

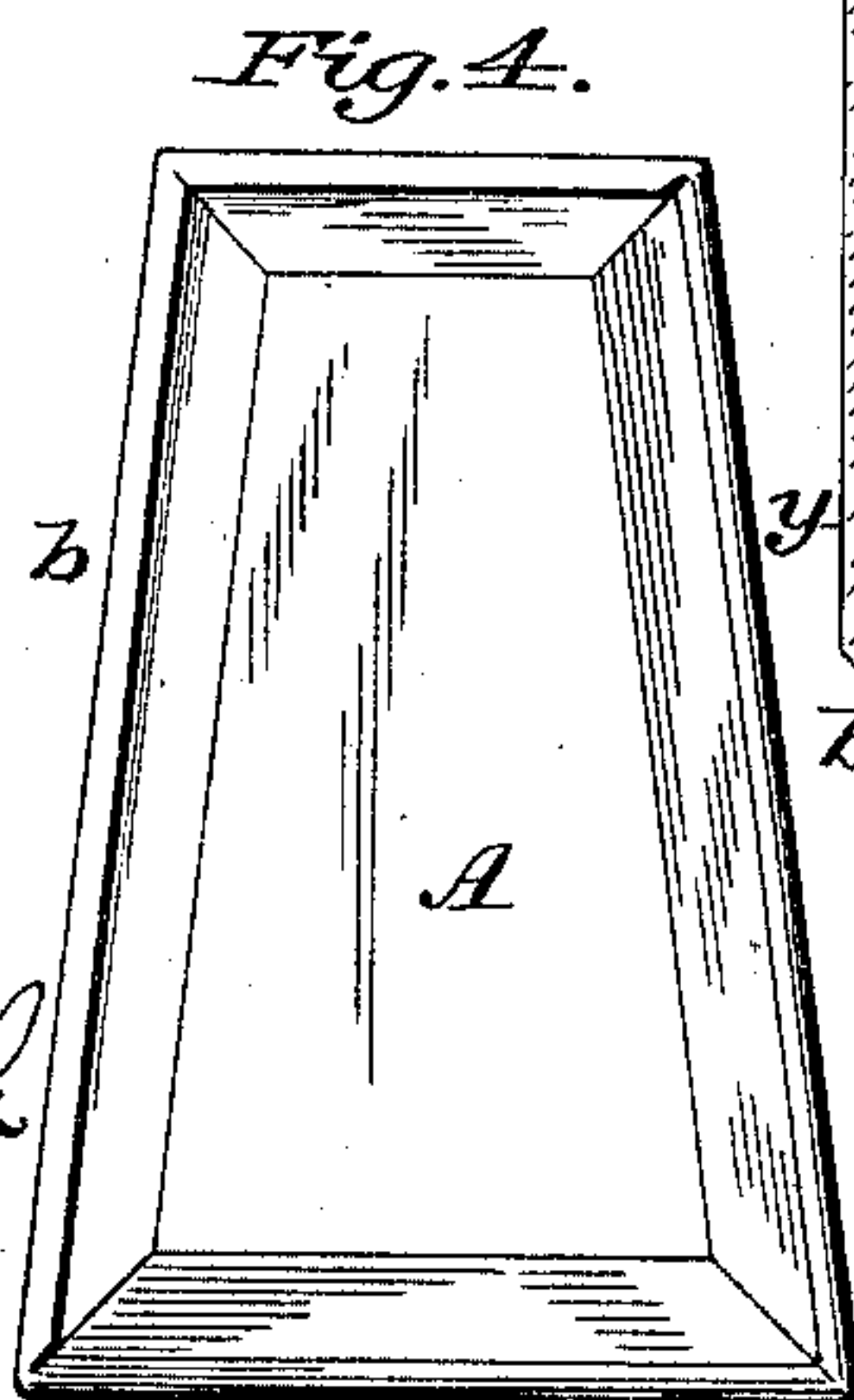
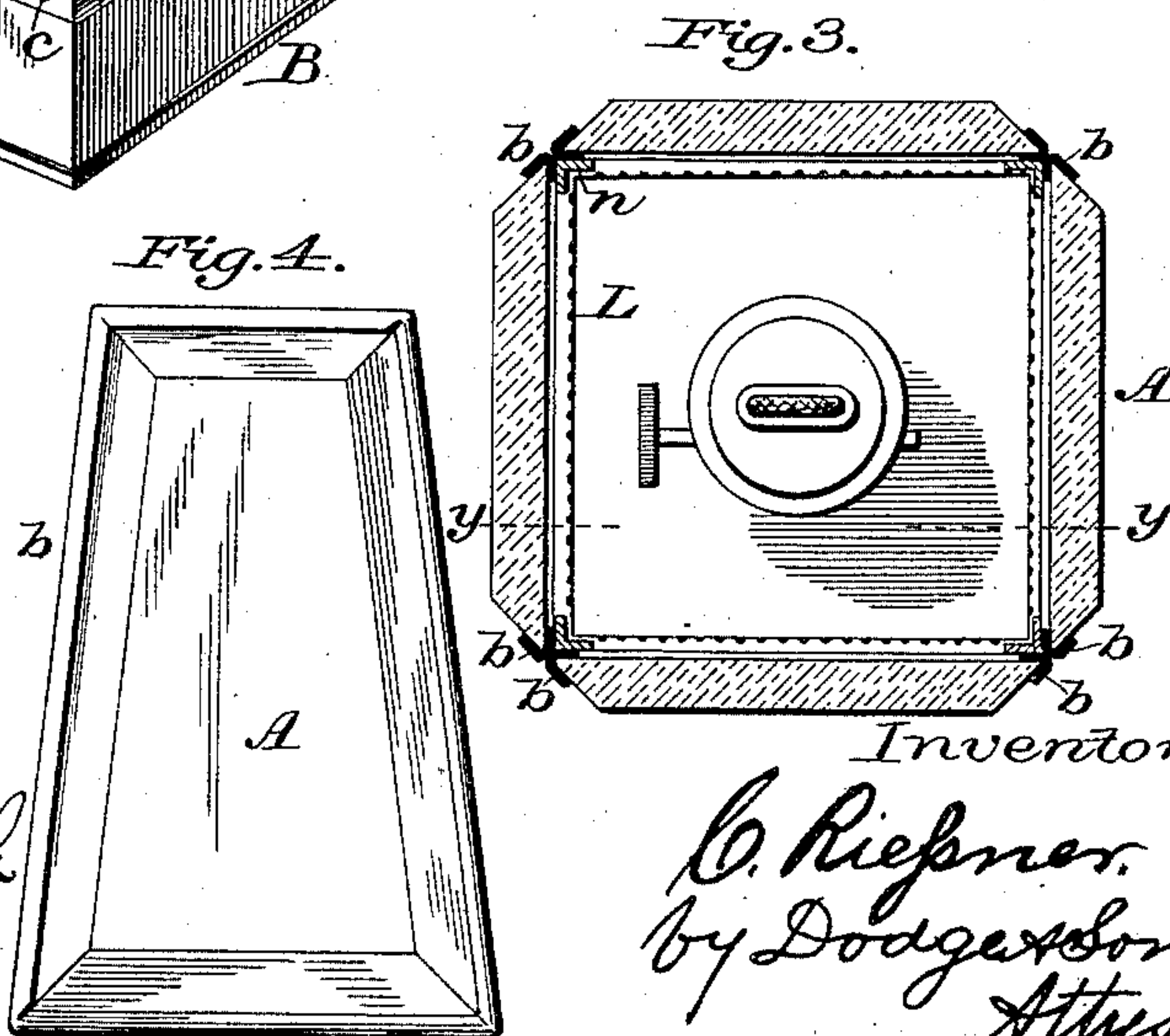
