

No. 887,729.

PATENTED MAY 12, 1908.

O. E. KIRMSE.
FOLDING BOX.

APPLICATION FILED MAR. 15, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

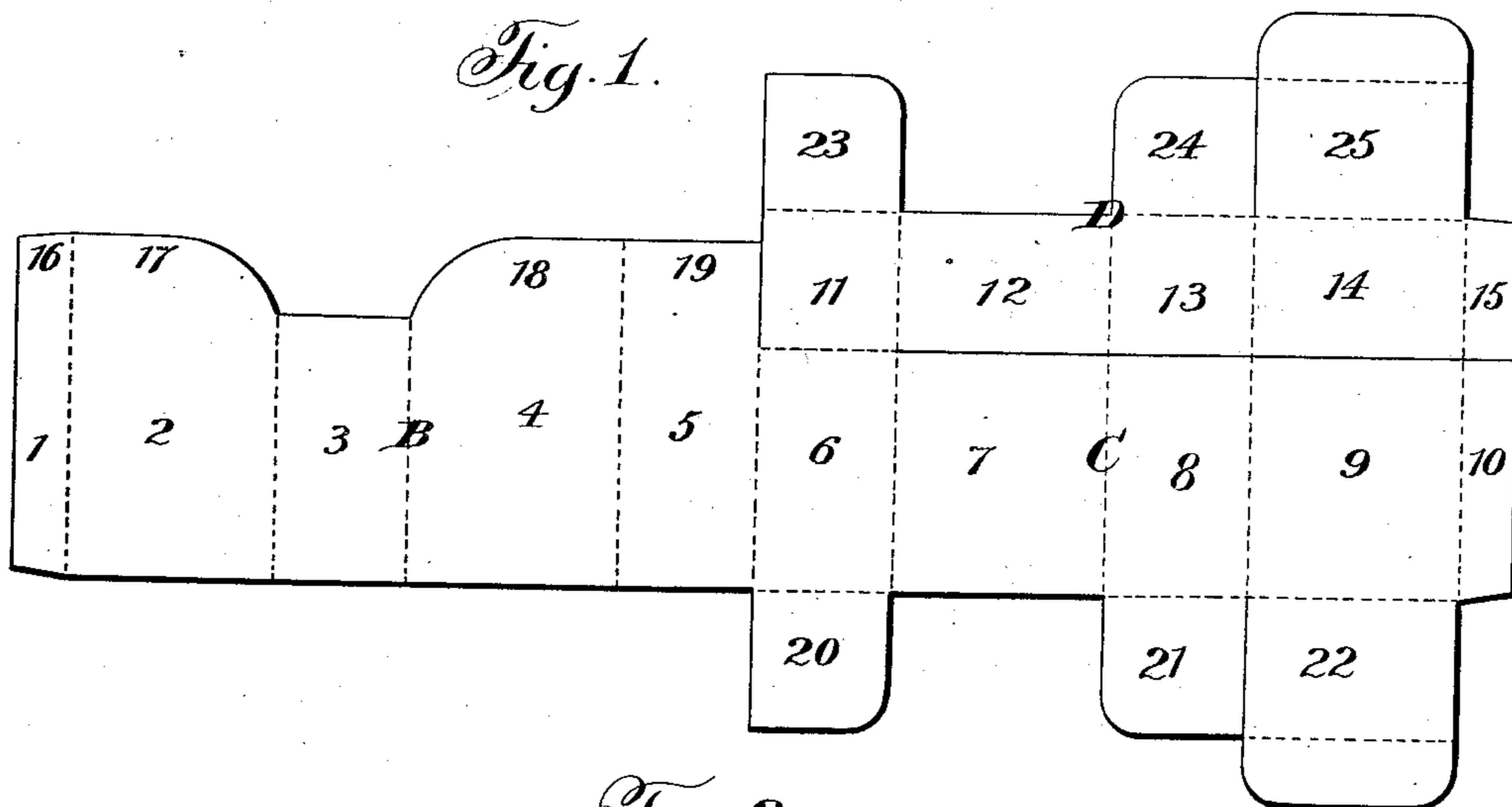
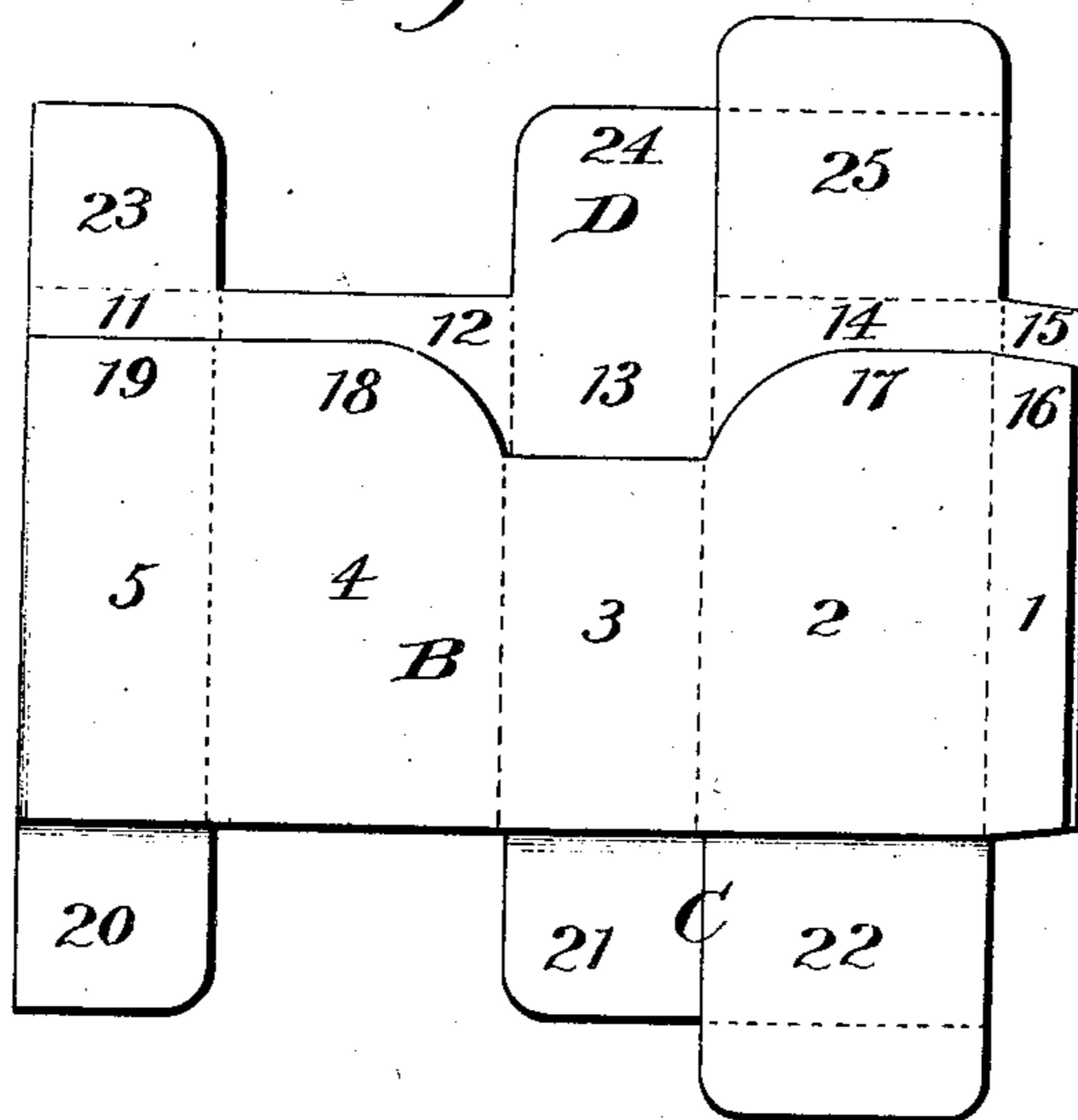


