

W. S. THOMPSON.

Chimney Holder.

No. 37,183.

Patented Dec. 16, 1862.

Fig. 1.

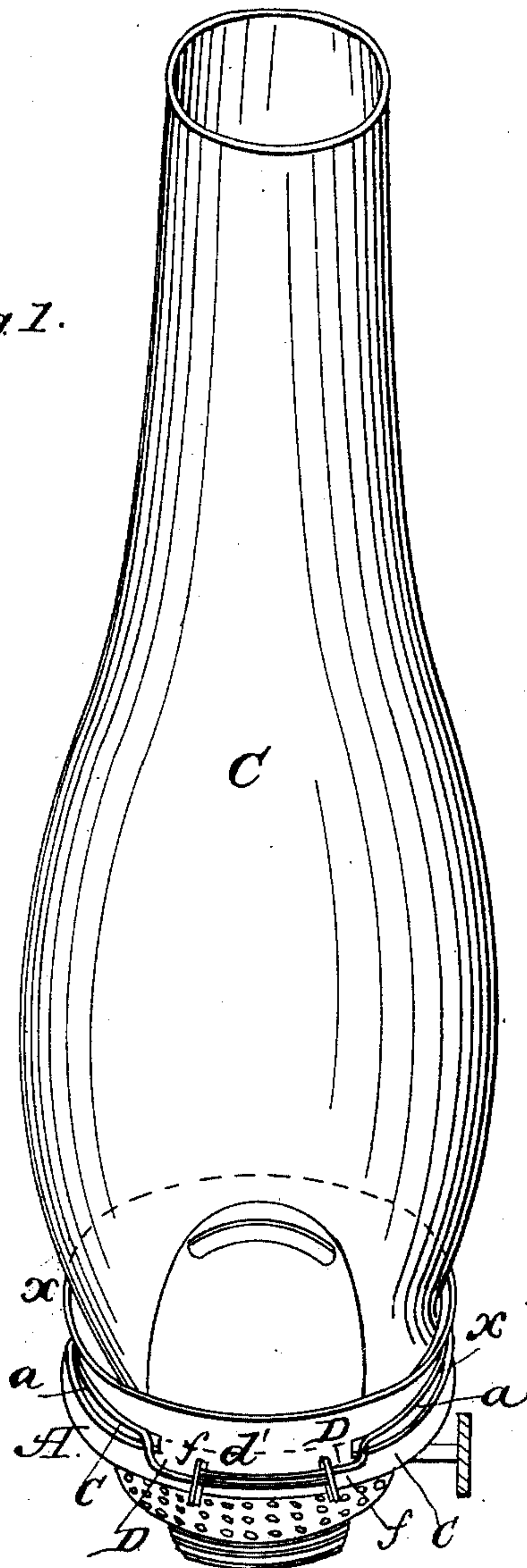
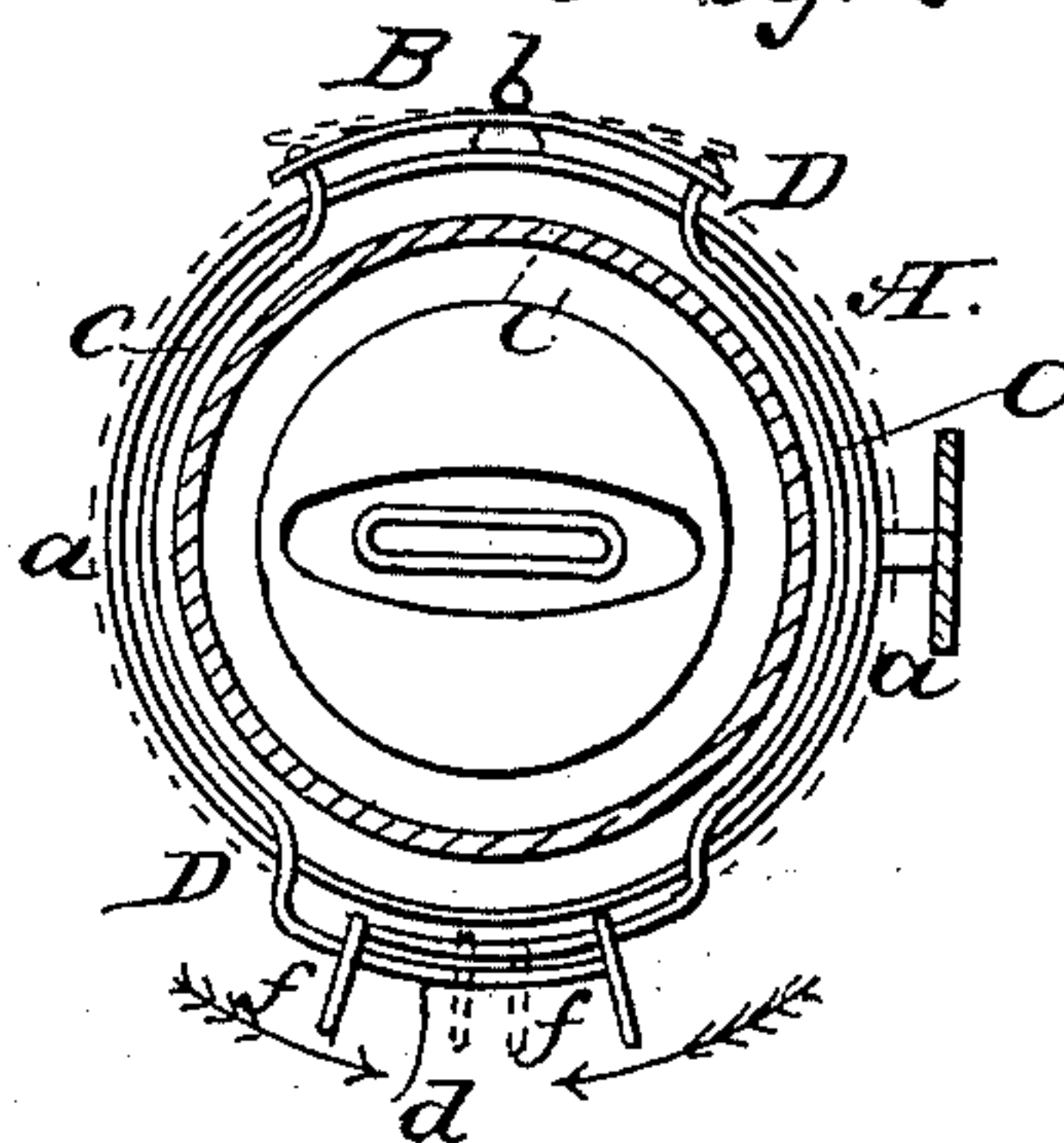