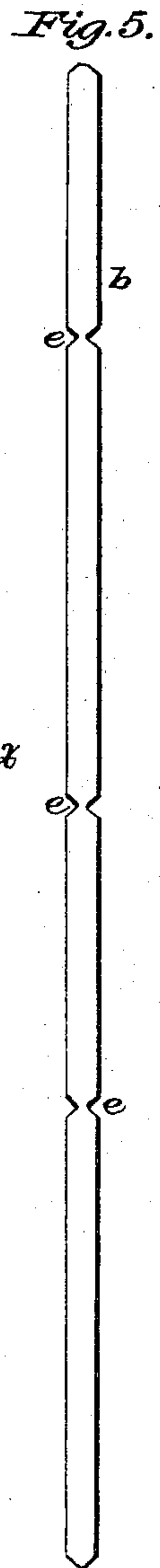
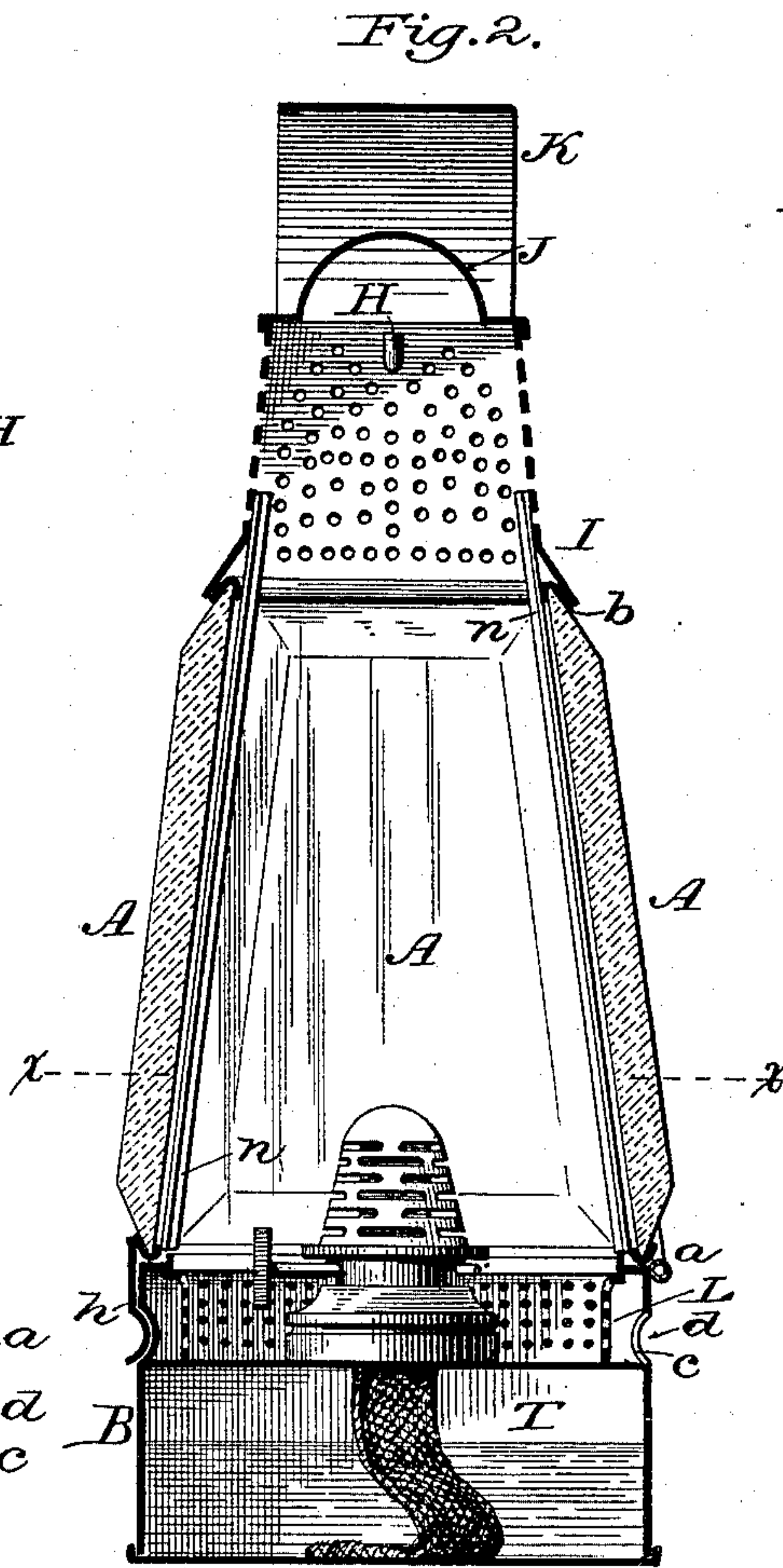
