

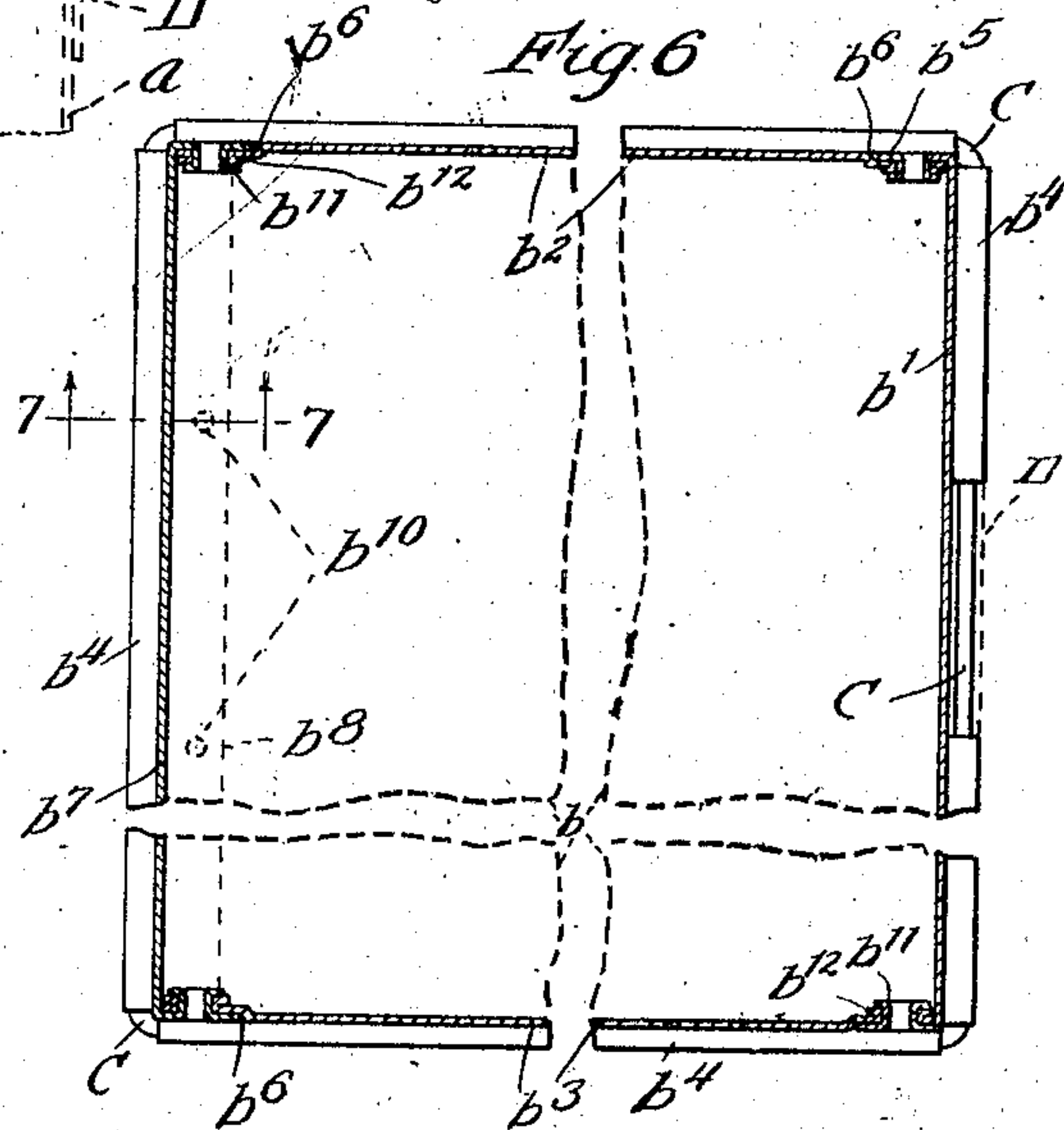
