No. 688,496. Patented Dec. 10, 1901.

H. J. VOGEL.

TUBULAR LANTERN.

(Application filed July 24, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 2.

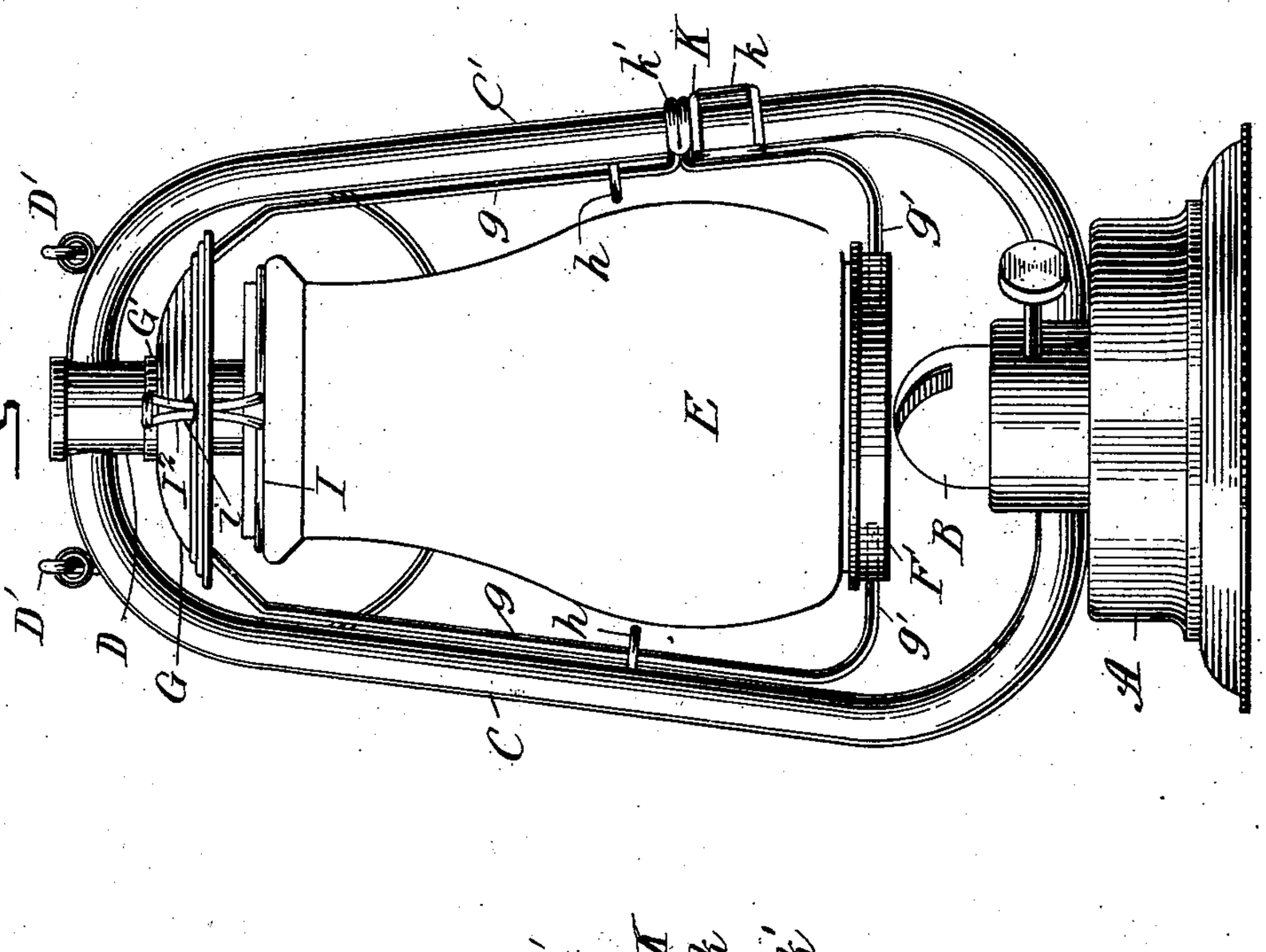

Fig. 1.

