

(No Model.)

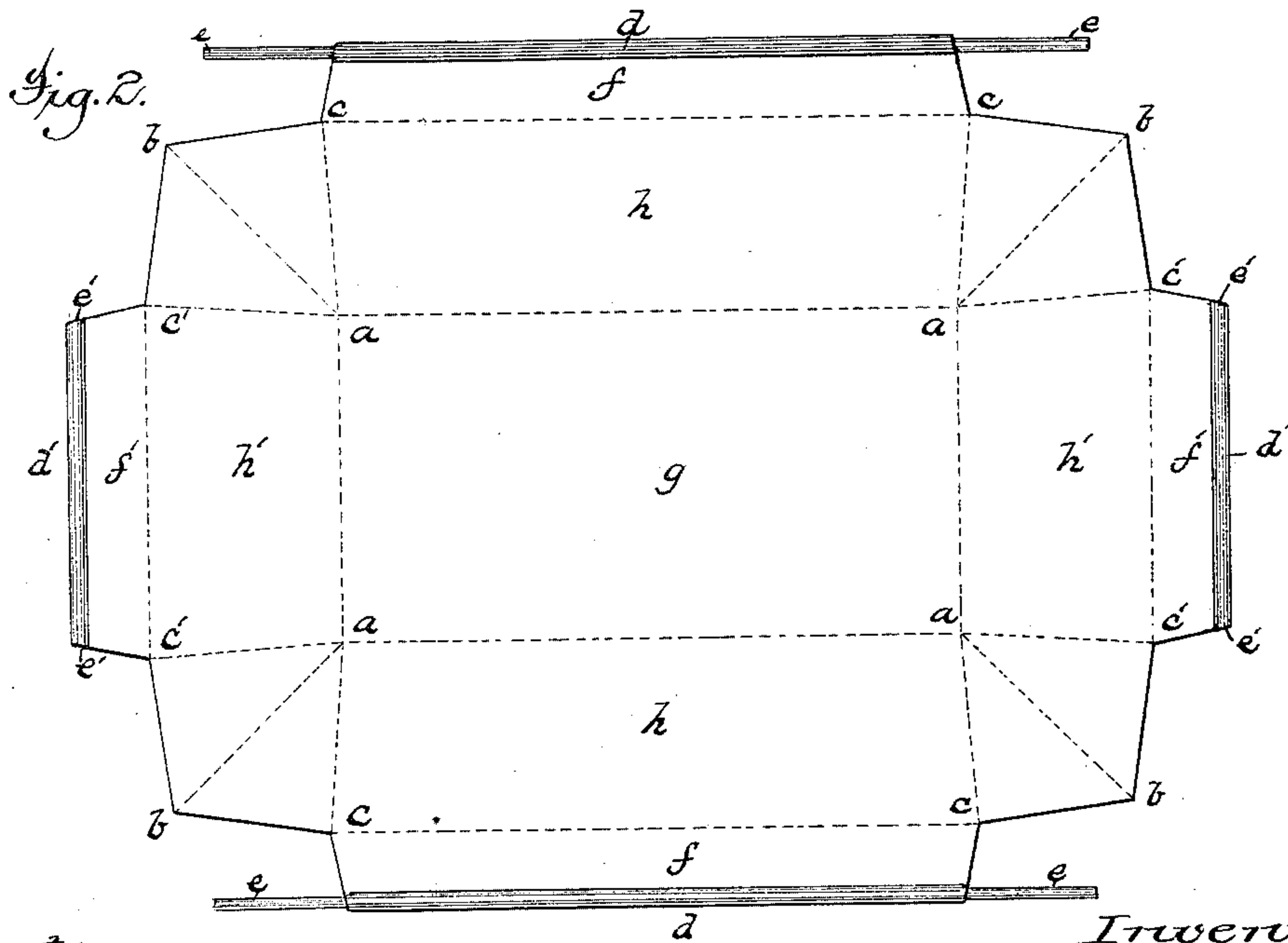
