

W. O. B. MERRILL.

Lamp Chimney.

No. 35,535.

Patented June 10, 1862.

FIG. 1.

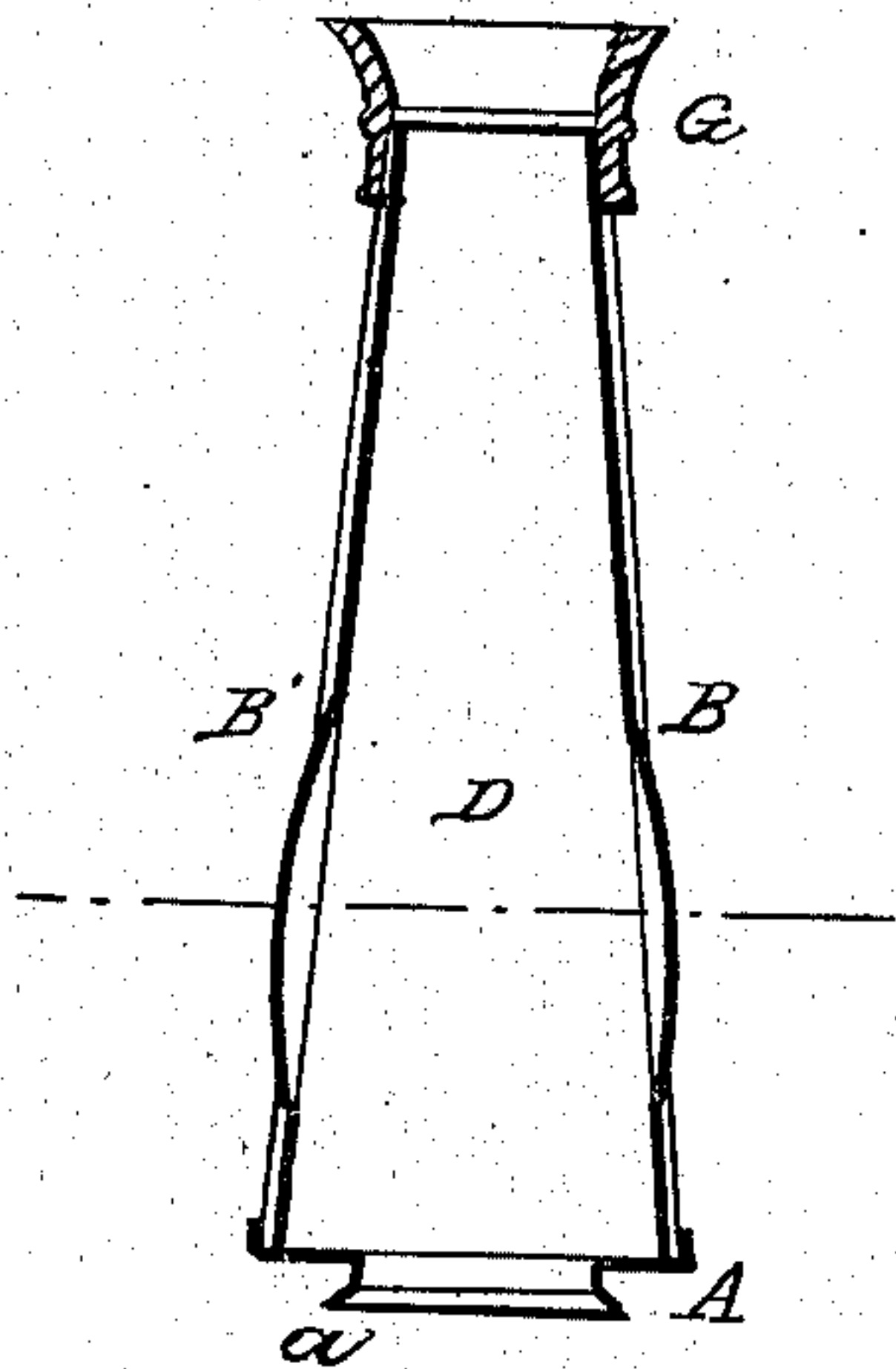


FIG. 2.