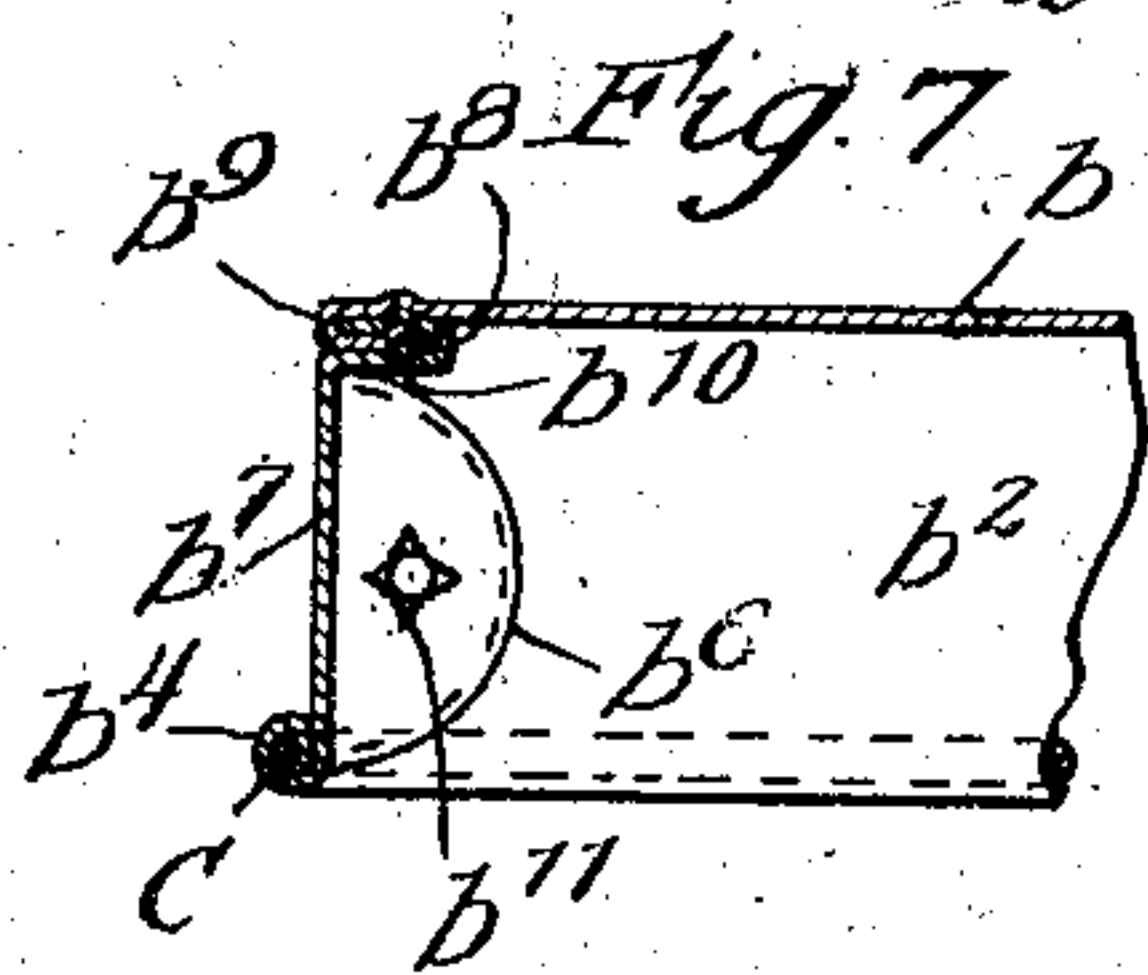
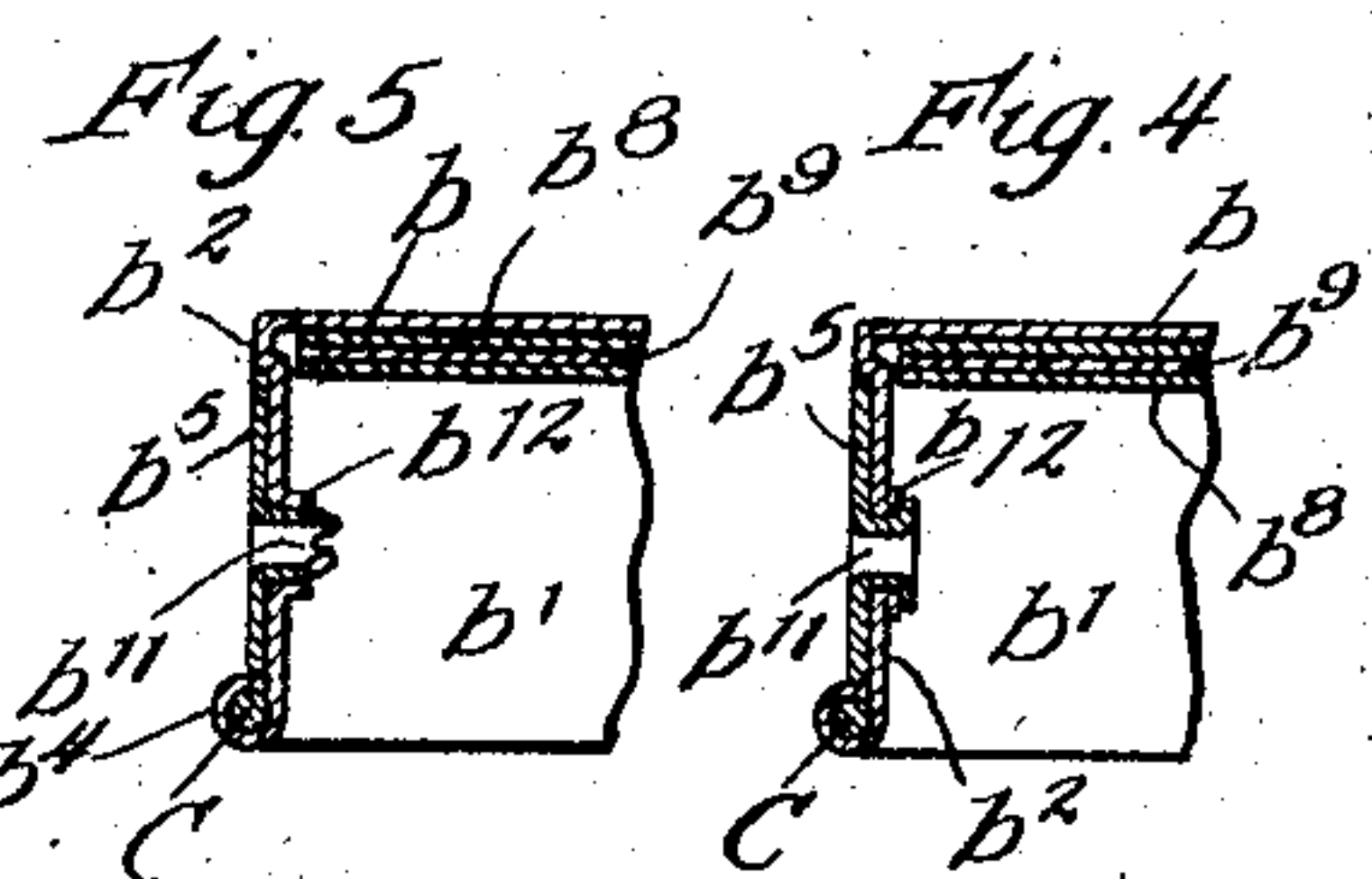