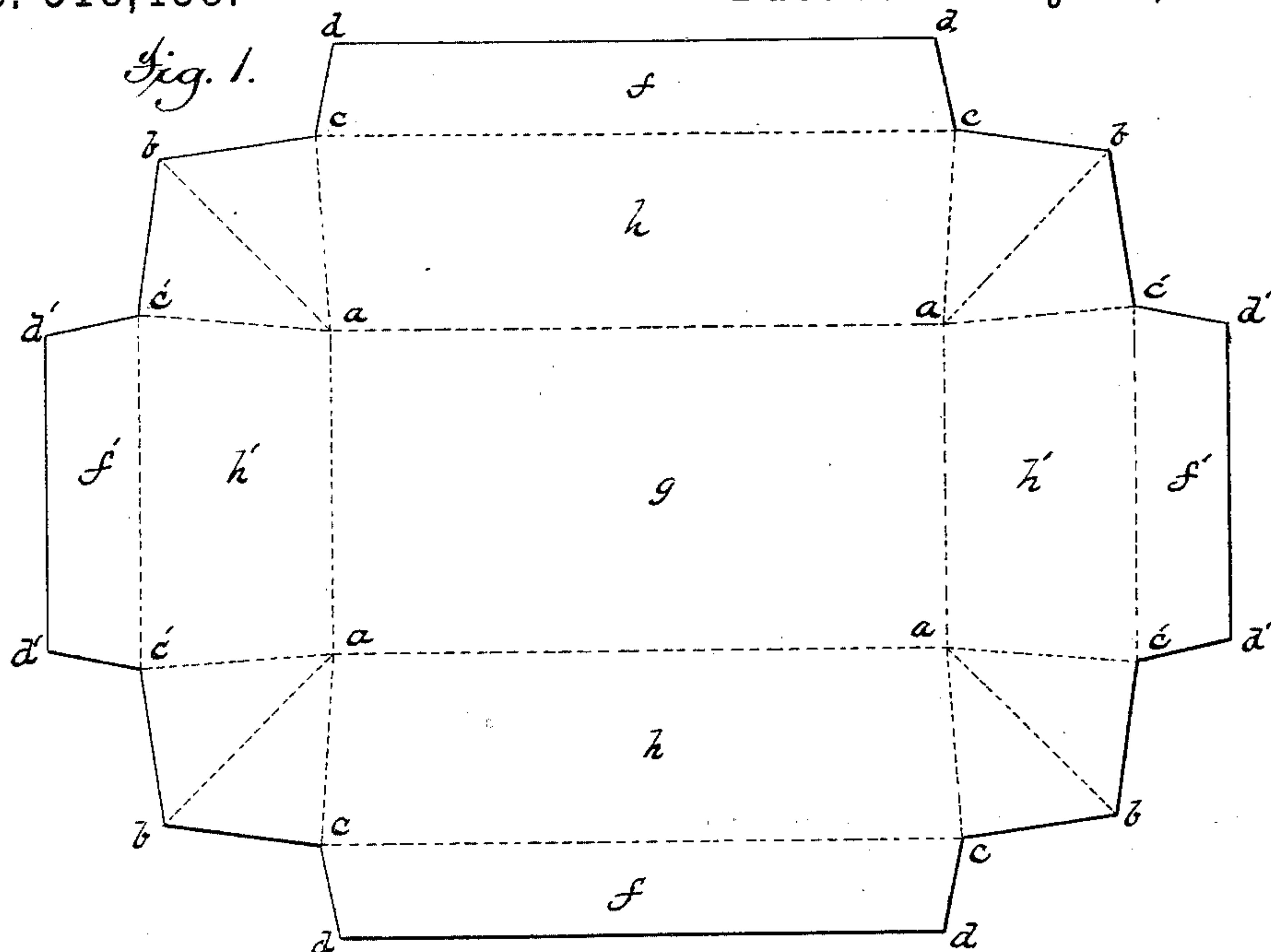
2 Sheets—Sheet 1.

