No. 714,066. Patented Nov. 18, 1902.

H. J. VALENTINE.

TUBULAR LANTERN.

(Application filed Mar. 1, 1902.)

(No Model.)

Fig. 1.

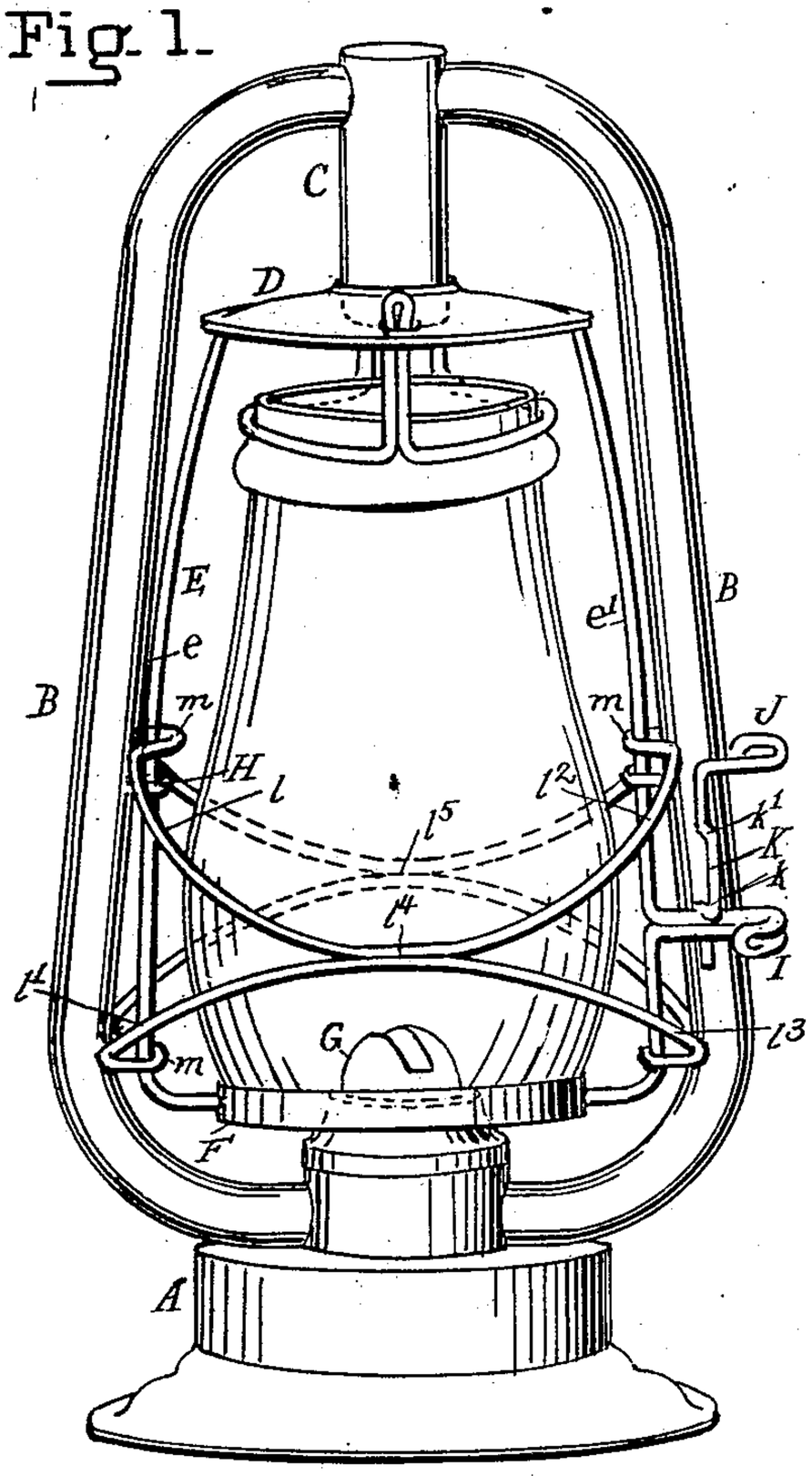


Fig. 2.