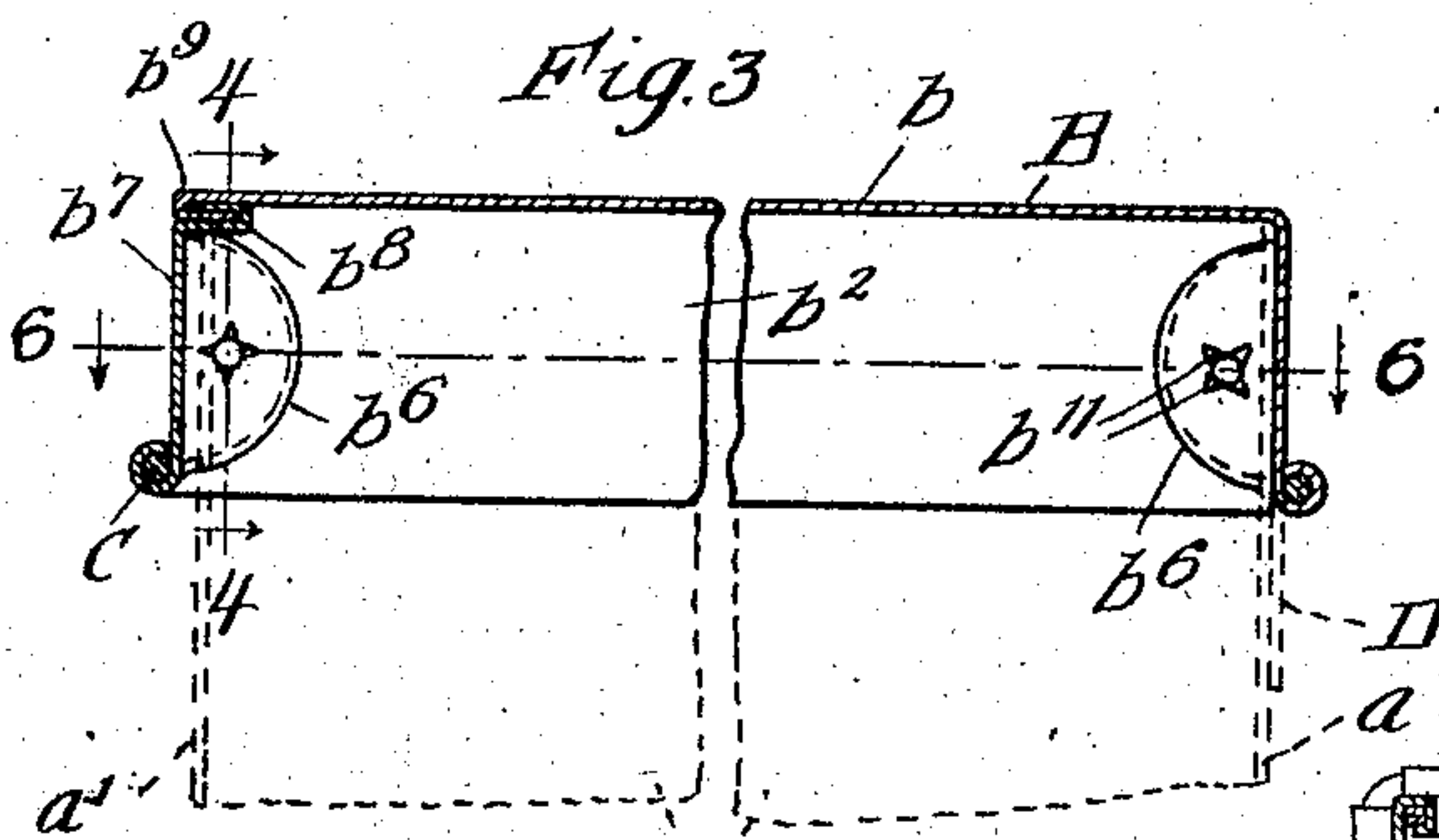