S. J. WILLIAMS & H. RICHEY.

RECTANGULAR BAKING PAN.

No. 318,438.

Patented May 19, 1885.



Attest:

Geo. H. Graham

Joseph S. Michael

Inventors

Seth J. Williams

Hiram Richey

By James A. Brown
Atty

(No Model.)

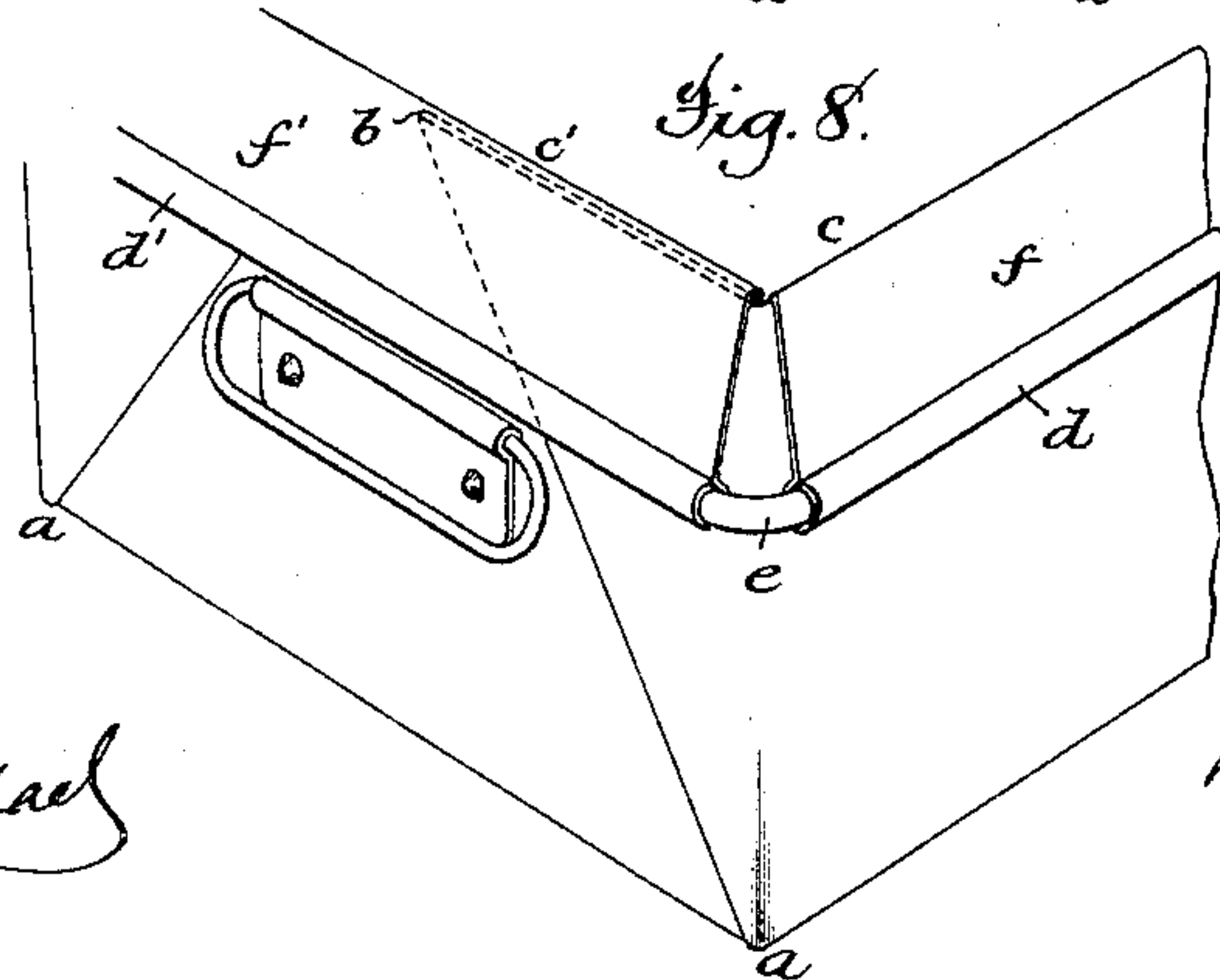
