

(No Model.)

O. M. HAMILTON.

FOLDING BOX.

No. 366,773.

Patented July 19, 1887.

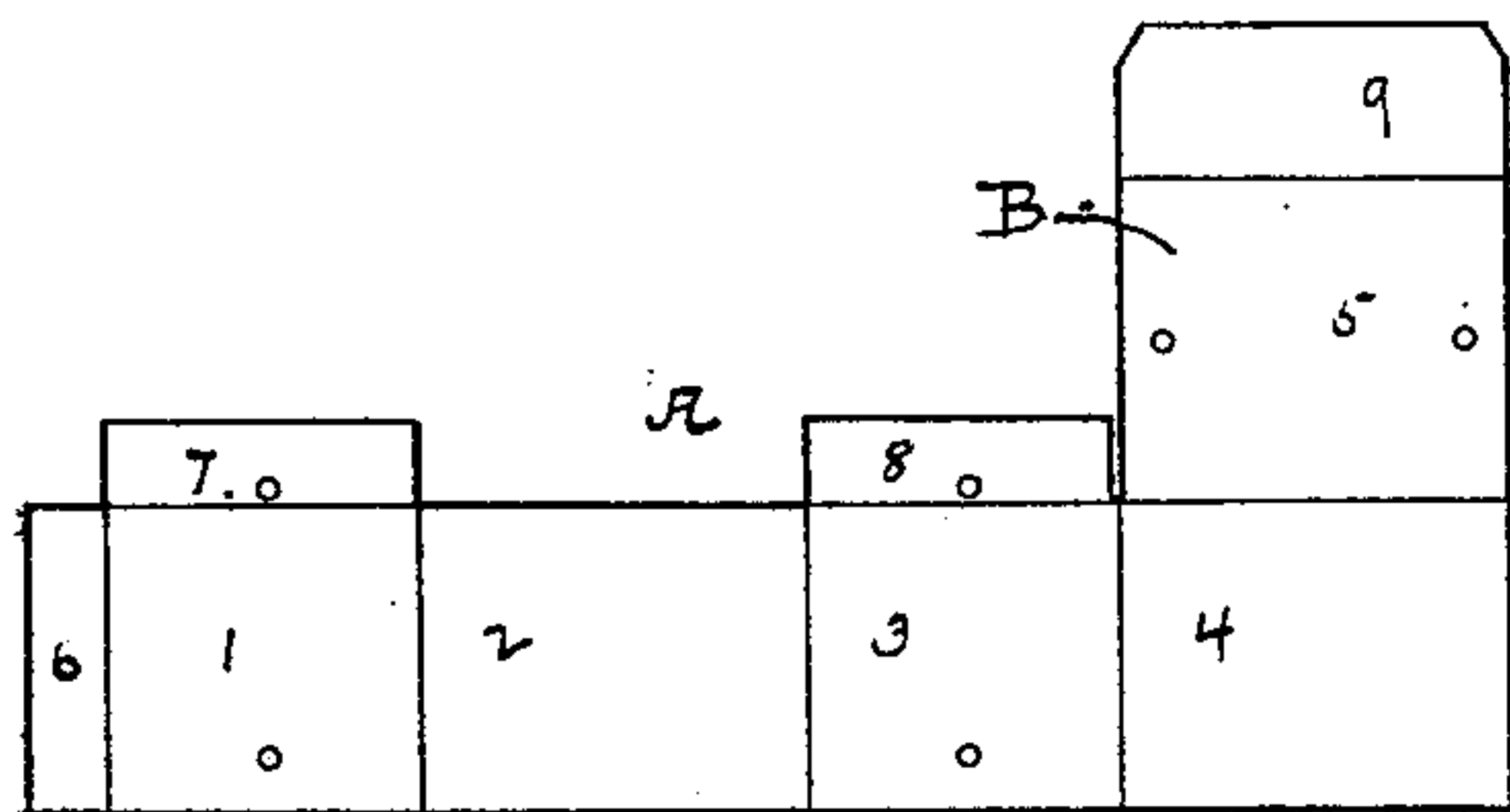


Fig. 1.