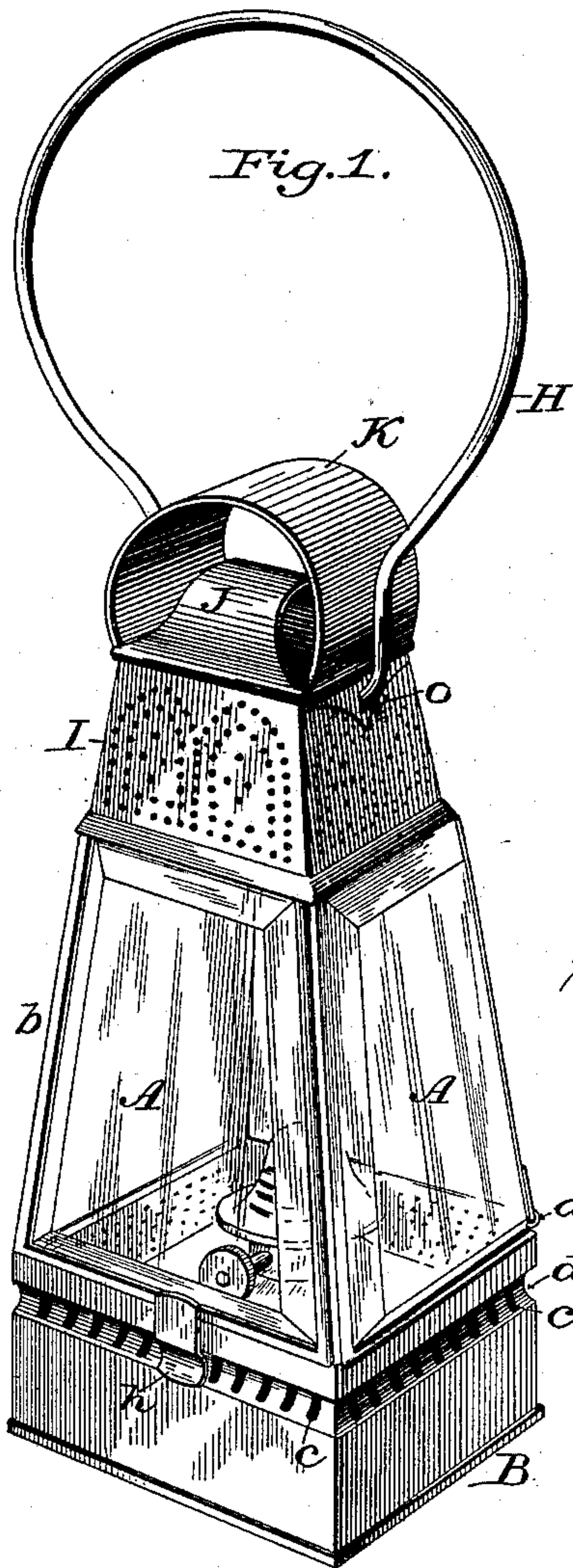
(No Model.)

