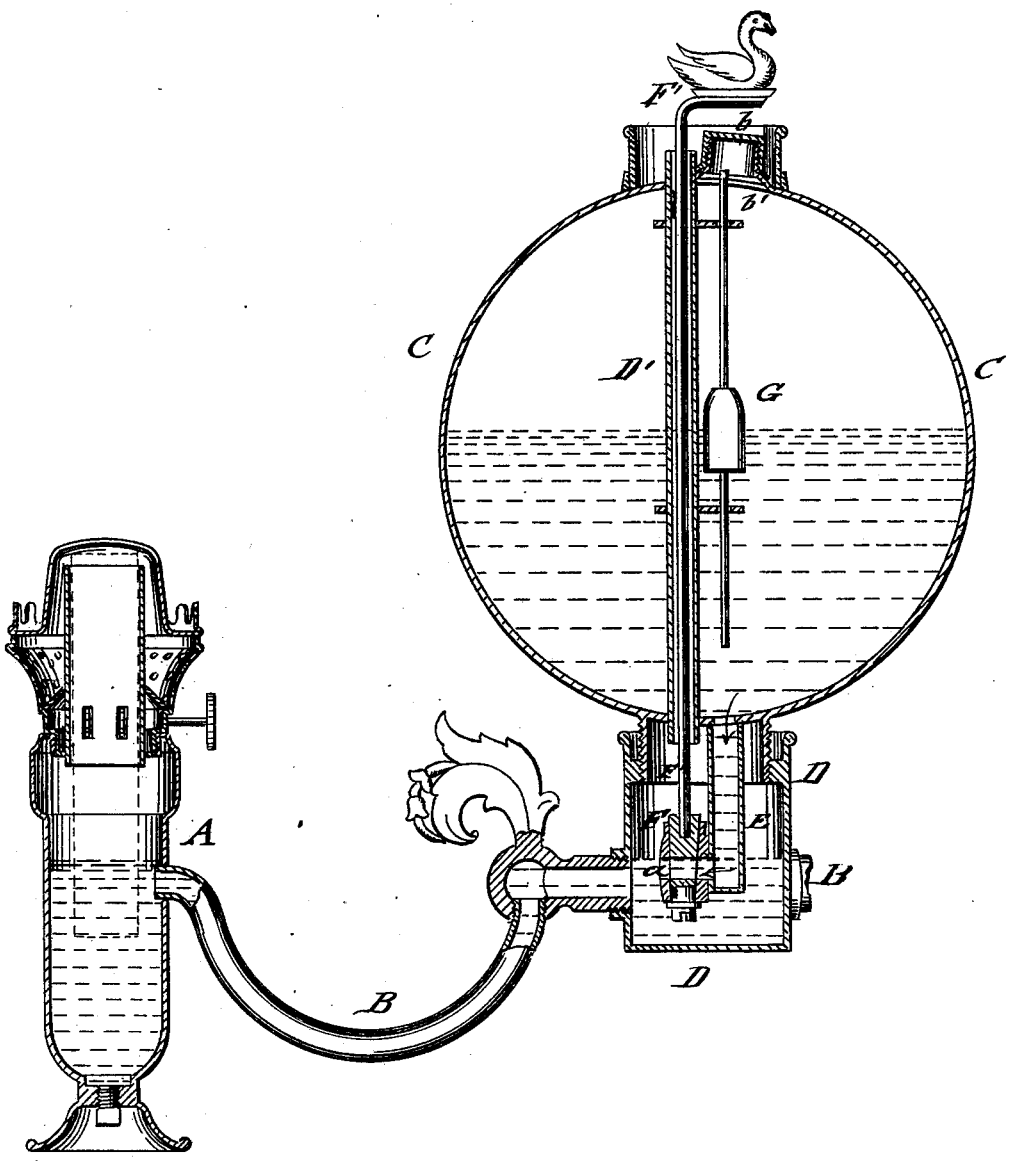
N. L. RIGBY.

