

No. 798,121.

PATENTED AUG. 29, 1905.

E. B. WESTON.

PAPER BOX.

APPLICATION FILED DEC. 5, 1904.

2 SHEETS—SHEET 1.

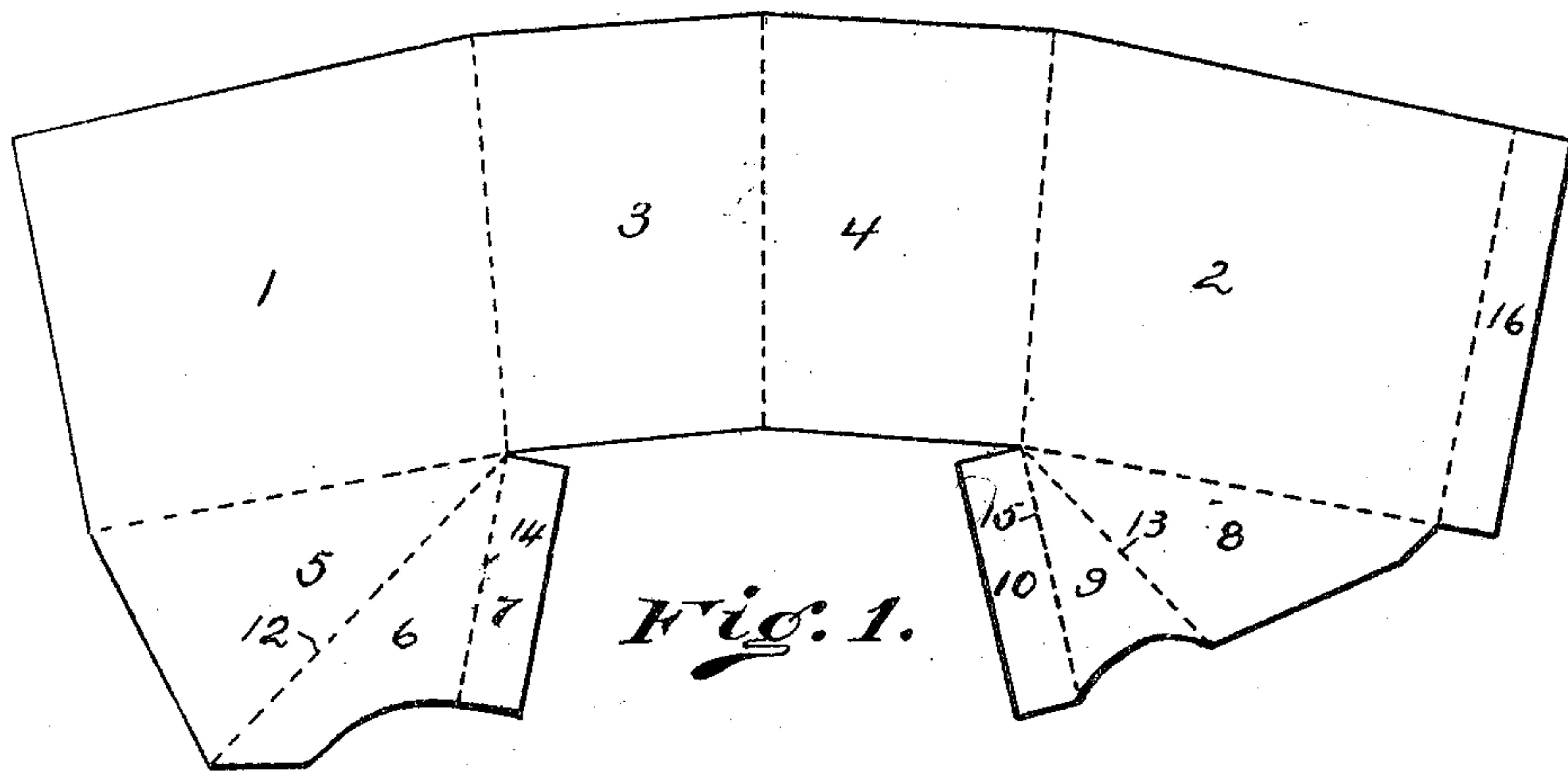


Fig. 1.