C. RIESSNER.

LANTERN.

No. 316,486.

Patented Apr. 28, 1885.



Witnesses:

Jas. F. DuFanel
Walter S. Dodge.

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UNITED STATES PATENT OFFICE.

CHRISTOPHER RIESSNER, OF NEW YORK, N. Y.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 316,486, dated April 28, 1885.

Appl. ation filed January 24, 1885. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER RIESSNER, of New York, in the county of New York and State of New York, have invented certain
5 Improvements in Lanterns, of which the following is a specification.

This invention relates to lanterns; and the invention consists in certain details of construction, as hereinafter more fully set forth.

10 Figure 1 is a perspective view of the lantern complete. Fig. 2 is a transverse vertical section on the line *y y* of Fig. 3. Fig. 3 is a transverse horizontal section on the line *x x* of Fig. 2. Fig. 4 is a face view of one of the
15 side plates or panels shown detached. Fig. 5 is a view of the strip from which the side frames are formed.

To construct a lantern on my improved plan I provide four pieces of heavy or plate glass
20 of the form shown in Fig. 4, and preferably having their edges beveled, as shown in the several figures. Each of these glass plates A, I inclose in a light metal frame, which consists of a narrow strip of thin sheet metal of sufficient length to extend entirely around the
25 edge of the plate. This strip *b* has notches cut in its opposite edges at points corresponding with the corners of the plate A, as shown in Fig. 5, and is bent along its center in the
30 line of its length at such an angle as to fit the beveled edges of the plate A, as shown more clearly in cross-section in Fig. 3. This strip *b* is then applied to the edge of the plate by bending the strip at each of the points
35 where the notches *c* are cut, and carrying it around the edge of the plate A and bringing its ends together at one corner, where they are united and held fast by soldering them together, thus, as it were, providing each glass plate with
40 a metal binding all around its edges. I then unite four of these bound glass plates or panels A to form the body of the lantern by simply soldering them together at top and bottom at each corner, and then secure to the top a
45 perforated metallic top section, I, the lower end or edges of which are made flaring to fit over and upon the metal strips *b*, to which they are securely soldered all around, and over the open upper end of this I secure two curved
50 plates, J K, to guard or protect the hand from the heat and smoke of the lamp. As shown in Fig. 1, the outer plate, K, has its ends O

