

No. 665,909.

Patented Jan. 15, 1901.

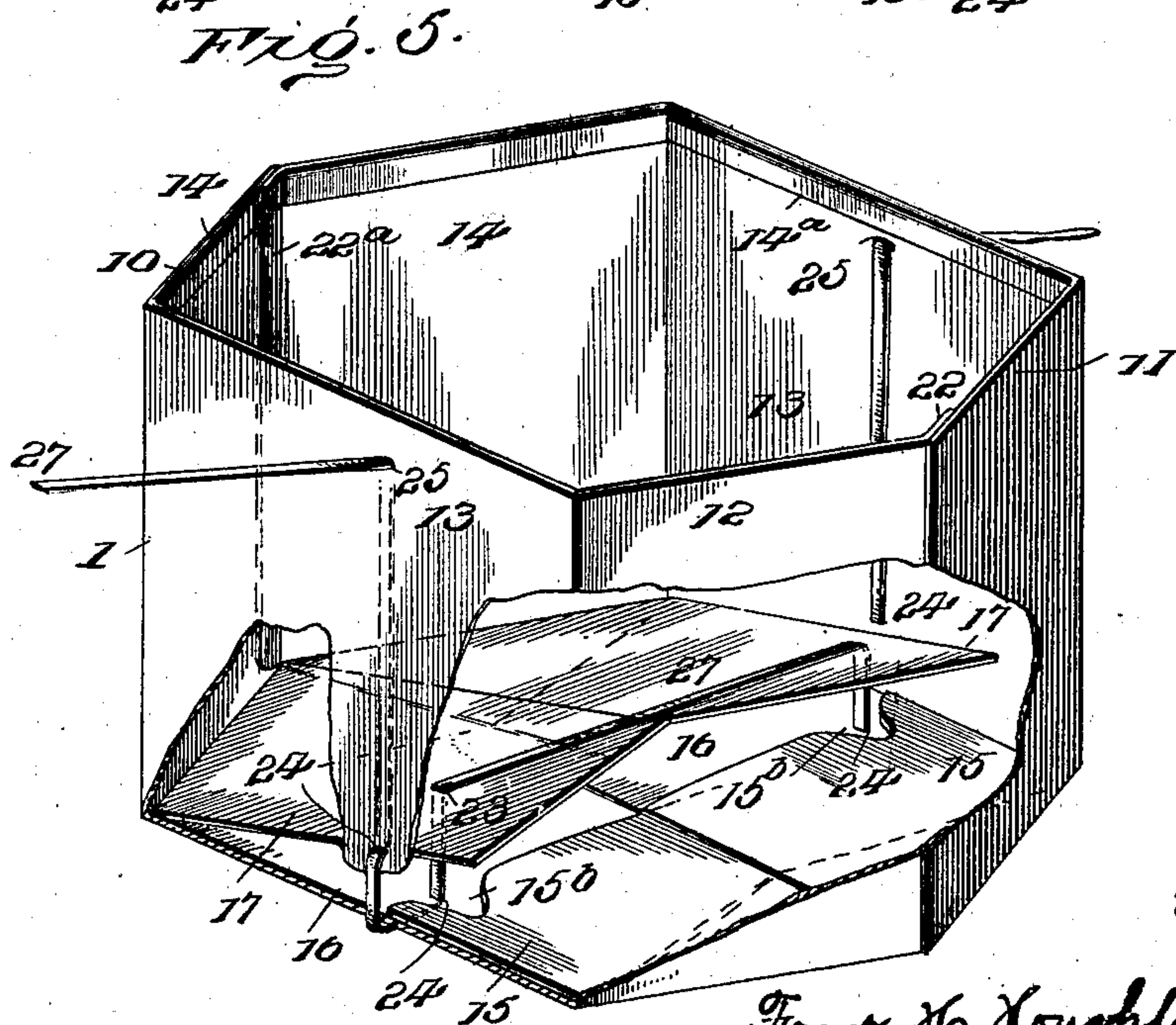