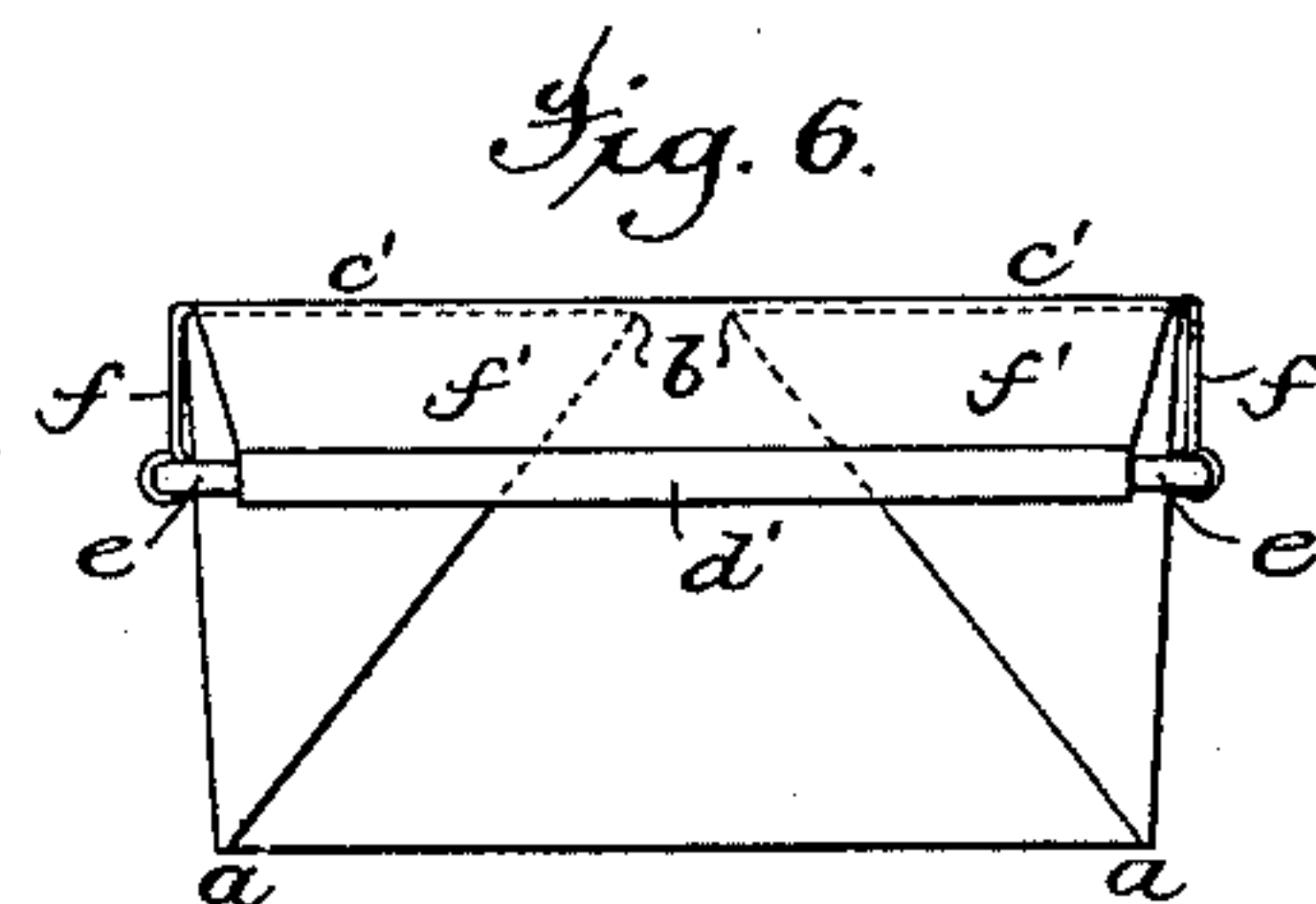
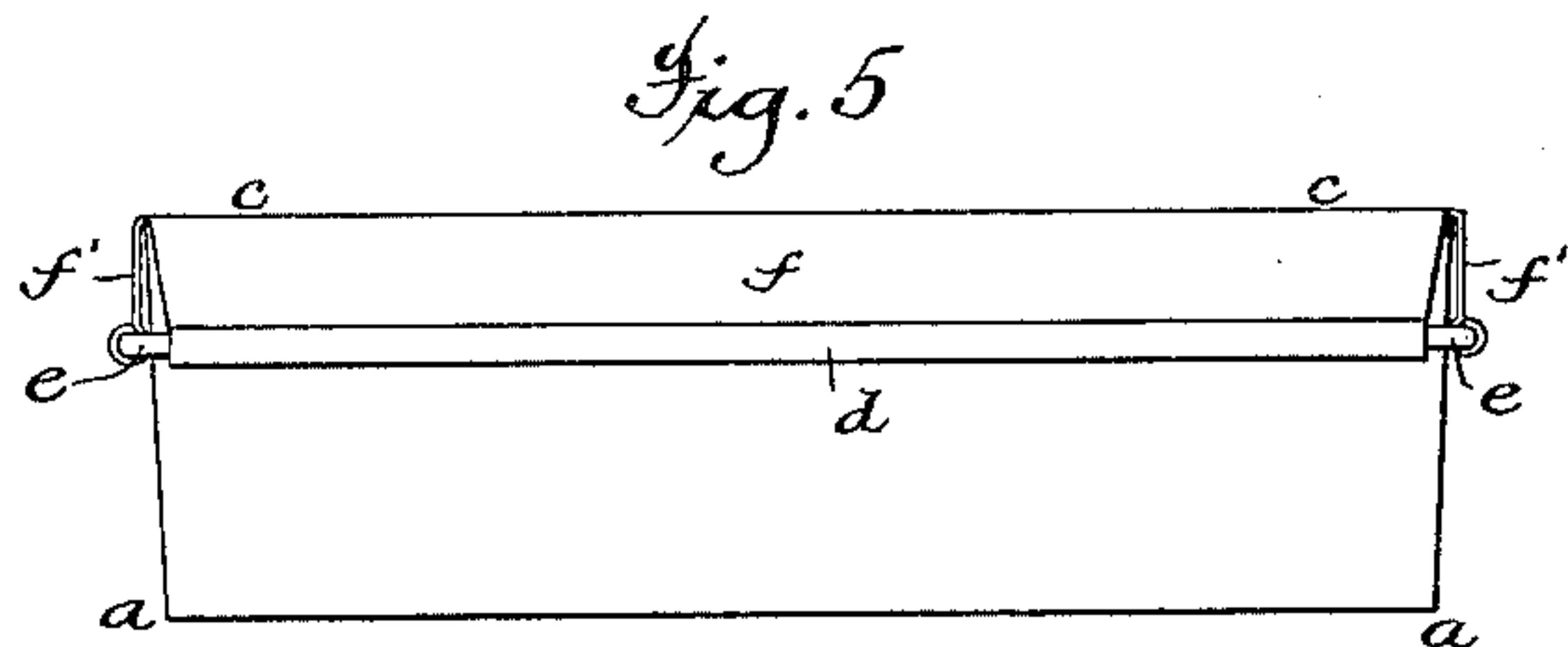
