Fig. 1.

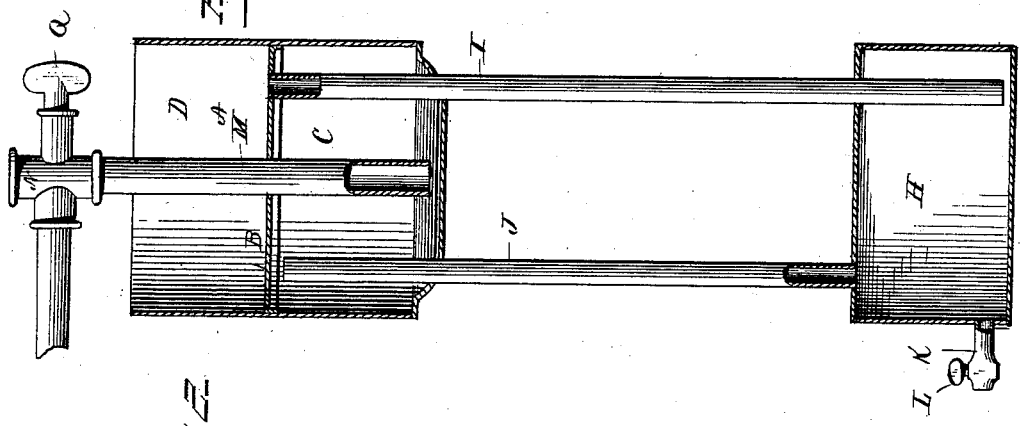
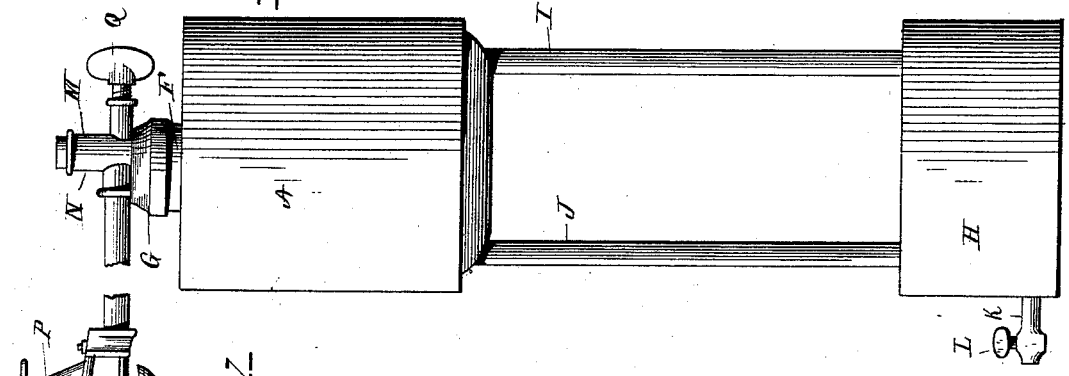


Fig. 2.



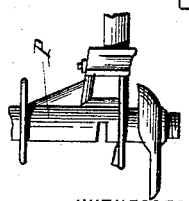


Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

IGNATIUS SEILER, OF NEWARK, OHIO.

DEVICE FOR FEEDING ILLUMINATING-FLUIDS.

SPECIFICATION forming part of Letters Patent No. 303,671, dated August 19, 1884.

Application filed January 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, IGNATIUS SEILER, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented a new and useful Device for Feeding Illuminating-Fluids, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to feeding devices for lamps, gas-stoves, &c.; and it has for its object to provide means for automatically feeding the oil or gasoline to the burners with regularity, so that the illuminating-fluid will always be at the point of ignition.

With this main object in view, the said invention consists in feeding the oil to the burners by the pressure derived from a volume of air, the air receiving its force or pressure from a volume of water, all as hereinafter set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved devices as applied to a lamp. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a similar view, but taken at right angles to the line on which Fig. 2 is drawn.

Like letters refer to corresponding parts in the several figures.