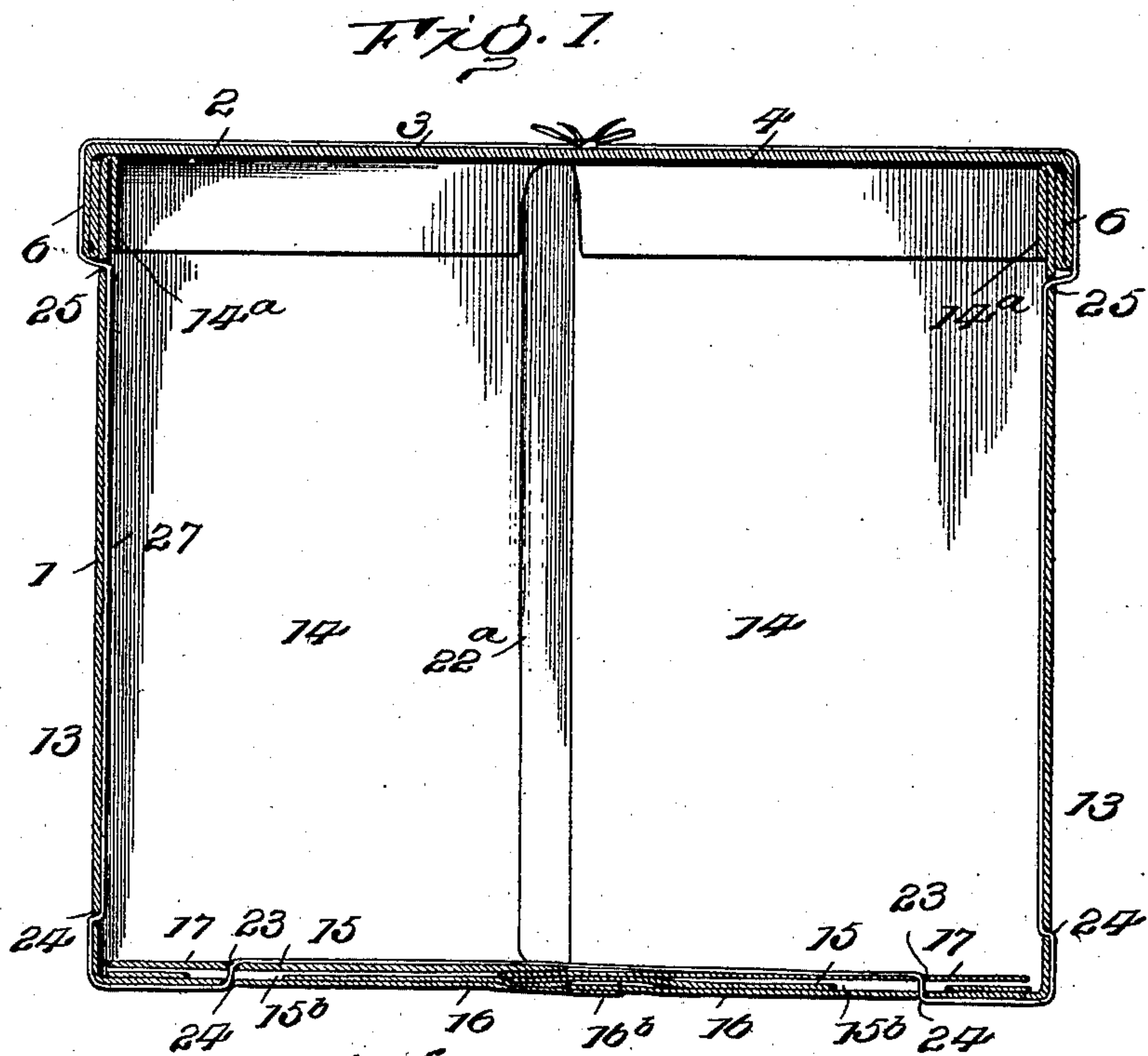
F. H. HOUGHLAND.

