

E. CONRAD.

Lantern.

No. 54,059.

Patented April 17, 1866.

FIG. 1.

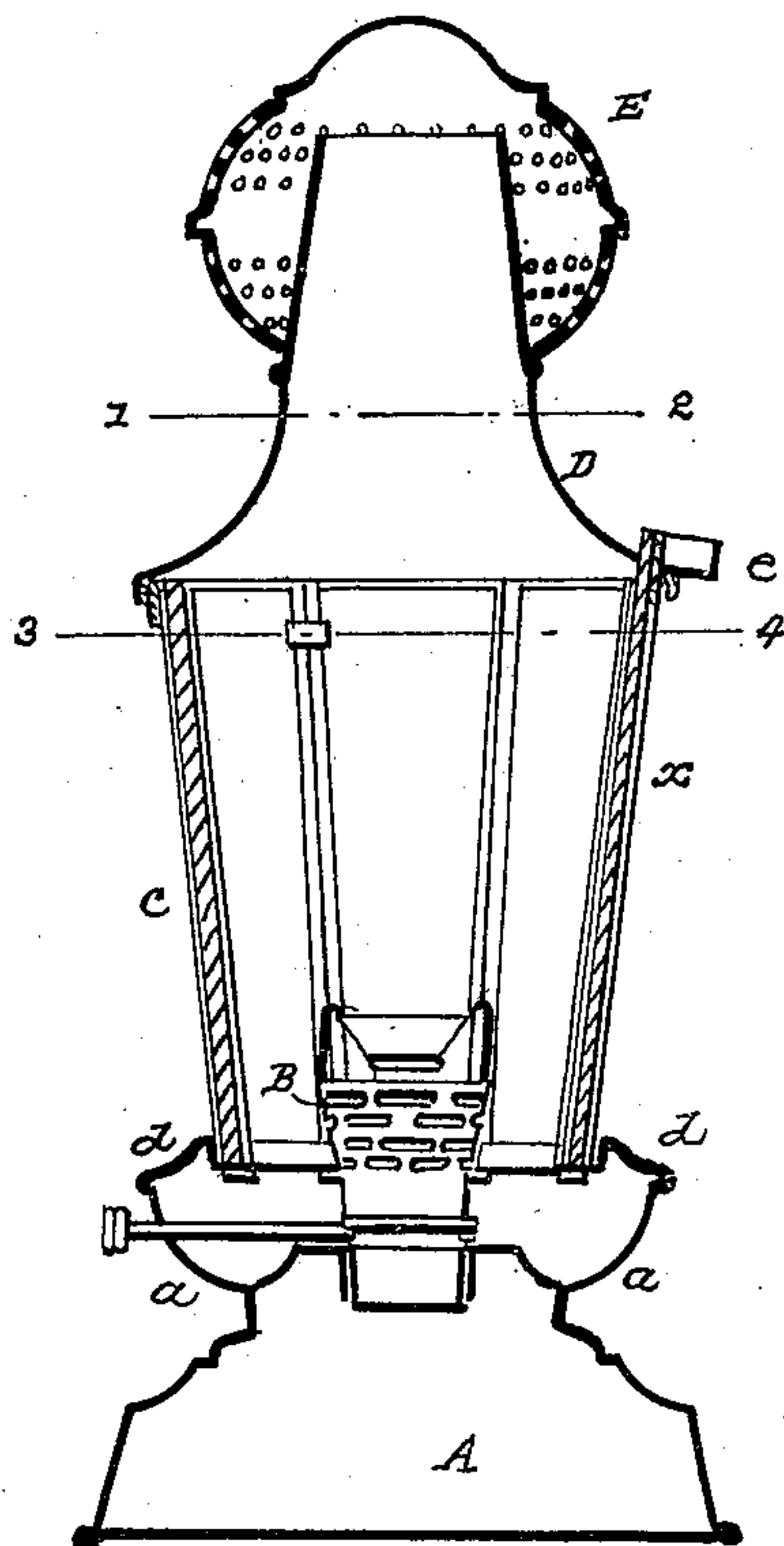


FIG. 3.