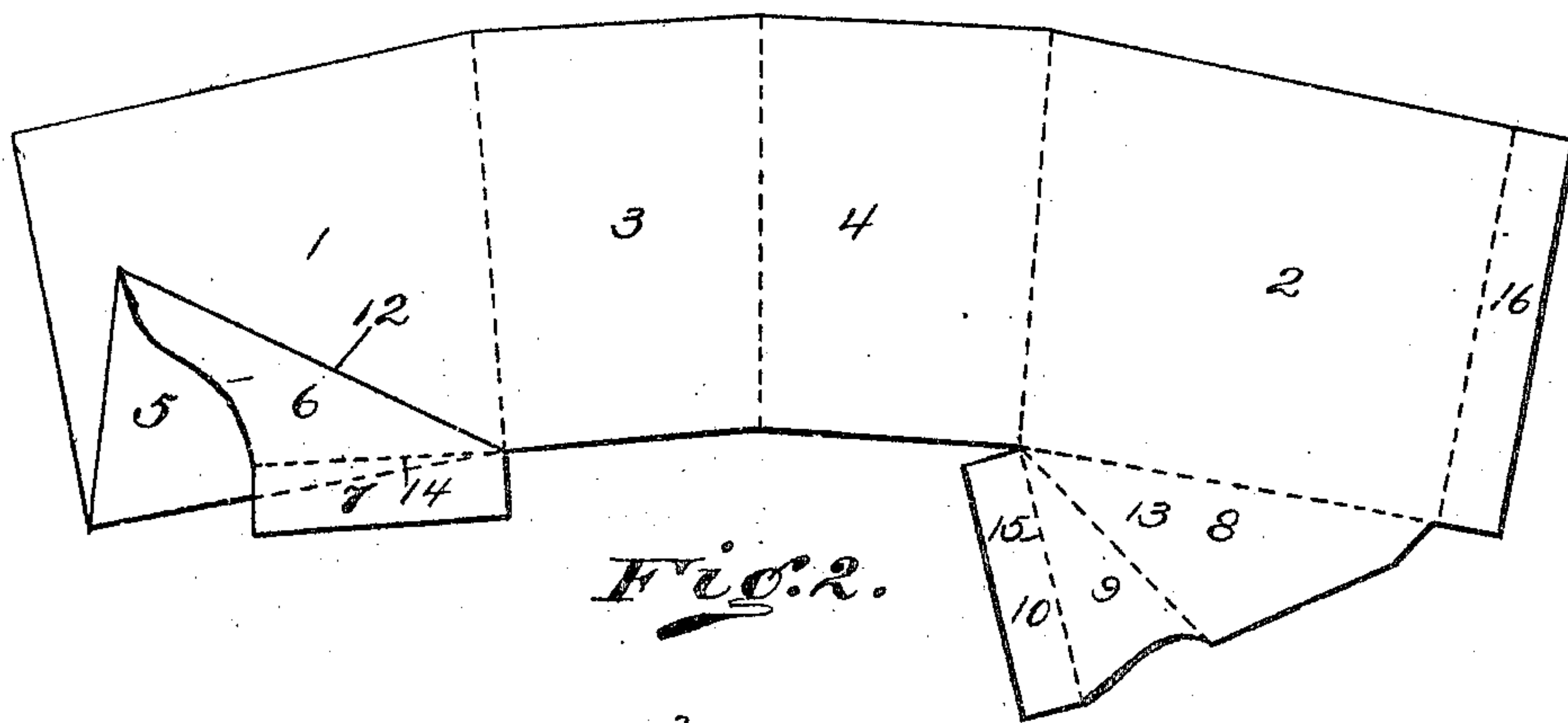


Fig. 2.

