

E. T. COVELL.

Lamp.

No. 34,408.

Patented Feb. 18, 1862.

Fig. 1

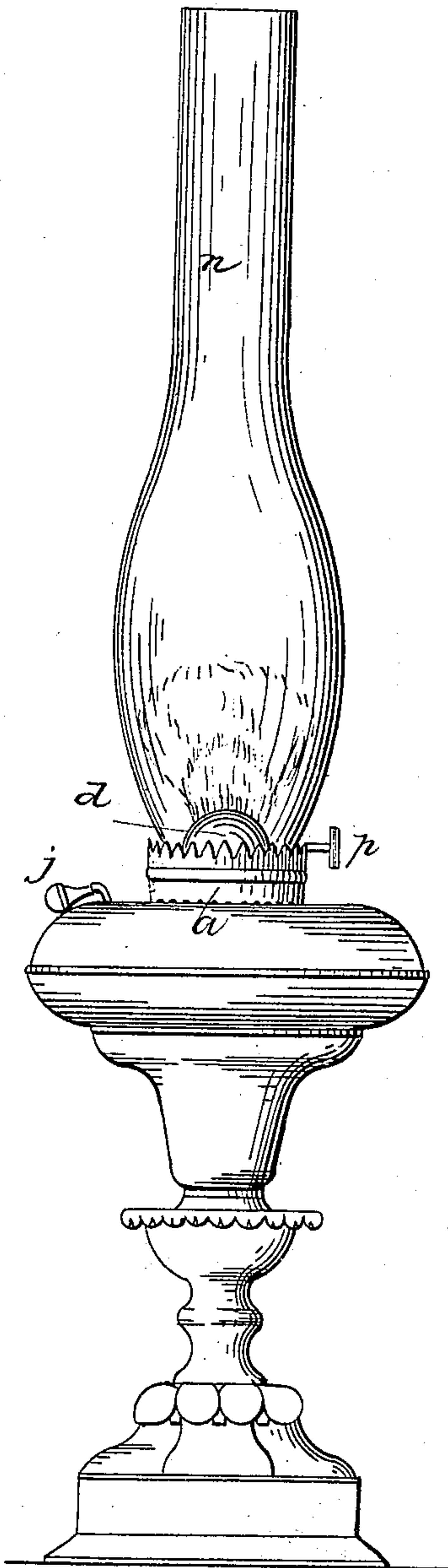


Fig. 2