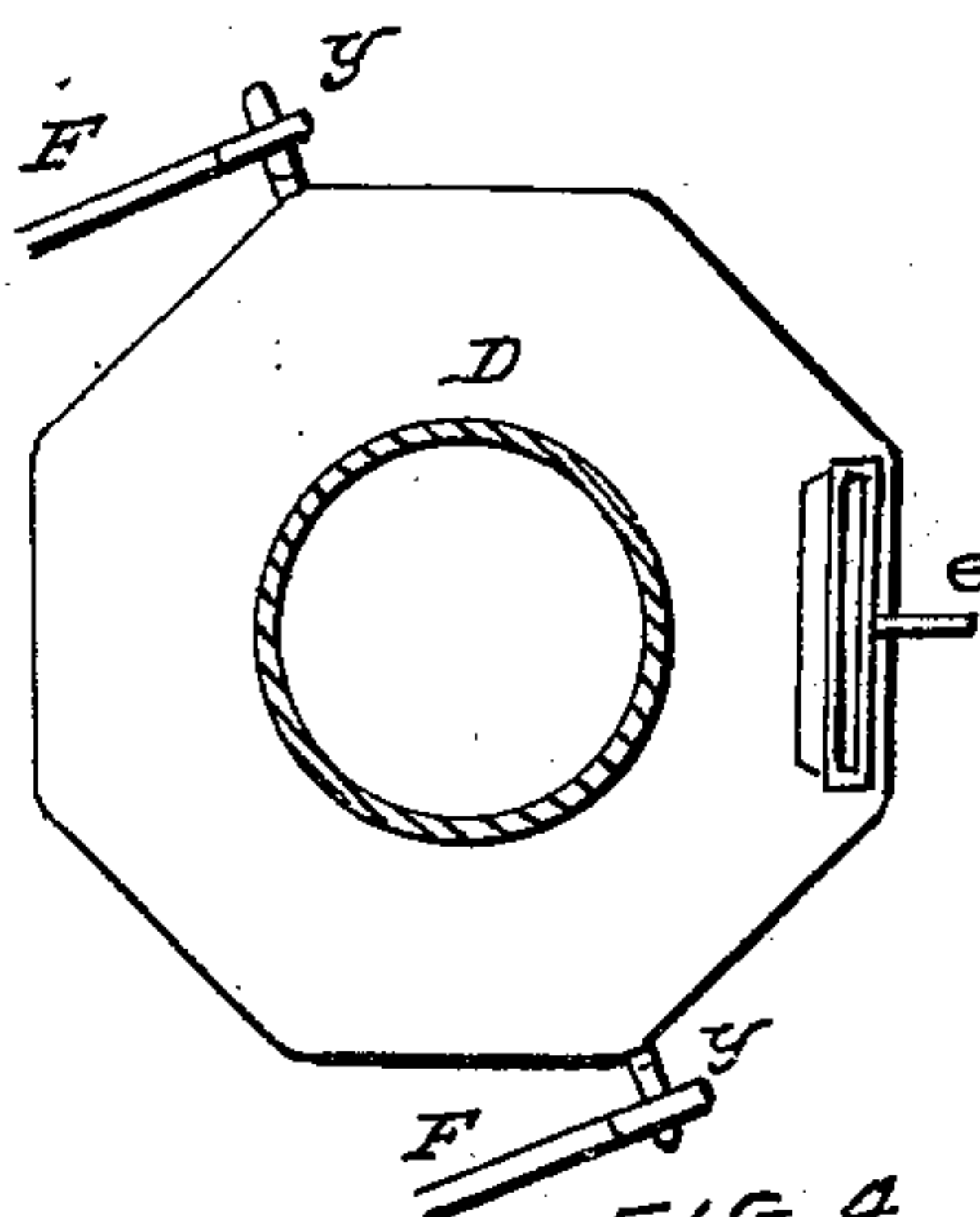


FIG. 4.