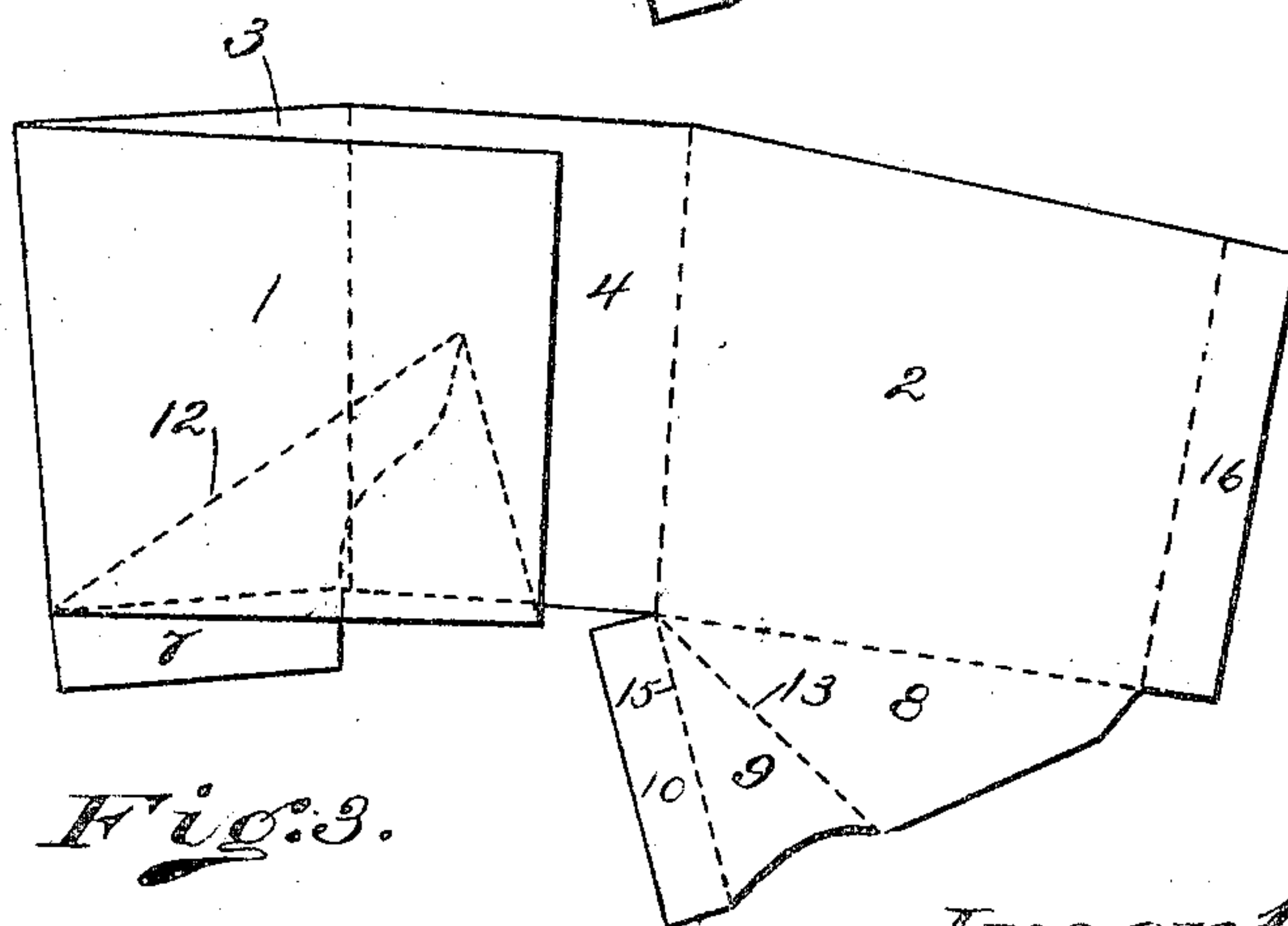


Fig. 3.

Witnesses
Glena Pitchard
H. S. Kyle

Inventor
Edward B. Weston
by Alfred M. Allen
Attorney

No. 798,121.

PATENTED AUG. 29, 1905.

E. B. WESTON.
PAPER BOX.

APPLICATION FILED DEC. 5, 1904.

2 SHEETS—SHEET 2.

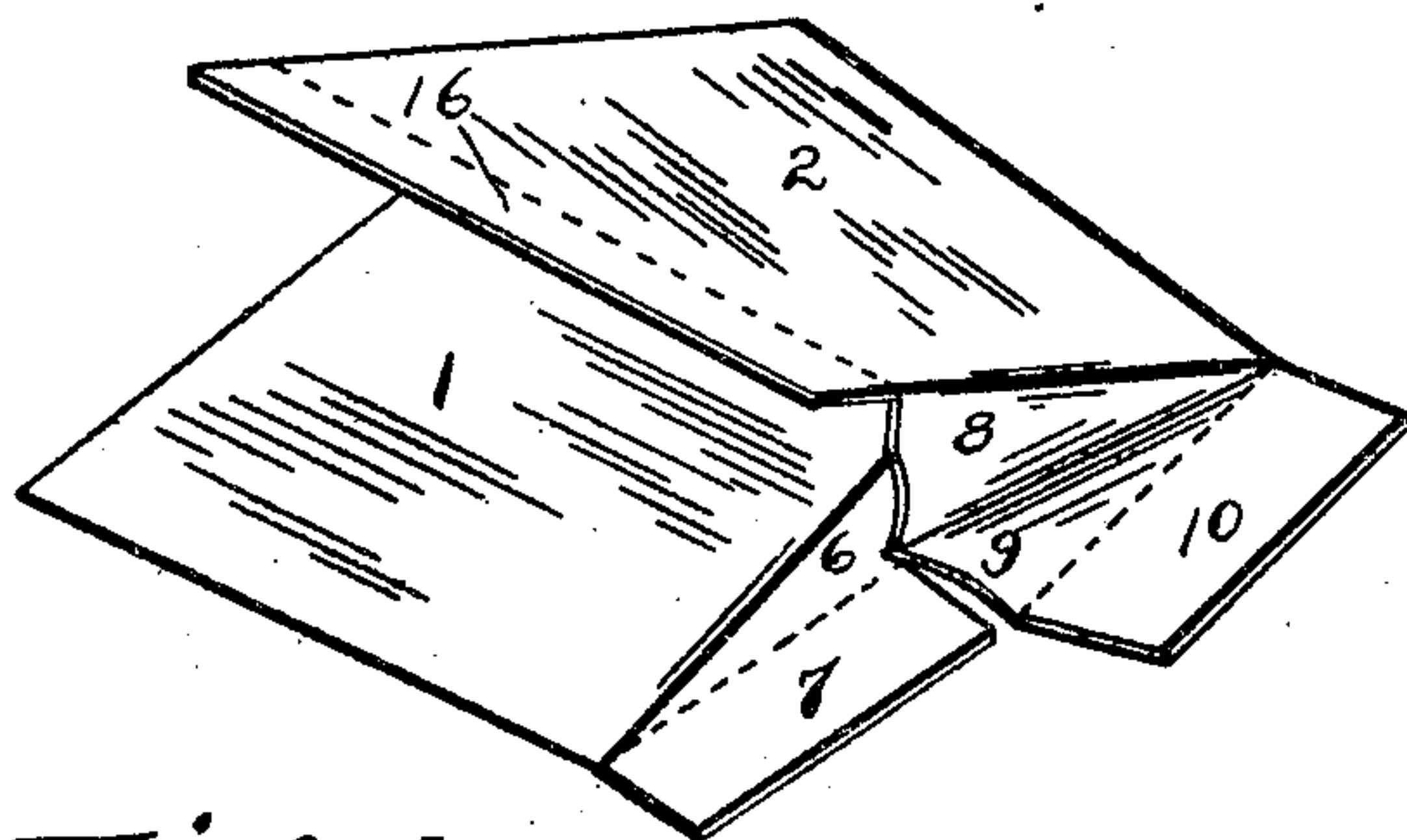


Fig. 4.