Referring to the drawings, A designates a cylindrical vessel divided by a horizontal partition, B, into two compartments, C D, the lower compartment, C, containing a supply of oil or gasoline or other illuminating-fluid, and the upper one, D, being filled with water, and may be provided with a cover, which, however, I have not thought necessary to show here. A nozzle, F, extends from the upper portion of the oil-compartment C into the water-compartment D, through which the oil or gasoline may be poured to fill the said compartment C, a screw-cap, G, covering the upper end of the nozzle when the lamp is in use.

H designates a chamber arranged below the cylindrical vessel A, said chamber containing a supply of air either compressed or otherwise, a pipe, I, leading from the water-chamber D through the oil-chamber and connecting with the said air-chamber, so that the water will flow by gravity down through the pipe I and into the air-chamber, for the purpose presently to be described. Another pipe, J, leads from the air-chamber upward and extending into the oil-chamber, and thus as the water presses the air in the chamber H the air will escape or be forced upward into the pipe J, so as to press against the lower volume of illuminating-fluid in the chamber C, for the purpose of feeding it with regularity to the burner. A branch pipe, K, extends from the air-chamber, and is provided with a stopper or stop-cock, L, for the purpose of allowing the water to escape, when the air-chamber becomes full.

M designates a pipe extending upward from the oil-chamber and through the water-chamber, a branch pipe or extension, N, connecting with the upper end of the pipe M, and, if desired, may have any ordinary wick fitted therein at one end, a burner, P, being attached to the outer end of the branch pipe N, said burner being of the form shown, or constructed in any ordinary manner to answer the purposes.

A stop-cock, Q, may be fitted in the branch pipe or in the burner to regulate the flow of the oil or other illuminating-fluid. Thus when the lamp is not in use the supply may be cut off to the burners, as will be seen.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the annexed drawings. Oil, gasoline, or other illuminating-fluid is poured through the nozzle F into the oil-chamber; the water-chamber is filled, and the air chamber or vessel is supplied with the requisite amount of air, either compressed or otherwise. As the water in the chamber D descends through the pipe I into the air-chamber, it will press against the air in said chamber and force the air outward through the pipe J, which it ascends and presses against the illuminating-fluid in the chamber C, the fluid being forced to ascend the pipe N and flow toward the burner, the wick absorbing the fluid and conveying it to the burner in the usual manner. By this means the illuminating-fluid will be fed with regularity to the burner, and should the pressure on the fluid become too strong the stop-cock L may be opened to permit some of the water to escape.

The connection between the oil-chamber and

the burner may be cut off as desired while the lamp is not in use.

It will be seen that the above-described device may be applied in various ways to feed with regularity burning-fluids to the burners, and it will be further seen that my arrangement is simple and efficient, and will not be expensive to manufacture.

I do not limit myself to the special details of construction, as various modifications may be resorted to without departing from the spirit or scope of my invention.

It will be seen that the air chamber or vessel is suspended by the pipes I J below the cylindrical vessel A, and is held in a safe and secure manner in this position.

I do not limit myself to its application to lamps, as my invention may be readily applied to gas-stoves or to other heating devices, where it is desired to keep up a regular supply of illuminating-fluid to the burners.

Having described my invention, I claim as new—

1. In a device for feeding illuminating-fluids, the combination, with a vessel divided into two compartments, the lower one containing a supply of oil and the upper one being filled with water, of an air-vessel suspended by pipes below the vessel, one of said pipes connecting the water-chamber to the air-vessel, and the other pipe connecting the air-vessel with the oil-chamber, as set forth.

2. In a device for feeding illuminating-fluids, the combination, with the fluid-chamber having a burner or burners connecting therewith in any suitable manner, and means for controlling the flow of the fluid to the burner as desired, of a water-chamber arranged above the fluid-chamber, and an air-vessel suspended below the fluid-chamber by two pipes, one of said pipes connecting the water-chamber with the air-vessel, and the other pipe connecting the air-vessel with the fluid-chamber, and means for permitting the water to escape from the air-vessel, as herein set forth, and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

IGNATIUS SEILER.

Witnesses:
JACOB M. SHROCK,
EDWARD F. SHROCK.