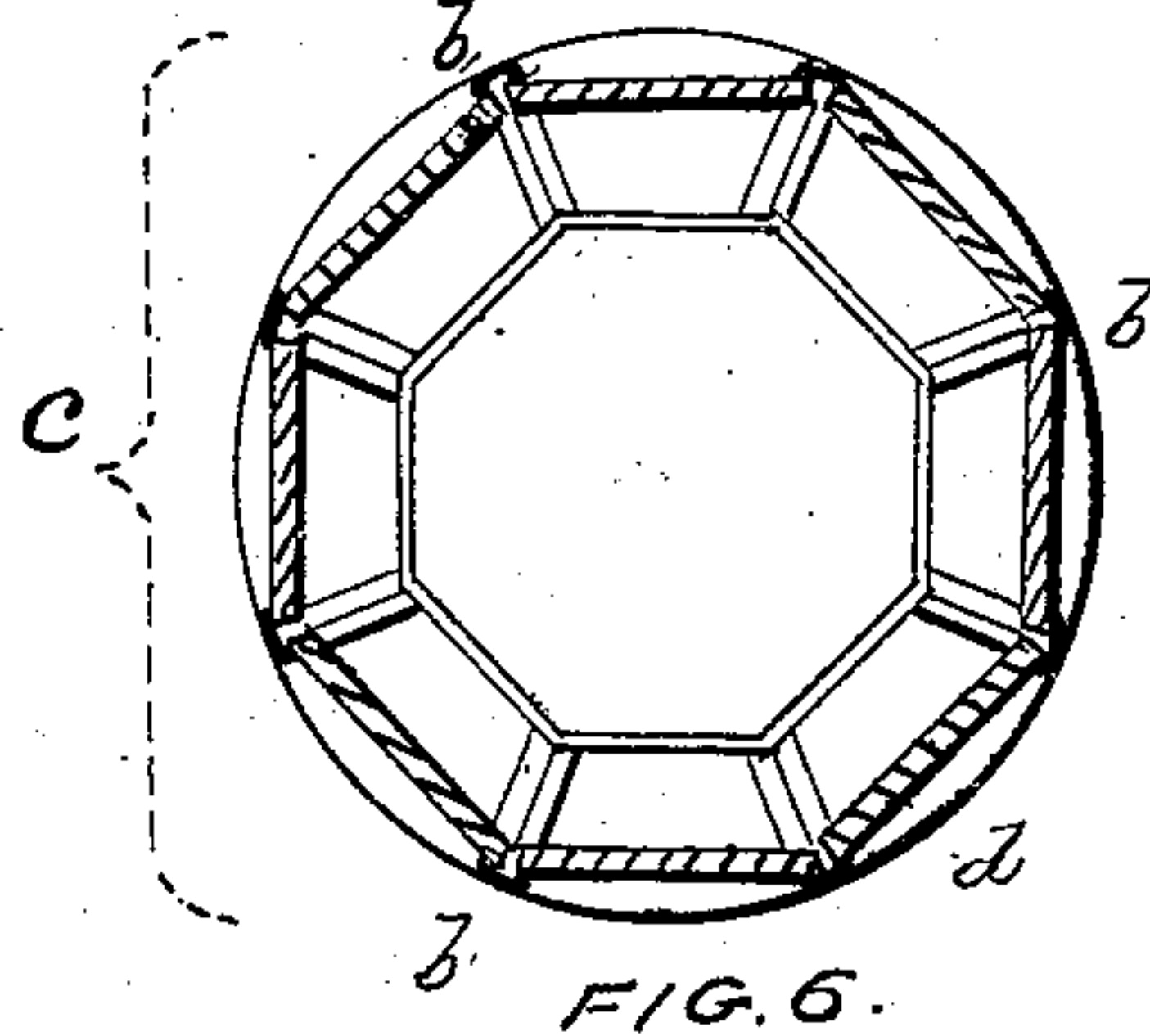


FIG. 6.

FIG. 5.