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

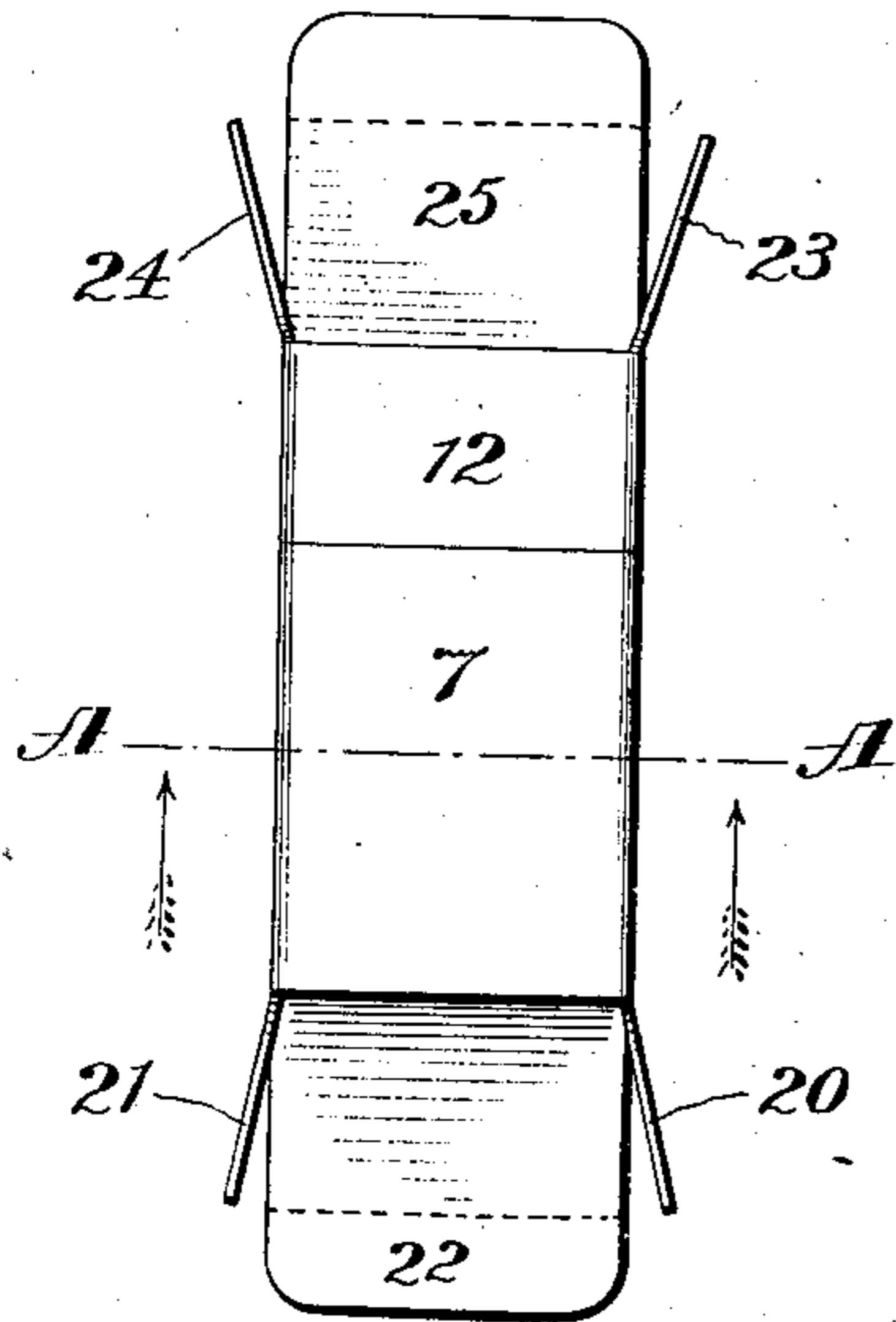


Fig. 4.