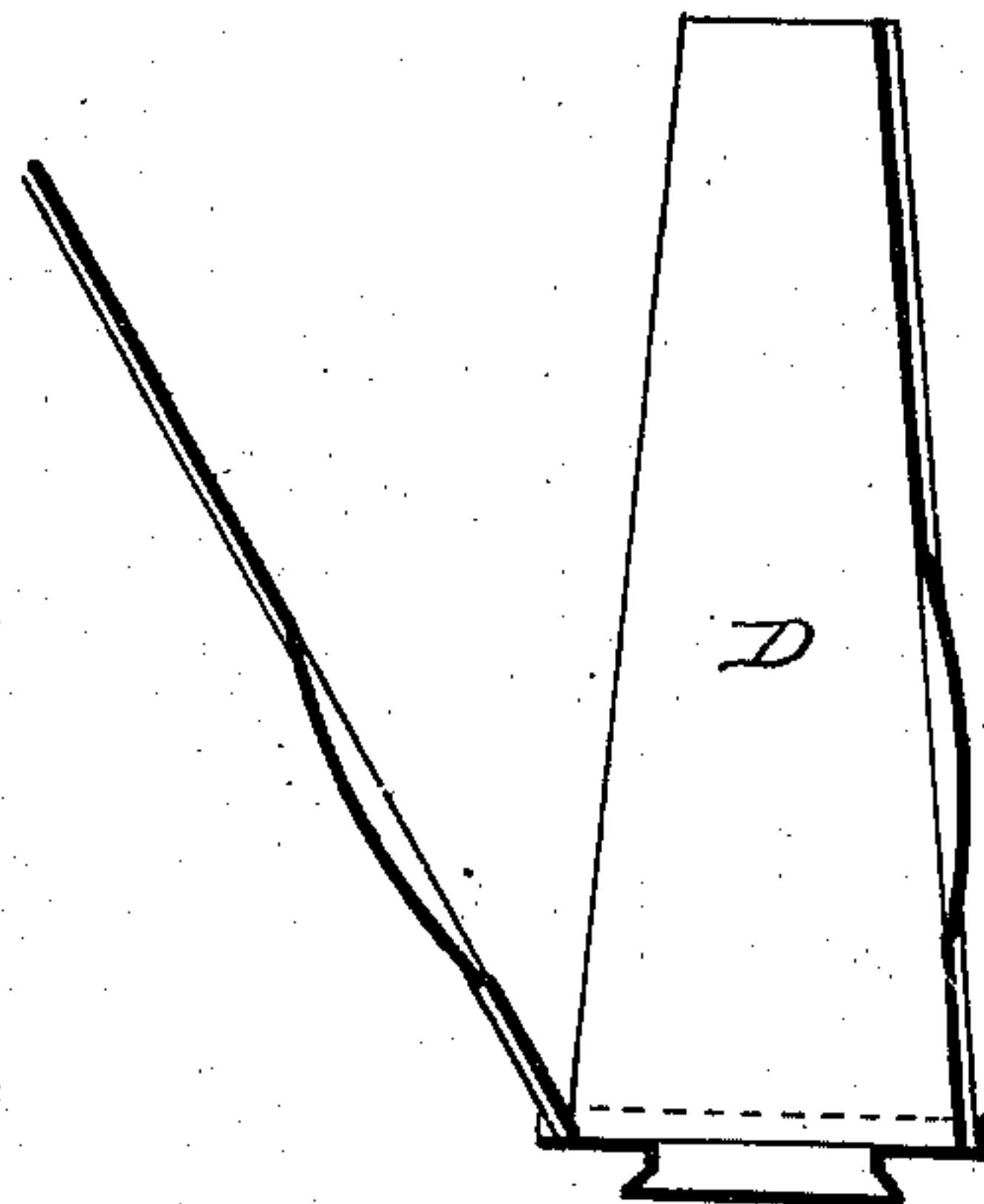


FIG. 3.

