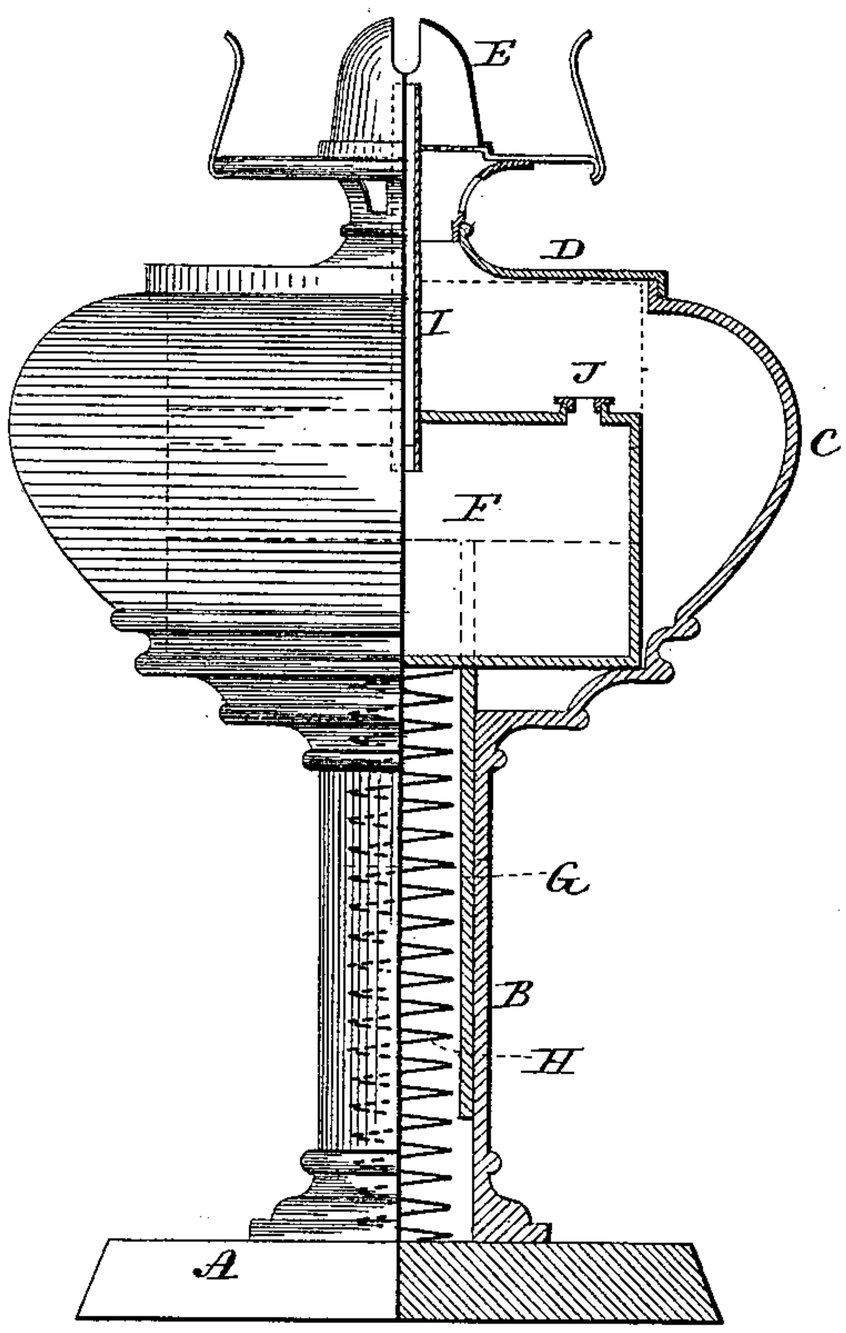
(No Model.)

R. T. BARTON.

LAMP.

No. 405,940. Patented June 25, 1889.



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UNITED STATES PATENT OFFICE.

RICHARD T. BARTON, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF TO MICHAEL SONNENBERG, OF SAME PLACE.

LAMP.

SPECIFICATION forming part of Letters Patent No. 405,940, dated June 25, 1889.

Application filed December 14, 1888. Serial No. 293,620. (No model.)

To all whom it may concern:

Be it known that I, RICHARD T. BARTON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Lamps; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent a side view of a table-lamp in half-vertical section embodying the invention.