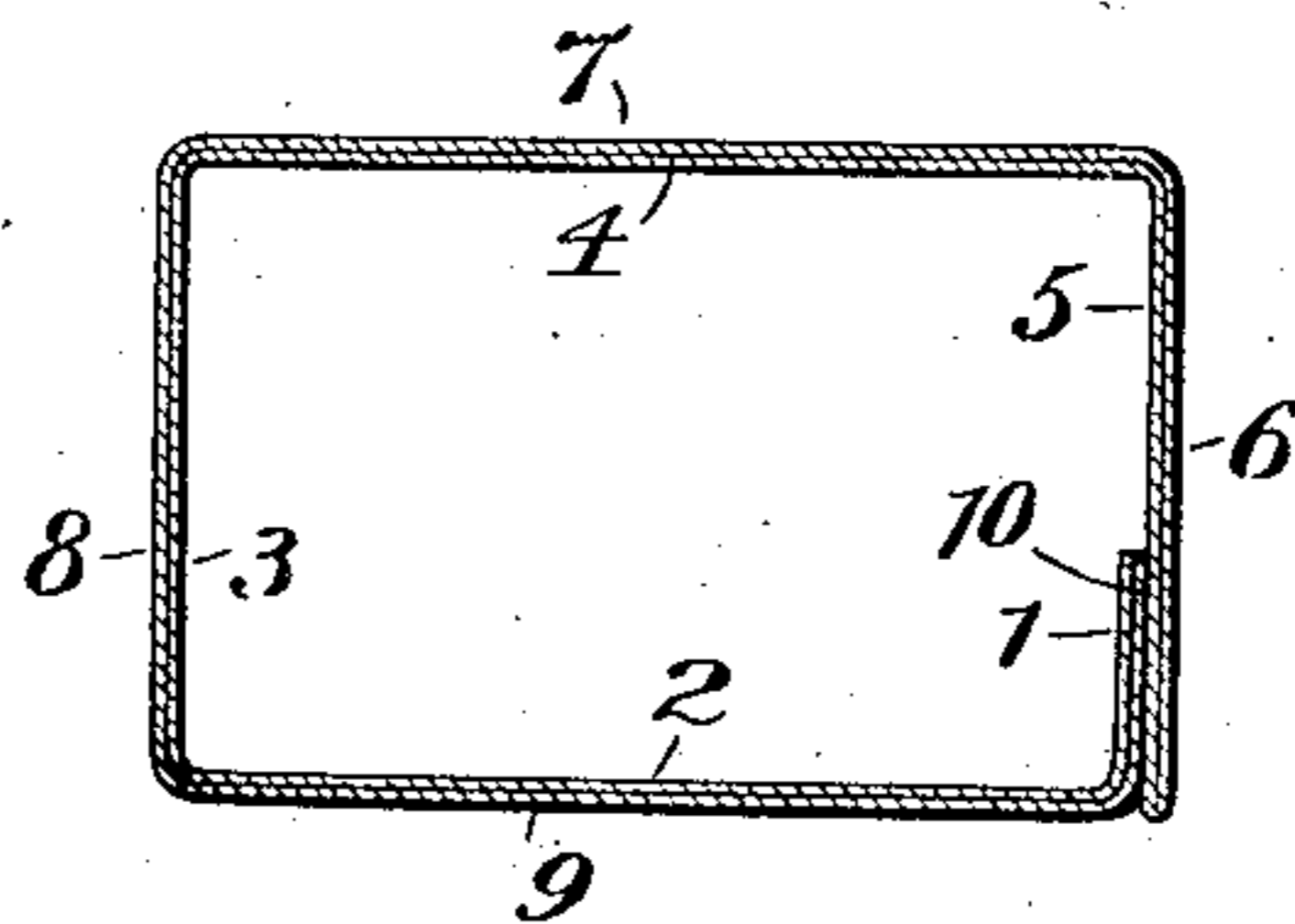


Fig. 5.