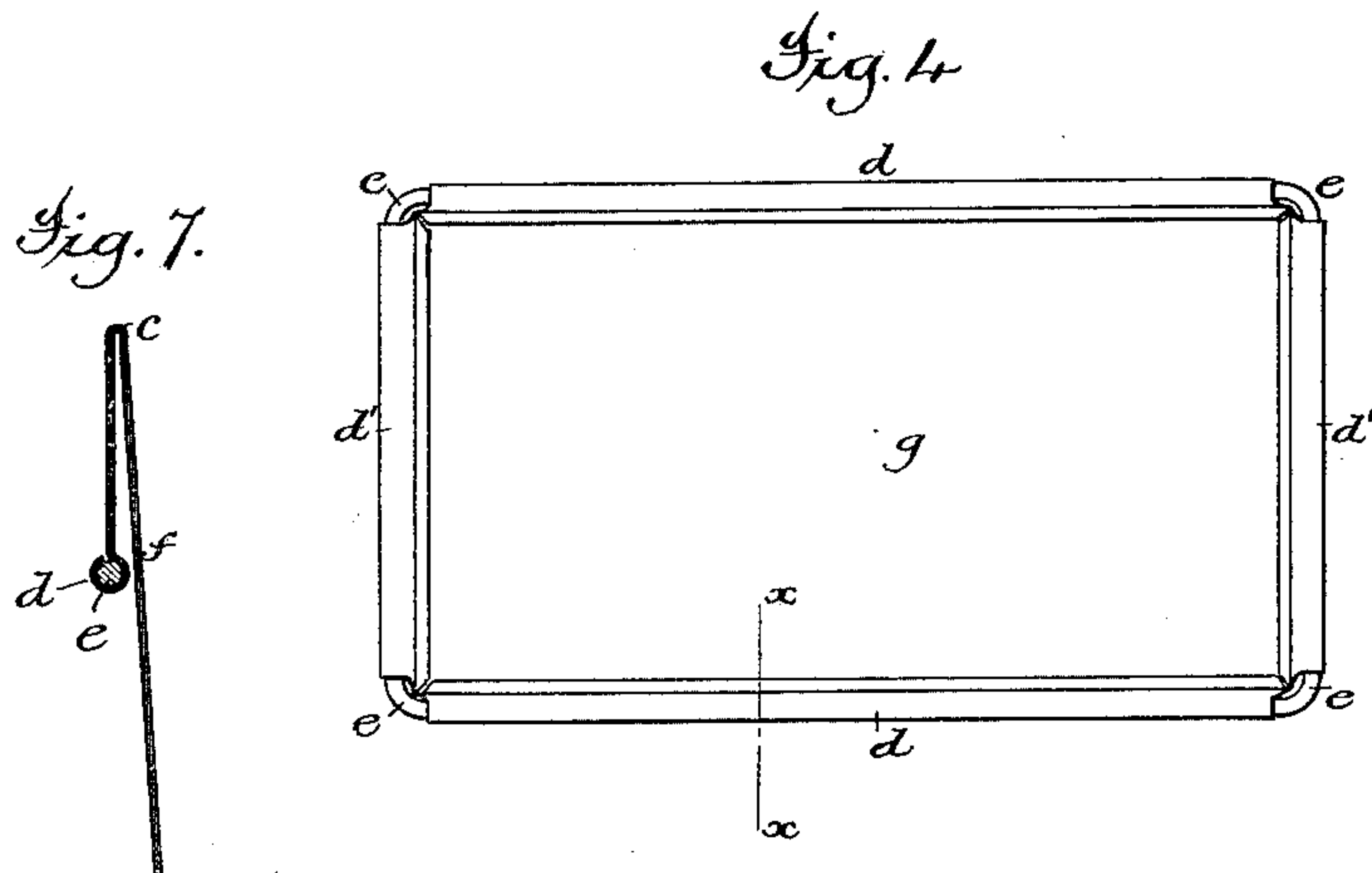
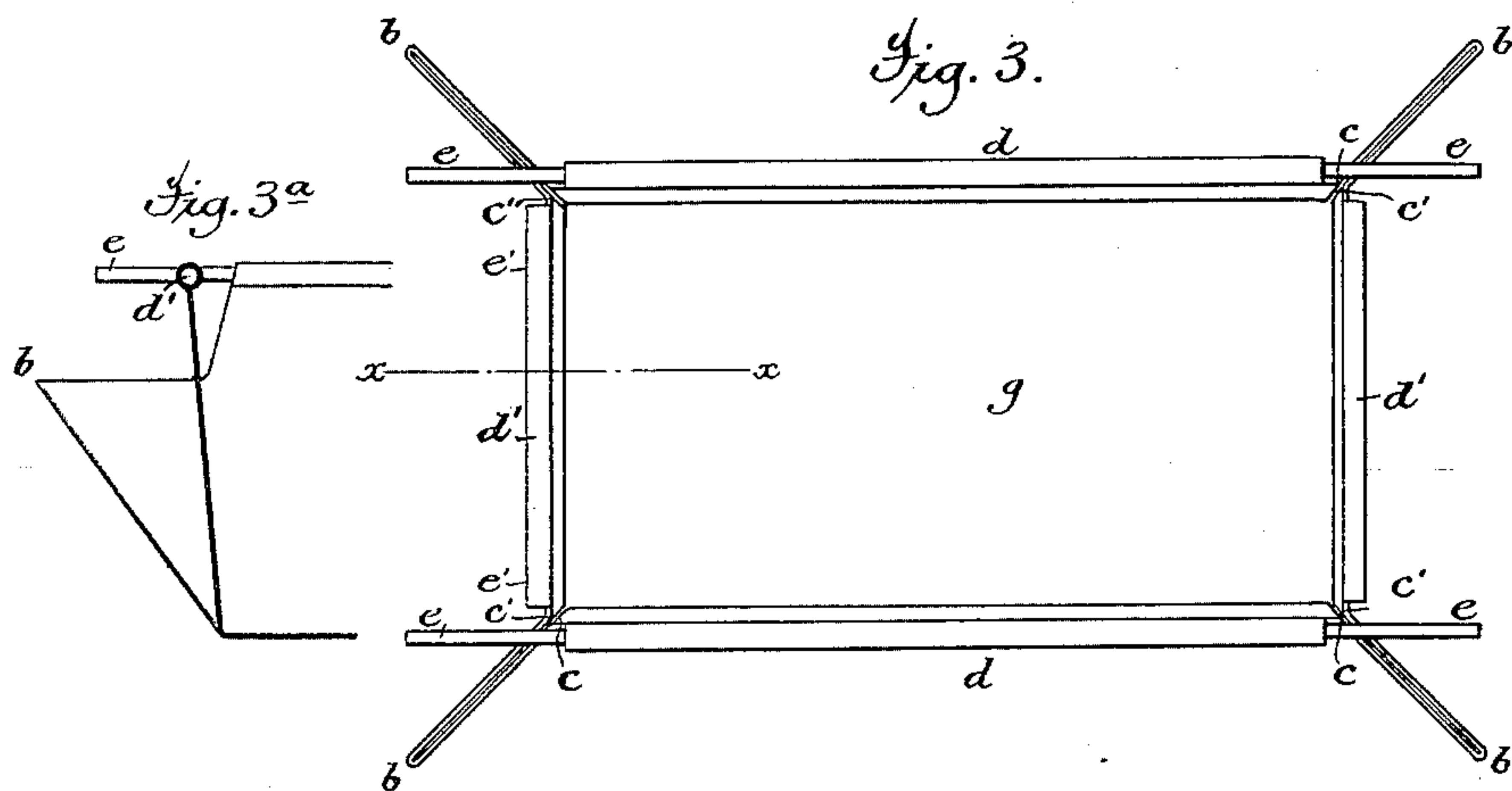
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