LAMP.

No. 189,655. Patented April 17, 1877.




WITNESSES:

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# UNITED STATES PATENT OFFICE.

NICHOLAS L. RIGBY, OF WINFIELD, KANSAS.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **189,655**, dated April 17, 1877; application filed February 17, 1877.

*To all whom it may concern:*

Be it known that I, NICHOLAS L. RIGBY, of Winfield, in the county of Cowley and State of Kansas, have invented a new and Improved Lamp, of which the following is a specification:

The accompanying drawing represents a vertical longitudinal section through the font and burner of my improved lamp.

The invention has reference to an improved lamp, based on the same general principles of the vacuum-font as the German student's lamp, but which is capable of being used as a bracket or stand lamp, chandelier, &c., supplying as many burners as desired with oil in regular and reliable manner.

The invention consists in an open oil cup or chamber, attached underneath the font, being connected thereto by a descending tube with valve opened from the top of the font, the valve being so arranged as to close the exit-tube when the font is filled, and open the same when the font is closed.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

In the drawing, A represents the burner of my improved lamp; B, the tubular oil-supplying arm or arms; C, the oil-font; and D, a detachable oil cup or chamber, that is screwed or otherwise attached to the bottom of the font C, being connected by an air-tube, D′, passing through the font, with the atmosphere.

An oil-tube, E, descends from the font downward into the cup or chamber D, and opens by an exit-orifice, *a*, into the same. The orifice *a* is opened or closed by a valve, F, that is operated by a rod, F′, passing through the air-tube D′ and out at the top of the font, where the rod F′ is bent at right angles, so as to form a handle for the same.

The top opening *b′* of the oil-font C is hermetically closed by a screw-cap, *b*, the font being readily filled on detaching the screw-cap. The bent handle part of rod F′ passes diametrically across the screw-cap *b* when the valve is opened, so as to compel the turning of the valve-rod and the closing of the valve, when it is desired to remove the screw-cap for filling the font.

None of the oil can therefore escape through the exit-orifice during the filling of the lamp, the valve being again opened after the screw-cap has been replaced, by turning the handle of the valve-rod across the top of the screw-cap.

By the opening of the valve the air is allowed to enter through the orifice *a* to the interior of font C, until the oil in the lower part of the burner A, in the tubular connecting-arm B, and in the cap D, assumes a level with the orifice *a*.

The remaining part of the oil is then prevented from running out by the partial vacuum formed at the top of the font. When the oil is gradually consumed in the burner, the level of the oil falls below the orifice, so that the air may again enter through the same and tube E to the font, establish the oil-level as before, and supply thus, in reliable and automatic manner, the required quantity of oil to the lamp, the open oil-cup serving as the regulating device for supplying the oil as required.

One or more tubular arms, B, may be applied to the oil-cup D, and made either swinging, like the brackets of gas-burners, or stationary, as desired. They may be curved down and upward, as shown in the drawing, and may be of any length, and at different distance from the font.

A floating indicator, G, may be employed in the font, which, however, would not be required in case the font is made of glass.

The lamp may, by means of the supply-regulating cup, be manufactured as a bracket-lamp or as a chandelier, with as many fixed arms as desired, or as a common stand-lamp, with one or more arms.

The same principle may be used for supplying a number of burners around the walls of a room by attaching the cup to the bottom of a reservoir less than thirty inches deep, having a pipe leading from the cup to the floor, and then by vertical branch pipes to the burners on the wall, placed at a level with the cup, and at any desired distance from each other, admitting thus a number of different lamp constructions, and a regular supply of oil by means of the oil-supply cup.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination, with a lamp-font having the air-tube D′, of the removable cup attached to under side of said font, and having arms leading to burners, as shown and described.

2. The combination, with an oil-font, C, having a bottom exit-pipe, E, of a valve, F, oil-cup D and air-tube D′, the valve-rod F, passing through the air-tube, and for the purpose as specified.

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Witnesses:

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