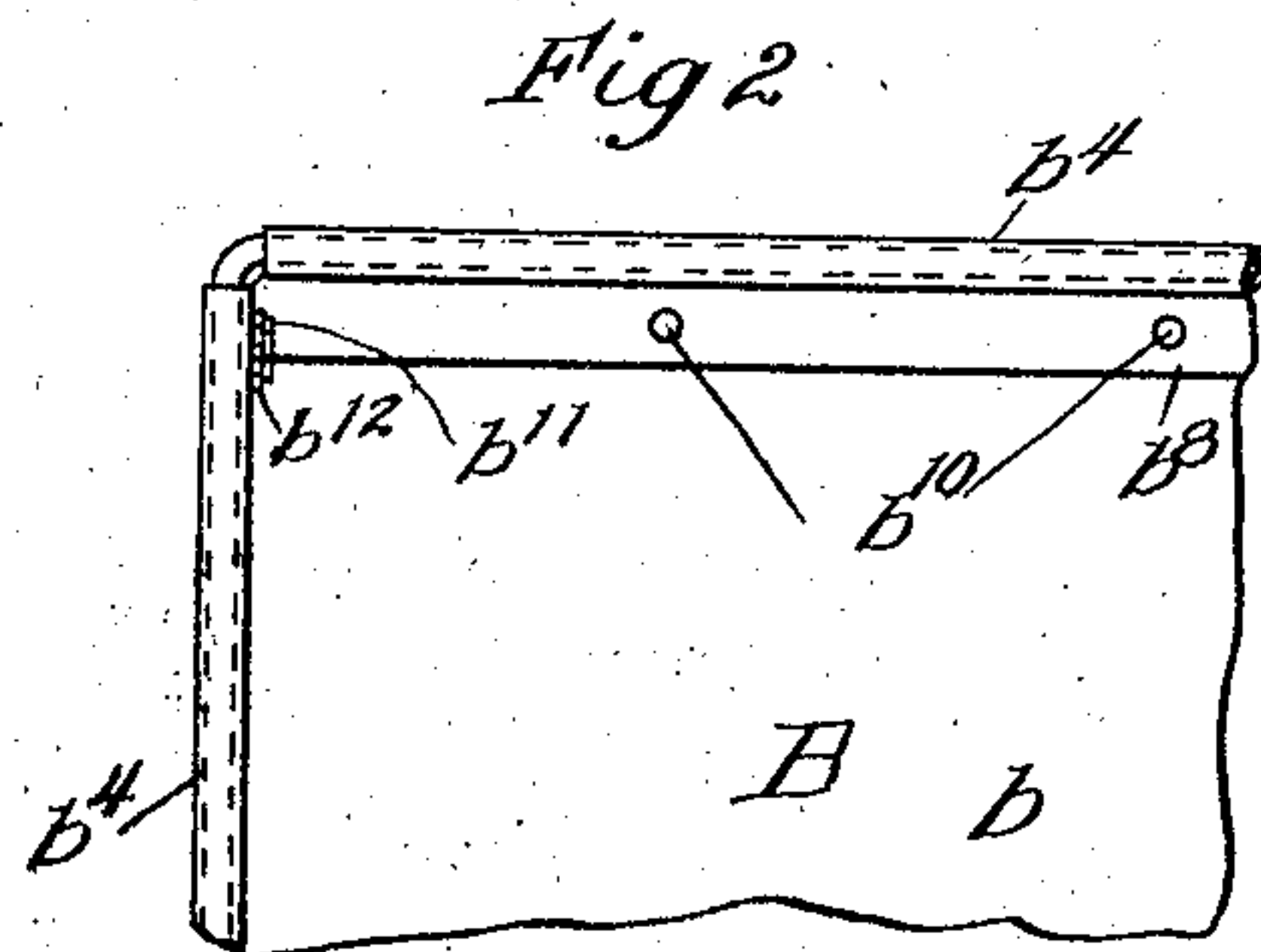
