

(No Model.)

G. A. SANDERS.
REFLECTOR HOLDER.

No. 353,163.

Patented Nov. 23, 1886

Fig 1.

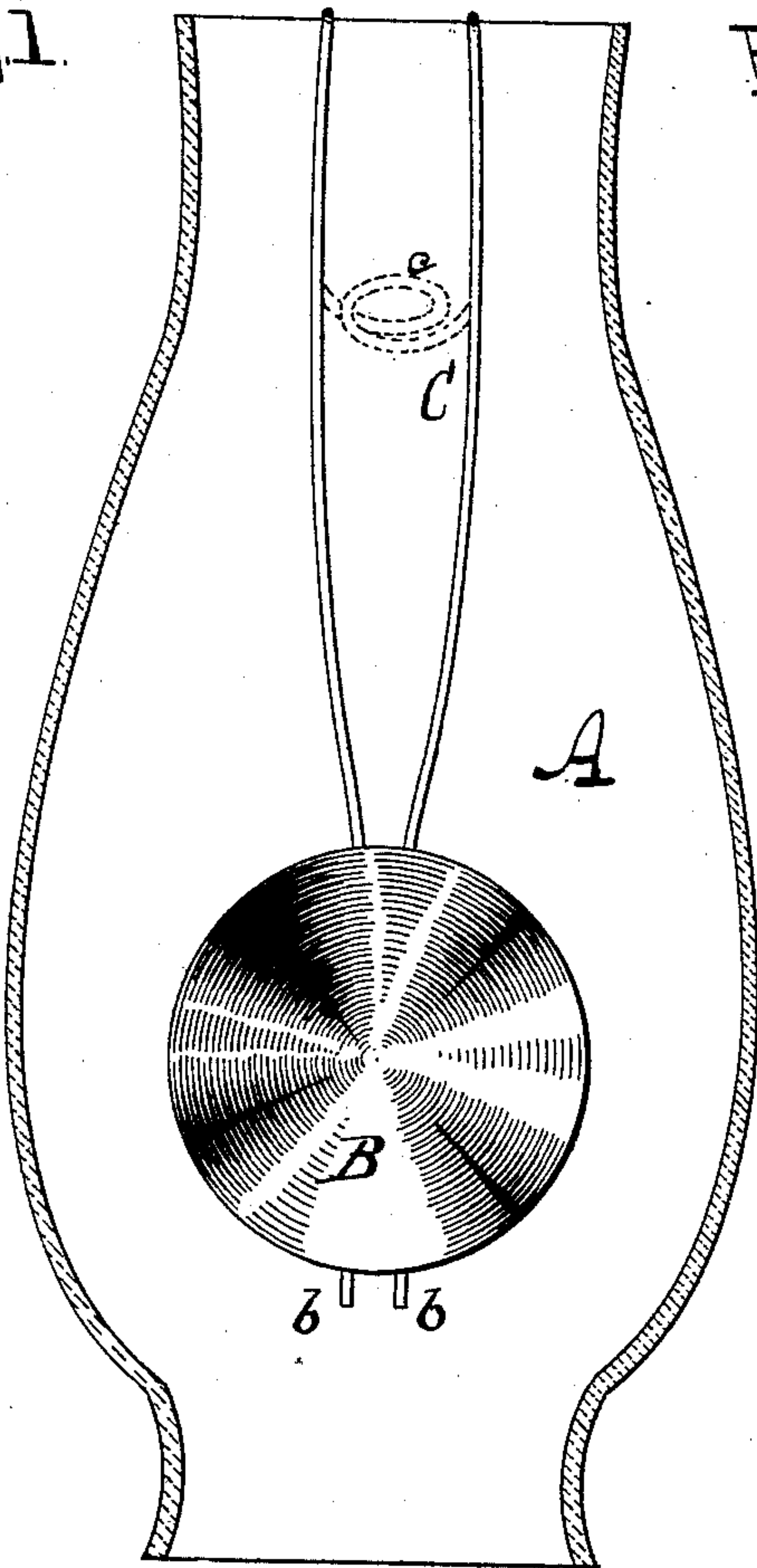


Fig 2.