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM S. THOMPSON, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN SPRING-FASTENINGS FOR LAMP-CHIMNEYS.

Specification forming part of Letters Patent No. 37,183, dated December 16, 1862.

To all whom it may concern:

Be it known that I, WILLIAM S. THOMPSON, of Rochester, in the county of Monroe and State of New York, have invented a new and Improved Spring-Fastening for Lamp-Chimneys; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a perspective view of a lamp-top and chimney, with my improvement applied thereto; Fig. 2, a horizontal section of the same in the plane indicated by the line *x*, Fig. 1.

Like letters designate corresponding parts in both figures.

My improvement relates to that class of fastenings where springs are used to hold the chimney in place. Various arrangements have been employed for the purpose. In one a single spring on the flange of the lamp-top is used, which catches over the flaring rim of the chimney-neck. The device is not only costly, but in using a chimney with the base smaller than usual the spring presses it inward, so that it does not stand centrally around the burner, but to one side, so as to be broken by heating or smoked by the flame, and also in depressing the spring with one hand the lamp has to be held by the other to prevent overturning by the unequal leverage. In another device two fingers or levers are employed, respectively on opposite sides of the flange of the lamp-top, with projections passing through and bearing against the base of the chimney, and with a bent spring between the short ends of the levers to cause the pressure of the fingers; but in this case, in using a very large chimney, the fingers are so much expanded that only the rear projection bears on the glass, thus rendering the fastening very insecure, and the device is also expensive, being made up of several parts not easily fitted to the flange, and it occupies so much space as to be an obstruction or inconvenience, as well as unsightly.

