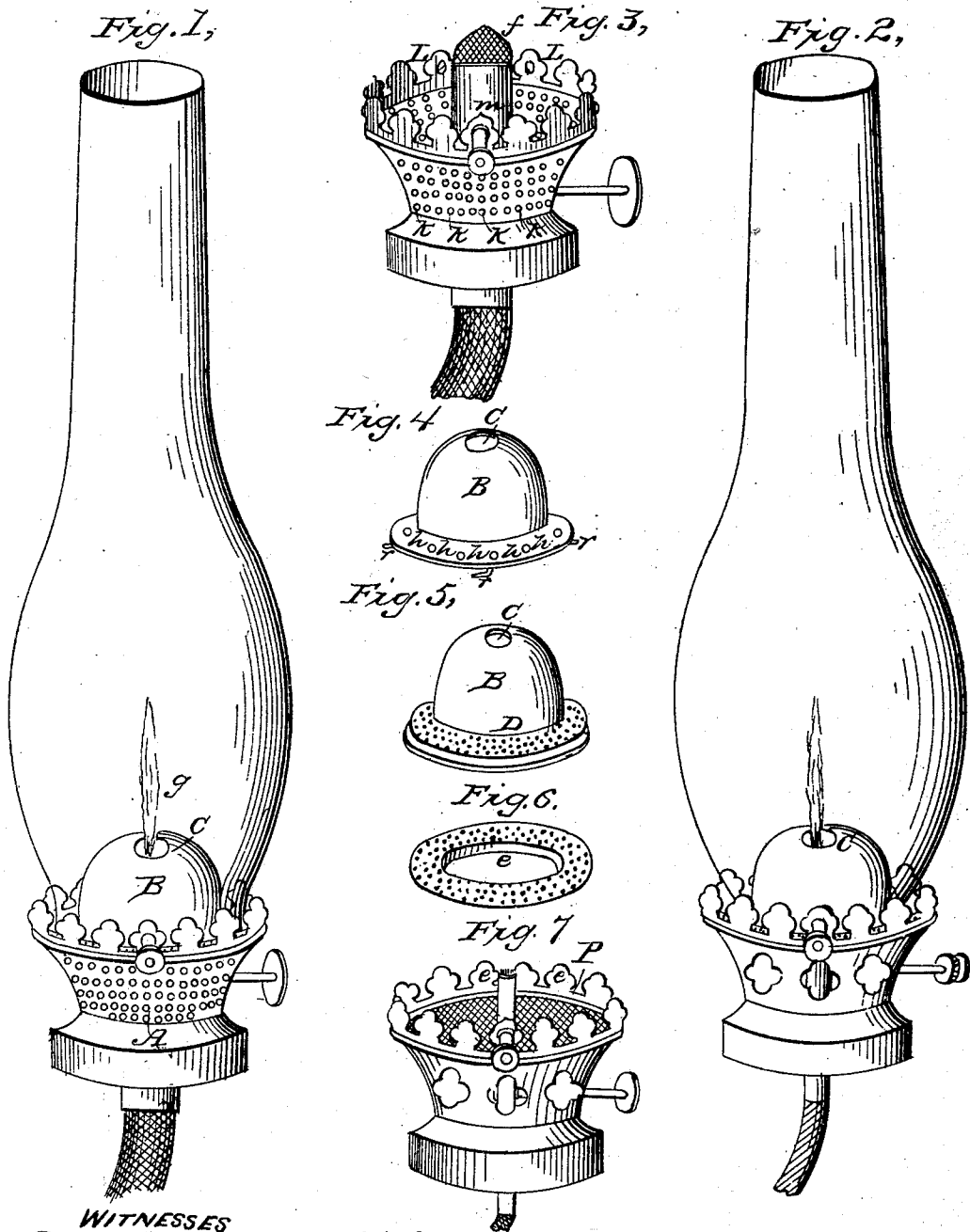


W. FULTON.
Lamp Burner.

No. 35,151.

Patented May 6, 1862.



WITNESSES
Robert M. C. Shephard
Jenam Price

INVENTOR
Wm Fulton

UNITED STATES PATENT OFFICE.

WILLIAM FULTON, OF ELIZABETH CITY, NEW JERSEY.

IMPROVED COAL-OIL-LAMP CONE.

Specification forming part of Letters Patent No. **35,151**, dated May 6, 1862.