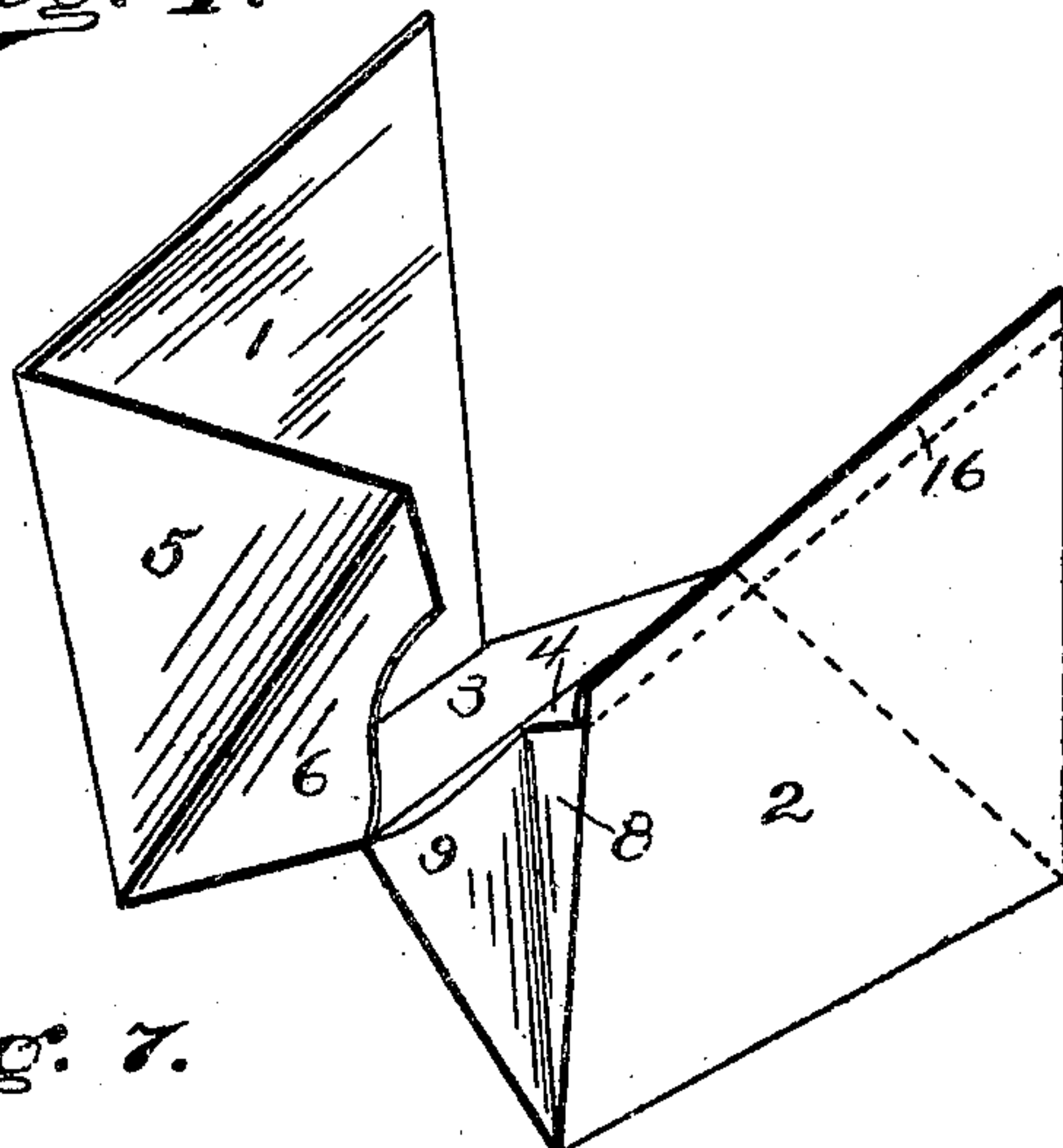


Fig. 7.