FOLDING BOX.

(Application filed July 21, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Inventor

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Witnesses
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2 Sheets—Sheet 2.

Fig. 3.

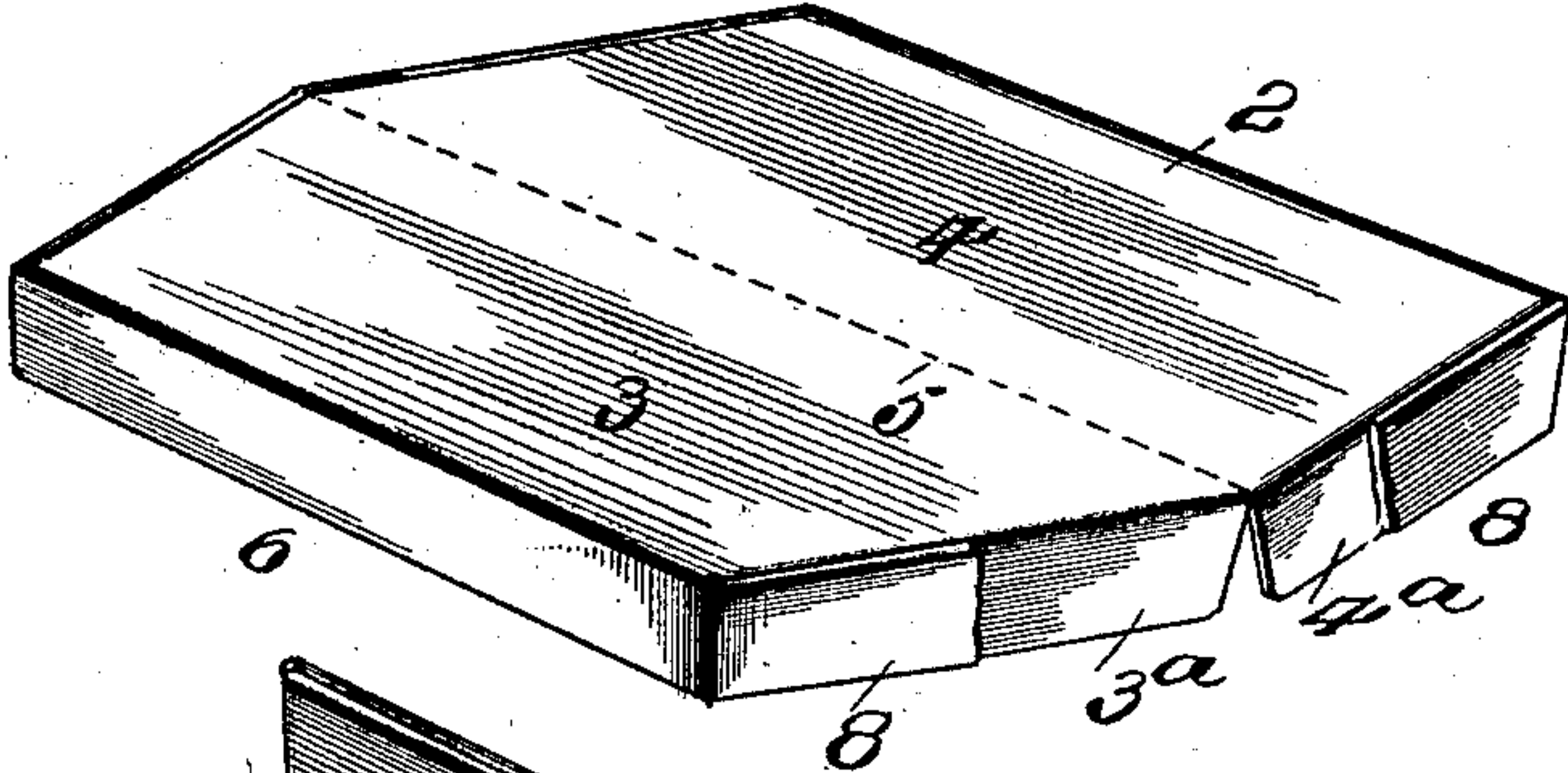


Fig. 4.

