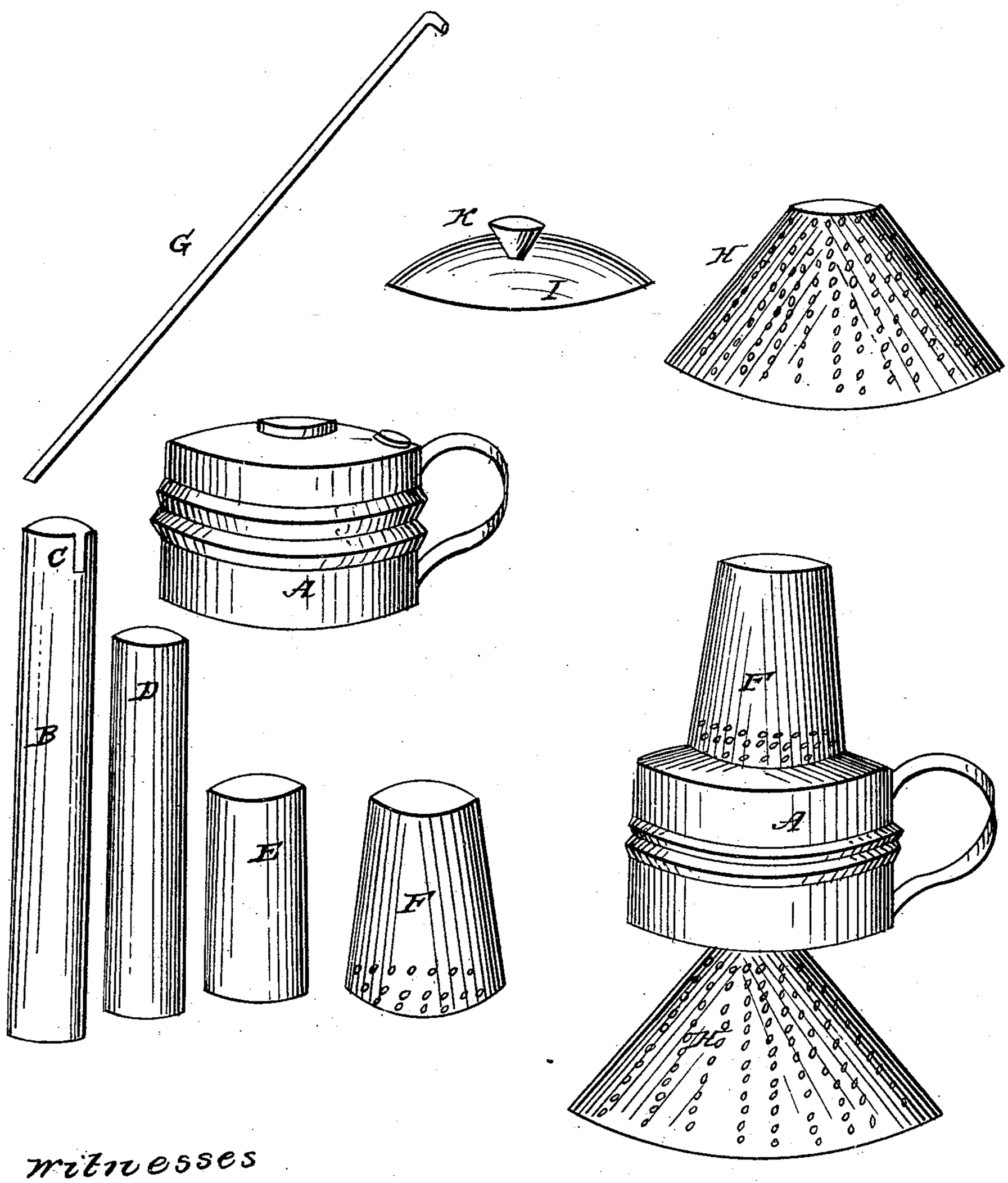
D. A. MOORE.

Lamp.

