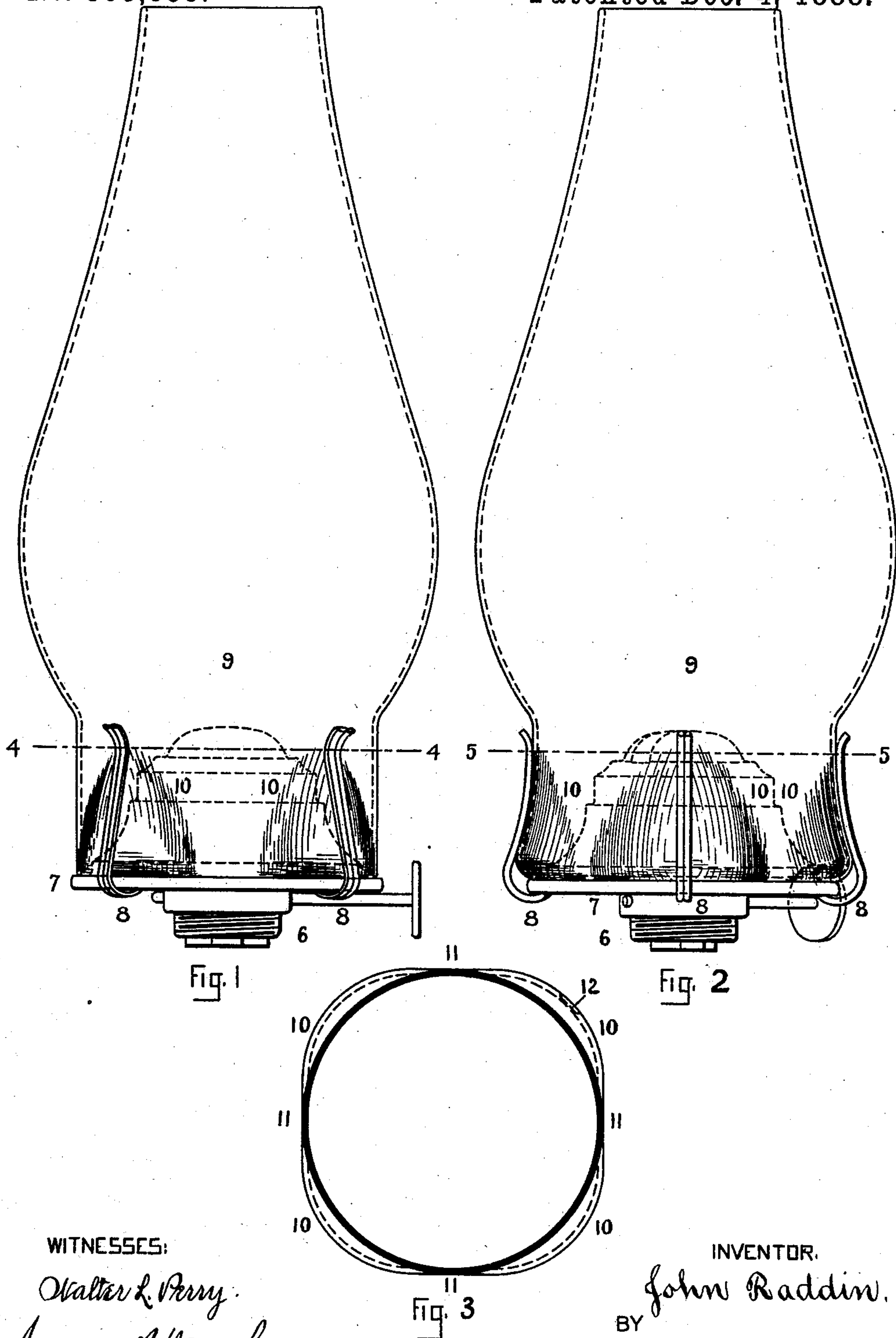


(No Model.)

J. RADDIN.  
LAMP CHIMNEY.

No. 393,855.

Patented Dec. 4, 1888.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN RADDIN, OF LYNN, MASSACHUSETTS.

## LAMP-CHIMNEY.

SPECIFICATION forming part of Letters Patent No. 393,855, dated December 4, 1888.

Application filed February 27, 1888. Serial No. 265,511. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN RADDIN, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful

5 Improvements in Lamp-Chimneys, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to chimneys designed for use upon lamps.