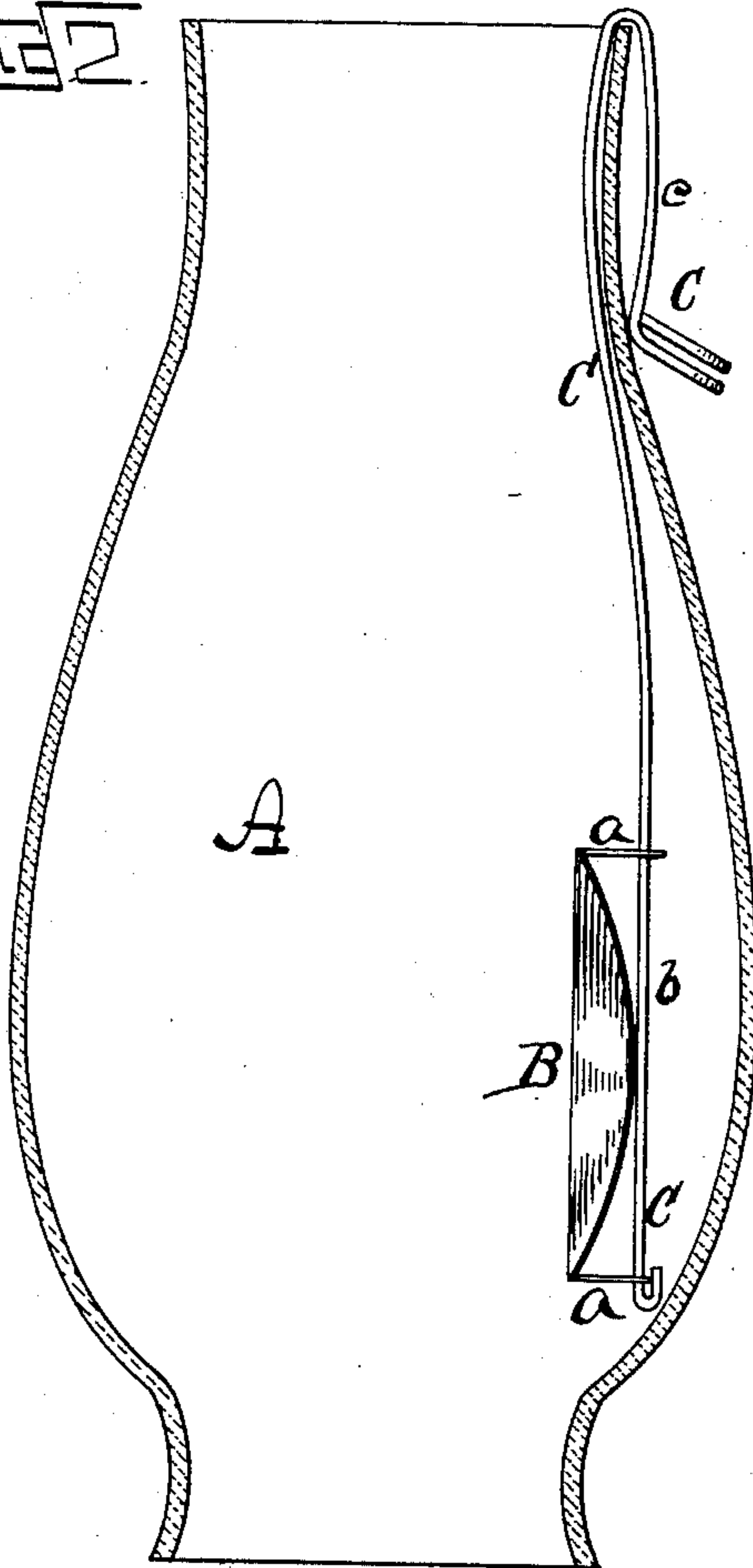


Fig 3.

