

DEAVS & ARCHER.

Lantern.

No. 43,257.

Patented June 21, 1864.

Fig: 1.

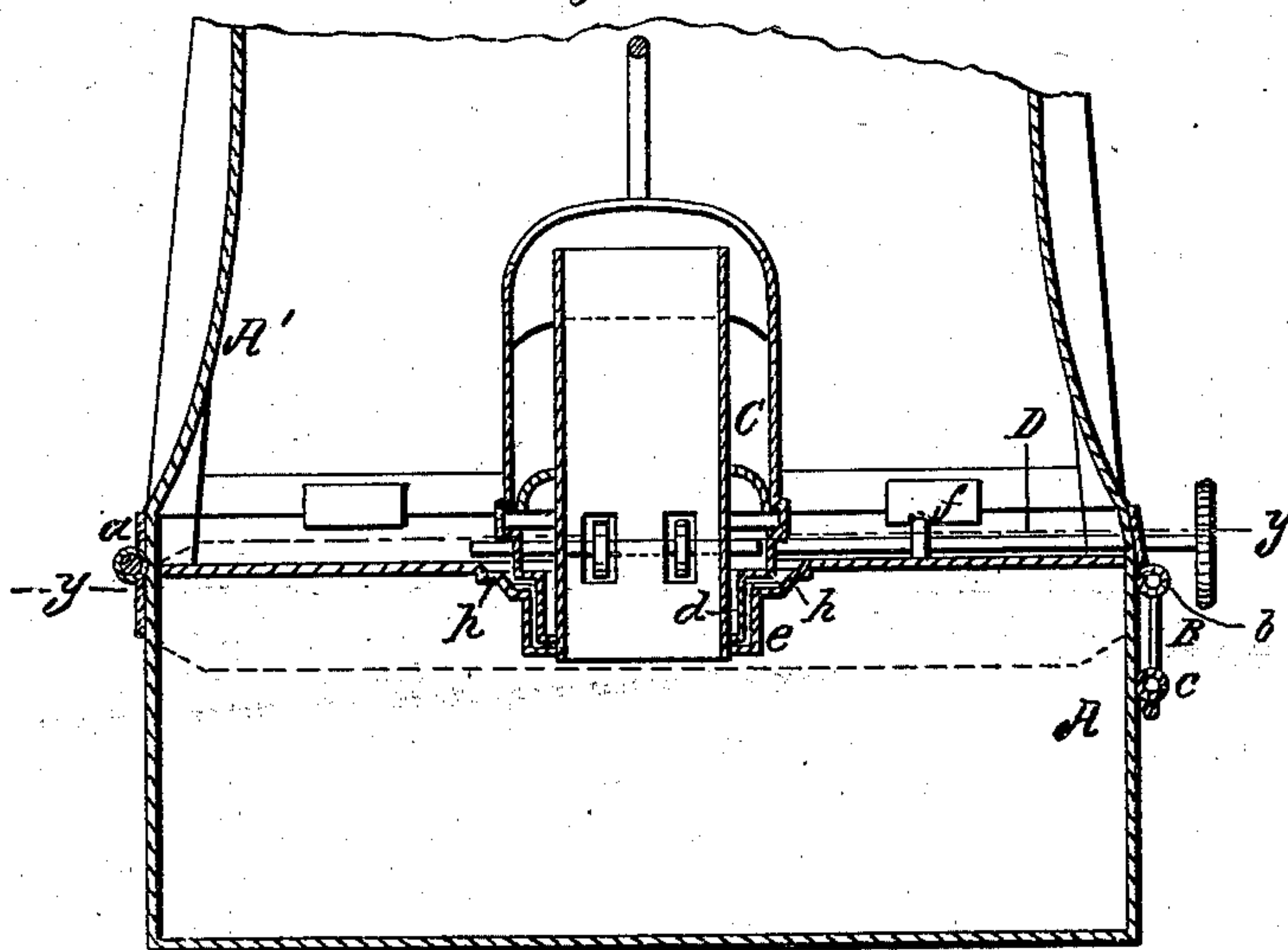


Fig: 3.