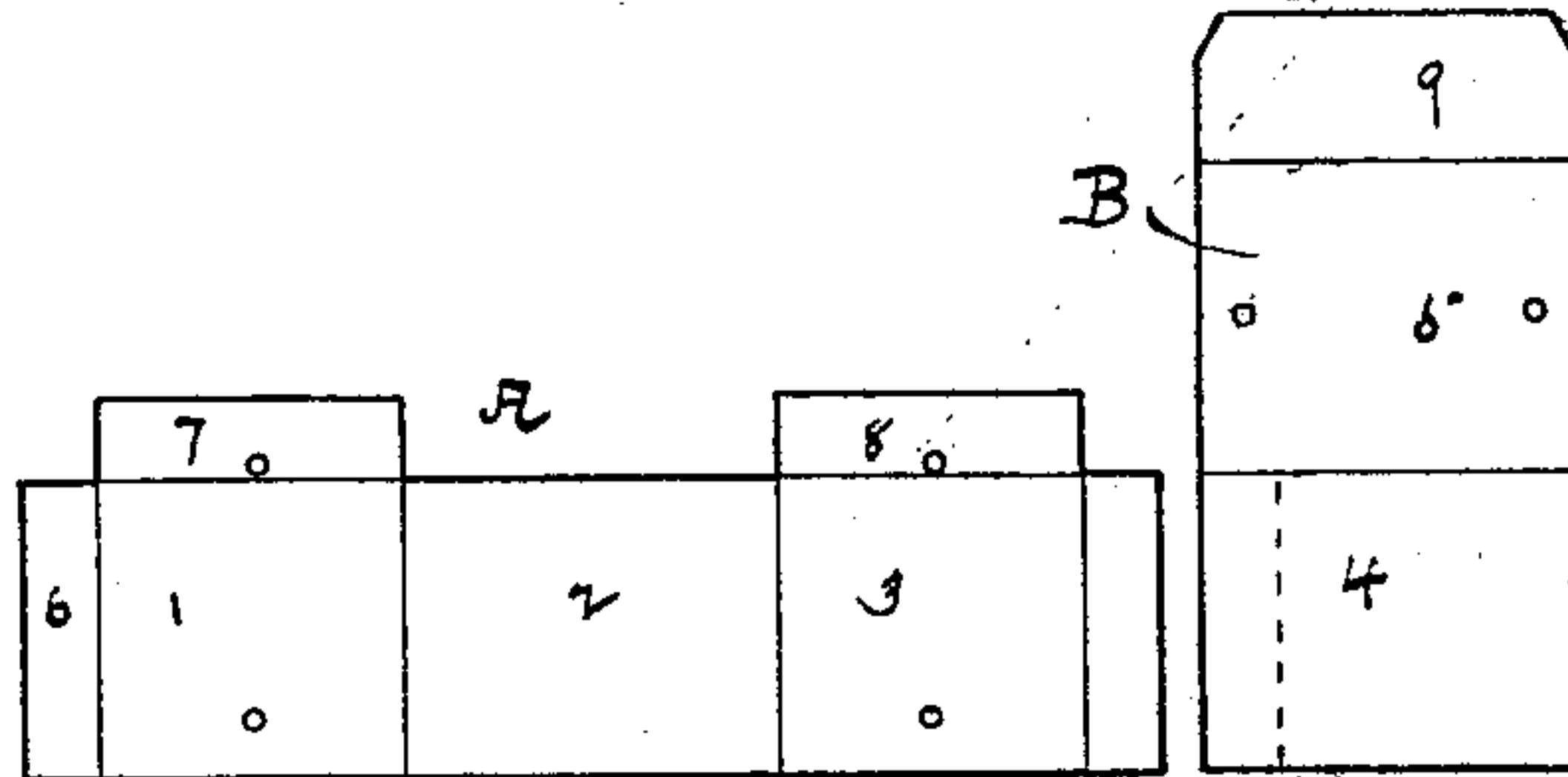


Fig. 2.