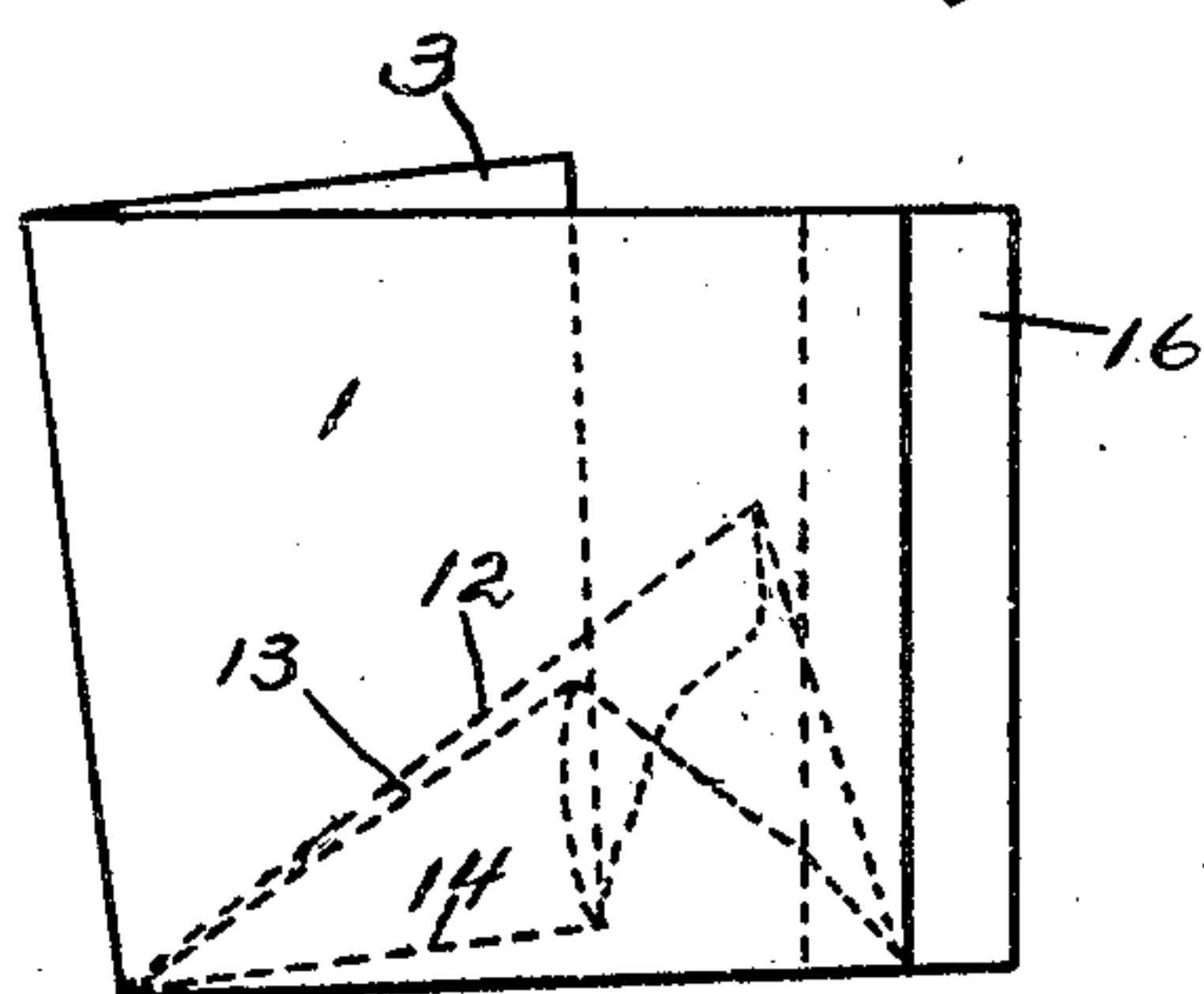


Fig. 8.