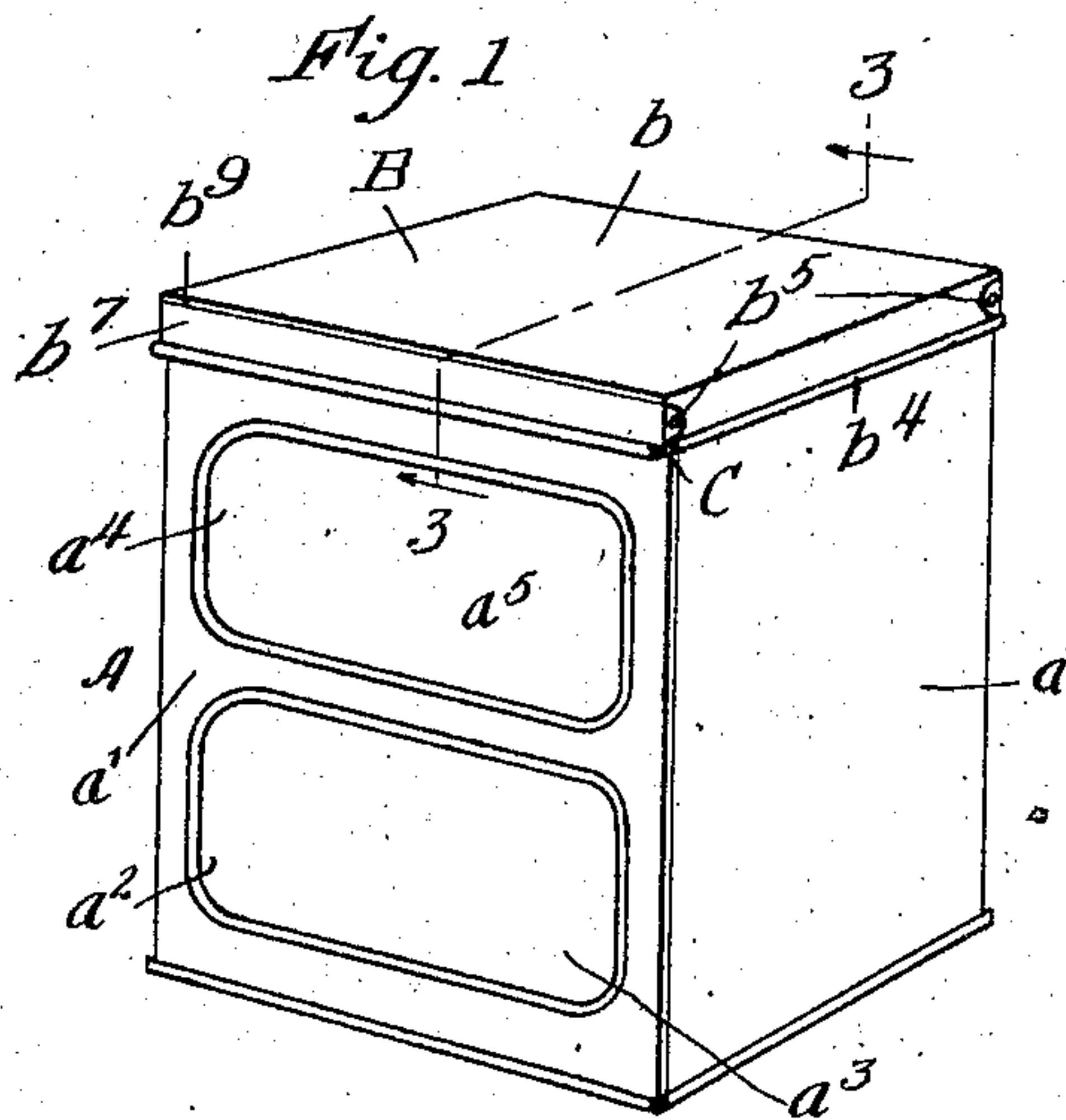
No. 815,962.