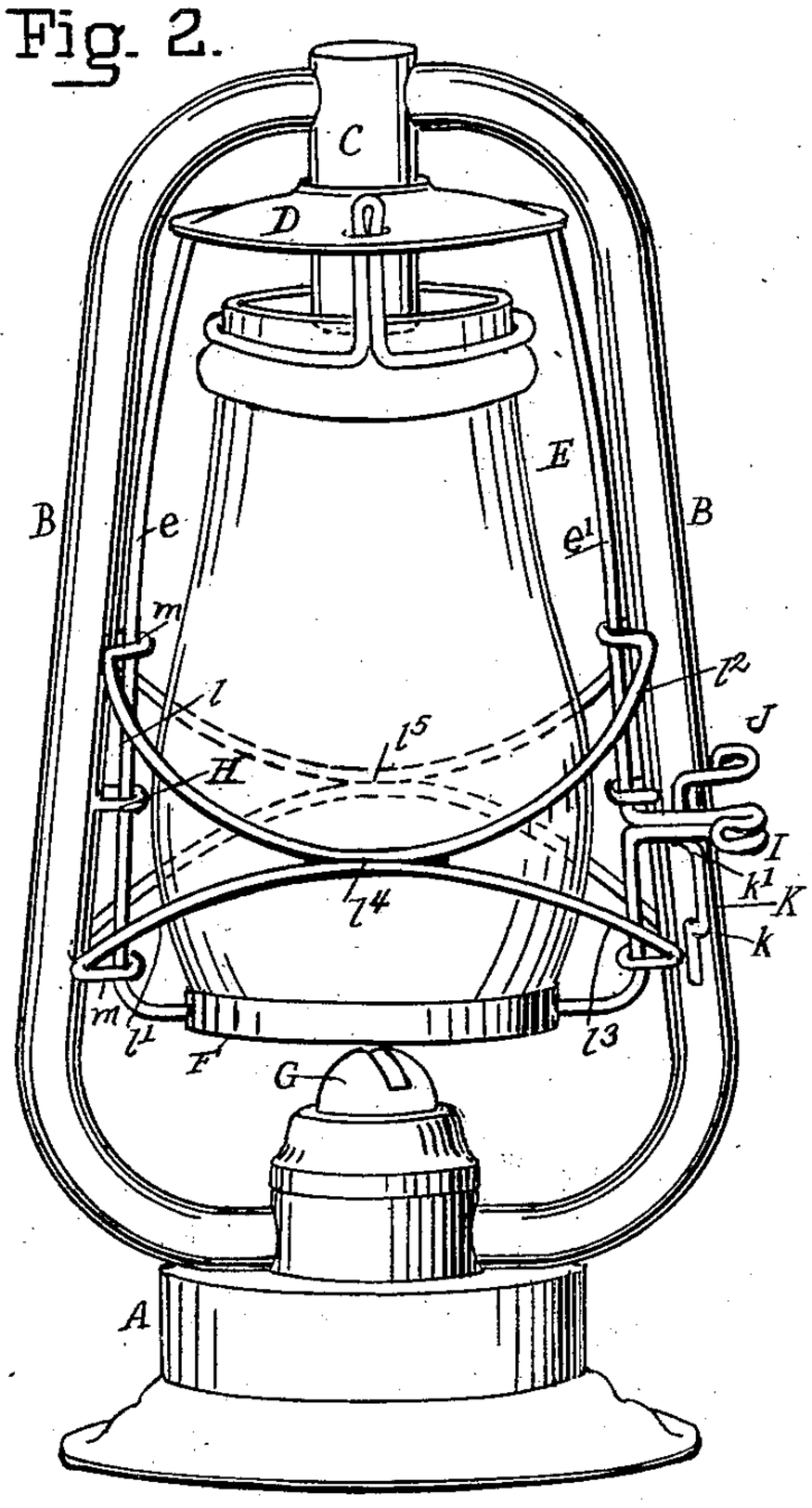


Fig. 3.