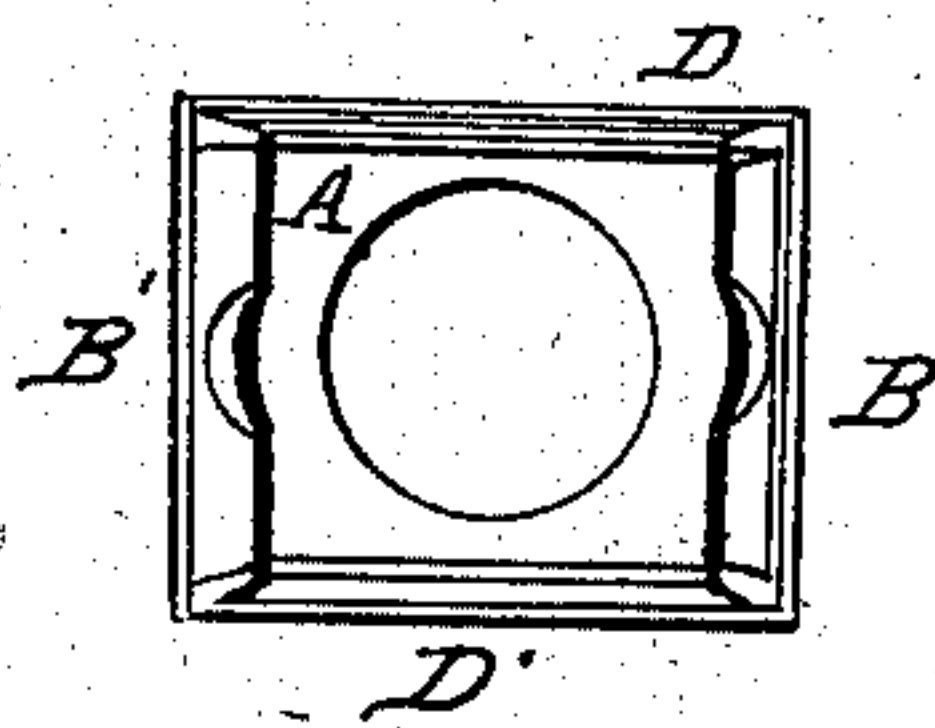


FIG. 4.

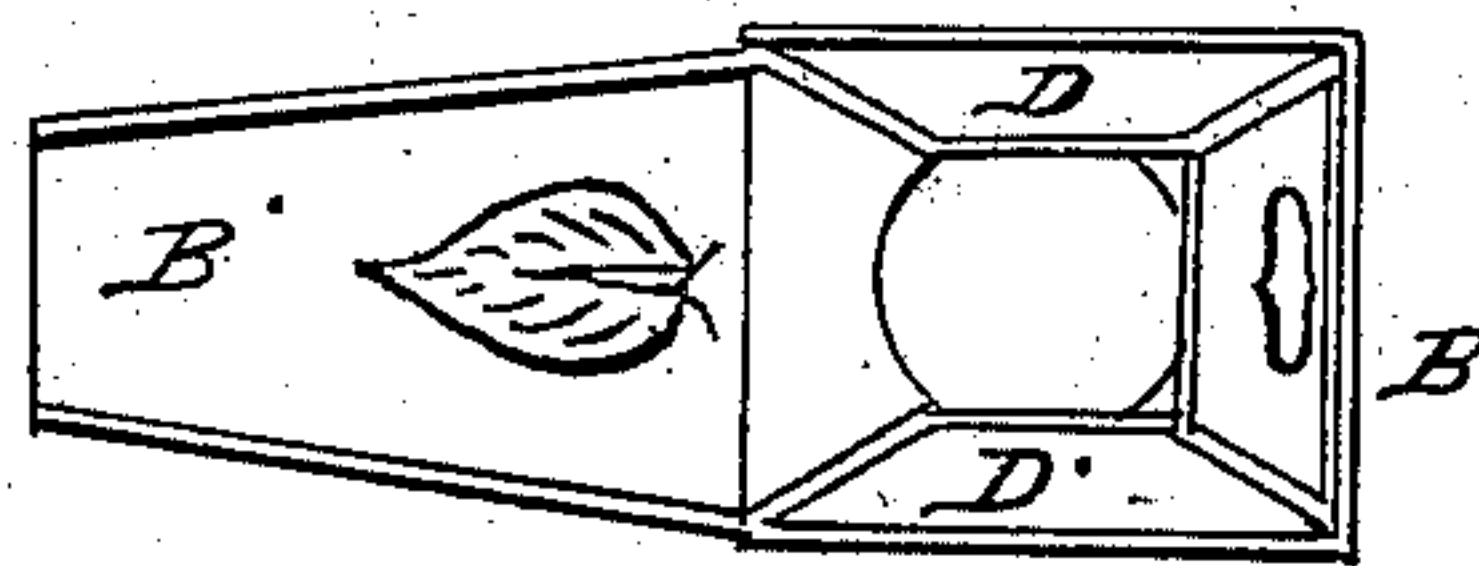


FIG. 5.