Witnesses
Mena Pritchard
W. S. Kyle

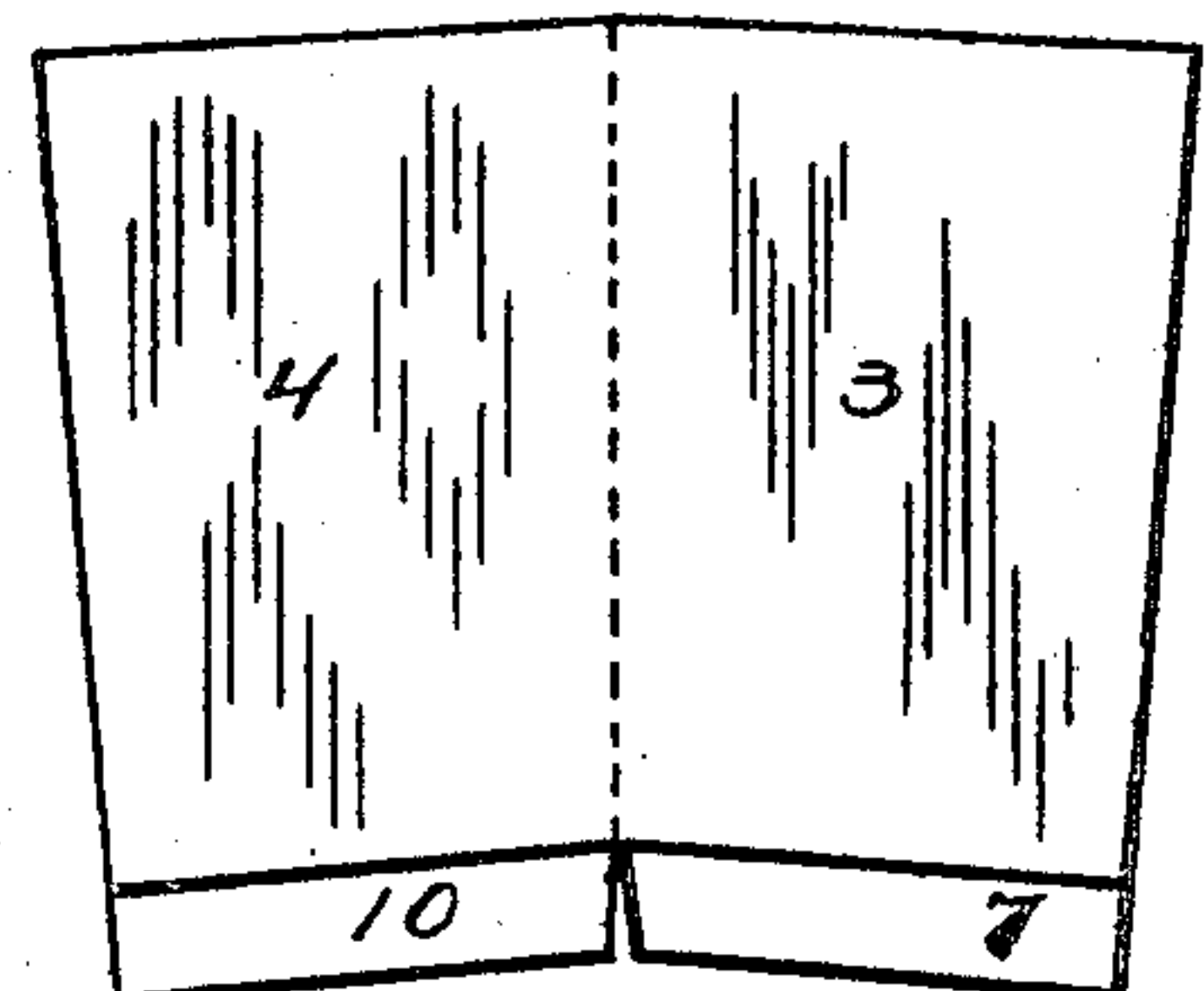


Fig. 5.

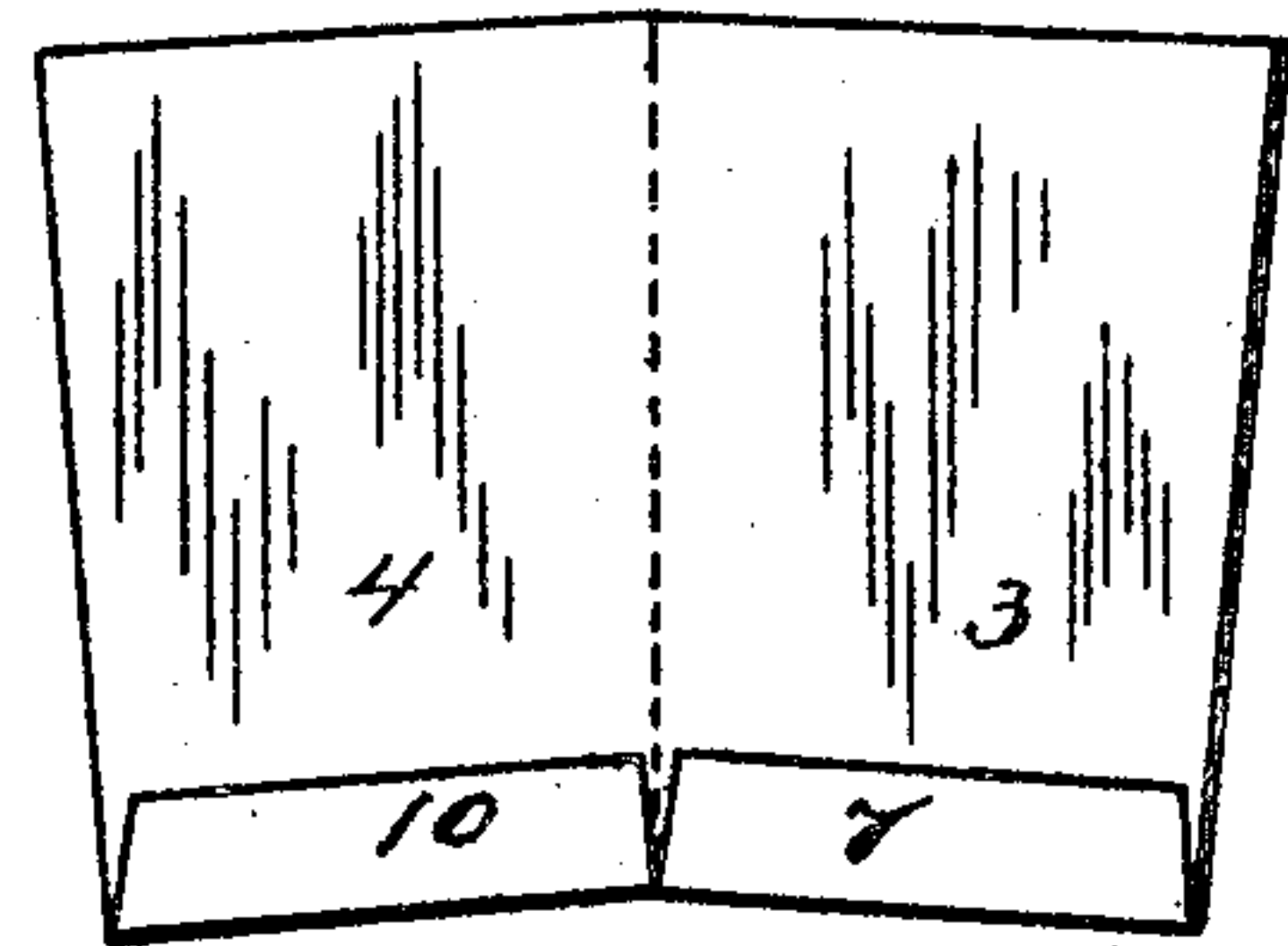


Fig. 6.