PATENTED MAR. 27, 1906.

B. H. LARKIN.

HINGED COVER FOR SQUARE OR RECTANGULAR SHEET METAL CANS OR BOXES

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# UNITED STATES PATENT OFFICE.

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HINGED COVER FOR SQUARE OR RECTANGULAR SHEET-METAL CANS OR BOXES.

No. 815,962.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed October 3, 1904. Serial No. 226,939.

*To all whom it may concern:*

Be it known that I, BERNARD H. LARKIN, a citizen of the United States, residing in Maywood, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Hinged Covers for Square or Rectangular Sheet-Metal Cans or Boxes, of which the following is a specification.

My invention relates to improvements in square or rectangular sheet-metal cans or boxes having hinged covers, and more particularly to the construction of the covers of display cans or boxes.

The object of my invention is to provide a square or rectangular hinged cover for display cans or boxes of a simple, strong, efficient, and durable construction which may be cheaply manufactured and without the use of solder, thus giving the cover a uniform and neat appearance and enabling it to be readily cleaned and polished from time to time, as may be required.

My invention consists in the novel construction of devices and in the novel combinations of parts and devices herein shown and described by which this object or result is practically accomplished.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of a display can or box embodying my invention. Fig. 2 is a detail bottom view of the cover. Fig. 3 is a partial vertical cross-section of the cover. Fig. 4 is a detail vertical section on line 4 4 of Fig. 3. Fig. 5 is a detail vertical section similar to Fig. 4, showing the parts before the same are clenched or upset. Fig. 6 is a horizontal section of the cover, and Fig. 7 is a detail vertical section on line 7 7 of Fig. 6.

In the drawings, A represents a sheet-metal display can or box having three vertical sides  $a$ , preferably of tin-plate, and a front  $a'$  of brass, provided with a display-opening  $a^2$ , closed by a removable glass plate  $a^3$ , and a sign-opening  $a^4$ , closed by a removable sign-plate  $a^5$ . The sheet-metal box A may be of any suitable construction.

B is the sheet-metal hinged cover of the can or box. The cover B has a flat top portion  $b$  and three integral right-angle flanges or sides  $b'$   $b^2$   $b^3$ , preferably of tin-plate, each furnished with a wire roll  $b^4$  at its lower edge, embracing the wire C, which surrounds the cover and which at the back of the cover