To all whom it may concern:

Be it known that I, WILLIAM FULTON, of Elizabeth city, in Union county, in the State of New Jersey, have invented a new and Improved Coal-Oil-Lamp Cone, which will produce a bright taper flame without smoke or odor; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is an external view of an ordinary coal-oil-lamp burner with my cone applied to it in connection with a flat wick with the flame turned on. Fig. 2 is also an external view of an ordinary coal-oil-lamp burner with my cone applied to it in connection with a round wick with the flame turned on. Fig. 3 is an interior view of a coal-oil-lamp burner, showing the top of the wick-tube and the shape in which the upper part of a flat wick is cut when used in connection with my cone. Fig. 4 is a view of the cone. Fig. 5 is also a view of the cone with the perforated spring-plate applied to it. Fig. 6 is a detached view of the perforated spring-plate. Fig. 7 is an interior view of a coal-oil-lamp burner with a fluid wick-tube and wick applied to it.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improvement in coal-oil-lamp cones.

The object of the invention is to adapt a cone which will produce a small flame from coal-oil, similar to that of a taper or candle, without smoke or smell, so that it will serve for a night-lamp or a cheap and economical light. This object is attained by using a cone of the ordinary shape, except that instead of having a slot in the top for the flame to pass through it has a small round hole, and about the sixteenth of an inch above its base and surrounding it is a perforated plate, which serves to regulate the elastic force of the air, so that a steady flame is thereby obtained free from smoke and smell. Either a round or flat wick can be used with this cone. When flat, it is cut peaked at the top, so that a flame is produced of such a shape as to pass through the hole in the cap.

To enable those skilled in the art to fully

understand and construct my invention, I will proceed to describe it.

A represents a lamp-burner constructed of sheet metal in the ordinary form.

B is the cone, which is of similar shape to those on coal-oil lamps in common use, except that it is somewhat lower, and in the top, instead of an oblong slot being made for the flame to pass through, there is a round hole from about three-sixteenths to a quarter of an inch in diameter, as shown at C in Figs. 1 and 2. The top of the wick-tube ranges from a quarter to three-sixteenths of an inch from this hole. At the lower part of the cone B openings *h* are made, as shown in Fig. 4, through which the air passes as it is taken in from perforations K, (shown in Fig. 3,) and, descending through the perforated plate D, which is about the sixteenth of an inch above the base of the cone, as shown in Fig. 5, it is distributed equally to the flame and around the cone, thereby keeping the chimney cool and helping to support combustion, and by regulating the elastic force of the air prevents any sudden rush of air into the chimney, which would cause the flame to smoke.

D is the perforated plate, which can be made of spring-brass or other suitable material, the inside rim being formed down, as shown at *e* in Fig. 6, so that when it is slipped down over the cone, as shown in Fig. 5, the rim will rest on the base of the cone and the plate will serve as a support for the chimney, as shown in Figs. 1 and 2, and by means of its springy tendency it accommodates itself to the bottom of the chimney, thereby keeping it firmly to its place by pressing it up against teeth L and spring-fastening *m*, as shown in Fig. 3.

If preferable, plate D can be dispensed with and the base of the cone, instead of having opening *h* in it, can be filled with fine perforations, similar to those in the above-named plate, four or more springs being attached to the under part of the cone, as shown at *r* in Fig. 4.

Either a flat or round wick can be used with this cone. When flat, the wick is cut peaked at the top, as shown at *f* in Fig. 3, so as to cause a flame of the same shape as the opening in the top of the cone, as shown at *g* in Fig. 1. When a round wick-tube is used, an ordinary fluid-wick is suitable.

This invention is useful, for it can be applied to any of the coal-oil-lamp burners now in market, thereby converting them into very economical and desirable night and hand lamps.

Having thus described my invention and the manner in which the same is or may be used or carried into effect, I would observe, in conclusion, that I do not confine or restrict myself to the precise details or arrangements which I have had occasion to describe or refer to, as variations may be made therefrom without deviating from the main features of my said invention; but

What I consider to be new, and desire to secure by Letters Patent, is—

1. The perforated spring-plate D, as shown in Fig. 5, or its equivalent, for regulating the elastic force of the air, so that it may be presented evenly to the flame, and as a rest which accommodates itself to the bottom of the chimney.

2. The construction of cone B, as shown in Figs. 4 and 5, in combination with the perforated shell K, as shown in Fig. 3, and the gauze-wire P, as shown in Fig. 7, the whole being arranged substantially as and for the purpose set forth.

WM. FULTON.

Witnesses:

ROBERT MCC. SHEPHERD,
PERIAM PRICE.