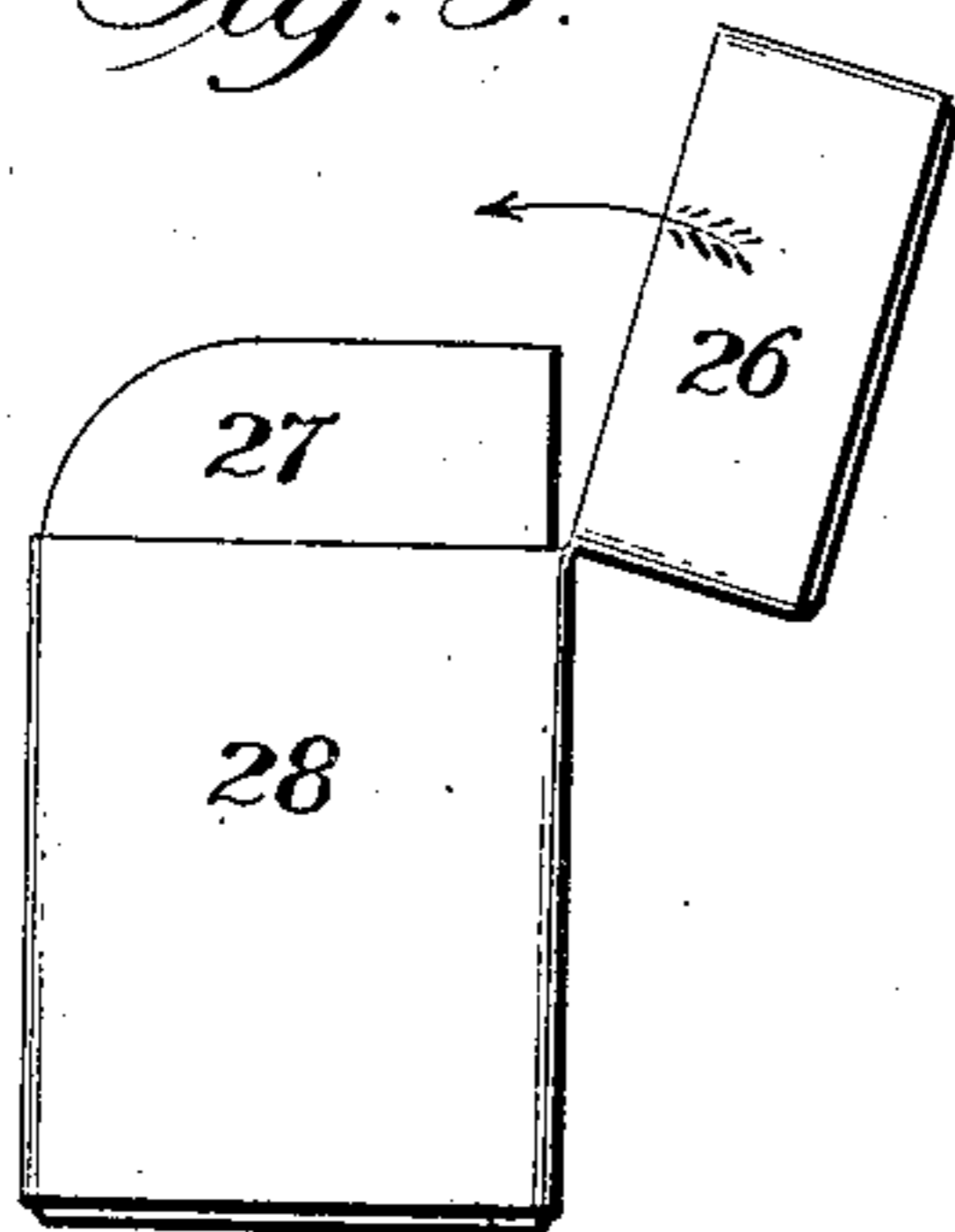


Fig. 7.