forms the pintle of its hinge and coöperates with the hinge-straps D, secured to the back side of the can or box. The integral flange  $b'$  at the back side of the cover is provided with integral right-angle overlapping lips  $b^5$ , preferably of substantially semicircular shape, which fit in corresponding semicircular countersinks or recesses  $b^6$  in the integral adjacent flanges or sides  $b^2$   $b^3$  of the cover. The countersinks or recesses  $b^6$  cause the overlapping lips to fit substantially flush with the sides  $b^2$   $b^3$  of the cover. The front side  $b^7$  of the cover is preferably of sheet-brass, corresponding to the brass front of the can or box, and is secured to the cover B by a right-angle flange or fold  $b^8$ , engaging a similar flange or fold  $b^9$  on the cover B at the front edge thereof, the interlocked folds being snugly compressed together. The interlocked folds  $b^8$   $b^9$ , uniting the cover B and its brass front or side  $b^7$ , are further locked against disengagement by a series of depressions, points, or teats  $b^{10}$ , formed in the same by a blunt punch. These small round depressions  $b^{10}$ , in connection with the lock-seam formed by the interlocked folds, securely unite the brass front side to the cover. The brass front side  $b^7$  is further provided at its ends with overlapping lips  $b^5$  identical to the lips  $b^5$  before described, which fit in semicircular countersinks or recesses  $b^6$  in the adjacent flanges or sides  $b^2$   $b^3$  of the cover. The overlapping semicircular lips  $b^5$  on the back side  $b'$  and on the brass front side  $b^7$  are secured to the adjacent sides  $b^2$   $b^3$  of the cover by integral eyelets or hollow burs  $b^{11}$ , which are punched through the adjacent sides  $b^2$   $b^3$  of the cover. The burs  $b^{11}$  on the lips of the back side  $b'$  and front side  $b^7$ , overlapping the shorter burs  $b^{12}$ , formed on the adjacent sides  $b^2$   $b^3$ , and the two hollow burs  $b^{11}$   $b^{12}$ , being upset or clenched down upon each other, thus very firmly and securely unite the overlapping front and back sides  $b'$   $b^7$  with the adjacent sides  $b^2$   $b^3$  without solder and leave the overlapped lips substantially flush, thus enabling the sides of the cover to be readily and easily cleaned and polished and leave the surface with a uniform luster free from spots, such as are occasioned where solder is employed for uniting the lips  $b^5$  with the adjacent sides of the cover.

The hollow burs  $b^{11}$   $b^{12}$  are simultaneously formed in the lips  $b^5$  and adjacent sides  $b^2$   $b^3$



of the cover by simply forcing a blunt punch through the two superimposed thicknesses of sheet metal, and then by a second operation the interengaged hollow burs  $b^{11}$   $b^{12}$  are upset, thus securely uniting the parts.

As the four depending sides  $b'$ ,  $b^2$ ,  $b^3$ , and  $b^7$  of the cover are secured together at the corners by the overlapping right-angle lips  $b^5$  and countersinks  $b^6$  and interengaged and clenched hollow burs  $b^{11}$   $b^{12}$  without the use of solder, the cover may be rapidly and cheaply manufactured, while at the same time the cover is made very strong and firm.

I claim—

1. A square or rectangular sheet-metal display can or box, provided with a hinged cover, having a top portion and three integral sides, and a front side of separate metal secured to the top of the cover by interengaging folds or flanges and a series of locking points or projections, said front side and back side of the cover having right-angle lips overlapping the adjacent sides of the cover and secured together by integral hollow burs or eyelets on said lips extending through the adjacent sides of the cover and upset or clenched down, substantially as specified.

2. A square or rectangular sheet-metal display can or box, provided with a hinged cover, having a top portion and three integral sides, and a front side of separate metal secured to the top of the cover by interengaging folds or flanges and a series of locking points or projections, said front side and back side of the cover having right-angle lips overlapping the adjacent sides of the cover and secured together by integral hollow burs or eyelets on said lips extending through the adjacent sides of the cover, said adjacent sides of the cover having recesses or counter-

sinks to receive said overlapping lips, substantially as specified.

3. A display can or box cover having three integral depending sides and a front side of a separate piece, interengaging folds or flanges uniting said separate front side with the cover, said separate front side having integral external overlapping right-angle lips at the corners covering the end edges of the sides overlapped thereby, said integral overlapping lips on said separate front side having integral hollow burs extending through the adjacent sides and upset or clenched to secure said separate front side to the adjacent depending sides of the cover, and said adjacent integral sides of the cover having countersinks or recesses to receive said right-angle overlapping lips on said separate piece front side, substantially as specified.

4. A sheet-metal cover for cans or boxes, having three integral depending sides and a front side of separate metal, interengaging folds or flanges uniting said separate front side with the cover, said interengaging flanges or folds having a series of locking points or depressions, substantially as specified.

5. A sheet-metal cover for cans or boxes, having depending sides furnished with external overlapping right-angle lips at the corners covering the end edges of the sides overlapped thereby, and provided with upset, hollow integral burs uniting said overlapping lips with the adjacent sides, said adjacent sides having countersinks or recesses to receive said lips, substantially as specified.

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Witnesses:

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