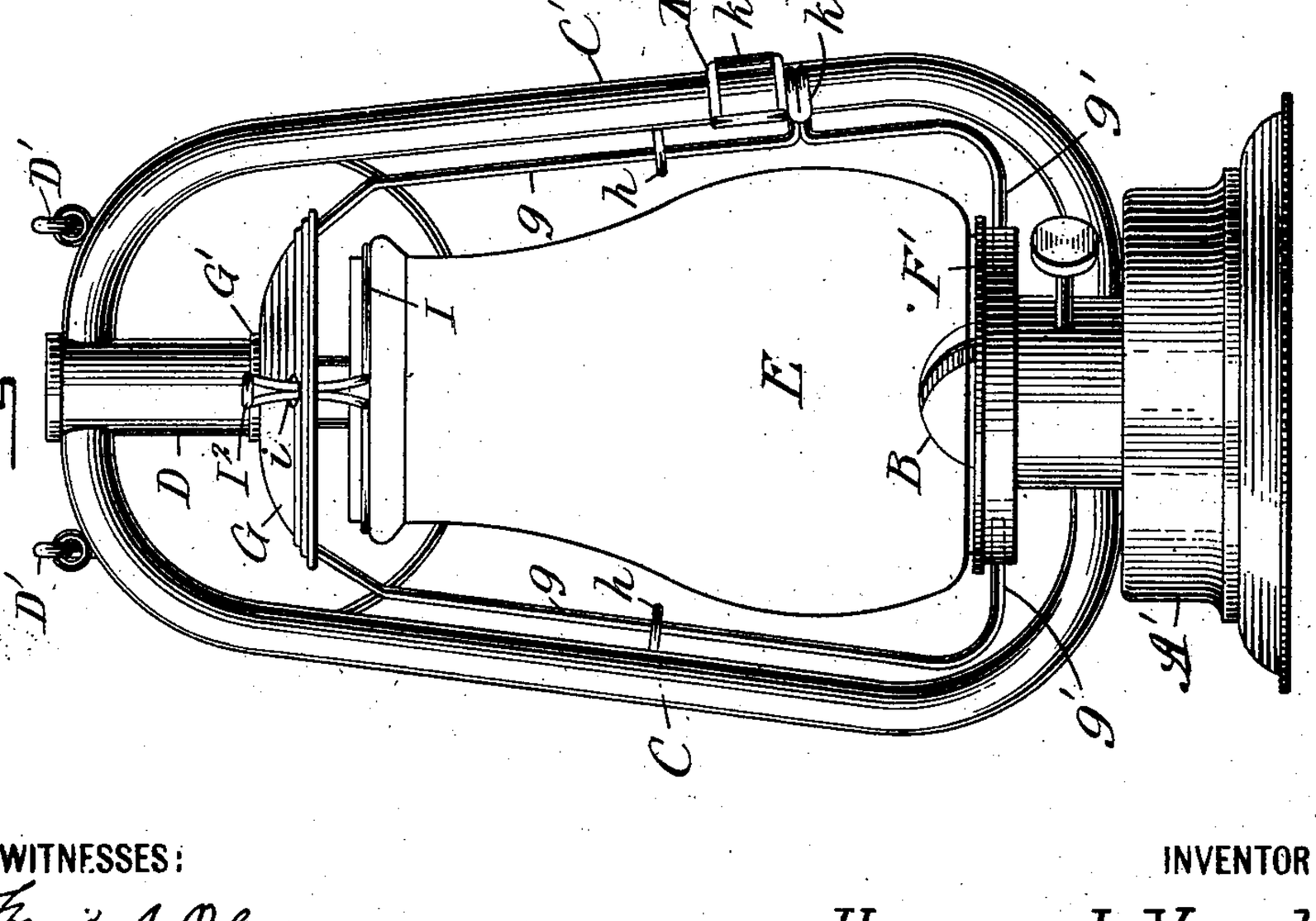

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Fig. 4.

