

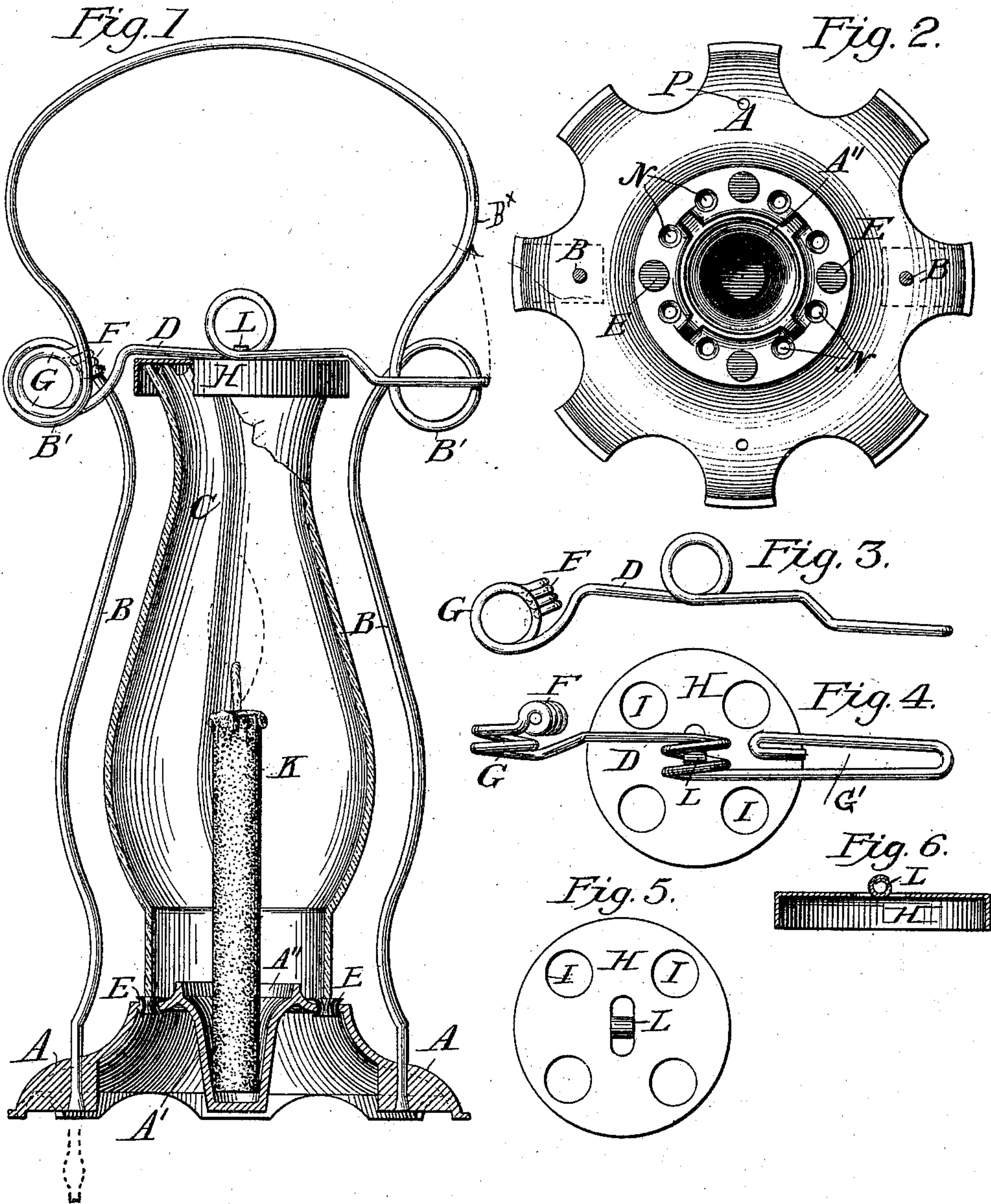
No. 647,179.

Patented Apr. 10, 1900.

J. H. DAVIS.  
LANTERN.

(Application filed Mar. 12, 1896.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## LANTERN.

SPECIFICATION forming part of Letters Patent No. 647,179, dated April 10, 1900.

Application filed March 12, 1896. Serial No. 582,990. (No model.)