No. 33,898. Patented Dec. 10, 1861.



Witnesses

J. H. Carpenter

A. Goodrich Faye

Inventor

D. A. Moore

UNITED STATES PATENT OFFICE.

DAVID A. MOORE, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **33,898**, dated December 10, 1861.

To all whom it may concern:

Be it known that I, DAVID A. MOORE, of Syracuse, in the county of Onondaga and State of New York, have invented certain Improvements upon the Lamp known as the "Solar Lamp," by which it may be more conveniently used as a hand-lamp for burning coal-oil without the use of a chimney.

This lamp, together with the improvements which I have made, is described as follows:

First. A vessel A, of convenient form and size to contain the fluid for burning, with a handle attached.

Second. An internal tube B, of proper and uniform diameter and of proper length, open at both ends, which passes perpendicularly through the vessel A, extending above it a distance of two inches or over. This tube furnishes a current of air to the interior of the flame. It is attached to the vessel A at the lower orifice, through which it passes in such a manner as to prevent the leaking out of the fluid contained. The upper orifice through which it passes is somewhat larger than the diameter of the tube itself, so that a circular opening is left around it. In this tube is a vertical slit C at its upper end to allow an attachment, hereinafter described.

Third. A sliding tube D, which incloses the internal tube B and is just large enough to slide freely upon it upward and downward. It is of sufficient length to extend from the top of the internal tube B nearly to the bottom of the vessel A. This tube is designed for the application of the wick, and may be removed and replaced at pleasure.

Fourth. A tubular wick, applied to the sliding tube D, which may be raised or lowered to suit convenience.

Fifth. An incasing tube E, which is attached at its lower end to the edge of the upper orifice of the vessel A, through which the tubes B and D pass, as above described, and extends upward as high as the top of the internal tube. It is large enough to allow the wick to pass freely between it and the sliding tube D, and is designed as a covering or incasement for the upper part of the wick.

Sixth. An external tube F, which incloses all the others. It is attached at its lower end to the top of the vessel A, and extends upward as high or higher than the top of the other tubes, and is large enough to allow a free current of air to the flame between it and the incasing-tube D. Near its lower end it is perforated to allow a current of air to the exterior of the flame.

Seventh. A wire or metallic strip G, which is attached to the sliding tube D near its upper end at a point corresponding to the slit C in the internal tube B. This wire or strip extends downward within the internal tube and below it to the bottom of the lamp. It is designed to be used for the purpose of raising and lowering the sliding tube D, upon which the wick is applied, and thus moving the wick to regulate the flame.

Eighth. An upright cone H, truncated and hollow, formed of metallic plate, perforated to allow a flow of air to the internal tube B below. This cone is attached at its upper or small end to the bottom of the vessel A, inclosing the lower orifice of the internal tube and extends downward a convenient distance. This cone is intended as a basis for the lamp and also to regulate the current of air through the internal tube.

Ninth. A horizontal plate I, concave below, attached at its edge to the lower edge of the cone H, which serves to prevent a direct current of air to and from the internal tube below when the lamp is moved upward and downward, by which the steadiness of the flame would be impaired. This plate has an aperture through it near the center, through which the lower end of the wire G passes, to which, in the concavity of the plate, the thumb and finger may be applied to raise and lower the wick. Upon the upper or convex surface of this plate inclosing the aperture is attached a small funnel K to guide the wire or metallic strip G in entering the aperture in the plate whenever it becomes necessary to replace it after trimming the lamp or applying the wick.

In the above-described parts, combinations, and attachments for the purposes named, I claim as my invention—

The entire arrangement for raising and lowering the sliding tube D and wick for the purpose of regulating the flame. In this arrangement I include the slit C in the internal tube B, the wire or metallic strip G, the attachment of this wire to the sliding tube D, the concave plate I, and the funnel K for guiding the wire or strip through the aperture in the plate.

D. A. MOORE.

Witnesses:
JAMES BLURWILT,
B. J. MILLER.