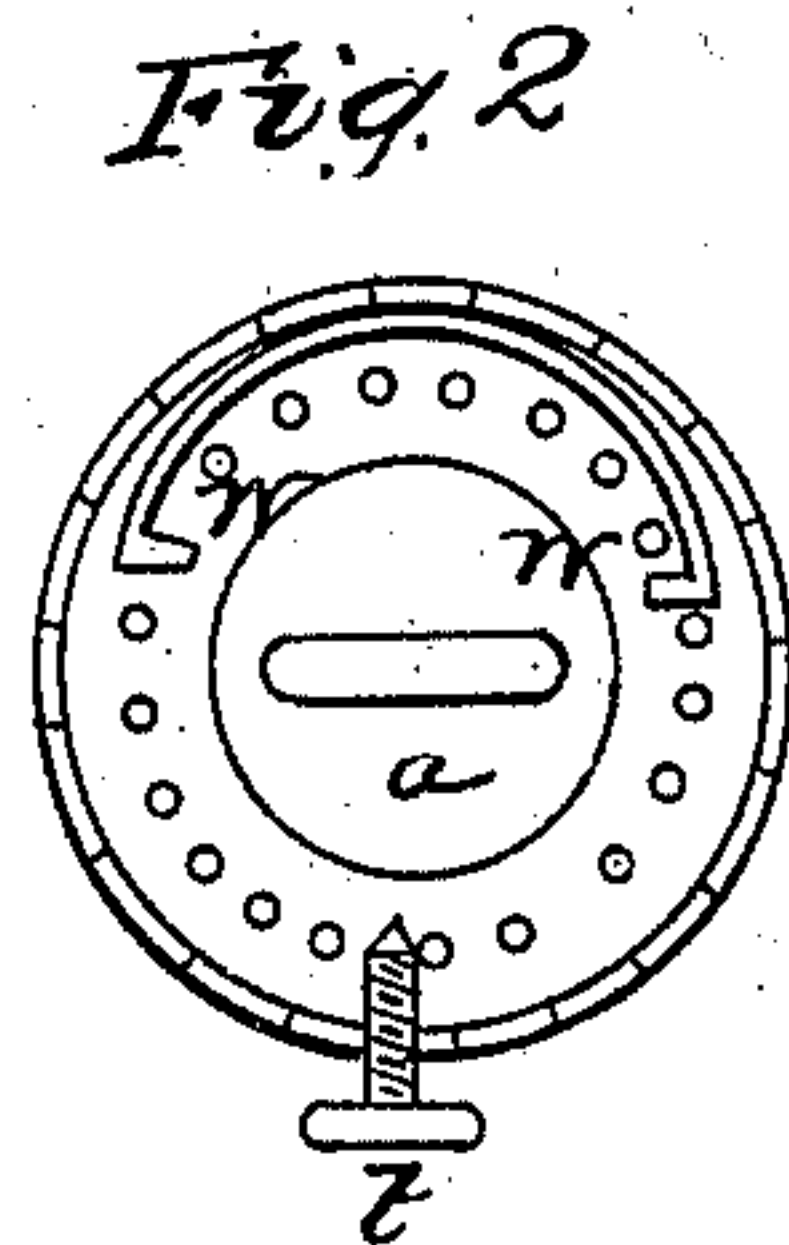
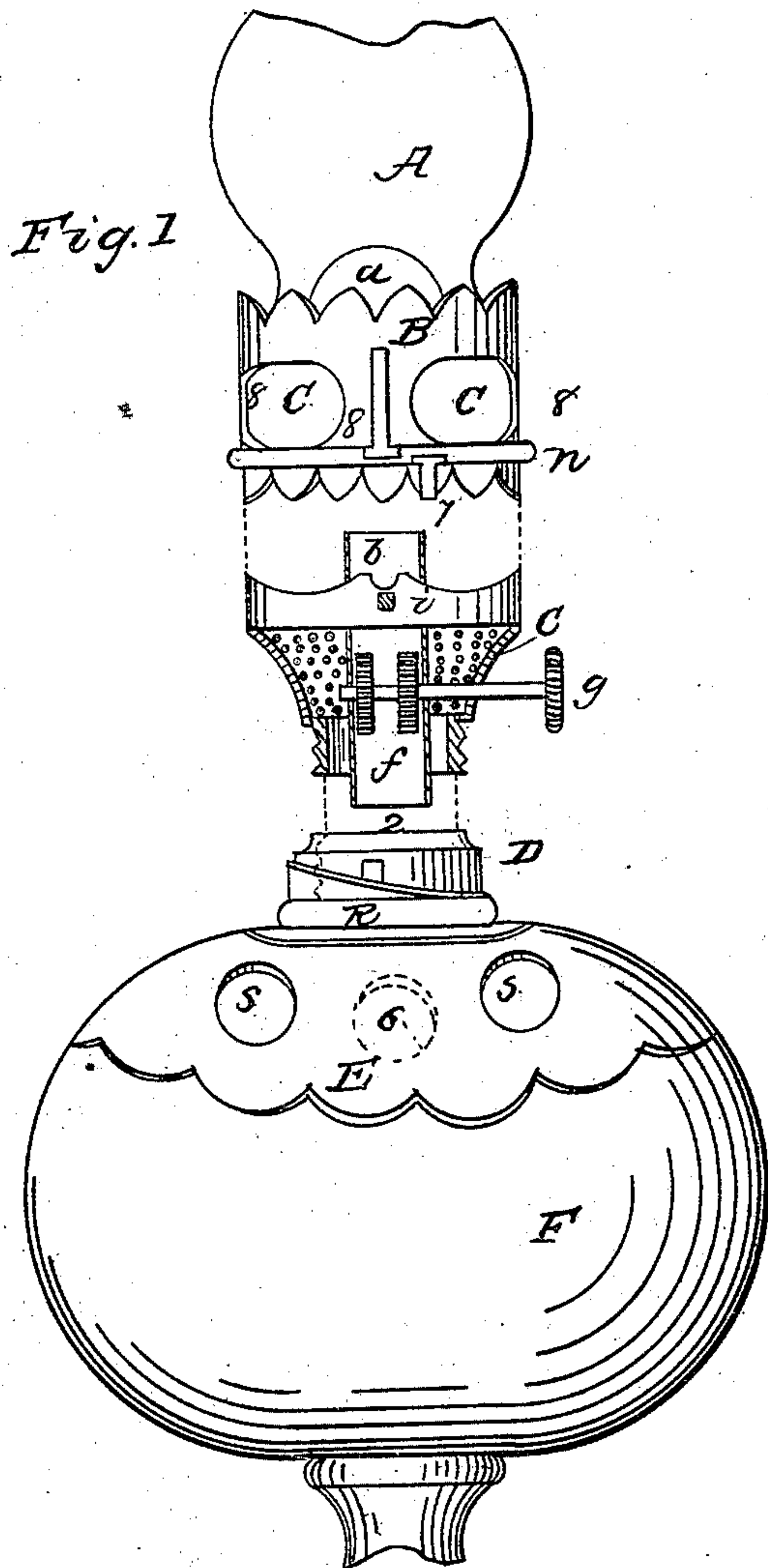