*To all whom it may concern:*

Be it known that I, JULIA H. DAVIS, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Lanterns, of which the following is a specification.

My invention relates to lanterns; and it consists in certain improved parts and combination of parts whereby a better and more desirable lantern can be produced at less cost.

The best methods in which I have contemplated embodying my invention are illustrated in the accompanying drawings, and my said invention is disclosed in the following description and claims.

In the said drawings, Figure 1 is a vertical section of a lantern embodying one form of my invention. Fig. 2 is a plan view of the base. Figs. 3 and 4 show a side elevation and a plan, respectively, of the spring-lever for holding the chimney in position. Figs. 5 and 6 are plan and sectional views of the cover of the top of the chimney.

In the drawings, A designates the base, preferably of cast-iron, and B the bail or frame of wire attached to the base by passing the ends through holes in the same a short distance, as shown by the dotted lines. The ends are then slightly flattened, thereby enlarging the wire on two sides, which are then forced back into the holes, firmly securing the bail. The parts of the base that support the bail are thicker than the shell for the purpose of securing a firm bearing for the bail. By the employment of a wire for the bail which is smaller than the hole in the base the wire may be readily inserted in the base, and even by flattening the wire somewhat and drawing it backwardly and upsetting the end of the wire it is possible to very strongly and cheaply unite the bail to the base, a bail so connected having been found to be very durable and efficient.

Prior to my invention I am not aware that a bail has ever been inserted through holes in the base and secured in said holes as herein provided for.

The bail herein illustrated, starting from the base, is extended upwardly, and at points at or near the upper end of the chimney said bail is bent to form a spring-coil, the handle

of the bail being contained between said spring-coils. The spring-coils are represented as nearly circular in form and the turns of said spring-coils are preferably separated somewhat—say, for instance, a little in excess of the thickness of the wire used in the formation of the lever D, carrying the cap to be described—thereby enabling said lever to have a compact arrangement or position with relation to the bail.

The bail above the spring-coils B' B' referred to is represented as bent outwardly at B<sup>x</sup>, such outward bend at one side of the bail acting as a stop to limit the upward movement of the free end of the lever D, said lever moving when the cap H is elevated in the direction of the dotted line at the right of Fig. 1.

The base is provided with a conical socket A', Fig. 1, whereby candles of different diameters may be used and firmly secured. It is placed at the bottom of the base for the purpose of getting the flame as low as possible, thereby preventing the upper portion of the chimney and the handle from becoming unduly heated. The socket is provided with a closed bottom and is extended upward and enlarged in a conical or bell shape, forming a reservoir and conductor A'', in which the drippings of the candle are caught and conducted into the socket, where they may be consumed with safety and economy, as the entire candle may be utilized.

The base is provided with an elastic bed, on which the chimney is supported. The bed in the preferred construction (see Figs. 1 and 2) is represented as of rubber plugs or cushions E, they being compressed and forced into holes, preferably countersunk, on both sides, the expansion of the rubber on both sides firmly securing it.

The base is provided with a series of openings N, Fig. 2, between the reservoir A'' and the chimney C, through which, and also under the chimney, a current of cold air ascends, whereby the chimney and candle are kept cool and the candle supplied with oxygen, thereby insuring a brilliant light and perfect combustion.

Figs. 3 and 4 show a lever D, which carries a cap or cover for embracing and holding the chimney in position. This lever is represented as composed of a single piece of wire,



having at one of its extremities a coil F of a diameter to fit loosely one arm of the bail, said coil being retained in operative position on said bail by friction. This lever has, as represented, next said spring-coil F a larger spring-coil G, which constitutes a yielding point for the lever, said lever beyond said spring-coil being extended across from one to the other bail, the free end of the lever being bent to constitute, as herein represented, an open loop G', which embraces the bail, the lever between one and the other arm of the bail having pivotally mounted upon a part thereof the said cap or cover H, the pivoting of the cap or cover on said lever enabling the latter to adapt itself to variations in length or configuration of tops of chimneys used.

In order to prevent any distortion of the spring, the handle of the bail is laterally extended and the upward movement of the lever is limited by contact with the bent part B' of one part of the bail, as shown by the arrow, and when the chimney is removed the lever will rest on the lower part of the coil B'.