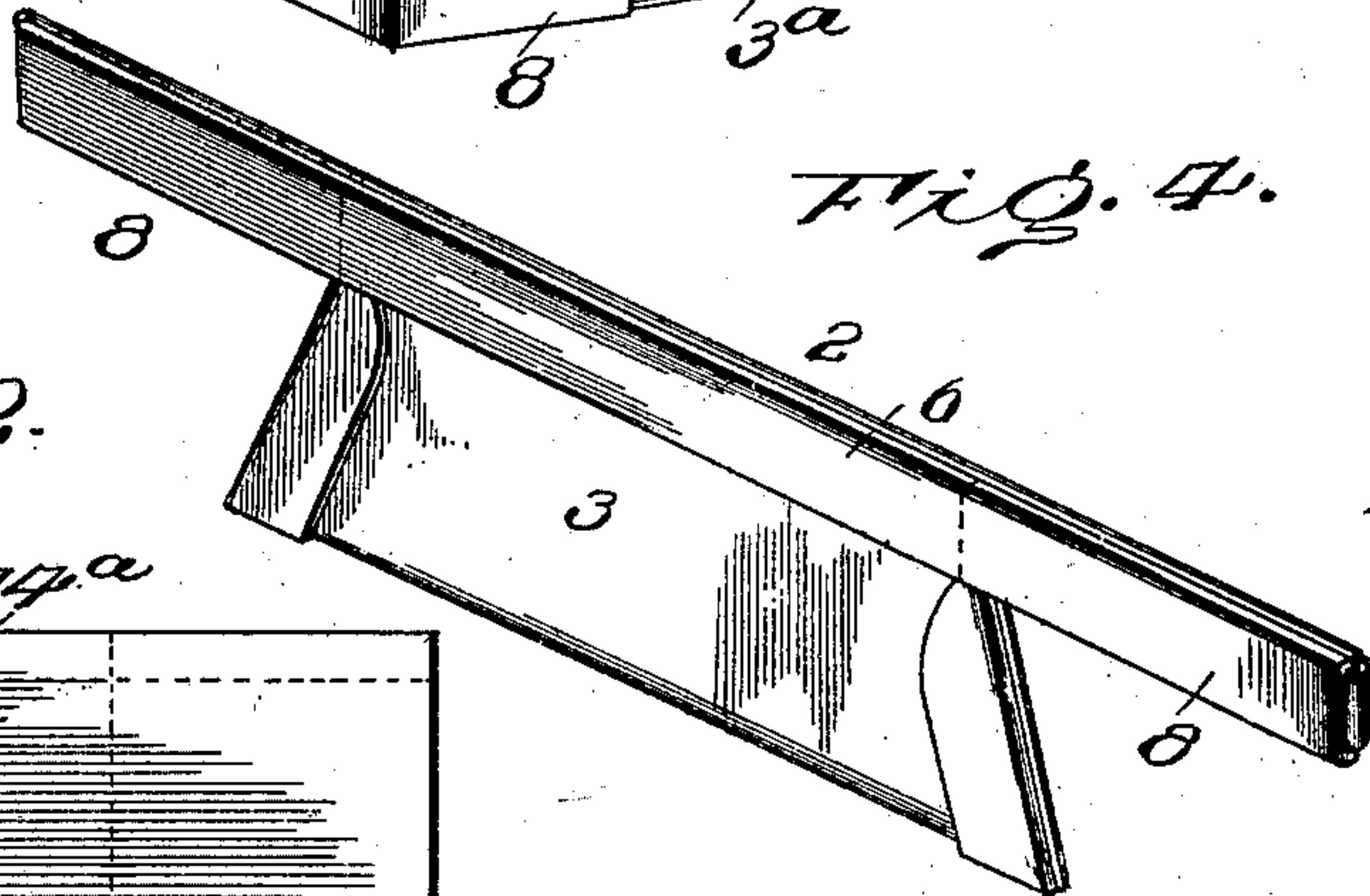


Fig. 2.