It is the object of my invention to obviate these difficulties and defects by the production of a device simple, cheap, compact, easily applied, always retaining the glass in a central position and securely, and allowing its free expansion from heat under all conditions.

As represented in the drawings, the lamp-

top or cap A is of ordinary construction, with the exception that about centrally, vertically of its flange, on two opposite sides, are respectively made narrow horizontal slots or openings *a a*, of suitable length to admit the spring for fastening the chimney. On the rear of the flange, centrally between the slots above described, is secured, at *b*, a thin flat spring, B, of suitable length for the purpose designed, and substantially of the shape represented in Fig. 2. To the ends of this spring are respectively fastened the extremities of two flexible wires or rods, D D, on the same horizontal plane with the slots. In the position corresponding with the slots the wires are bent inward, projecting through the same, as represented at *c c*, sufficiently far to bear over the rim of the smallest-sized chimney it may be desirable to use at any time. The ends *d d* of the wires, after encircling the flange, project beyond each other, side by side, in front, a suitable distance for the purpose designed, and have rigidly secured to their extremities guide-knobs *f f*, having the opposite wire passing through and sliding freely in a hole or passage in each, and being of suitable size at the same time to form bearings for the thumb and finger in operating the wires. Thus arranged, when the chimney is to be secured in place, the thumb and finger of the operator are pressed against the knobs of the wires, expanding the latter sufficiently to force the bent portions *c c* out beyond their slots, thus leaving the space entirely unoccupied, as indicated by red lines in Fig. 2. When the base of the glass is in position, the wires are released and the sides *c c* return to place, holding over the rim of the chimney with equal pressure their whole length, which is so considerable that the chimney is retained in the most secure manner and cannot rattle or move around in its socket. The wires being curved to conform with the shape of the chimney, and the pressure on the same being thus equal on both sides, and the bearing of the wires being so extended, the glass instantly assumes a central position around the burner, and cannot be displaced from that situation by any accidental jar or motion. In this respect my device is superior to any other. The flexibility of the wire, combined with its elasticity, produced by the spring B, allow it to adapt itself to either a large or small size of

chimney with equal bearing on the whole surface, and with but the slightest difference in the degree of pressure, which is such as will admit the glass to expand from the heat without danger of breaking. This is not the case with stiff levers or fingers operated by a spring between, the pressure being so great in holding a large sized chimney that the glass is liable to fracture in expanding; and in such device the spring does not adapt itself with the ease and equality of bearing on the rim of the chimney as in my arrangement, but bears only on certain points. The knobs *ff*, by serving as guides in allowing the opposite wire to slide through them, always sustain said wires, and keep them in the proper position to pass in and out of the slots of the flange and stiffen the whole so as to be easily operated. This is necessary, as otherwise, the wires being so flexible, they would become disarranged and not work properly. The wires resting close to and within the flange have no projecting or conspicuous parts liable to become injured and disarranged.

I do not claim merely the use of a spring to hold the chimney in place, nor do I claim, broadly, the use of springs on opposite sides of the base of the chimney; but

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

Securing the chimney by means of the flexible elastic wires *DD*, on the opposite sides, suitably connected together, and having the portions *cc* resting, respectively, in the slots *aa* of the flange of the lamp-top in such a manner as to furnish an extended continuous bearing on the base of the chimney to hold it centrally in place, and allow it to expand freely, and to adapt it to different-sized chimneys, the whole arranged, combined, and operating substantially as herein set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WM. S. THOMPSON.

Witnesses:

J. FRASER,
R. F. OSGOOD.