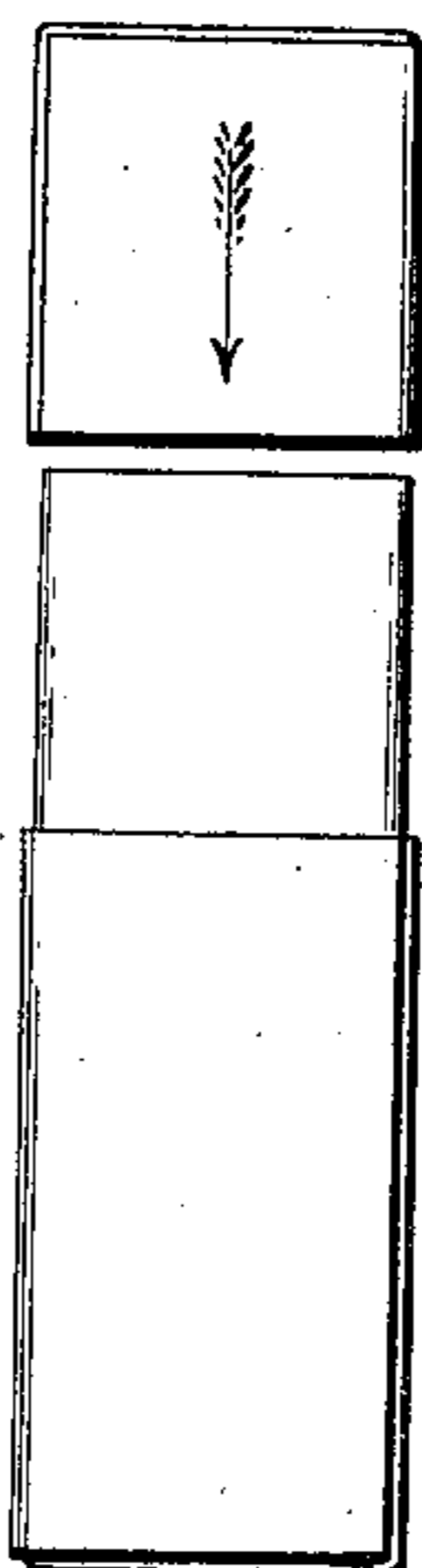
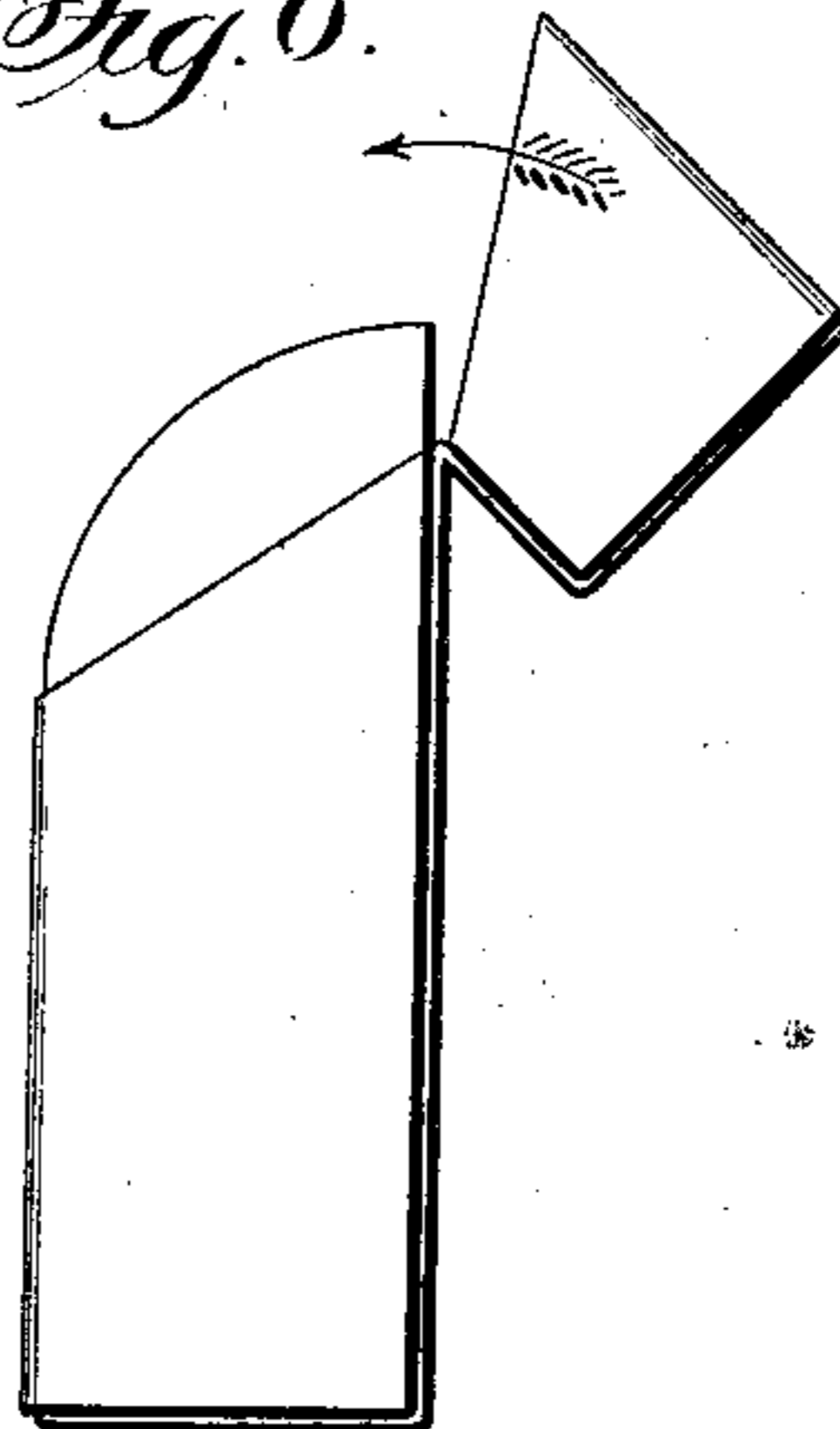


Fig. 6.