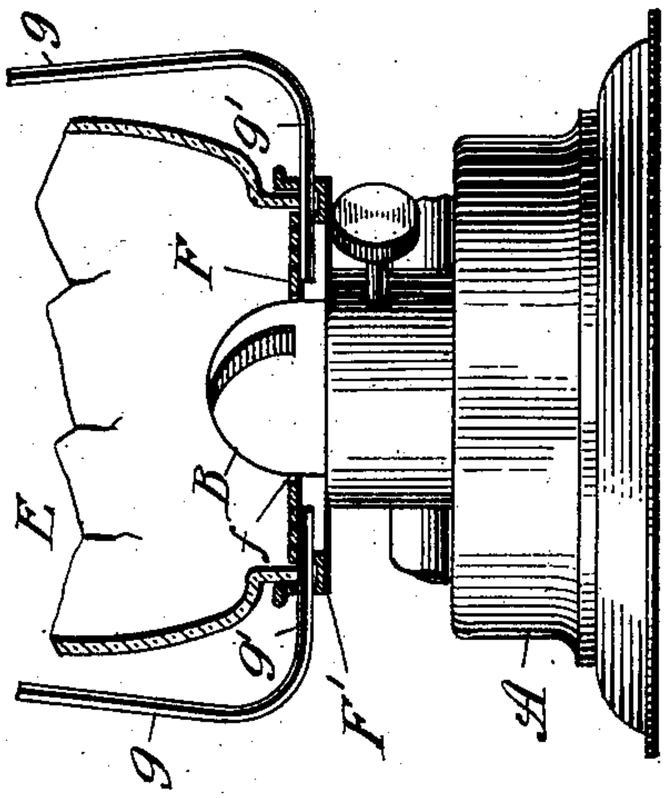


Fig. 5.

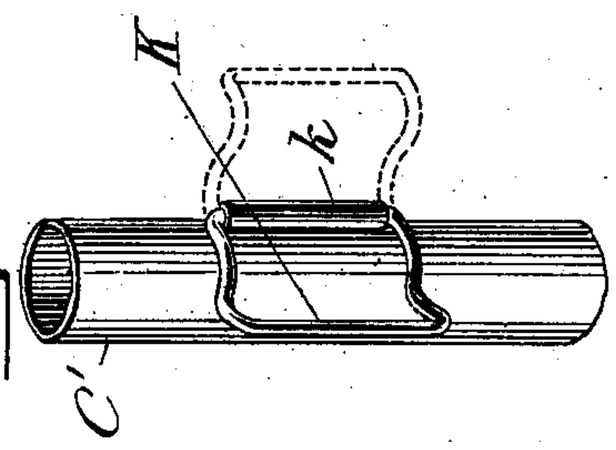
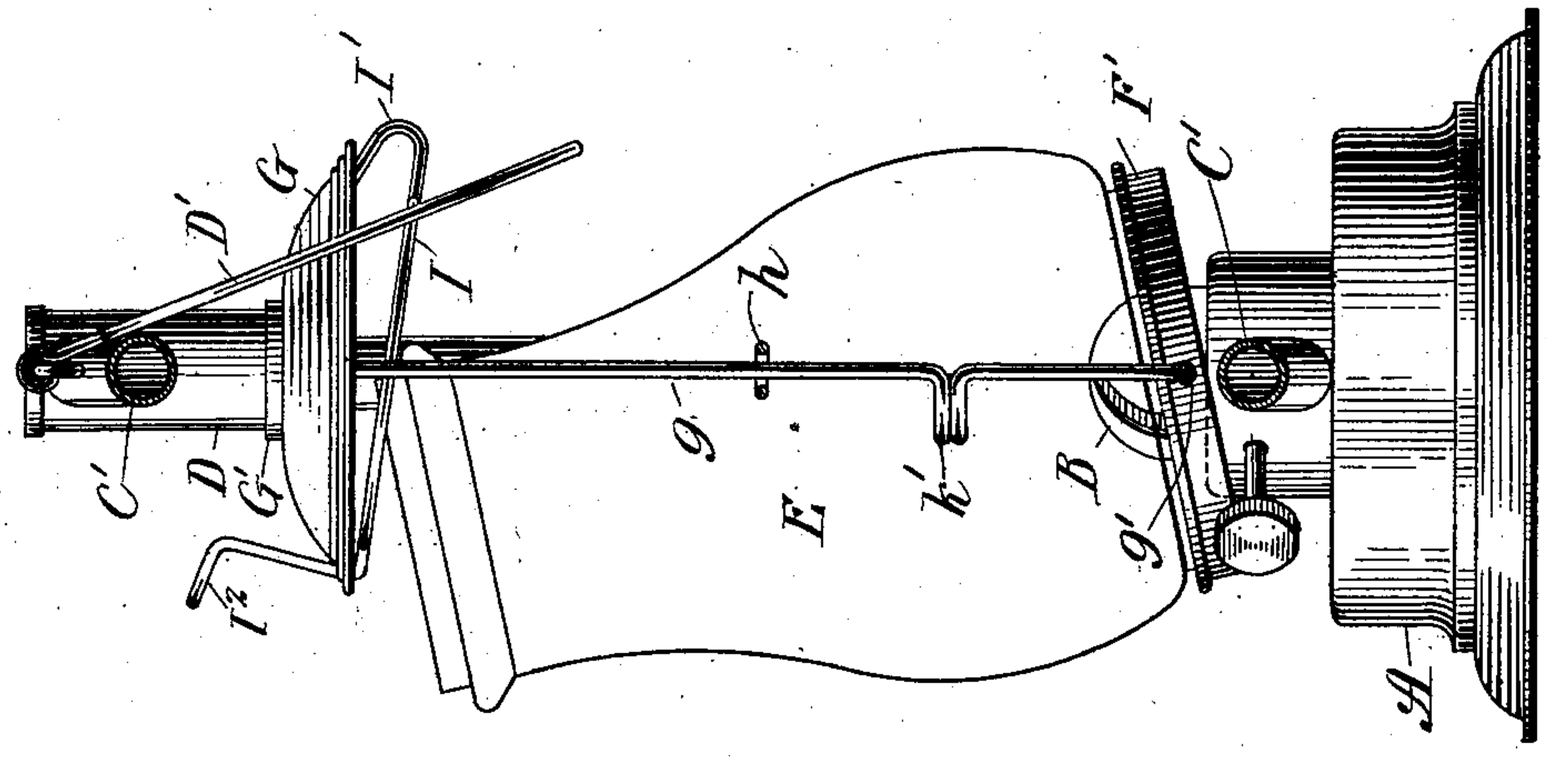


Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY J. VOGEL, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE FIRM OF WILLIAM VOGEL & BROTHERS, OF BROOKLYN, NEW YORK, COMPOSED OF HENRY J. VOGEL, LOUIS H. VOGEL, AND WILLIAM H. VOGEL.

TUBULAR LANTERN.

SPECIFICATION forming part of Letters Patent No. 688,496, dated December 10, 1901.

Application filed July 24, 1901. Serial No. 69,579. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. VOGEL, a citizen of the United States of America, residing at New York, borough of Brooklyn, and State of New York, have invented certain new and useful Improvements in Tubular Lanterns, of which the following is a specification.

This invention relates to lanterns of that class known as "tubular;" and the objects of the invention are to provide simple, substantial, and effective means for raising or lowering the chimney or globe and for securely fastening the same in raised or lowered position, respectively, when it is desired to light the lantern or to extinguish the flame and to prevent the blowing out of the light; and, further, to provide means for fixing the chimney firmly in its supporting-frame and for permitting the outward tilting and ready removal of the chimney from its frame.

My invention resides in certain features of construction and combinations of parts, to be hereinafter described in detail and then particularly claimed.

In the drawings, Figure 1 is a front elevation of my improved lantern. Fig. 2 is a similar view showing the chimney or globe raised and fixed in that position. Fig. 3 is an elevation at right angles to Fig. 1, showing the gallery tilted to remove the chimney. Fig. 4 is a sectional elevation of the lower portion of the lantern, and Fig. 5 is a detail perspective view showing the keeper or locking-hasp.

Referring to the drawings, A indicates the base containing the oil-reservoir, and B the burner. The tubes C C′ rise from the sides of the shell surrounding the burner in a well-known manner and center in a flue D at the top of the lantern, which may be carried by a bail D′. No invention resides in these parts, the improvements relating entirely to the means for supporting and holding the chimney or globe E.