SETH J. WILLIAMS AND HIRAM RICHEY, OF SING SING, NEW YORK.

RECTANGULAR BAKING-PAN.

SPECIFICATION forming part of Letters Patent No. 318,438, dated May 19, 1885.

Application filed December 6, 1883. (No model.)

To all whom it may concern:

Be it known that we, SETH J. WILLIAMS and HIRAM RICHEY, citizens of the United States, and residents of Sing Sing, in the county of Westchester and State of New York, have invented a new and useful Improvement in Rectangular Baking-Pans, of which the following is a specification.

Our invention relates to rectangular baking-pans.

Its objects are to lessen the cost of manufacture and at the same time to produce a pan possessing features of superior excellence; and it consists in the form of the blank into which the sheet metal is cut as the preliminary step in the manufacture, and in the completed pan into which such blank is constructed by bending, folding, and wiring.

In the accompanying drawings, similar letters of reference designate corresponding parts (so far as such parts are shown) in all of the figures.

g, Figures 1 and 2, is that part of the blank that will form the inside surface of the bottom of the completed pan, again shown in advanced stages of manufacture in Figs. 3 and 4.

h h, Figs. 1 and 2, are the parts of the blank that will form the inside surfaces of the sides, and *h' h'* the inside surfaces of the ends, of the completed pan. These sides and ends are respectively provided with extensions or continuations *f f* and *f' f'*, the outer edges of which are to be turned over, as at *d d* and *d' d'*, Fig. 2, to secure the wires *e e*.

The broken lines on Figs. 1 and 2 indicate the lines upon which the several necessary bends and folds are to be made, as will be hereinafter described.

Fig. 1 of the drawings is a plan of the blank, to be cut from suitable sheet metal into the form shown by the solid boundary-lines. Modifications to meet the requirements of greater or less depth, width, or length of pan, may be made at pleasure without departing from the spirit of our invention.

The successive stages of the manufacture from the blank into the completed pan are shown in the succeeding figures, wherein—

Fig. 2 is a plan of the blank shown in Fig. 1, but having its edges *d d* of its extensions *f f* turned over wires *e e*, each end of which projects beyond their holdings to one-half of the

length of the turned-over edges *d' d'* of the end extensions, *f' f'*, which turned-over edges *d' d'* are to receive these free ends of the wires *e e* at a later stage in the manufacture.