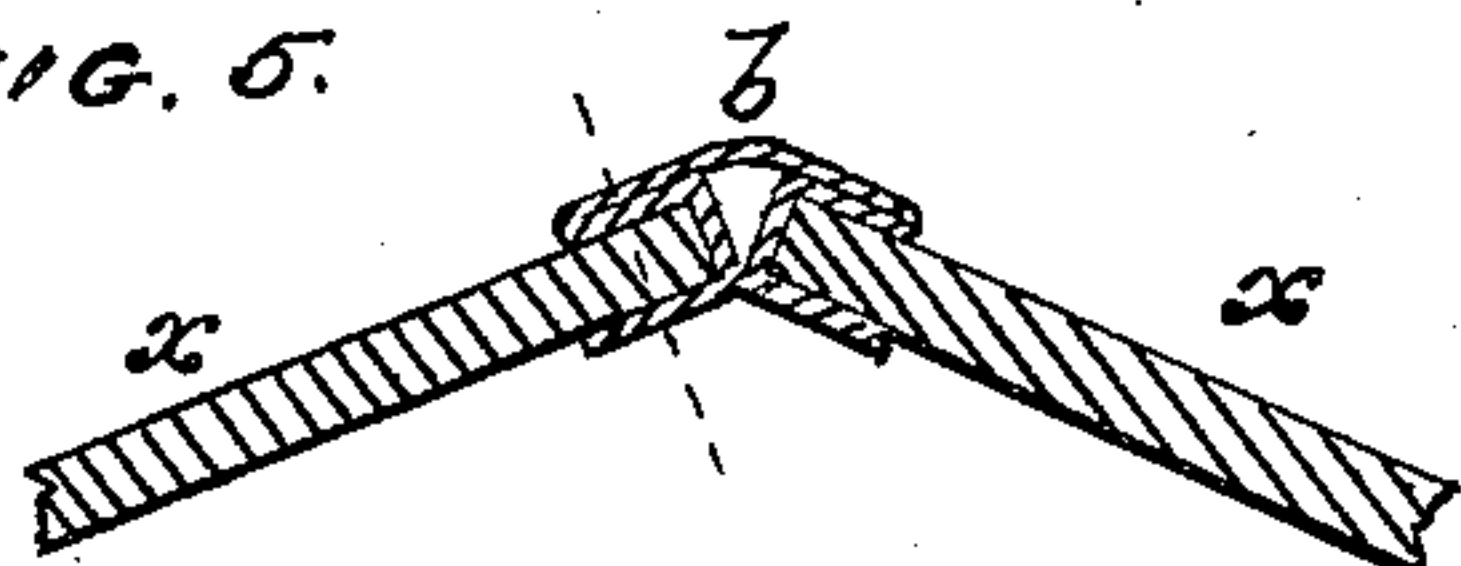
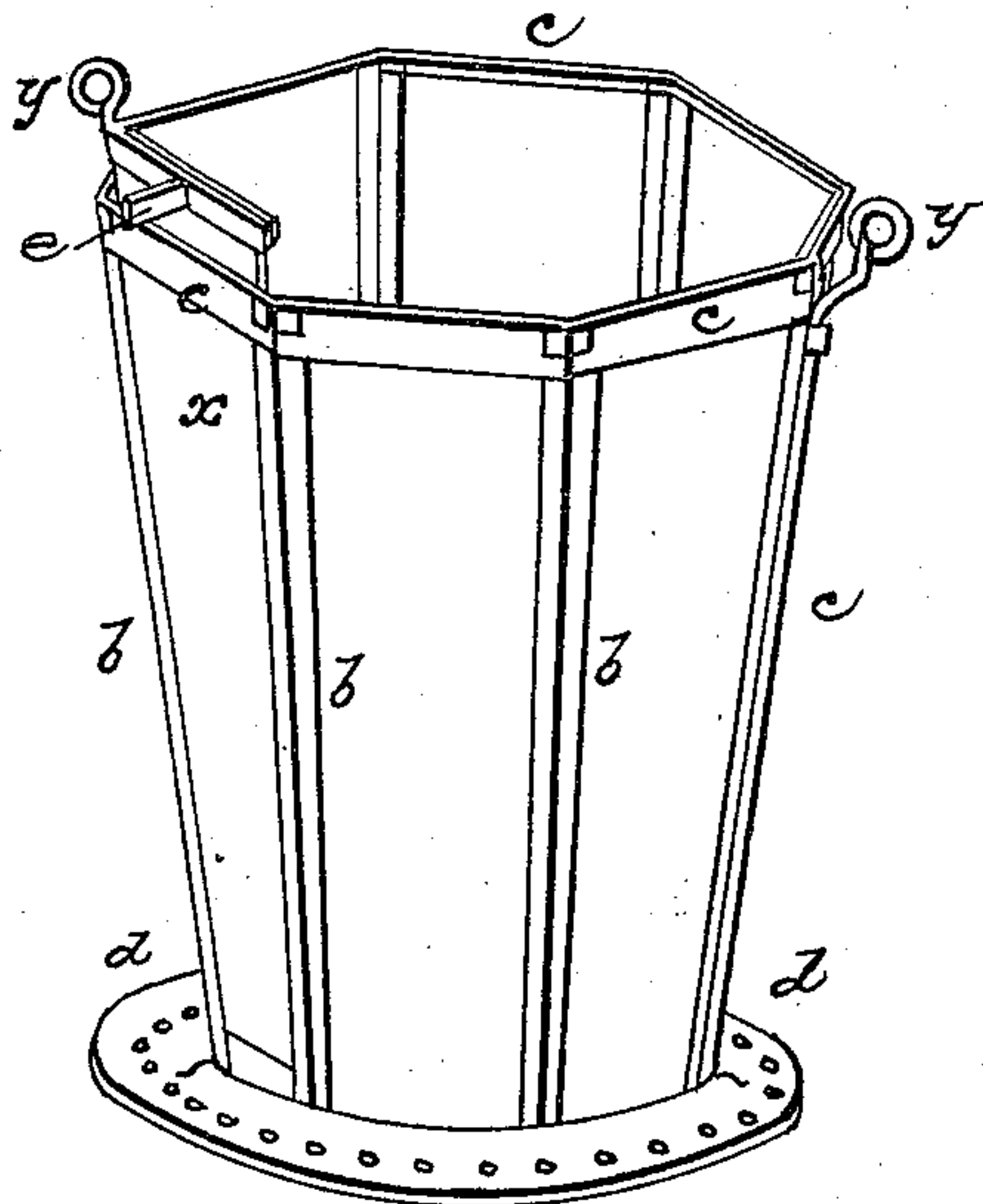