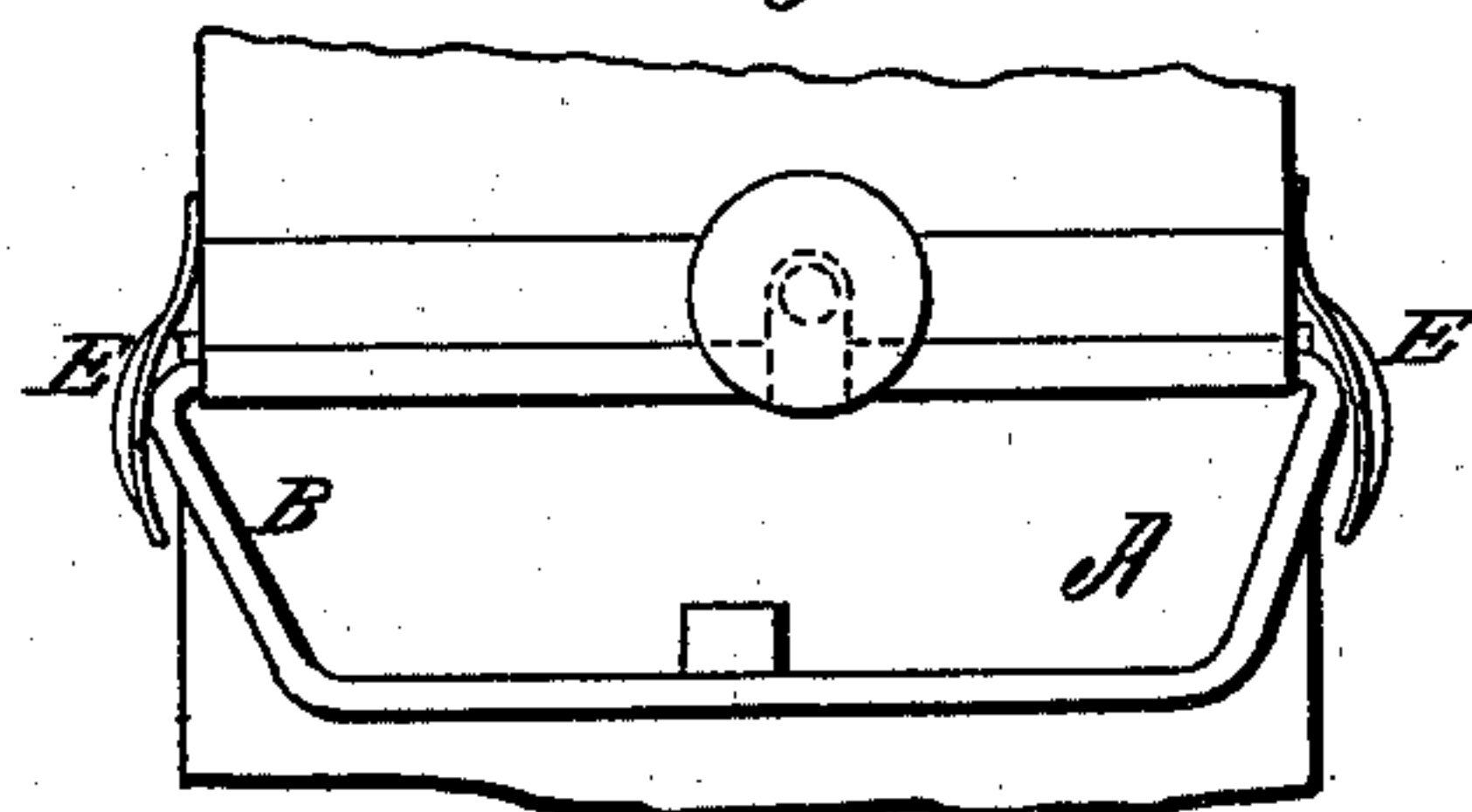