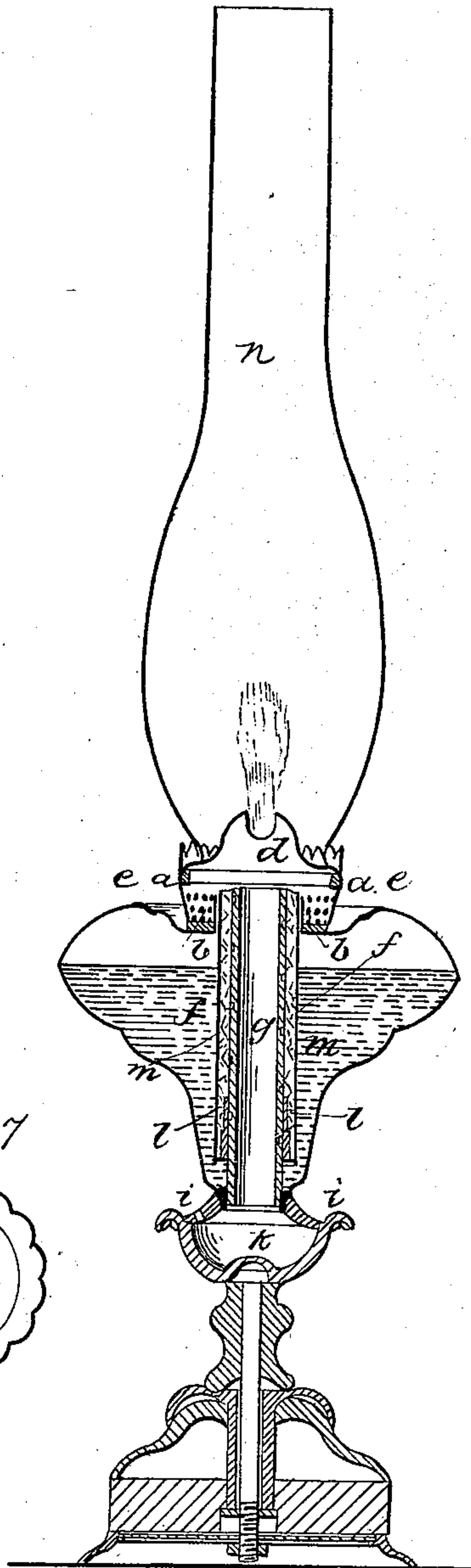


Fig. 3

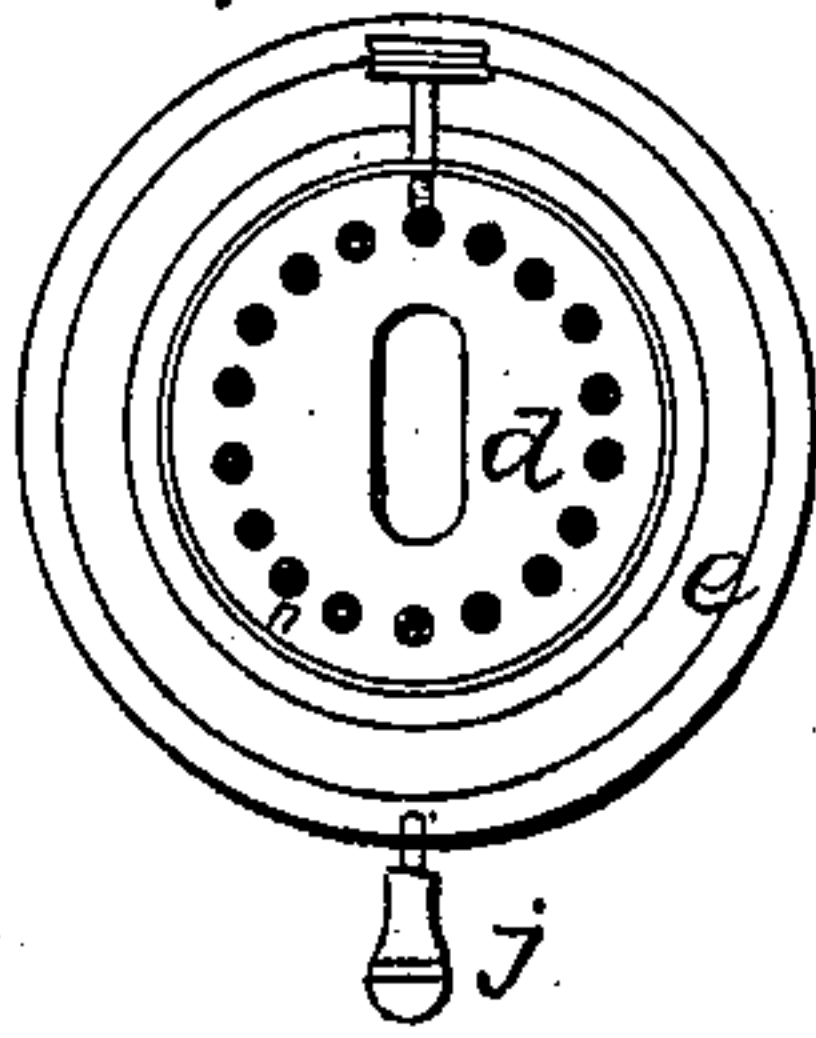


Fig. 4

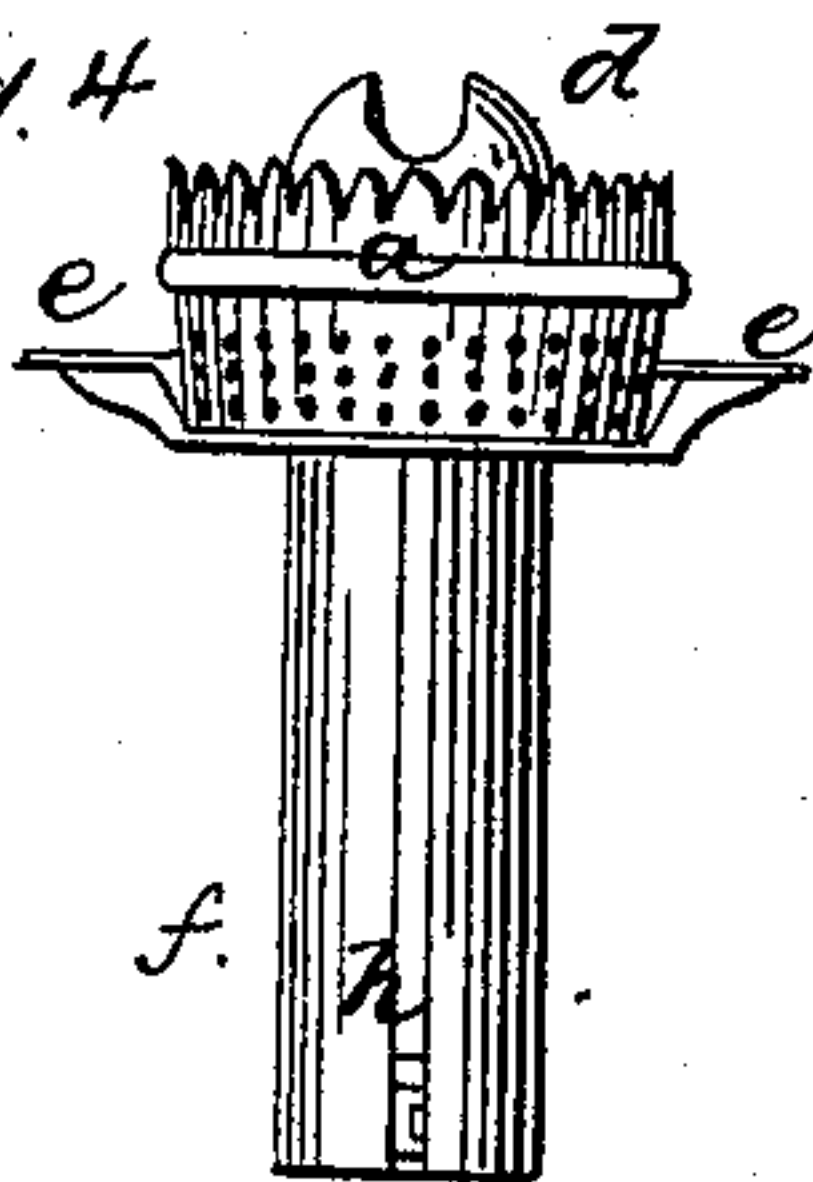


Fig. 5a