The burner B has the usual rounded form at the top and projects through the centrally-apertured disk F, Fig. 4, forming by the minute perforations therein a means for distributing the air supplied to the burner and being provided with a circumferential gallery F′, which is of gutter or trough shape to receive the bottom of the chimney. The central aperture *f* of the air-distributing disk F is of the approximate diameter of but a little greater than that of the burner, so as to fit loosely and yet movably and rather snugly thereon. Side rods or wires *g g* are guided in eyes or guides *h h*, located on the inner sides of the tubes C C′, and converge in harmony with the tubes, their upper converging ends being secured at diametrically opposite points to a cap or deflector G, that has a central collar or sleeve G′, which fits movably, but snugly, on the central flue D, while their lower ends *g′* are bent inwardly toward and in alinement with each other. The inturned ends *g′* pass diametrically through the chimney-gallery F′, passing through and having their bearings in the side walls of the trough of the gallery, and terminate under and in contact with the disk F, so as to form central supporting-pivots for the gallery and disk. When resting in the gallery, the chimney will be separated the proper distance from the deflector G to permit the products of combustion to escape, and to maintain this distance and to seat the chimney in the gallery a spring-wire retaining-ring I is caused to snap over the top of the chimney. This retaining-ring is provided with an upwardly and inwardly projecting heel I′, which is soldered or otherwise suitably secured to the outer under side of the deflector G, while diametrically opposite the ring is provided with a loop-shaped hooked finger-piece I^2, which protrudes upwardly through and is guided in a hole *i* in the deflector G. The gallery, wire rods, deflector, and retaining-ring form a longitudinally-shiftable supporting-frame for the chimney or globe, which may be locked or fastened in lowered position by means of a preferably open wire keeper or hasp K, which is made by bending the side rod outward, then inward upon itself, and the double wire projection is then curved to make it conform to the tube and is pivoted at one side in an upright sleeve or bearing *k*, located on the tube C′, so that when the keeper is moved from the dotted-line position shown in Fig.

5 into full-line position it may be caused to be thrown in locking engagement with the upper surface of a laterally-extending projection k' on the adjacent side rod g, as shown in Fig. 1.

To light the lantern, the keeper K is swung back from the projection k', and by taking hold of a suitable portion of the chimney-frame the chimney and frame are raised sufficiently so that the keeper may be swung back and into engagement with the under side of the projection k', thereby supporting the chimney above the burner, so that the wick may be lighted. This being done, the keeper is released, the chimney and frame lowered, and the keeper reëngaged.

Whenever it is required to remove the chimney or globe, the keeper is released, the retaining-ring raised by lifting on the finger-piece I^2, and the chimney taken hold of and tilted, as shown in Fig. 3, which causes at the same time the tilting or inclination of the gallery and air-distributing disk, the centrally-apertured portion of which moves and is guided on the rounded portion of the burner. The chimney may then be readily lifted out. The replacing of the chimney is accomplished by first tilting or inclining the gallery, then raising the retaining-ring with one hand, and then inserting the chimney with the other hand and moving it into upright position, in which position it will be automatically secured firmly in position.

Various details may of course be changed without departing from the comprehensiveness of my invention.

What I claim as new is—

1. In a lantern, the combination with the side member of the lantern-frame and the side rod of the chimney-frame, having a projection; of a hasp K swinging upon a vertical axis on the side member and movable laterally into and out of engagement with the projection of the side rod.

2. In a lantern, the combination with the side member of the lantern-frame and the side rod of the chimney-frame; of the laterally-extending projection k' of the side rod, and the horizontally-swinging hasp K engaging beneath said projection by its horizontal swinging movement.

3. In a tubular lantern, the combination with the side member of the lantern-frame and side rod of the chimney-frame; the lateral projection k' extending adjacent to the side member of the lantern-frame, the horizontally-swinging hasp K swinging beneath the said projection when the chimney-frame is elevated, and the upright sleeve k fixed on the side member and in which the hasp has its bearing.

4. In a lantern, the combination with the side tube of the lantern-frame and the side rod of the chimney-frame, of the projection k' comprising an outturned portion and an inturned portion, and having the double portion thus formed, curved, and conforming to a portion of the tube; the horizontally-swinging hasp engaging beneath the projection k'; and the vertical bearing in which the hasp swings.

5. In a lantern, the combination of the deflector-plate, having a surrounding gallery, to receive the chimney, formed with a trough having inner and outer side walls with diametric perforations and the chimney-frame embodying wires extending downwardly to the gallery, bent inwardly on diametrically opposite sides of the gallery and projecting through and having their bearings in the perforations in both the inner and outer side walls of the trough.

6. In a lantern, the combination of the deflector-plate, having a surrounding trough-shaped gallery to receive the chimney and the chimney-frame formed in part of the slide-wires extending downwardly to the gallery, then bent inwardly on diametrically opposite sides of the gallery and projecting through and having their bearings in the side walls of the trough, and extending beneath and in contact with the deflector-plate.

Signed at Brooklyn this 22d day of July, 1901.

HENRY J. VOGEL.

Witnesses:

LOUIS C. HAAESTECK,

FRED. J. GANS.