FIG. 2.



WITNESSES:  
Wm. Albert Steel  
John Parker.

INVENTOR.  
E. Conrad  
By H. Howson

# UNITED STATES PATENT OFFICE.

ERNST CONRAD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND H. COULTON, OF SAME PLACE.

## IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. 54,059, dated April 17, 1866.

*To all whom it may concern:*

Be it known that I, ERNST CONRAD, of Philadelphia, Pennsylvania, have invented an Improved Lantern; 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 invention consists of a lantern constructed in the peculiar manner fully described hereinafter, with a view to the attainment of strength and neatness, of facility in making repairs, and the gaining of ready access to the burner without detaching the oil-reservoir.

In order to enable others skilled in the art to make my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a sectional elevation of my improved lantern; Fig. 2, a perspective view of part of the same; Fig. 3, a sectional plan on the line 1 2, Fig. 1; Fig. 4, a sectional plan on the line 3 4, Fig. 1; and Figs. 5 and 6, detached sectional views, drawn to an enlarged scale.

Similar letters refer to similar parts throughout the several views.

A is an oil-reservoir, which is provided with a burner, B, of any suitable construction, and on the top of this reservoir is a cup-like projection, *a*, to which is fitted an annular perforated plate, *d*, the latter forming the base of a detachable frame, C, Fig. 2, which consists of eight ribs, *b*, connected at their upper ends to a band or strip, *c*, the frame increasing in size from the bottom upward.

Each rib *b* is made from a single strip of metal, in the peculiar manner illustrated in Fig. 5, so that there may be in each edge a recess for the reception of the edge of a plate, X, of glass.

To the band *c* on the top of the frame is adapted the tapering or funnel-shaped cover E, the open end of which projects into a hollow perforated sphere, E.

Through a slot in the cover D projects the upper end of one of the glass plates X', to which is secured a projection, *e*, and to eyes *y* (one of which is attached to each side of the frame) is connected the usual wire handle F.

The plate X' is raised by means of the arm *e* when it is desired to gain access to the burner, the air being admitted to the latter through the openings in the plate *d*, while the smoke and heated gases pass from the cover D into the case E and through the perforations in the same.

In the ordinary lanterns the burner is surrounded by a glass globe, which is expensive and easily broken. To prevent accident to the globe the latter is protected by a wire frame, which renders the lantern inconveniently bulky.

It will be seen that the frame C, with its glasses, (which in the above-described lantern are substituted for the usual globe and its cage,) present an ornamental appearance; that the ribs *b*, projecting beyond the surface of the glass, effectually protect the latter without increasing the bulk of the lantern, and that the glasses may be easily and cheaply replaced when broken.

The manner of constructing the ribs by folding a strip of metal, as illustrated in Fig. 5, insures great strength without an increase of weight, and dispenses with the use of solder, which might be affected by the heat.

Although the heated gases can readily escape through the perforated case E, the lantern may be exposed to the strongest drafts without the air being forced downward so as to affect the light. The sliding plate X' obviates the necessity of detaching the oil-reservoir whenever the wick has to be lighted or trimmed.

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

1. The combination of the frame, with its glass plates, strip or band *c*, cover D, and perforated plate *d*.

2. The arrangement, substantially as described, of the funnel-like cover D and hollow perforated sphere E.

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

ERNST CONRAD.

Witnesses:

H. HOWSON,  
JOHN WHITE.