The pressure of the lever on the chimney is attained by placing the coil F at an angle with the lever, and by varying the angle any desired pressure may be maintained.

In applying the lever D to the bail one arm of the bail will be inserted through the coil F and the said coil will be adjusted on the bail to a position substantially opposite the upper end of the chimney, and when the lever D is raised, so that it will press the cap H carried by it upon the upper end of the chimney, the coil is made to bind or clamp the bail and is thereby maintained frictionally in any desired adjusted position.

H is a thin metal flanged cap or cover for holding the top of the chimney in position. It is provided with a series of openings I to allow the heat and gases to escape and to create a draft of air through the chimney.

The cap or cover H is carried, as stated, by the lever D, portions of the wire coil at or near the center of said lever being loosely jointed to said cap or cover by portions carried by the cap or cover crossing the wire coils. The center portion of the lever is bent or curved, whereby chimneys of slightly-different length may be used and a perfect bearing of the cover on the top of the chimney secured. The cover also permits the use of chimneys with any style of top. When the chimney is removed, the free end of the lever D rests on the bottom of the coil B'.

This invention is not in all instances limited to the exact form of lever D herein shown, as it is obvious that the shape of the springs might be somewhat modified without departing from my invention, and so, also, the shape of the free end of the lever which embraces or coöperates with that leg or arm of the bail of a lantern opposed to the arm or leg upon which the lever has its fulcrum might be varied in shape. I believe that I am the first to use a lever having at one end a coil to em-

brace and be frictionally held in position upon one leg of the bail, the other end of the lever being capable of coöperating with the opposed arm or leg and having a limited extent of motion, said lever being at all times in engagement with the opposed arm or leg, the lever acting normally, owing to its spring shape and properties, to press the cap or cover upon the top of the chimney.

It will readily be seen that oil or other liquid substances may be used by substituting a reservoir adapted to burn fluids.

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

1. In a lantern, the combination with a lever, of a cap or cover connected with a coil of said lever and connecting with the arms of the lever to be thereby restrained from turning on said lever.

2. In a lantern, the combination with the bail, of a lever secured at one end to one part of the bail and having its opposite end extended to and coöperating with the opposite leg of the bail, of a cap or cover secured to a coiled part of said lever substantially intermediate the legs of the bail and means coacting with a leg of the bail and lever to hold the cap in position, substantially as described.

3. In a lantern, a base having holes, combined with a bail composed of a single wire bent to form a handle, and spring-coils at points substantially at or near the upper end of the chimney, the free ends of the wire forming said bail being inserted through the holes of the base and upset therein, whereby said bail and means attached to the bail to hold the chimney in place is permanently and securely attached to said base.

4. In a lantern, a base having holes, combined with a bail composed of a single wire bent to form a handle, and spring-coils at points substantially at or near the upper end of the chimney, the free ends of the wire forming said bail being inserted through the holes of the base and upset therein whereby said bail is permanently and securely attached to said base; combined with a lever sustained by one leg of said bail and adapted to coöperate with the other leg of said bail, said lever having a spring and being restricted in the extent of its vertical movement, and a cap or cover carried by said lever, substantially as described.

5. A lantern, composed of a base and a bail bent to present a handle and spring-coils, combined with a lever having at one end a spring-coil as F through which one leg of the bail is inserted, said lever being bent to present between its ends a spring, the opposite end of said lever coöperating with the opposed leg of the bail.

6. A lantern, composed of a base, and a bail connected therewith, said bail presenting between the base and the handle part spring-coils, the turns of said spring-coils being somewhat separated; combined with a bent lever as D coöperating with one leg of the bail and



extended across and cooperating at its free end with the other leg of the bail, a part of said lever in its normal position standing between the turns of the spring-coils of the bail, the latter acting as a guide for the lever, substantially as described.

7. In a lantern, the combination with a base and a bail connected therewith presenting a handle, each part of the bail presenting a spring-coil; combined with a lever having a spring-coil and connected with one leg of the bail, the spring of said lever normally keep-

ing the opposite end of said lever in a position below the spring-coil of the opposite leg, said lever when elevated to put it into position to retain the upper end of the chimney being arrested in its down position by means of the spring-coil of the bail with which that end of the lever cooperates, substantially as described.

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