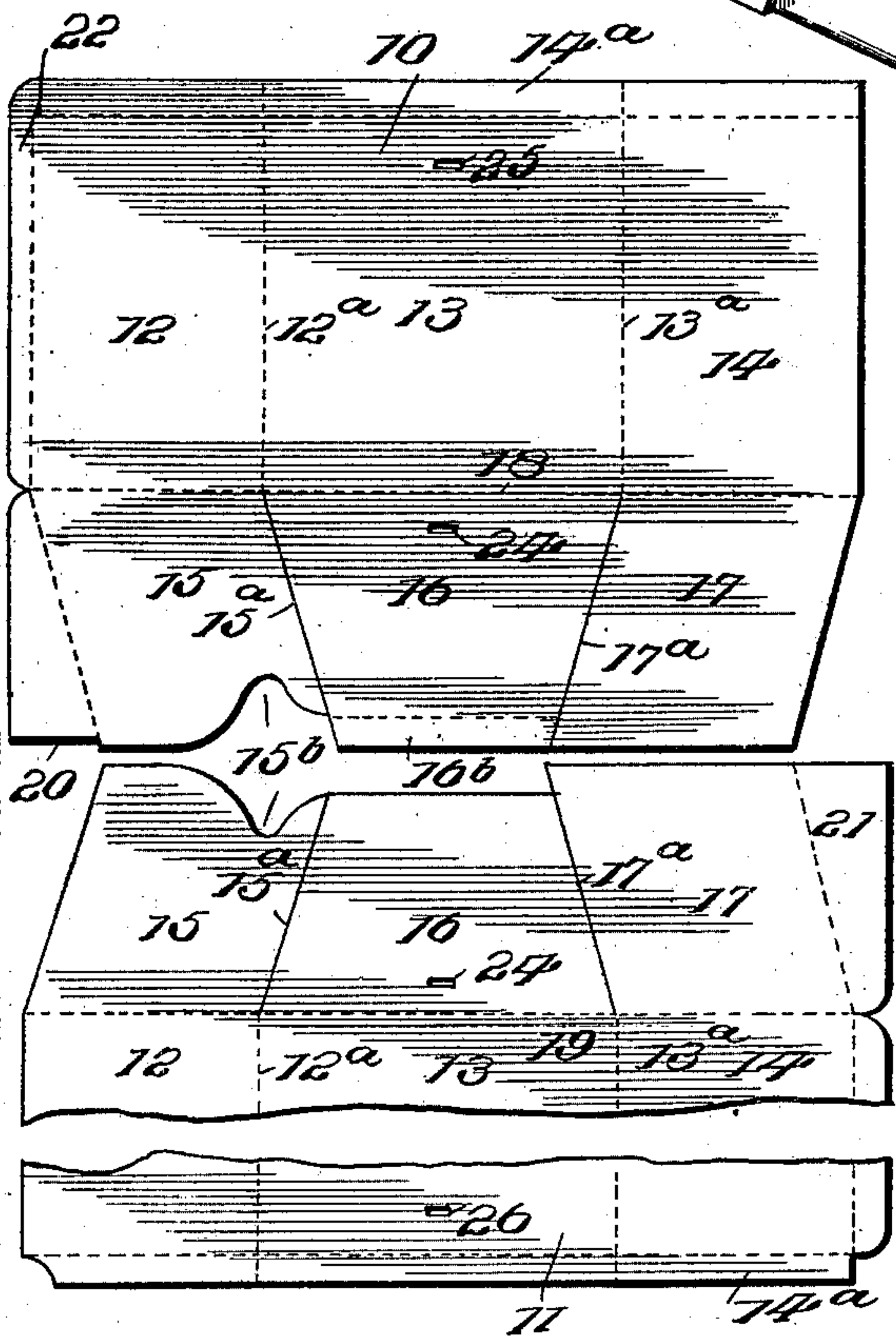