10 It has for its object the production of safe, efficient, and convenient chimneys.

Figure 1 represents, in front elevation, my invention as applied to the common Sun Burner. Fig. 2 represents chimney and burner, 15 as illustrated by Fig. 1, as having been turned to the left about its vertical axis one-eighth of a turn, or forty-five degrees. Fig. 3 is a sectional view of the chimney on section-lines 44 and 55 of Figs. 1 and 2, respectively, looking down.

20 The burner 6, represented by full and dotted lines in Figs. 1 and 2, is one of the most common style used. It is sold as the "Sun Burner, style A." The burner being so well 25 known, a brief description will be found to be sufficient. It is provided with the base-plate 7, against which it is desirable that the lower edge of the chimney should be held in close contact, in order to prevent the flickering of 30 the light which may be caused whenever any air enters the chimney by means of other openings than are provided in the usual manner. The burner is also provided with the usual spring-chimney clamps, 8, of the usual 35 form and number.

40 The chimney 9, of glass, is provided at its lower portion with a number of elongated outwardly-curved locking-cheeks, 10, equal in number to the number of spring-clamps. It is also provided at its lower portion with a number of straight or nearly straight guideways, 11, in number (four) equal to the number of curved cheeks. In other respects the chimney is of a common form.

45 In the pushing of the chimney into its position upon the burner the chimney is held so that its straight or nearly straight guideways 11 are presented to the slight resistance offered by the spring-clamps. Then the chimney is given a one-eighth turn about its vertical axis, and the chimney is then firmly held 50 by the spring-clamps, as represented by Fig.

2, and resting against the elongated curved cheeks.

The outer curve of the curved cheeks of the chimney and the inner curve of the spring-clamps are made, as represented by Fig. 2, so 55 that the spring tension of the spring-clamps is such as will tend not only to hold the chimney securely in its position, but will exert a force downward upon the chimney, the effect 60 of which is to keep the lower edge of the chimney always in close contact with the base-plate, thereby preventing injurious air-currents inside the chimney, which would cause 65 the flame to flicker and become unsteady.

The straight or nearly straight guideways may have a slight curve, if desired, the result sought to be obtained in the shape of these portions being to make them of such a form 70 as will present only the slight resistance desired to the forcing of the chimney into its position upon the burner.

The curved cheeks are of a curve sufficient to prevent the tipping of the chimney from 75 off the burner, unless a force be used greater than the burner shown will bear. By experiment it has been proved that a force may be applied to remove a chimney made as represented from its burner vertically sufficient to 80 tear the burner apart without drawing the chimney from its position.

A chimney made as represented may expand and contract without breakage.

It is obvious that my chimney presents many 85 advantages, such as low cost, adaptability to burners now in use, non-liability to injurious effects of expansion and contraction, prevention of unsteady flame due to injurious air-currents, and perfect safety. 90

Chimneys for many purposes, and for street-car lamps and the like, if desired, may have vertical recesses, as 12, made in the curved cheeks, as represented by dotted lines, Fig. 3, 95 of a width sufficient to receive the spring-clamps and of a depth such as will present resistance to any rotary movement of the chimney.

It is evident that the number of curved cheeks should be equal to the number of 100 spring-clamps, which may be (at pleasure) four, more or less.

What I claim as new, and desire to secure by Letters Patent, is—



1. A lamp-chimney provided at its lower end with straight or approximately straight exterior longitudinal guideways and between said guideways with outwardly-flaring elongated locking-cheeks.

2. The combination of a lamp-burner the base-plate of which is provided with a number of upwardly-projecting inwardly-curved spring-clamps disposed at intervals around its periphery, and a lamp-chimney fitting over said base-plate and provided at intervals with straight or approximately straight longitudinal guideways for the passage of said spring-clamps in adjusting or removing the chimney and between said guideways with elongated outwardly-curved locking-cheeks the curvature of which corresponds approximately with the inward curvature of the clamps.

3. A lamp-chimney provided at its lower end with straight or approximately straight exterior longitudinal guideways and between said guideways with outwardly-flaring elongated locking-cheeks, said cheeks having vertical recesses.

4. The combination of a lamp-burner the base-plate of which is provided with a number of upwardly-projecting inwardly-curved spring-clamps disposed at intervals around its periphery, and a lamp-chimney fitting over said base-plate and provided at intervals with straight or approximately straight longitudinal guideways for the passage of said spring-clamps in adjusting or removing the chimney and between said guideways with elongated outwardly-curved locking-cheeks the curvature of which corresponds approximately with the inward curvature of the clamps, said cheeks having vertical recesses in which said clamps may rest.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 21st day of February, A. D. 1888.

JOHN RADDIN.

Witnesses:

E. FRANK. WOODBURY,  
J. L. BAILEY.