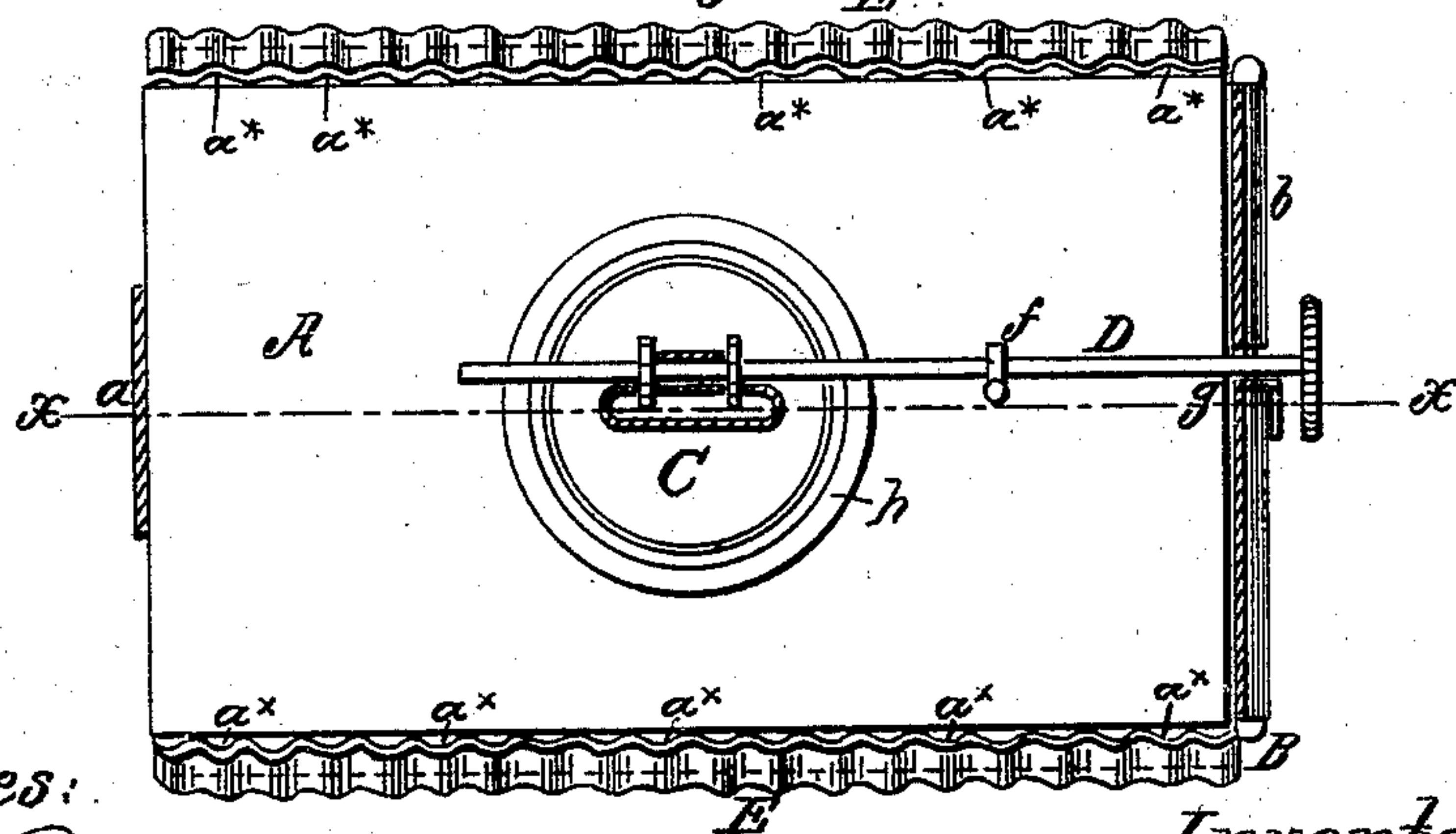