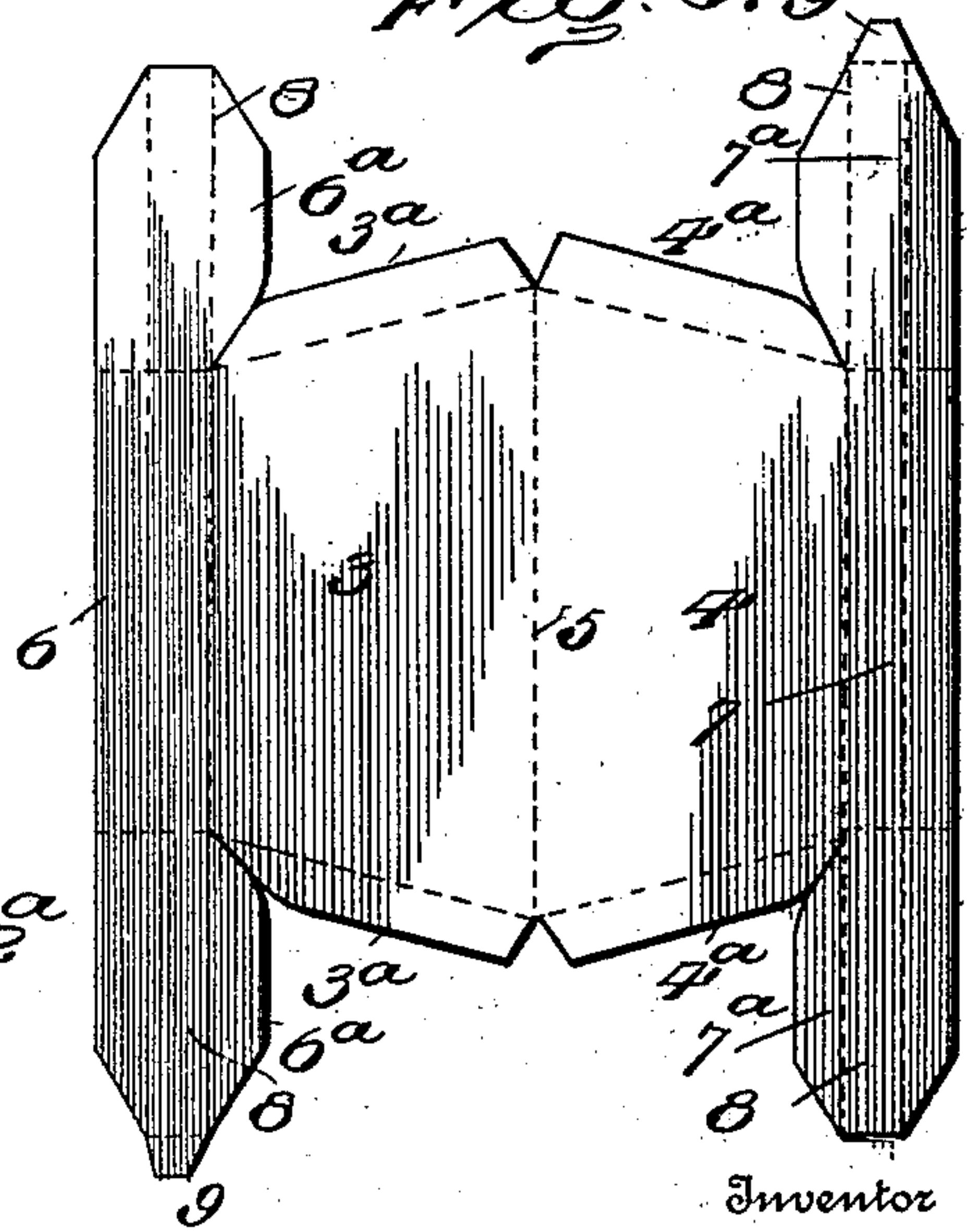