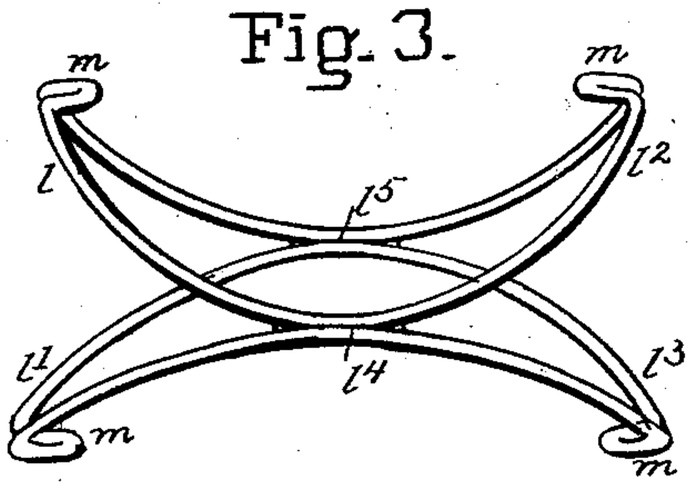
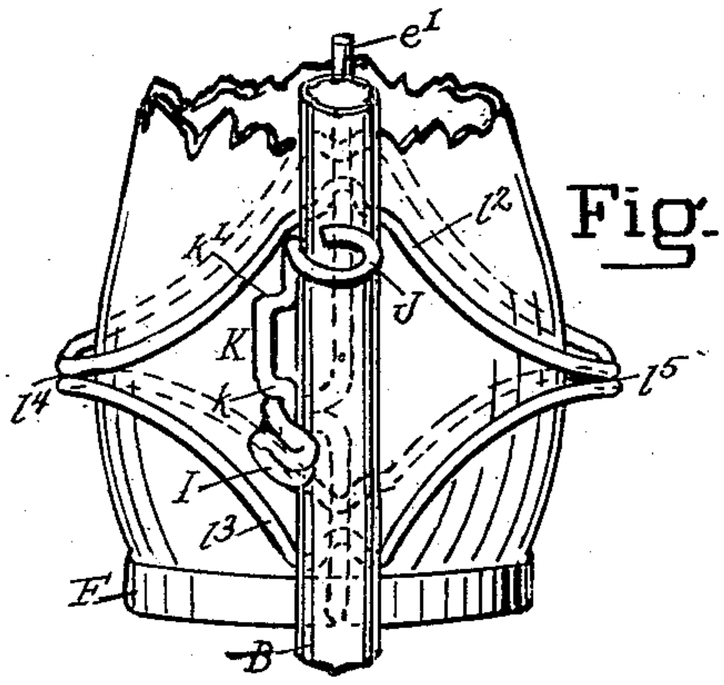


Fig. 4.



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UNITED STATES PATENT OFFICE.

HARRY J. VALENTINE, OF HEMPSTEAD, NEW YORK, ASSIGNOR TO WILLIAM VOGEL & BROTHERS, OF BROOKLYN, NEW YORK, A FIRM.

TUBULAR LANTERN.

SPECIFICATION forming part of Letters Patent No. 714,066, dated November 18, 1902.

Application filed March 1, 1902. Serial No. 96,196. (No model.)

To all whom it may concern.

Be it known that I, HARRY J. VALENTINE, a citizen of the United States of America, and a resident of Hempstead, Nassau county, and State of New York, have invented certain new and useful Improvements in Tubular Lanterns, of which the following is a specification.

The present invention relates to tubular lanterns, such as shown, for instance, in the patent of Henry J. Vogel, No. 688,496, dated December 10, 1901.

The objects of the invention are to provide a lantern which is efficient, reliable, and strong, by way of means for guarding the chimney against breakage.

A further object is to provide means for conveniently raising and lowering the chimney-frame and chimney when the lantern is to be lighted or the light extinguished.

To these ends my invention consists of certain features of construction and combinations of parts to be hereinafter described and then claimed.