This invention relates to an improvement in that class of lamps which are supported upon the top of a standard, and such as commonly used for table-lamps, and in which the fount is entirely below the burner, in contradistinction to the lamp commonly known as the "student-lamp," where the fount is substantially above the burner. In this class of lamps the supply of oil is drawn from the fount through the wick by capillary attraction only. The result of this is that whereas when the fount is full the wick is capable of drawing a full supply from the fount, but as the oil is reduced in the fount the power required to draw the oil through the wick correspondingly increases; hence it is that whereas the upper end of the wick is but slightly burned or charred when the fount is full, it becomes more so as the oil diminishes, and in trimming a very considerable amount of the wick is necessarily cut away. If, however, the supply of oil can be maintained at a constant level with relation to the burning end of the wick, the power to draw the oil will remain constant, and the wick will be but little burned or charred; but it is necessary that the burner shall be stationary, and that there shall be the usual wick-tube to surround the wick, and so that the wick-tube may extend into the fount to protect the wick from exposure between the fount and the burner, because if the wick be exposed between the burner and the fount not only will there be evaporation from the wick into the atmosphere, but there is liability of generation of gases dangerous to the use of a lamp.

The object of my invention is to construct a lamp with an automatically-adjustable fount, and yet provide a wick-tube which shall always surround the wick from its upper or flame end into the fount; and it consists in the construction as hereinafter described, and particularly recited in the claims.

I represent the lamp as a table-lamp, composed of a base A, upon which is a fixed tubular standard B. In the best construction a casing C is attached to the upper end of the standard, or formed as a part thereof, which may have the general appearance of a lamp-fount. It is, however, a jacket to surround the fount. The upper end of this casing is opened and provided with a cover D, which is adapted to close the said opening. Upon this cover is the burner E, which may be any of the known burners, the burner itself not being an essential part of my invention.

F represents the oil-fount, which, as here represented, is of cylindrical shape, and arranged within the casing C, but of a height less than the height of the interior of the casing. From the bottom of this fount is an extension or downward projection G, which extends into the tubular standard B, and so as to move freely up and down therein, but guided so that the fount may maintain its proper position. Between the fount and a stationary point in the base or standard a spring H is arranged, one end of which rests upon the said stationary seat, and the other end bears upwardly against the fount. The wick-tube I extends from the burner down into the casing and into the fount, the fount being closed at the top and provided with a suitable filling-opening, as J; but the opening in the top through which the tube I works is such as to allow the fount to freely rise and fall. The opening in the top of the casing is of such a diameter or size as to permit the fount to be set into its place through the top of the casing when the cover D is removed. The fount is filled with oil and the strength of the spring is such as to be compressed to a certain predetermined point when the fount is full—say as represented in Fig. 1; but as the oil is consumed the fount rises under the reaction of the spring until, say, as indicated in broken lines, Fig. 1, when the oil is entirely consumed. This operation constantly

carries the fount toward the burner, and so that the level of the oil is always in substantially the same relative position to the upper end of the wick. Consequently the draft through the wick upon the oil is equally constant. By this construction and arrangement of the wick-tube and adjustable fount, whereby the wick-tube remains stationary with the burner, and yet extends into the adjustable fount, so as to completely inclose the wick between the burner and the fount, the wick has the same protection as in lamps in which the wick-tube is attached to the fount, no portion of the wick being exposed between the fount and the burner.

It will be understood that the style of the lamp is an immaterial part of the invention, and that the adjustable fount may be adapted for the various kinds or styles of lamps required in the market. The illustration which I have given will be sufficient to enable others skilled in the art to apply the invention to such different styles.

I am aware that lamps have been constructed with a stationary burner and a fount below said burner automatically adjustable with relation to the fount, so as to maintain a constant level of oil with relation to the burner. I therefore do not wish to be understood as claiming, broadly, such a construction; but

What I do claim is—

1. In a lamp, the combination of a casing, a fount arranged within said casing for vertical movement, a spring upon which said fount rests, a burner stationary above the fount, and a wick-tube stationary in the burner and extending downward through a corresponding opening in the top of the fount and so as to fit loosely therein, thereby serving as a guide for the vertical movement of the fount, substantially as described.

2. The combination, in a lamp, of a tubular standard, a casing upon the upper end of said standard open at its top, a cap adapted to close the said opening in the casing, a burner upon said cap, a fount arranged within said casing, with a downward projection from its bottom into said tubular standard as a guide for the vertical movement of the fount, and a spring within said standard upon which said fount rests, substantially as described, and whereby said fount is automatically adjustable with relation to the burner and the oil in the fount.

RICHARD T. BARTON.

Witnesses:
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