Fig. 5.



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FRANK H. HOUGHLAND, OF ST. LOUIS, MISSOURI.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 665,909, dated January 15, 1901.

Application filed July 21, 1900. Serial No. 24,436. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. HOUGHLAND, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented
5 a certain new and useful Improvement in Folding Boxes, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improvement in
10 folding boxes adapted especially for use by milliners, although it is not confined to such use; and my object is to produce a box that can be knocked down or folded, so that they may be shipped in large numbers in small
15 space, and that can be easily placed in position for use without gluing or cementing.

With this object in view my invention consists in the peculiar construction and arrangement of parts hereinafter described and then
20 definitely claimed.

In the accompanying drawings, Figure 1 is a vertical central section of my improved box in position for use. Fig. 2 is a top plan view of the "blank" for the cover. Fig. 3 is a per-
25 spective view of the cover ready for use. Fig. 4 is a perspective view of the same folded for transportation. Fig. 5 is a perspective view of the body of the box with parts broken away to better illustrate the parts and with the
30 "wings" not quite in their normal position. Fig. 6 is a top plan of the blanks of the body of the box before they are connected together.

Referring now to the details of the drawings by numerals, 1 represents the body of the
35 box, and 2 the cover, which are preferably six-sided, as shown particularly in Figs. 3 and 5. For the better understanding thereof I prefer to describe them separately at first. The cover 2 consists of a single piece of card-
40 board having two main parts 3 and 4, which, while integral, are capable of folding along the crease or line 5. On opposite sides of these parts 3 and 4 are formed extensions 6 and 7, each of which extends outwardly on op-
45 posite sides, as shown at 8 8. These parts are especially creased, as shown in Fig. 6, so that they may be folded and glued to form a rim surrounding the cover. The main parts 3 and 4 are also provided with flaps 3^a and 4^a,
50 which coact with the parts 8 8 to form a supplemental rim. The extensions 6 and 7 are creased so as to form two halves, which are

folded and glued, and each is provided with a supplemental part 6^a and 7^a, which is glued
in the position shown in the perspective view. 55 After all the parts of the rim are glued, as just described, a projection 9 on the end of one extension is slipped between the folds of the other extension and glued, and after each
60 side is treated in this manner the cover is ready for use, and it can now be folded, as shown in Fig. 4, when it is ready for transportation in bulk, or it can be opened, as shown in Fig. 3, when it is ready to be ap-
65 plied to the box. From an inspection of Fig. 4 it is obvious that all that it is necessary to do to place the parts in position for use is to press on the parts at the top or crease 5, which presses the parts flat, as shown in Fig. 3.

The body of the box is formed of two parts
70 10 and 11, each of which is formed in one piece, and has six main parts 12, 13, 14, 15, 16, and 17, the parts 12, 13, and 14 forming the sides of the box and being divided by creases 12^a 13^a and the parts 15, 16, and 17 forming the bot-
75 tom of the box. Along the top of the parts 12, 13, and 14 is formed a flap 14^a, which is folded and glued for the purpose of strengthening the top and adding a finish thereto. The parts 15 and 17, which I will hereinafter call
80 "wings," are separated from the central part 16 by cuts 15^a 17^a, and all the parts 15, 16, and 17 are divided from the sides 12, 13, and 14 by creases 18 and 19. The wing 15 on one side and the wing 17 on the opposite side are
85 each formed with flaps 20 and 21. The flap 20 on the wing 15 is to be glued to the wing 15 on the second or opposite half and the flap 21 on this second half to be glued to the wing 17 on the first half. Besides being thus glued
90 one of the bottom parts 16 is provided with a flap 16^b to be glued to the opposite bottom part 16, and one half is provided with a single flap 22 along the edge of the side 12 and which is to be glued to the opposite side part 12,
95 and one of the opposite side parts is provided with a like flap 22^a to be glued in a similar manner. It will be noticed that the wings 15 are each cut away, as shown at 15^b, and that the opposite wings 17 are large enough to over-
100 lap the wings 15 and are formed with perforations 23 immediately over the cut-away parts of the wings 15, and that these perforations are over or substantially over similar

perforations 24 in the bottom parts 16. The sides 13 are each provided with two perforations 25 and 26, one near the top and the other near the bottom. A tape or cord 27 is drawn through these perforations, so that its ends are left projecting from the top perforations 25 after having gone through all the other perforations, as shown in the vertical sectional view. When the ends of this tape or cord are pulled, it draws all the wings into position and holds them, when the ends of the tape can be drawn over the cover and tied.

After the parts of the box are glued, as described, and it is desired to "set up" the box it is necessary to simply pick up the folded box and rest it on the folded bottom 16 16, and the box will open of itself, (owing to the weight and form of the parts,) and the wings will fall into the position shown in Fig. 5, when the tapes can be pulled, which will act on the wings 15 15 and draw them and the wings 17 (the ends of which are under the ends of the wings 15) into close relation with each other.

To fold the box, the tape should be pulled in the center so that it is rather loose, and the hands of the operator should then press at each side of the box, which causes the sides to act on the edges of the wings and causes them to fold upwardly, and simultaneously the bottom 16 16 folds outwardly.

It will be observed that the wings 17 are large enough to overlap the wings 15, and the latter (owing to their being smaller) fall into position under the wings 17. It will also be observed that the wings act as braces for the bottom, as they fit snugly against the sides 13 when in use, and that as the tape holds these wings flat against the bottom 16 16 the bottom is fully braced.

What I claim as new is—

1. A folding box formed of six folding sides, half of which comprise one side of the box and the other half the opposite side and said halves or sides folding together; extensions projecting from opposite sides of the box and forming a bottom when the sides are in the shape of a box and folding when the sides are folded; and folding wings arranged to fold within said sides or to open out against said bottom; substantially as described.