In the accompanying drawings, Figure 1 is a front perspective view of a tubular lantern embodying my improvements, the chimney being lowered. Fig. 2 is a similar view with the chimney raised. Fig. 3 is a detail perspective view of the chimney-guard, and Fig. 4 is a sectional detail showing the catch device for securing the chimney-frame in raised or lowered position.

Referring to the drawings, the base or oil-font A of the lantern supports the side tubes B, which carry a top flue C, that in turn forms a guide for the deflector D at the top of the wire chimney-frame E. This chimney-frame comprises side rods *e e'*, which turn in at their lower ends, where they are received in sides of the chimney-gallery F, through which the burner G protrudes. The chimney may be retained in position by a spring-holder H, fixed to the deflector D and engaging over the top of the chimney.

The chimney-frame E may slide up and down in guide-eyes H on the tubes B and may be moved by means of a laterally and outwardly projecting handle I, preferably bent out of the wire body of the chimney-frame. Said handle extends transversely across the adjacent tube B and is bent to form a suitable finger-piece. A finger-rest J is located on tube B above the handle I, so that in raising the chimney-frame a purchase may be obtained thereon by one finger, (the thumb,) while another finger engages under the handle I, upon which latter an upward pull is exerted. Handle I engages in its lower position under a shoulder *k* and in its upper position over a shoulder *k'*, both shoulders being located on the adjacent tube B and formed, preferably, by a bent-wire lug K, extending vertically of and soldered to the said tube. In raising and lowering the chimney-frame the handle I slides on and is guided by the lug K. The finger-rest J and lug K are best made of one piece of wire bent to suitable shape and soldered to the tube. When the chimney-frame is in its final raised or lowered position, the handle forms a catch by snapping onto the corresponding shoulder at the end of the said lug K.

The main portion of the present invention is the chimney-guard. This consists of a spring-wire frame which comprises, it may be said, four U-shaped loop-jaws l l' l^2 l^3, which are joined at two points l^4 l^5. The jaws l l^2 compose the upper member and the jaws l' l^3 the lower member, such members being formed to be of general C curvature, arranged back to back, or, in other words, the curvature of the members l l^2 and l' l^3 is opposite one to the other. The U-shaped spring-jaws l l^2 are formed, preferably, of one piece of wire and the jaws l' l^3 of another piece, the joints occurring at the points of juncture l^4 l^5 of the upper and lower members of the guard, being effectuated by means of solder. The outer ends of the U-shaped jaws are recessed at *m*, so that they may engage with the side rods of the chimney-frame. By reason of the elasticity of the chimney-guard it may be sprung into engagement with the chimney-frame, or it may be contracted and withdrawn therefrom. This facilitates assembling and enables the production of a cheap guard which is not over-rigid.

What I claim as new and of my invention is—

1. The combination, with a lantern-frame, of a chimney-frame shiftable thereon, and a chimney-guard mounted removably within the chimney-frame, substantially as set forth.

2. The combination, with a lantern-frame,

of a chimney-frame shiftable thereon, and an outwardly-springing chimney-guard sprung into engagement with the chimney-frame, substantially as described.

3. The combination, with a lantern-frame, of a chimney-frame shiftable thereon, and a chimney-guard having oppositely-directed spring-jaws provided with means for detachably engaging the chimney-frame, substantially as set forth.

4. The combination, with a lantern-frame, of a chimney-frame shiftable thereon, and a chimney-guard detachably engaged with the chimney-frame, one of said engaging parts being recessed to interlock with the other at the points of engagement.

5. The combination with a lantern-frame, of a chimney-frame shiftable thereon, and a chimney-guard provided with recessed jaws sprung outwardly into engagement with the chimney-frame, substantially as set forth.

6. The combination with a lantern-frame, of a chimney-frame, and a removable chimney-guard consisting of spring-wire and constructed with four U-shaped jaws arranged in pairs back to back and sprung into engagement with the chimney-frame.

Signed at Brooklyn, New York, this 26th day of February, 1902.

HARRY J. VALENTINE.

Witnesses:
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