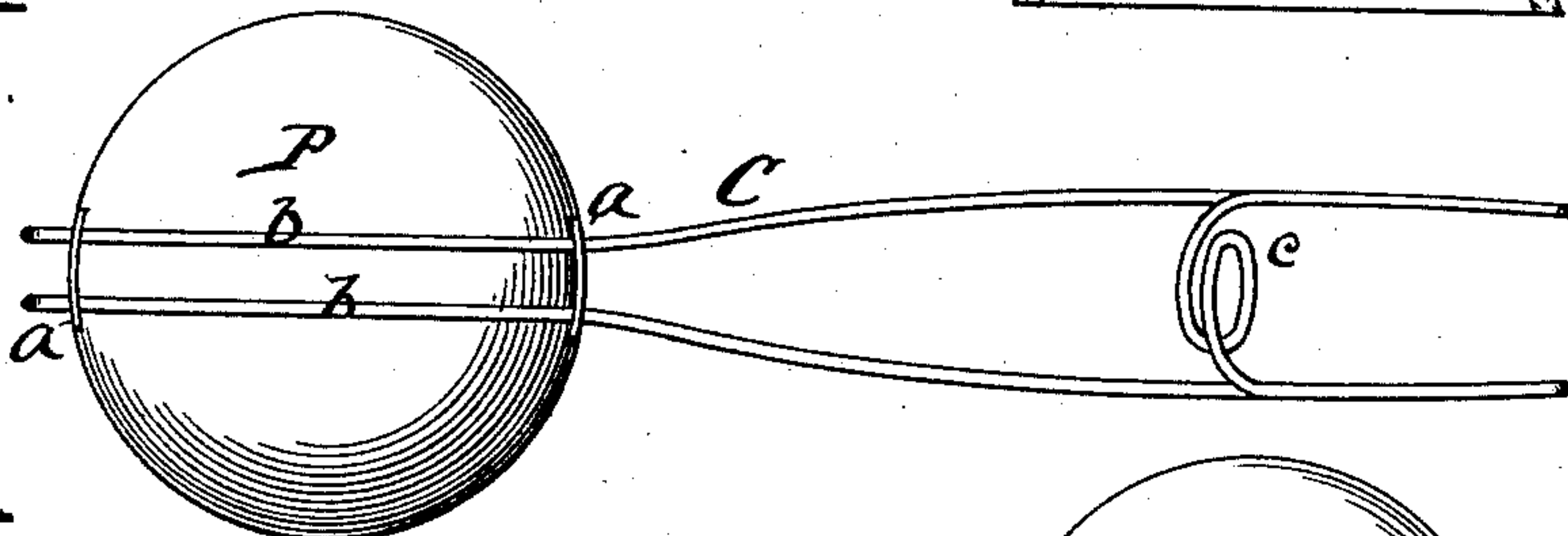
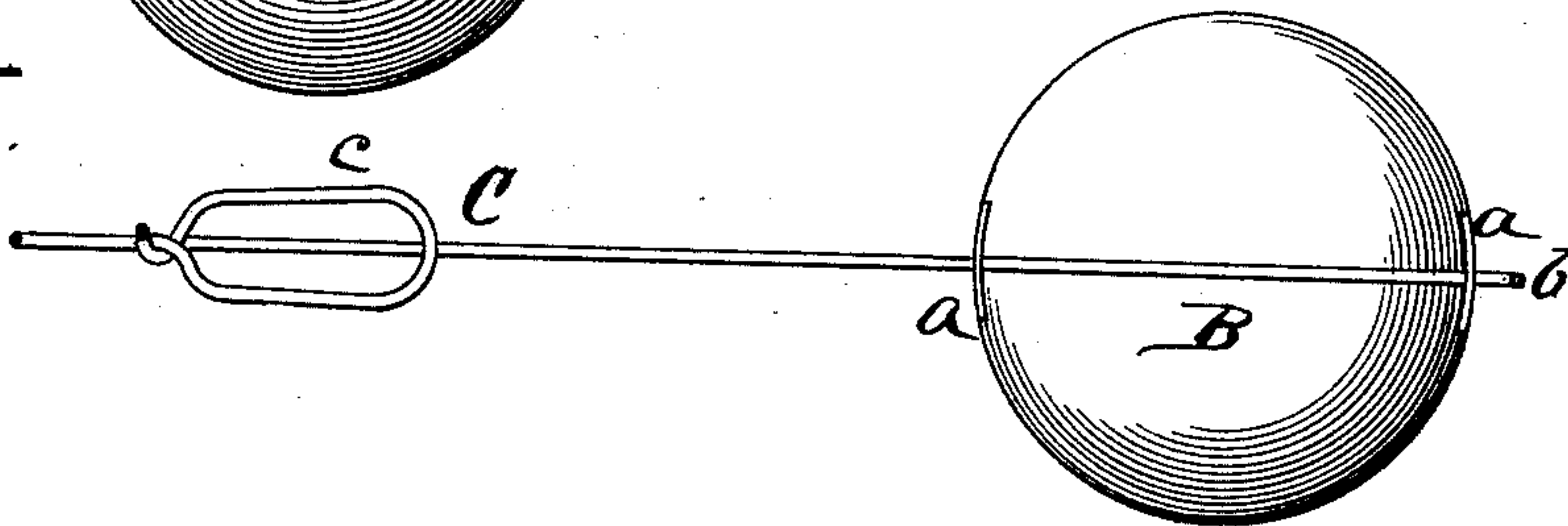


Fig 4.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE A. SANDERS, OF LAKE VILLAGE, NEW HAMPSHIRE, ASSIGNOR OF
ONE-HALF TO AUGUSTUS R. BURFEE, OF SAME PLACE.