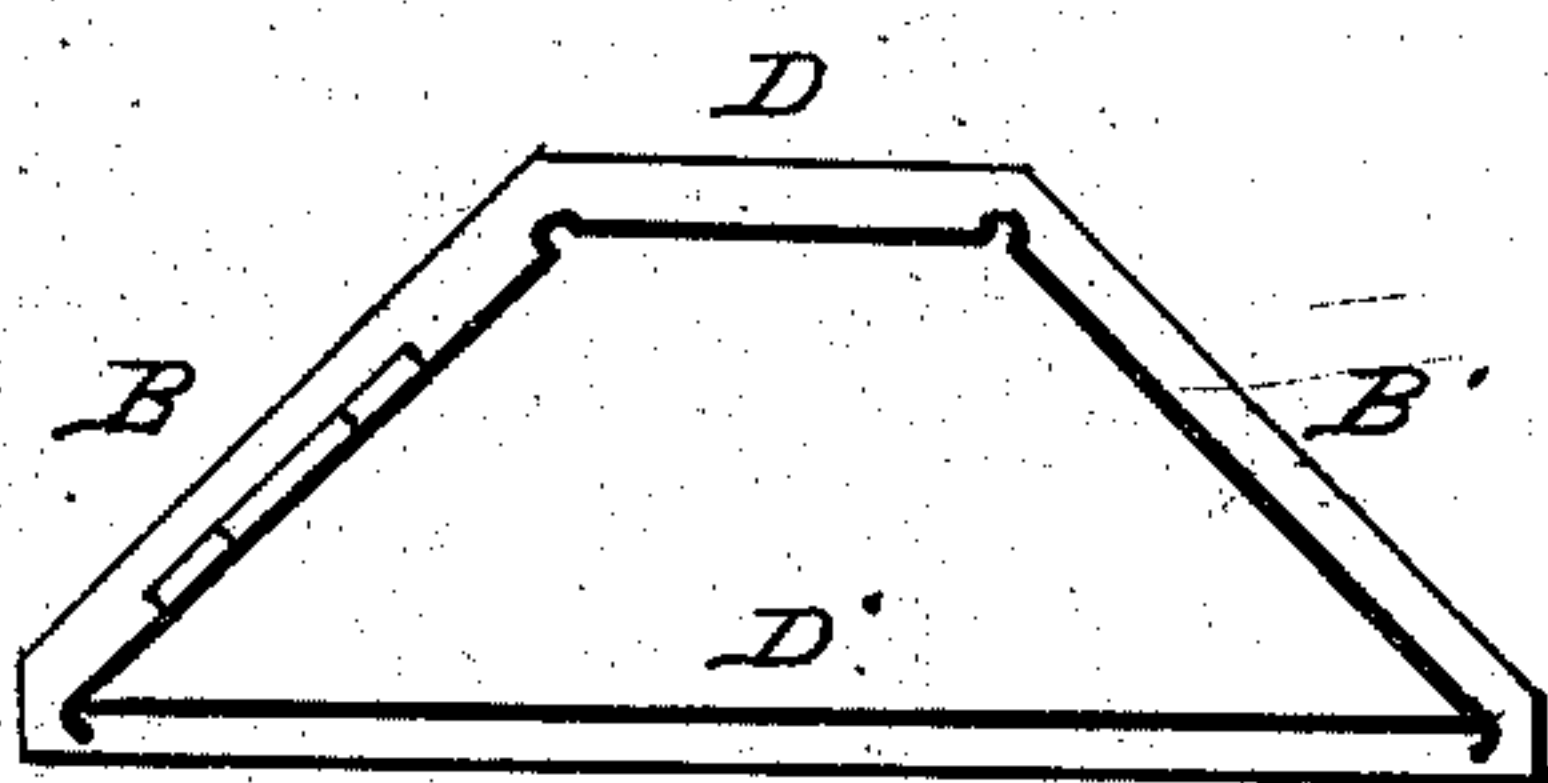