2. A folding box formed of two pieces secured together, the body of said pieces turned up to form the sides of the box and with extensions directly secured together and forming a bottom; and folding wings projecting from each side of said pieces and arranged to fold within the sides or open out against the bottom, substantially as described.

3. In a folding box, sides and a bottom, and folding wings, each arranged to fold or double upon itself within the box or to open against the bottom and coact with and brace the sides, substantially as described.

4. In a folding box, a bottom and sides arranged to fold flat or to open into the shape of a box, and wings coacting with said bot-

tom and sides and arranged, when opened, to brace the bottom and sides, and when folded to fold within and between the said sides, said wings overlapping, and said bottom comprising two parts overlapping each other, and a tape running through perforations in the said sides and bottom and arranged, when pulled, to hold said parts in the shape of a box, substantially as described.

5. A folding box comprising sides and a two-part bottom arranged to fold flat or to open in the shape of a box, the said two-part bottom having its edges permanently secured together and being adapted to fold on itself, and folding wings connected with opposite sides of the box and constructed and arranged to fold upwardly and within said sides when the box is collapsed, or to open against the bottom when the box is in position for use, substantially as described.

6. A folding box comprising sides and a two-part bottom arranged to fold flat or to open in the shape of a box, the said two-part bottom having its edges permanently secured together and being adapted to fold on itself, and folding wings connected with opposite sides of the box and constructed and arranged to fold upwardly and within said sides when the box is collapsed, or to open against the bottom when the box is in position for use, in combination with a tape coacting with said wings and passing through perforations in said bottom and sides and arranged, when pulled, to hold said parts in the shape of a box, substantially as described.

7. A folding box comprising sides and a two-part bottom arranged to fold flat or to open in the shape of a box, the said two-part bottom having its edges permanently secured together and being adapted to fold on itself, and folding wings connected with opposite sides of the box and constructed and arranged to fold upwardly and within said sides when the box is collapsed, or to open against the bottom when the box is in position for use, one set of said wings being shorter than the other so as to fold underneath the other set, substantially as described.

8. A folding box comprising sides and a two-part bottom arranged to fold flat or to open in the shape of a box, the said two-part bottom having its edges permanently secured together and being adapted to fold on itself, and folding wings connected with opposite sides of the box and constructed and arranged to fold upwardly and within said sides when the box is collapsed, or to open against the bottom when the box is in position for use, one set of said wings being shorter than the other so as to fold underneath the other set, in combination with a tape coacting with said wings and passing through perforations in said bottom and sides and arranged, when pulled, to hold said parts in the shape of a box, substantially as described.

9. A folding box, comprising sides, a fold-

ing bottom and four folding wings arranged to open into a box, a cover for said box, and a tape coacting with said folding wings and passing through perforations in the bottom and sides and arranged when pulled to hold said parts in their open position, the ends of the string being adapted to pass over the cover and secure the same to the box, substantially as described.

10 10. In a folding box, sides and a bottom, folding wings arranged to open against said bottom, one set of said folding wings arranged to fold under the other set and having portions cut away, and a tape passing through 15 perforations in one set of said wings and through the perforations in the bottom under the cut-away portions, the ends of the tape then passing through the sides of the box whereby the act of pulling the ends of the tape 20 draws the wings into their proper position, substantially as described.

11. A folding box formed of two pieces, each having six main parts adapted to be glued together, three of the parts of each main part 25 adapted to form sides, two of the parts forming wings folding within the box, and the parts

between the wings forming the bottom, substantially as described.

12. In a folding box, a cover having a main part divided by a crease so as to fold thereon 30 into two main parts, and folding extensions adapted to project beyond said parts when collapsed and forming a rim when the cover is open in position for use, substantially as described.

13. In a folding box, a cover formed of two main parts divided by a crease and arranged to fold together on the line of the crease, and folding extensions projecting from said main parts, said extensions having their ends secured together and forming a rim around said 40 main parts when in one position and arranged to fold together as the main part of the cover folds on its crease, substantially as described.

In testimony whereof I affix my signature, 45 in the presence of two witnesses, this 18th day of July, 1900.

FRANK H. HOUGHLAND.

Witnesses:

A. SELIGMAN,
N. B. TIGNER.