REFLECTOR-HOLDER.

SPECIFICATION forming part of Letters Patent No. 353,163, dated November 23, 1886.

Application filed February 18, 1886. Serial No. 192,452. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. SANDERS, of Lake Village, in the county of Belknap and State of New Hampshire, have invented an
5 Improved Lamp-Reflector; 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.

10 My invention consists in a lamp reflector and holder composed of a reflector provided with means for attaching it to the holder, and a holder formed of a rod or rods to receive the reflector attachment, and having an elastic sus-
15 pending-hook, and in the combination of the same with a lamp-chimney, the said elastic suspending-hook being adapted to catch upon the upper end of the lamp-chimney, all substantially as hereinafter set forth.

20 In the drawings, Figure 1 represents a central vertical section of a lamp-chimney provided with my improved reflector; Fig. 2, a central vertical section of the same in a plane at right angles to the plane of the view in Fig.
25 1; Fig. 3, a rear view of the reflector; Fig. 4, a rear view of a modified construction of the reflector.

Like letters designate corresponding parts in all of the figures.

30 In the drawings, A represent the lamp-chimney, B the reflector, and C the reflector-holder, by which also the reflector is attached to the lamp-chimney.

The reflector B may be of any ordinary form,
35 a circular concave mirror being shown in the drawings, and it may be made of polished metal or any other material suitable for a reflector.

40 In order to place the reflecting-mirror and hold it in the lamp-chimney and allow its adjustment in position therein to the position of the lamp-flame, it is mounted on a holder, C, which is preferably made of wire, as shown.

45 The reflector, as represented, has two ears or projections, *a a*, turned backward from its edges, and provided with holes to receive the holder. In the principal views of the drawings I have shown the holder as made with the arms *b b* forming the ends of the single piece

of wire of which the holder is made, each arm 50 passing through a hole in each ear of the reflector. Thus the reflector is prevented from turning out of position on the holder.

The holder C extends from the reflector upward far enough to reach the upper end of the lamp-chimney, being preferably curved in 55 proper form to sufficiently conform to the inner outline of the lamp-chimney. The user of the reflector can bend the wire of the holder to suit the form of any chimney used. At the 60 upper end of the lamp-chimney the holder is bent outward over the edge of the glass, and thence downward close to the outer surface of the chimney, to form a hook, *c*, that will retain the reflector in the chimney and clasp the 65 chimney, so as to hold the reflector firmly in place and in any position to which it is adjusted. I prefer to give elasticity to the hook by shaping it so that it will spring inward against the lamp-chimney with sufficient force 70 to hold the reflector as high or low as desired. The arms of the holder are considerably separated at the hook end to give the proper breadth of support.

The modified form of the holder shown in 75 Fig. 4 represents it made of a single arm at the lower end instead of two. This may be made to serve the purpose, but not so perfectly as the construction shown in the other figures.

This reflector, being opaque, also serves as 80 a shade to the lamp when so placed as to be between the person and the light. The reflector is inserted in the lamp-chimney through the lower end thereof.

A lamp-reflector placed inside of a lamp- 85 chimney has the advantage of there being no thickness of glass between it and the light and only one thickness of glass for the reflected light to pass through, thus interrupting the rays but little compared with the interruption 90 of light where the reflector is outside of the lamp-chimney, wherein the direct rays of light pass through one thickness of glass and the reflected rays through two thicknesses of glass. The reflector also offers no obstruction in hand- 95 ling and using the lamp. My invention renders the employment of such a reflector inside of a lamp-chimney practical and convenient

without obscuring the light of the lamp, and the reflector can be transferred from one lamp-chimney to another.

I claim as my invention —

5 1. A lamp reflector and holder composed of a reflector, B, provided with means, as the ears *a a*, for attaching it to the holder, and a holder, C, formed of a rod or rods, to receive the reflector attachment, and having an elastic
10 suspending-hook, *c*, substantially as and for the purpose herein specified.

2. The combination of a lamp-chimney, A,

and a lamp reflector and holder composed of a reflector, B, provided with means, as the ears *a a*, for attaching it to the holder, and a holder, 15 C, formed of a rod or rods, to receive the reflector attachment, and having an elastic suspending-hook, *c*, catching upon the upper end of the lamp-chimney, substantially as and for the purpose herein specified.

GEO. A. SANDERS.

Witnesses:

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