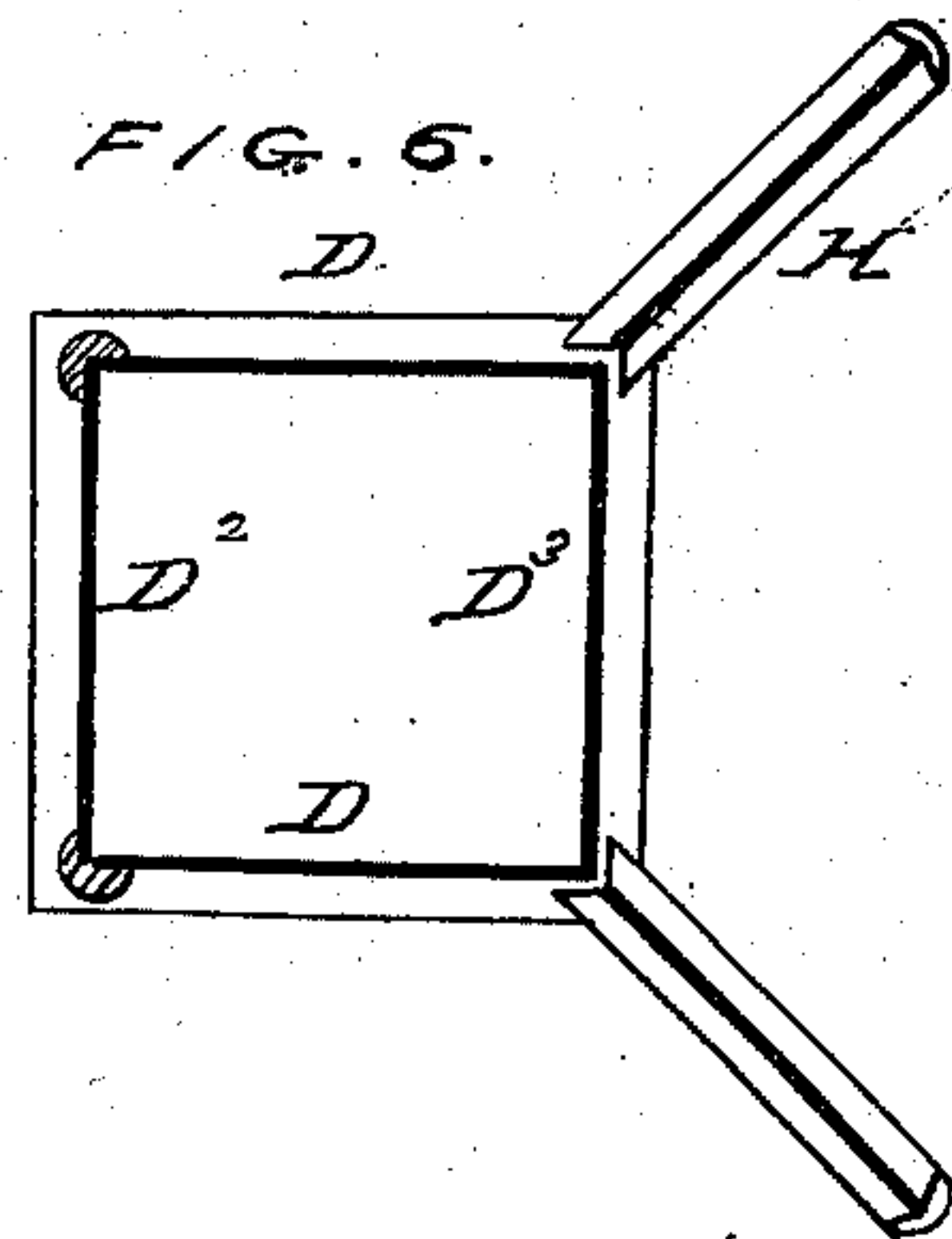