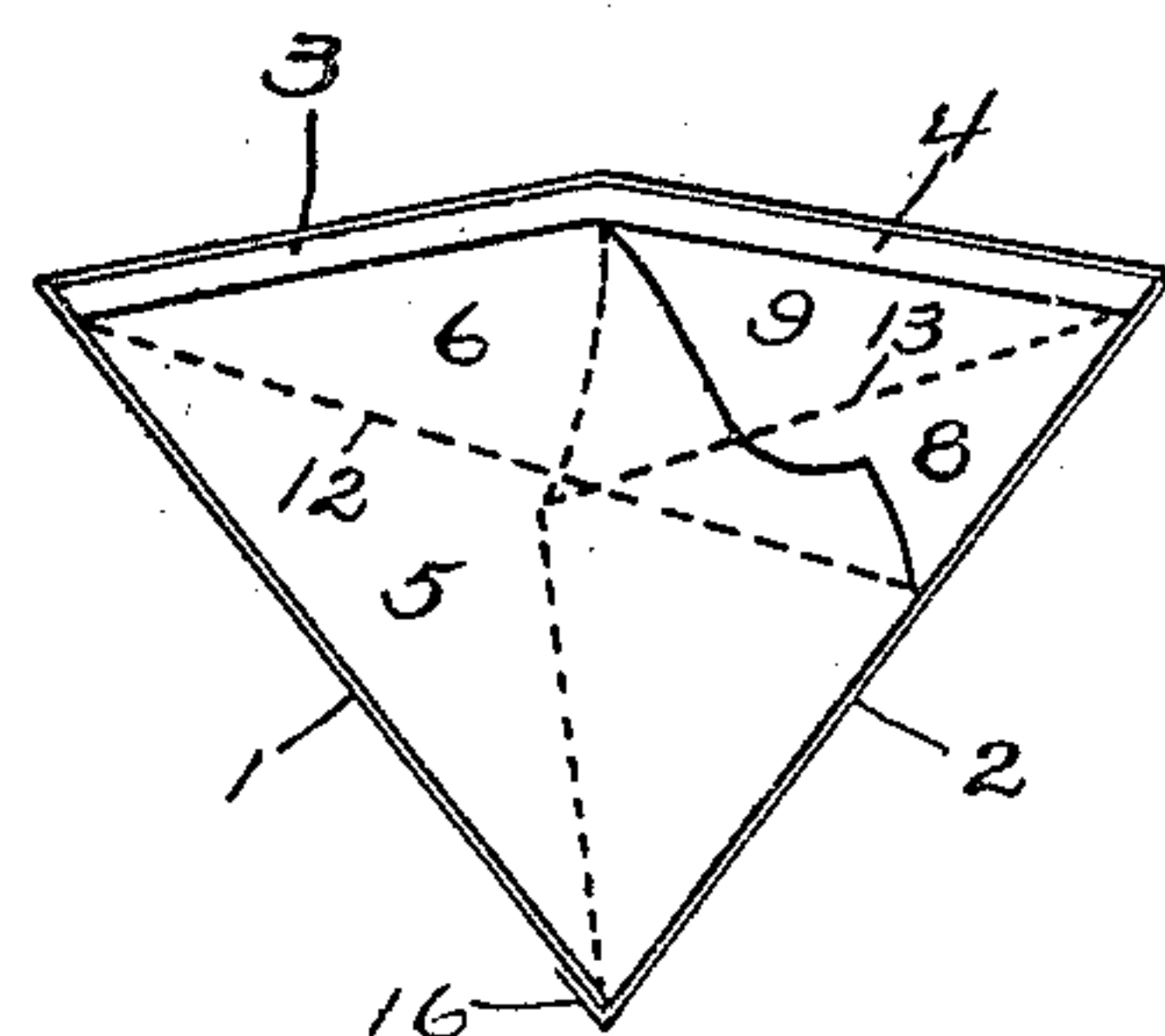


Fig. 9.

Inventor
Edward B. Weston
by Alfred M. Allen
Attorney

UNITED STATES PATENT OFFICE.

EDWARD B. WESTON, OF DAYTON, OHIO, ASSIGNOR TO THE SAMUEL CUPPLES ENVELOPE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION.

PAPER BOX.

No. 798,121.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed December 5, 1904. Serial No. 235,494.

To all whom it may concern:

Be it known that I, EDWARD B. WESTON, a citizen of the United States, residing in Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Paper Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of paper boxes usually designated in the trade as "pail-fillers," which are intended for the reception of candy and the like and when filled are usually packed in buckets or pails. In order to conveniently pack the paper boxes within the cylindrical space of the pail, they are usually trapeziform in cross-section with two long and two shorter sides, the longer sides becoming radial sides when the boxes are packed. These pail-fillers are usually constructed from a single blank of suitable paper material, with the outside edges of the blanks secured together by a flap and with extensions of the sides to form the bottom, which extensions are also secured to the sides by flaps. The bottom flaps are furthermore scored so that they can be folded together, and the paper box in condition for use may be flattened out or knocked down for shipment. In constructing such paper boxes heretofore it has been necessary to secure the glued flaps by three operations, inasmuch as there are usually three separate flaps to be glued. Moreover, it has usually been found necessary in order to properly brace the bottom to provide sufficient material for the bottom flaps to form a double bottom.