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UNITED STATES PATENT OFFICE.

OSCAR E. KIRMSE, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE FRIEDENWALD COMPANY,
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FOLDING BOX.

No. 887,729.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed March 15, 1904. Serial No. 198,214.

To all whom it may concern:

Be it known that I, OSCAR E. KIRMSE, a citizen of the United States, residing in the city of Baltimore, State of Maryland, have invented certain new and useful Improvements in Folding Boxes, of which the following is a specification.

This invention relates to boxes which are commonly formed of pasteboard or similar substance, although the substance used is not material to my invention, and has for its object the cheapening and simplifying of such boxes.

In the accompanying drawings, I have illustrated my invention with especial reference to a box capable of being "knocked down" for shipment or other purposes and having a contracted or neck portion over which fits a lid hinged to the box, the whole being formed from a single blank finished upon one side in such manner that the outside and inside of the box have finished surfaces. In certain of its aspects, however, my invention is applicable to boxes having widely different constructions.

In all the figures the dotted lines indicate scores and the full lines indicate cut edges.

Figure 1 is a view showing the blank; Fig. 2 is a view showing the blank with certain of its sections doubled upon each other; Fig. 3 is a view showing the box and lid complete except that certain flaps have not been bent into place to form the bottom of the box and the top of the lid; Fig. 4 is a section on the line A—A of Fig. 3 looking in the direction of the arrow; Fig. 5 is a view showing the completed box with the lid open; and Figs. 6 and 7 are views showing modifications.

The blank from which the box is formed may, for purposes of description, be divided into three sections B, C and D, Figs. 1 and 2. The section B comprises the parts 1, 2, 3, 4 and 5, the section C comprises the parts 6, 7, 8, 9 and 10, all of which parts are divided by scores as shown, and the section D comprises the parts 11, 12, 13, 14 and 15, also divided by scores. The section B is adapted to form the interior of the body of the box and its parts 1, 2, 4 and 5 respectively have the extensions 16, 17, 18 and 19 which form the neck of the box and inclose its mouth. The section C is adapted to form the exterior

of the body of the box and its parts 6, 8 and 9 respectively, have extensions or flaps 20, 21 and 22 for forming the bottom. The section D is adapted to form the lid of the box, the parts 11, 13 and 14 respectively, having the extensions or flaps 23, 24 and 25 for forming the top of the lid. The sections C and D are longer than the section B, as the former must surround the latter. Throughout the specification and claims the bottom of the box is considered that portion which is opposite the mouth or opposite the lid where one is employed, and the body is considered to be the portion between the bottom and mouth.

To form the box from the blank, the sections B and C are doubled upon each other, Fig. 2, and the doubled piece may then be bent, angles being formed at the scored lines, and the parts 5, 6, 1, and 10 secured together by paste or other suitable means, thus forming the body and neck of the box, Figs. 3 and 4. The section D may then be folded about the neck formed by the extensions 17, 18 and 19 and the part 15 secured to the part 11 near its edge. The top of the lid may then be closed in a well known manner by bending the flaps 23 and 24 inwardly and folding the flap 25 over them, inserting the edge of the flap 25 between the edges of the flaps 23 and 24 and the part 12 of the lid. In a similar manner the bottom of the box is formed by folding the flap 22 over the flaps 20 and 21. The box is then complete as shown in Fig. 5, in which figure the lid 26, the neck 27 of reduced size over which the lid fits, and the body 28 of the box are clearly shown. As the part 6 of the section C and the part 11 of the section D are integral, a hinge between the lid and the body of the box may be formed by making a score at the junction of the parts 11 and 6.

To improve the appearance of the box especially when it is formed of pasteboard or like material, it is desirable that its exterior present a finished or calendered surface, and in order that articles may be easily inserted and withdrawn from the box as well as for the sake of cleanliness, it is desirable that the interior surface of the box be finished also. To reduce the cost of construction, it is desirable to use material finished upon one side only. According to this invention, a box

presenting finished surfaces upon both its interior and exterior can be produced from such material, thus if the blank shown in Fig. 1 be regarded as finished upon the side away from the observer, the completed box formed from it in a manner as hereinbefore described, will when the lid is closed present a finished surface at all parts of its exterior and upon the interior of the body portion. The unfinished portions presented upon the interior being only the interior of the lid, the exterior of the neck and the bottom.