Fig: 2. E



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES DEAVS AND ELLIS S. ARCHER, OF NEW YORK, N. Y., ASSIGNORS
TO ARCHER & PANCOAST, OF SAME PLACE.

IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. 43,257, dated June 21, 1864.

To all whom it may concern:

Be it known that we, CHARLES DEAVS and ELLIS S. ARCHER, of the city, county, and State of New York, have invented certain new and useful Improvements in Lanters; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical section of the lower part of a lantern provided with our improvements, *x x*, Fig. 2, indicating the line of section; Fig. 2, a horizontal section of the same, taken in the line *y y*, Fig. 1; Fig. 3, an end view of the same.

Similar letters of reference indicate like parts.

This invention relates to a new and improved mode of securing or holding the burner in the lamp, whereby the use of the ordinary screw for that purpose is avoided and the burner rendered capable of being adjusted with the greatest facility, in order to admit of the shaft by which the wick is raised and lowered being placed in proper position to admit of the lantern being closed down on the lamp.

The invention also relates to a simple means to prevent the overflow of oil from the lamp while the latter is being filled, and also to admit of the burner having a low position, so that the wick-adjusting shaft may rest upon the top of the lamp and aid in securing the burner in the lamp.

The invention also relates to a corrugated apron at each side of the bottom of the lantern for the purpose of equalizing the supply of air to the burner, preventing heavy drafts, &c.

The invention further relates to a new and improved fastening for securing the lantern down on the lamp.

A represents the lamp of the lantern, constructed of sheet metal and of rectangular or other form corresponding to the form of the bottom of the lantern. This lamp is connected by a hinge or joint, *a*, to one end of the bottom of the lantern A', and the opposite end is connected or secured to the lantern by a fastening composed of a rod or wire, B, bent in bail form, extending entirely across the lantern and fitted

in a tubular horizontal socket, *b*, at the outer side thereof, the rod being allowed to freely turn in the socket *b*. This rod or wire B, when shoved down, catches underneath a cylindrical projection, *c*, on the end of the lamp and secures the lantern down thereon.

The rod or wire B, in consequence of being in the form of a bail and extending entirely across the lantern and lamp, has a requisite degree of elasticity in order that it may be sprung under the projection *c*, and firmly hold the lamp, without the liability of casually slipping off therefrom, and still admit of being readily disengaged from it when desired. By this arrangement a very simple, efficient, and durable fastening for the desired purpose is obtained.

C is the burner of the lamp, which may be constructed in any of the known forms for burning coal-oil. It is not, however, provided with a screw at its lower end, but has a smooth cylindrical surface, *d*, to fit into a smooth socket, *e*, in the top of the lamp A. The burner is retained in the socket by means of the shaft D, on which the serrated wick-wheels are placed, passing under a hook or lip, *f*, on the top of the lamp, the burner C being turned so that the shaft D may pass under said hook or lip. The shaft D extends beyond the side of the lantern in order that it may be turned to adjust the wick when the lantern is closed down on the lamp, and a notch, *g*, is made in the lower edge of the lantern to receive the shaft when the former is secured down on the lamp; hence it will be seen that when the burner is fitted in or to the lamp the shaft D must always be in a certain position to admit of the closing of the lantern down on the lamp. With the ordinary screw-burner this cannot always be readily done and at the same time have the burner firmly screwed into the lamp; but with our invention it is a matter of no difficulty whatever as the burner may be fitted in the socket of the lamp and turned until the shaft D passes under the hook or lip *f*, which serves as a stop for the shaft, as well as a means to secure the burner in the lamp.

From the above description it will be seen that in order to have the burner firmly secured in the lamp by the shaft D and hook or lip *f* it is necessary that the shaft D rests upon the

top of the lamp, and to effect this the top of the lamp around the socket *e* is swaged and sunk down, so as to form an annular groove or recess, *h*, which will bring the shaft *D* down to the top of the lamp, and will also form an oil-receiver to prevent the oil from flowing over the top of the lamp while the latter is being filled.

At each side of the bottom of the lantern *A'* there is secured a pendent apron, *E*. These aprons are corrugated vertically, as shown in Fig. 2, and when the lantern is closed down on the lamp these aprons bear or rest against the upper edges of the sides of the lantern and the corrugations form a series of orifices, *a*^x, through which the flame is supplied with air. These orifices protect the flame from sudden gusts of air and render the supply of the latter to the flame uniform—an important feature with a coal-oil lamp.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The fastening composed of the bail-shaped rod or wire *B* and projection *c*, constructed and applied in the manner substantially as and for the purpose herein set forth.

2. The sunken annular groove *h* in the top of the lamp *A*, surrounding the burner for the purpose of preventing the overflow of oil while the lamp is being filled, and also to admit of the shaft *D* resting on the top of the lamp, as specified.

3. The hook or lip *f*, or its equivalent, on the top of the lamp *A*, when used in combination with the shaft *D*, for the purpose specified.

4. The corrugated aprons *E*, applied to the bottom of the lantern *A'*, in relation with the lamp *A*, substantially as and for the purpose set forth.

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Witnesses:

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