FIG. 6.



WITNESSES:

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UNITED STATES PATENT OFFICE.

W. O. B. MERRILL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN LAMP-CHIMNEYS.

Specification forming part of Letters Patent No. 35,535, dated June 10, 1862.

To all whom it may concern:

Be it known that I, W. O. B. MERRILL, of Philadelphia, Pennsylvania, have invented a new and Improved Chimney for Lamps; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My improved chimney is composed of a metal base with a projection adapted to the burner of a lamp, and two or more plates of plain glass confined by metal ribs or plates, substantially as described hereinafter, so as to form a more durable and less fragile chimney than those composed entirely of glass.

My invention further consists in hinging one or more of the said metal plates or ribs to the metal base and confining them at the top by means of a detachable cap or its equivalent, as described hereinafter, so that after the withdrawal of the said cap one or more of the plates of glass may be removed and replaced at pleasure.

In order to enable others to make my invention, I will now proceed to describe the method of constructing the same.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a vertical section of my improved chimney for lamps; Fig. 2, the same, illustrating the manner of securing the plates of glass between the metal plates; Fig. 3, a sectional plan on the line 1 2, Fig. 1; Fig. 4, a plan view of Fig. 2; Figs. 5 and 6, sectional plans illustrating modifications of my improved chimney.

Similar letters refer to similar parts throughout the several views.

On reference to Figs. 1, 2, 3, and 4, A represents the metal base of the chimney, this base in the present instance being square, with a circular opening and an annular projection, *a*, of a form suitable for attachment to the burner of the lamp to which the chimney has to be applied. To one edge of the base A is secured the lower edge of the metal plate B, and to the opposite edge is hinged a similar metal plate, B', both plates being wider at the base than on the top, and both having on their opposite vertical edges grooves or recesses for the reception of the edges of the plates D and D', of glass, which, like the metal plates, are wider at the

bottom than at the top, so that when the two metal plates and two glass plates are fitted together they will form a hollow square chimney of the tapering shape represented in the drawings. The glass and metal plates are retained in their proper position at the top by a metal cap, which fits snugly on, but so as to be readily removed from the chimney. As long as this cap retains its position on the chimney the latter remains entire, and when applied to the lamp serves the same purpose as an ordinary glass chimney; but when the cap is withdrawn the metal plate B' may be moved to the position shown in Fig. 2, thereby permitting the withdrawal of one or both of the glass plates.

The frequent breaking of ordinary glass chimneys for lamps is a source of constant annoyance and expense, especially in railway-cars and other conveyances and in localities distant from stores where new chimneys can be purchased.

As my improved chimney consists of two plain plates of glass confined at the edges between metal plates, there is but little liability of the glasses to break, and should they be accidentally broken they can be readily replaced with new plates, which can be cut by any glazier from a plain sheet of glass.

In some instances I prefer to make my improved chimney of the form represented in the sectional plan, Fig. 5, the plate of glass D' being much wider than the plate D, but both being confined, in the manner described above, between the metal plates B and B', which must necessarily occupy the inclined position represented, and which may be polished on the inside, so as to act as reflectors. A lamp-chimney of this form is especially applicable to city-railway cars, in which lamps are placed at the opposite ends of the car, for lighting the inside, as well as affording a limited light for the driver and conductor.

The larger plate of glass, D', of the chimney is so situated as to be presented toward the inside of the car, where the greatest light is required, while the smaller glass, D, is toward the outside of the car; and the latter glass may be colored, so as to dispense with the large sheets of colored glass usually employed in city-railway cars.

In some cases the chimney may be composed

of four tapering plates of glass, D D' D² D³, confined by four ribs, H, Fig. 6, which have grooves adapted to the corners presented by the junction of the edges of two of the glass plates. Two of these ribs may be permanently secured to the base A and two hinged to the same, so as to permit the ready withdrawal of one or more of the glasses, when necessary, after the removal of the cap which confines the ribs, and consequently the glasses, at the top. In this instance the chimney presents a greater surface of glass than that above described, and consequently is better adapted for the lighting of dwellings and public buildings.

In some instances the chimney may be made of a hexagonal or octagonal form, the plates of glass being plain and being confined by metal plates or ribs and surmounted with a cap, as described above.

I claim as my invention and desire to secure by Letters Patent—

1. A lamp-chimney composed of a metal base, A, with an annular projection adapted to the burner of a lamp, and two or more plates of plain glass confined by metal ribs or plates, substantially as and for the purpose herein set forth.

2. Hinging one or more of the said plates or ribs to the base and confining the same at the top by the detachable cap G, as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

W. O. B. MERRILL.

Witnesses:

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HENRY HOWSON.