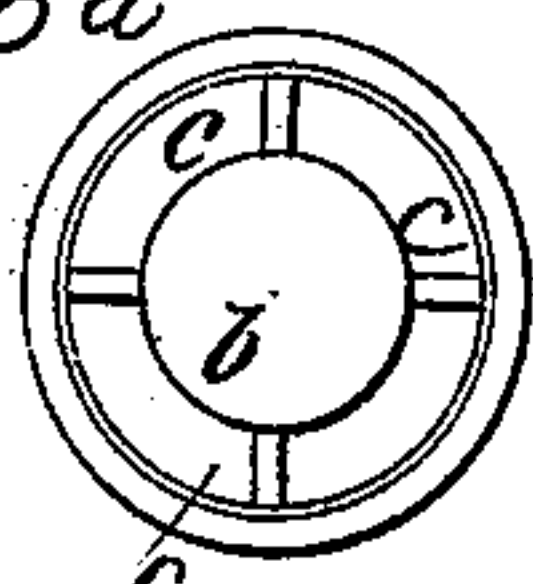


Fig. 6

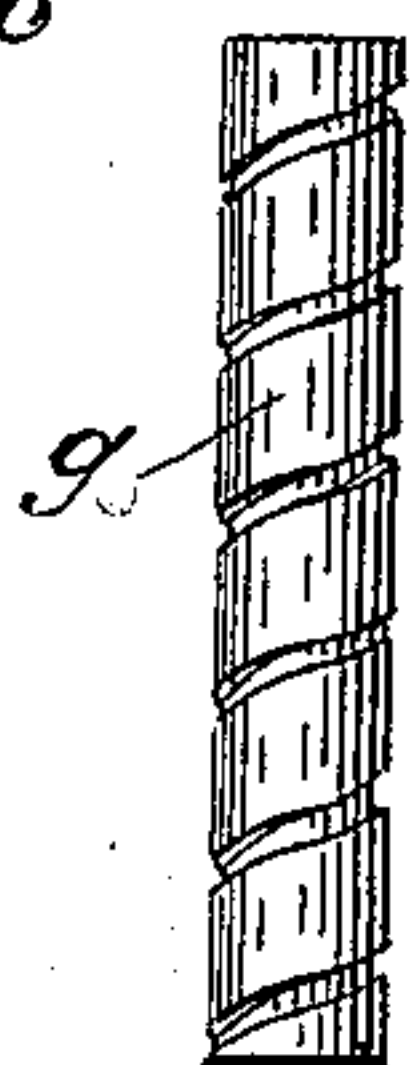
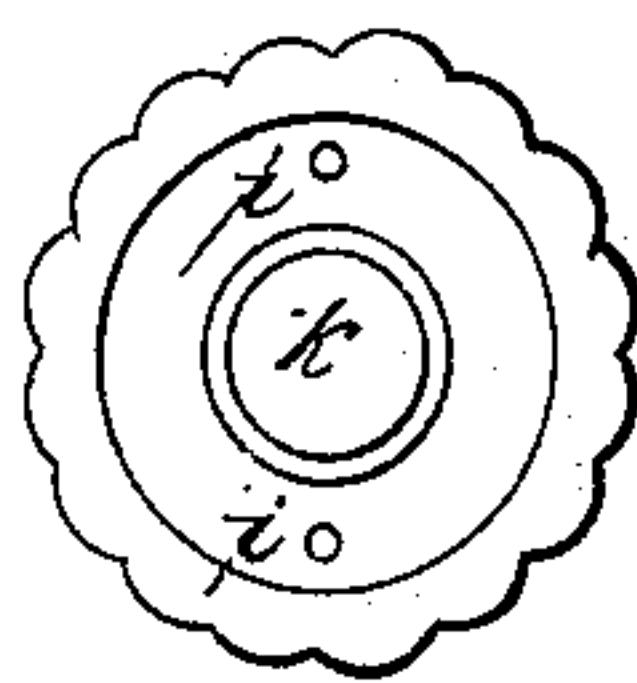