extended down on the sides of the section I far enough to permit the ends of the wire bail H to pass through a hole in both and be turned
55 up on the inside, as shown in Fig. 2, thereby fastening these parts securely together, so they cannot separate and let the lantern fall, even if it should become unsoldered at that point.

The lower section of the lantern consists of
60 a rectangular oil cup or reservoir, B, corresponding in size transversely with the lower end of the body above, as shown in Figs. 1 and 2, the outer walls of this section B extending for some distance above the top of the oil-
65 chamber T, and serving to form a connection between the oil cup or reservoir and the transparent body above, as shown clearly in Fig. 2. This upward extension of the side walls of the section B has a semicircular groove, *d*, formed
70 in it all around, and in this is formed a series of slots, *e*, as shown in Fig. 1, for the admission of air. I then line this slotted portion all around with a strip of finely-perforated sheet metal or wire-gauze, L, the upper edges
75 of which are turned outward to connect with the inturned upper edge of the walls of B, thereby forming a space or chamber, *o*, all around the sides, as shown in Fig. 2, into
80 which the air enters through the slots *e*, and from which it escapes through the small perforations in the lining L. By these means I secure an abundance of air to support combustion, and at the same time prevent the flick-
85 ering of the flame by drafts of air, thus insuring a steady flame, and enabling the lantern to be carried and moved about without affecting its light.

As shown in Fig. 2, the burner used has its wick-tube surrounded by a perforated cone,
90 slotted at its top for the flame, which produces a good bright flame from coal-oil without the use of a chimney. This burner, being well known to the trade, need not be further described, and is only referred to because I
95 find it to be the best known to me for use in this connection, more especially as it is desirable to make these lanterns as small as permissible, thereby bringing the glass, which
100 stands inclined, nearer the flame than is usual with the old-style globes, and which renders it important that a good clear flame be used, in order to prevent obscuring the light by smoke or soot on the glass plates.

I connect the upper and lower sections of the lamp by a hinge, *a*, as shown in Figs. 1 and 2, and at the opposite side I solder rigidly to the strip *b* a flat spring, *h*, which has its lower end bent to coincide with the groove or indentation *d* in the walls of section B, and which thus forms a spring-catch which yields as its lower curved end is pressed upon the upper edge of section B, and when the parts are pressed together springs into the groove *d* and holds the parts securely together.

In making the larger sizes of these lanterns I further strengthen the upper section or body by fastening in each corner a narrow angle-strip of metal, *n*, as shown in Figs. 2 and 3, they being soldered to the metal binding *b* of the plates A at the bottom and to the metal section I above.

The metal portions for the cheaper grades of lanterns will be made of tin and be japanned. For the better grades they will be made of brass and the finer ones will be nickel-plated.

By using plate-glass or thick heavy plates, as shown, I dispense entirely with the wire guards ordinarily used, as this glass is strong enough without them, and by beveling the edges of the glass plates A, as well as by making them narrower at the top than at the bottom, I enhance the appearance of the article.

It is obvious that the form of the lantern

may be changed by uniting six or eight or any desired number of these panels, they being made correspondingly narrower, and the lower section being made of a form to correspond, but that would increase the cost, and therefore would seldom, if ever, be found desirable.

Having thus described my invention, what I claim is—

1. A transparent body for a lantern, consisting of a series of glass plates, A, each bound by a metal strip, *b*, extending around the edges of the plate, the series of plates then being secured or fastened together, substantially as described.

2. A lantern consisting of the transparent body composed of the panels A, bound around with the metal strips *b*, united, as described, with the section B, consisting of the oil-reservoir T, having the slots *c*, and the perforated lining L, arranged above the oil-chamber and surrounding the burner, as shown, said section being hinged to the body at one side, with the spring-catch *h* at the opposite side, all being constructed and arranged to operate substantially as described.

CHRISTOPH. RIESSNER.

Witnesses:

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