If the section D be severed from the remainder of the blank a box having a detached cover, as shown in Fig. 7, may be obtained in a manner similar to that employed in forming the box shown in Fig. 5, and the neck and cover may be made of the same height all around by making the sections B and D rectangular instead of indented as shown. The box shown in Fig. 6, may be made by cutting the tops of parts 6 and 8 at an oblique angle with the sides instead of making them rectangular and modifying the curvature of the extensions 17 and 18. Other modifications of proportions and configuration may be made without departing from this invention.

My improved box may be collapsed at any time by opening the ends, as shown in Fig. 3 and then folding the walls 4 and 5 (Fig. 4) against the walls 3 and 2 respectively. In this way the box can be made perfectly flat so that it takes up practically no more space than is occupied by the material of which the box is constructed. The boxes may be shipped in this collapsed condition or they may be shipped flat, as shown in Fig. 1, or with one fold, as shown in Fig. 2, and assembled when needed.

Without limiting myself to the precise construction and arrangement of parts shown and described, I claim—

1. A box adapted to be set up for use or folded flat for shipment, at will, comprising a body composed of inner and outer layers of material the inner layer projecting beyond the outer layer to form a neck, and a lid hinged to the outer layer and adapted to fit over and inclose said neck.

2. A box adapted to be set up for use or folded flat for shipment, at will, comprising a body of rectangular cross section composed of inner and outer layers of material, the inner layer projecting above the outer layer to form a neck, and a top of similar cross-section hinged to the outer layer and adapted to fit over and inclose said neck.

3. A box adapted to be set up for use or folded flat for shipment, at will, comprising a body composed of inner and outer layers of material secured together, the inner layer being extended above the outer layer to form

a neck, flaps integral with the outer layer and extending from the lower end thereof to form the bottom of the box, and a cover section integral with the outer layer and having a portion adapted to surround the neck and flaps adapted to close the top of the cover.

4. A box adapted to be set up for use or folded flat for shipment, at will, comprising a body composed of inner and outer layers which are integral, portions of the inner layer extending above the outer layer to form a neck, flaps connected with the outer layer and adapted to form the bottom of the box, and a cover section connected with the outer layer and adapted to inclose the neck.

5. A box adapted to be set up for use or folded flat for shipment, at will, comprising a body of rectangular cross-section, composed of inner and outer layers of material, the inner layer projecting beyond the outer layer upon three sides thereof to form a neck, a cover section integral with the outer layer and adapted to inclose the neck, and suitable flaps for forming the bottom of the box.

6. A box adapted to be set up for use or folded flat for shipment, at will, comprising a body of rectangular cross-section composed of inner and outer layers of material, said layers being integral, extensions of the inner layer forming a neck for the box, and two sets of extensions of the outer layer forming respectively a bottom and a cover for the box, the cover being severed from the body upon three sides of the box.

7. The herein described integral blank for a box adapted to be set up for use or folded flat for shipment, at will, comprising an inner body section or lining having extensions to form a neck, an outer body section having flaps to form the bottom of the box, and a cover section having portions to encircle the neck and flaps to form the top of the box.

8. A box adapted to be set up for use or folded flat for shipment, at will, consisting in a single piece of material cut, scored and folded to form a body composed of inner and outer layers, the inner layer extending above the outer layer to form a neck, flaps connected with the outer layer and forming the bottom of the box, and a cover section connected with the outer layer and adapted to inclose the neck.

9. A box adapted to be set up for use or folded flat for shipment, at will, consisting of a single piece of material cut, scored and folded, substantially as described, to form a box having a double body, a bottom, a neck protruding beyond the outer layer of the body, and a hinged cover fitting over the neck.

10. A box adapted to be set up for use or folded flat for shipment, at will, consisting of a single piece of material cut, scored and folded, substantially as described, to form a box

having a double body, a bottom, a neck protruding beyond the outer layer of the body, and a hinged cover fitting over the neck, that portion of the blank forming the outer layer
5 of the body being longer than the portion forming the inner layer.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

OSCAR E. KIRMSE.

Witnesses:

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FRANK H. WEBSTER.