Fig. 3 is a plan showing the sides *h h* and ends *h' h'* bent upon the dotted lines *a a a a* of Fig. 2, nearly at right angles to the bottom *g*. This involves a bending inward of the metal on each of the broken lines *a c* and *a c'*, and a bending outward of the metal on each of the broken lines *a b* to such an extent that the angles formed on each of the lines *a c* will be brought directly against the approximate angle formed on the lines *a c'*. The resultant effect is clearly shown in Fig. 3^a, which is a partial section through the line *x x* of Fig. 3.

Fig. 4 is a plan showing the next step attained in the manufacture, the folded corner projections, *c c' b*, Fig. 3, having first been folded down flat against the outsides of the ends of the pan, the side and end projections, *f f* and *f' f'*, having next been folded over and down flat, or nearly so, against the outside of the sides and ends of which they are respectively prolongations, and the ends of the wires *e e* (shown in Figs. 2, 3, and 3^a) bent closely around each adjacent corner of the pan and turned in beneath the turned-over edges *d' d'* of the end pieces, thereby producing a completed pan, of which Fig. 5 is a side elevation; Fig. 6, an end elevation; Fig. 7, a partial section through the line *x x*, Fig. 4; and Fig. 8, a perspective showing part of one side and of one end, with the intermediate corner, and having the position of one of the corner-folds beneath the prolongation of the end piece indicated by broken lines.

The form of blank shown in Fig. 1 will work up into a pan having its sides and ends a little inclined outward from the plane of its bottom. As this form is most common in pans of this general class it has been selected for illustration, and the deviations from it necessary to the construction of rectangular pans of greater or less depth, or length, or width, or "flare" of sides and ends, or either or any, will be so obvious to any one skilled in the art that but little further explanation or direction, if any, will be necessary. We however suggest that the extent of flare is dependent upon the amount of outward deviation in the blank of the lines *a c* and *a c'* from the direction

of the bottom lines, $a a$ and $a a$, respectively, and the consequent variance of the relative lengths of the lines $c c$ and $c' c'$; and it is desirable in all variations to so modify the angles $c b c'$ that when the parts $c a c' b$ are folded on the lines $a b$ and down against the ends of the pan the upper edge of such fold will approach as near to the upper edge of the pan as the thickness of the metal of the end pieces, $f' f'$, will permit.

The perpendicularity of the sides and end prolongations, $f f$ and $f' f'$, can be preserved through all ordinary modifications of flare by so wiring in the wires $c c$ that the major axis of each wire will be more or less in the planes of the prolongations which they respectively terminate.

By reason of the novel form of the blank, the extension-pieces when folded over present exterior surfaces with which a cover will make a close joint, and the wires placed in the edges of such extensions stiffen and strengthen the pan, and at the same time form a stop for the cover.

Other resultant advantages are smooth unbroken inside surfaces of the pan, which facilitate cleaning; corners so folded that they cannot leak, because the only opening of the joint is practically on the level of the top of the pan; stiffness or stability under torsional strain, which prevents injury to the pan or spilling of contents when in use, and cheapness of manufacture, and durability.

As the blank can be cut out of any suitable

sheet metal by dies or other devices, so as to require no further cutting or trimming, it can advantageously be put into the market of manufacturers' supplies in that condition as a new article of manufacture. No special tools or difficult processes are necessary to carry it from that stage onto the completed pan. Any worker of tin or sheet metal can readily form the pans out of such blanks. When cut in large quantities, the cutting could be done at small cost, and would probably be well paid for by the value of the scraps, while to the pan-maker by such a supply waste, labor, and expensive mechanism would be saved.

We claim as new and desire to secure by Letters Patent—

1. A blank of sheet metal of the form shown by the solid lines of Fig. 1 of the drawings, for the purpose set forth.

2. In a rectangular baking-pan, the folded-over and wired side and end prolongations, in combination with the folded corners, all relatively arranged as described and illustrated.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 22d day of October, 1883.

SETH J. WILLIAMS.
HIRAM RICHEY.

Witnesses:

BENJAMIN F. GERDING,
JOSEPH S. MICHAEL.