Fig. 7



Witnesses  
Calvin M. Parks  
W. H. Thompson

Inventor  
Edward T. Covell  
By J. C. Robbins & Co.

# UNITED STATES PATENT OFFICE.

EDWARD T. COVELL, OF NEW BEDFORD, MASSACHUSETTS.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 34,408, dated February 18, 1862.

*To all whom it may concern:*

Be it known that I, EDWARD T. COVELL, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and Improved Oil-Lamp; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, which form a portion of this specification.

Figure 1 of said drawings is a side view of my improved lamp; Fig. 2, a section of the same; and the remaining drawings represent the various operative parts of said lamp detached.

Similar letters indicate the same parts in each of the drawings.

The body of my improved lamp, the spirally-grooved air-tube *g*, which rises centrally within the same, the cap *e*, which closes the opening in the body of the lamp, and the longitudinally-slitted casing-tube *f*, which is combined with and descends from the said cap *e*, the thimble *l*, and the wick *m*, which is connected to said thimble, are all clearly represented in the drawings, and need not differ, essentially, in either shape or arrangement from the corresponding parts in the well-known solar lamp, or other lamps of a similar character.

My improved lamp differs from all other lamps which employ tubular wicks in this, viz: First, the deflector *d*, which is placed over the wick *m*, has an oblong slit formed in it for the passage of the flame, which enables my lamp to produce a flat flame from a round or tubular wick; second, the perforated thimble *a*, which is surmounted by the slitted deflector *d*, and which supports the lamp glass *n*, is connected by means of the radial arms *c c* with an inner band *b*, which embraces the projecting upper end of the casing-tube *f* so loosely that it can be freely turned upon the same, and consequently should a smoky flame at any time be produced by an unequal elevation of a portion of the top of the wick immediately under the slit in the deflector the

said smoky flame can be prevented by partially turning the said thimble upon the tube *f*, or to such an extent as to bring the said unequally-elevated portion of the wick immediately beneath either side of the deflector *d*, where the intensity of the heat evolved will produce a perfect combustion; third, when a slitted deflector is placed over a flame produced from the combustion of oil and a tubular wick I find it advantageous to admit not over one-fourth of the quantity of air into the interior of said wick that is admitted into the interior of this description of wicks which are not surmounted by a slitted deflector.

By passing the flame from a tubular wick through a slitted deflector and by allowing a smaller quantity of air than usual to pass through the said tubular wick a more perfect combustion of the oil is produced, and the flame resulting from said combustion is stronger and more brilliant than has ever before been produced from an oil-lamp.

Having thus fully described my improved lamp, what I claim therein as my invention, and desire to secure by Letters Patent, is—

1. Placing the slitted deflector *d* over the wick-tubes *g* and *f*, for the purpose of enabling my said lamp to produce a flat flame from a tubular wick, substantially as represented in the accompanying drawings; but this I only claim when air is permitted to flow through the space within the wick-tube *g*, for the purpose of aiding in the production of a more perfect combustion than has ever before been produced in an oil-lamp.

2. When a slitted deflector is placed over the tubular wick of a lamp, supporting the said deflector in such a manner that it can be turned to any desired position independently of the wick-tubes of said lamp, substantially as herein set forth.

EDWARD T. COVELL.

Witnesses:

MAYHEW A. COVELL,  
WM. M. STETSON.