W. P. PATTON.

Lamp.

No. 33,102.

Patented Aug. 20, 1861.



Witnesses
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UNITED STATES PATENT OFFICE.

WM. P. PATTON, OF HARRISBURG, PENNSYLVANIA.

LAMP.

Specification of Letters Patent No. 33,102, dated August 20, 1861.

To all whom it may concern:

Be it known that I, WM. P. PATTON, of the city of Harrisburg, county of Dauphin, and State of Pennsylvania, have invented certain new and useful Improvements in Hand and Stand Lamps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon.

The nature of my invention consists in constructing and arranging the several parts of this lamp in the manner hereinafter set forth.

In the annexed drawings making a part of this specification (B,) represents a cylindrical cage or jacket made of brass or other suitable metal having four apertures *c, c, c, c*, in its side so placed in relation to each other as to allow the four equal upright sections 8, 8, 8, 8, to remain. Two of these sections that are opposite to each other are slotted vertically for the accommodation of the guide pins *i, i*, (said pins are fastened rigidly upon the outside of the upper or cylindrical portion of the perforated air chamber (C,) to be hereinafter described). The said sections of metal in jacket (B,) also serve to connect the upper and lower parts of said jacket together. The upper part, from where the sections join it, is a cylinder having its upper edge scalloped. On its inside surface immediately above the apertures, *c, c, c, c*, is placed the deflector (*a*) which is raised spherically in the center, having a flange (K) by which it is fastened to the jacket (B). The spherical or raised part is slotted to correspond with the wick tube (*f*) said slot is made somewhat longer and wider than the tube, the flange (K) has perforations in it to aid drafts. Said deflector is fastened rigidly in its place, and serves to support the chimney (A) which is made in the usual form, having a flange projecting from its lower end, thus forming a base on which it rests, and by which it is held in close connection with the lamp. The device by which this is accomplished consists of the peculiarly shaped springs, W, W. These are constructed of one piece of metal. I do not desire to confine myself to such construction, as the springs may be made separate, and fastened in the manner as described, and thus embody the same principle or method of action that is found in my

device as above described (Fig. 2) and are fastened upon the inside of the upper scalloped edge of jacket (B) at a point equidistant from the ends or toes *w, w*. The body of the springs lies upon the flange (K) of the deflector. The toes *w, w*, are turned over toward the spherical or raised portion of the deflector, so as to leave a space intervene between them and the flange (K). Said toes or ends of the springs are also made to approach the raised portion of the deflector, thus leaving a space between the back of the toes and the scalloped edge of jacket (B). The object of this construction is to allow the springs to have a lateral as well as vertical motion, and thus accommodate themselves to any variation in thickness as well as diameter (from edge to edge) of the flange on chimney (A). They are aided in their operation by the screw (*t*), which is so placed in the upper scalloped edge of jacket (B) as to be equally distant from the said toes.