It is the purpose of my invention to so construct the blank that this double bottom is not needed, whereby considerable paper material is saved, and also to so arrange the flaps to be glued that this work may be accomplished in two operations instead of the three operations heretofore necessary, whereby much time and labor may be saved in constructing the box.

In the drawings, Figure 1 is a plan of the blank from which my box is constructed. Fig. 2 is a similar view showing the first fold preparatory to gluing. Fig. 3 is a similar view showing the second fold. Fig. 4 is a perspective view showing the third fold. Fig. 5 is a plan view showing the two shorter flaps ready for gluing in one operation. Fig. 6 is a similar view with these two glued flaps secured in

place. Fig. 7 is a perspective view showing the method of opening out the blank preparatory to gluing the sides together. Fig. 8 is a plan view showing the blank ready for the second gluing operation. Fig. 9 is a top plan view of the box opened out ready for use.

A blank of suitable paper material is cut and scored, as shown in Fig. 1, to form the two broad or radial sides 1 2 and the two narrower sides 3 4 of the trapeziform box. 5 6, with the flap 7, is an extension of the side 1 to form one portion of the bottom, and 8 9, with the flap 10, is an extension of the side 2 to form the other portion of the bottom, these two extensions being provided with the diagonal scored lines 12 13 for folding, as hereinafter described, and also with the scored lines 14 15 to permit the flaps 7 10 being secured to the shorter sides. 16 is a flap extending the length of the side 2 for securing this side to side 1.

The box is constructed in the following manner: The bottom flaps 5 6 are first folded over onto side 1, as shown in Fig. 2. Side 1 with these flaps is then folded over on the narrow sides 3 4, as shown in Fig. 3. The extensions 8 9 are then tucked within the pocket formed by the folded extensions 6 7, as shown in Fig. 4, the side 2 being folded down on the side 1. The blank is then turned over, and the flaps 7 and 10 are in position to be submitted to the gluing-machine, as shown in Fig. 5. The glue is then applied to these flaps and they are secured to the sides 3 and 4, as shown in Fig. 6, in one operation. The blank is then opened out, as shown in Fig. 7, and the sides 3 4 folded together inside the sides 1 and 2, and the blank is then in position shown in Fig. 8, with the glued flap 16 ready to be folded over on the side 1 to secure the longer sides together. When this is done, the box is complete and ready for use. It is in this flattened-out or knocked-down condition that the boxes are shipped. When they are to be used, the operator merely straightens out the shorter sides 3 and 4 by drawing them out by the upper edge, which, as shown in Fig. 8, projects slightly beyond the upper edge of the broader sides. This straightening out of the two shorter sides draws on the bottom extensions 5 6 and 8 9, so that by the single movement the bottom folds open out to form the bottom, and it is not necessary to insert the hand in the box to straighten out these

bottom folds, and thus the box, in addition to requiring less material and less time in construction, becomes a self-opener and can be prepared for packing by the single movement
5 of opening out the sides. In the same way that the bottom folds are opened out by straightening the sides the bottom folds are also held by the sides from breaking down under the weight of the contents of the box.
10 As long as the sides remain intact and in proper position the bottom cannot become displaced outwardly. It is not necessary, therefore, either to provide a double bottom or to provide material for any side tucks along the
15 bottom.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A collapsible box formed from a blank of
20 suitable paper material, cut and scored to form two broad and two narrow sides, with extensions from the two broad sides having score-lines dividing said extensions diagonally, whereby each extension may be folded on
25 itself and flaps on the extensions secured each to a narrower side to form the bottom, the fold-lines of said flaps coinciding with the bottom edges of the narrower sides when the extensions are folded on themselves, substan-
30 tially as described.

2. A collapsible box formed from a blank of suitable paper material, cut and scored to form two broad and two narrow sides, with the nar-
35 rows sides in the blank between the broader sides, extensions from the two broad sides

having score-lines dividing said extensions diagonally, whereby each extension may be folded on itself and flaps on the extensions secured each to its adjacent narrower side, to form the bottom, the fold-lines of said flaps
40 coinciding with the bottom edges of the narrower sides when the extensions are folded on themselves, substantially as described.

3. A blank for collapsible paper boxes, cut and scored to form two broad and two narrow
45 sides, with extensions from the two broader sides having score-lines dividing said extensions diagonally, whereby each extension may be folded on itself, and flaps on said extensions for gluing so disposed that when the
50 broader sides are folded on each other the fold-lines of the flaps will coincide with the bottom edges of the two narrower sides respectively, substantially as described.

4. A blank for collapsible paper boxes, cut
55 and scored to form two broad and two narrow sides, with the narrower sides between the broader sides, with extensions from the two broader sides having score-lines dividing said
60 extensions diagonally, whereby each extension may be folded on itself and flaps on said extensions for gluing, so disposed that when the broader sides are folded on each other, the fold-lines of the flaps will coincide with
65 the bottom edges of the two narrower sides respectively, substantially as described.

EDWARD B. WESTON.

Witnesses:

F. C. MOORE,
F. S. AULL.