The lower part of jacket (B) is made similar to the upper part, with exception of the annular swage (*n*), which encircles it just where the sections 8, 8, 8, 8, join the said part. The swage is so formed as to produce an annular recess on the inside of the jacket, corresponding to the swell or bead upon the outside. The vertical slots in two of the sections 8, 8, run into or communicate with this recess for the purpose of allowing the guide pins *i, i*, to traverse the same when required. The perforated air chamber (C) is made in the form of an inverted frustum of a cone, terminating in a cylinder at its upper or larger edge, and a screw at its lower or smaller end. The cylindrical portion is scalloped to correspond with the four apertures *c, c, c, c*, in jacket (B) the said cylindrical portion of the air chamber is made of such size in relation to the jacket (B) as to allow it to pass neatly inside of the same, were it not for the pins *i, i*, which project from the cylindrical part of air chamber (C) at opposite points.

Two slots 7, 7, are made from the lower edge of jacket (B) into the swage (*n*) to admit the pins *i, i*, into the same these slots are made a little out of line of the vertical slots in sections 8, 8, but directly opposite each other to correspond with said pins, so that by making the pins to enter these slots till they reach the swage, then

turning the jacket (B) to bring the said pins in line with the vertical slots, the case or jacket (B) may be placed in proper position upon the air chamber (C). The conical part of air chamber (C) is perforated throughout its entire surface with small holes to admit air, it also supports the wick tube, *f*, which is fastened at its lower end to the same, said tube is made in the form usually seen in lamps of this class (carbon or petroleum oil) and has the wick elevator attached to its side, said elevator consists of two serrated wheels placed upon the same shaft and communicating with the wick through two slots made in the tube for that purpose, said shaft projects through one side of the air chamber (C) and is provided with a thumb wheel (*g*) to elevate or depress the wick as may be desired.

The screw upon the base of the air chamber (C) has its nut in the part (D) which is fastened rigidly upon the body (F) of the lamp, said part or nut is made in the manner usual to lamps of this class with exception of the teat or projection (2) this teat has a bearing upon the upper edge of the sleeve (B) which encircles the nut (D) said sleeve terminates at its base in a petticoat or concave flange (E). Its upper edge is made so that part is parallel with the base line, the other part rising on an incline (to the base line) and then descending in the same manner till it joins the parallel part. Thus forming a cam to operate against the projection (2) upon the nut (D) so that when operated upon by turning to the right or left it forces the concave flange or petticoat (E) in close connection with the outside of the oil receptacle (F). The said petticoat (E) is made to conform exactly in shape with the upper portion of the body of the oil chamber. Said chamber (F) is intended to be made spherical (or approaching it) in shape and is perforated in its upper portion with a round hole (6) of sufficient size to permit the pouring of oil through it into the lamp readily. There are four holes *S, S, S, S*, made in the petticoat (E) of an equal size with the one in the oil chamber, and equidistant from each other. Said holes are also placed in such relation to the incline on the upper edge of the sleeve (R) that one of them shall come opposite the aperture in the oil vessel when the incline is made to recede from the projection (2) on nut (D), and in like manner to recede from the said aperture when the incline is made to approach and force against the said teat or projection. The said petticoat is lined or coated upon its inner surface with a thin gutta percha or leather gasket having perforations in it to correspond with those in

the petticoat, said gasket serves to produce a perfectly secure joint between the petticoat and oil chamber and thus effectually to close the oil passage in the same when it is desired.

Having fully described the different parts in their regular order I will proceed with the operation of the same.

First. It is clearly evident that when the operator desires to fill the lamp all that is necessary is to turn the petticoat (E) so that the incline on the upper edge of the sleeve (R) recedes from the projection (2) on nut (D); this will bring the aperture in the petticoat opposite the one in the oil chamber. When filled turning the same in the opposite direction carries the aperture in the petticoat away from the one in the oil chamber, and at the same time the incline bearing against the projection forces the petticoat firmly against the oil chamber thus perfectly closing the oil passage and accomplishing the same instantly.

Second. When the operator desires to light the lamp he simply elevates the jacket (B) and consequently the deflector and chimney. When the jacket (B) is raised the guide pins *i, i*, traverse the slots in sections 8, 8, thus retaining the jacket in connection with the air chamber (C). The wick is thus exposed through the apertures *c, c, c, c*. If it is desired to retain the jacket in this position (to trim the wick, which can be done by introducing the instrument through either of the apertures) turn the jacket when the guide pins enter the swage (*n*) this will carry the pins into the swage and thus secure it in this position. When the lamp is lighted, by reversing the operation the deflector and chimney are brought to their proper position.

Having thus fully described the construction and operation of my improved lamp, and pointed out its utility, what I claim as new of my design and invention and desire to secure by Letters Patent is—

1. The employment of the adjustable and movable chimney support B, when it is constructed and arranged in the manner herein specified.

2. The combination of the support B, as constructed, with the air chamber C, the two being arranged and used in the manner set forth.

3. The construction and application of the petticoat (E) or its equivalent substantially in the manner and for the purpose set forth and described.

WM. P. PATTON.

Witnesses:

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