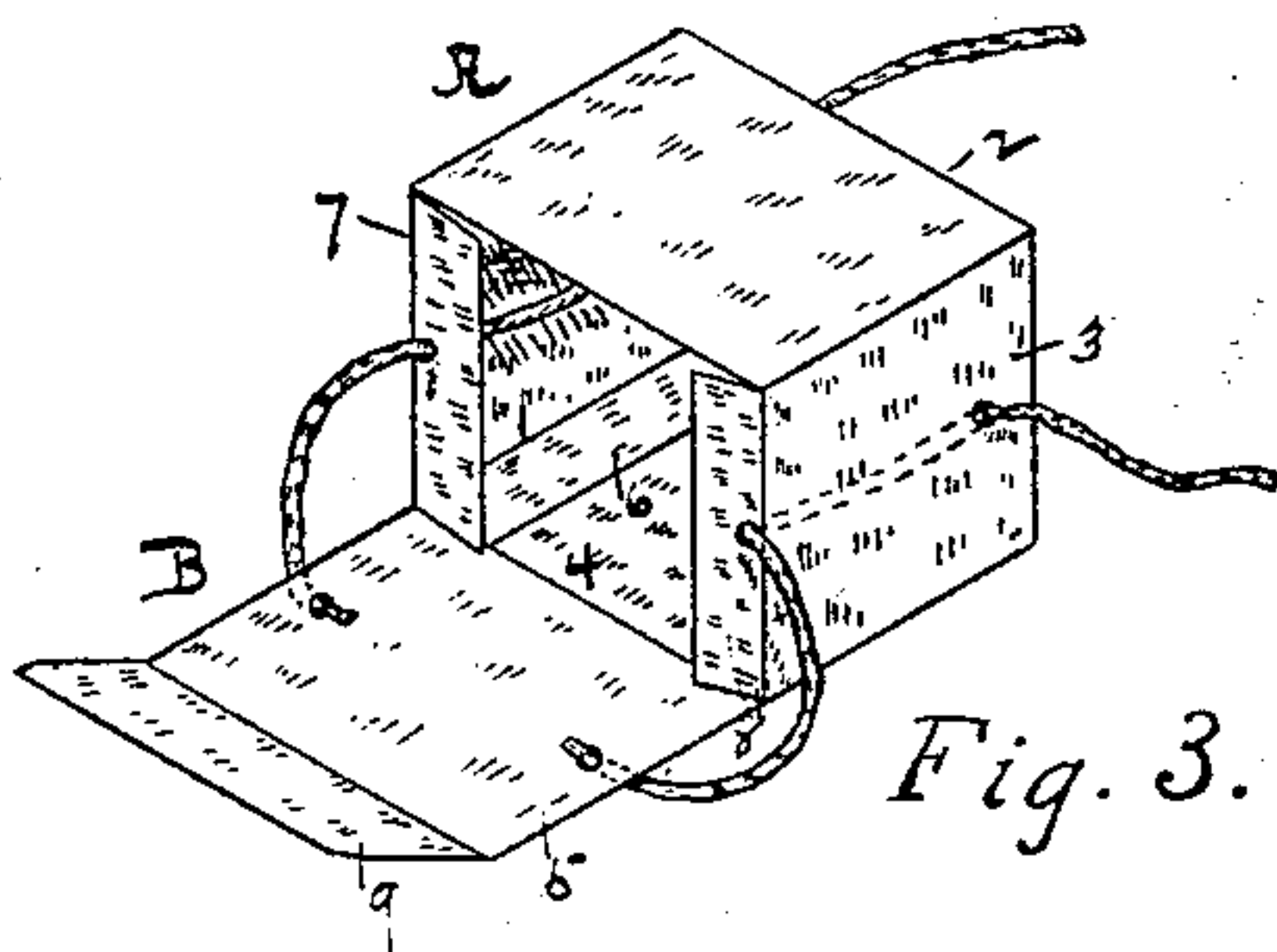


Fig. 3.

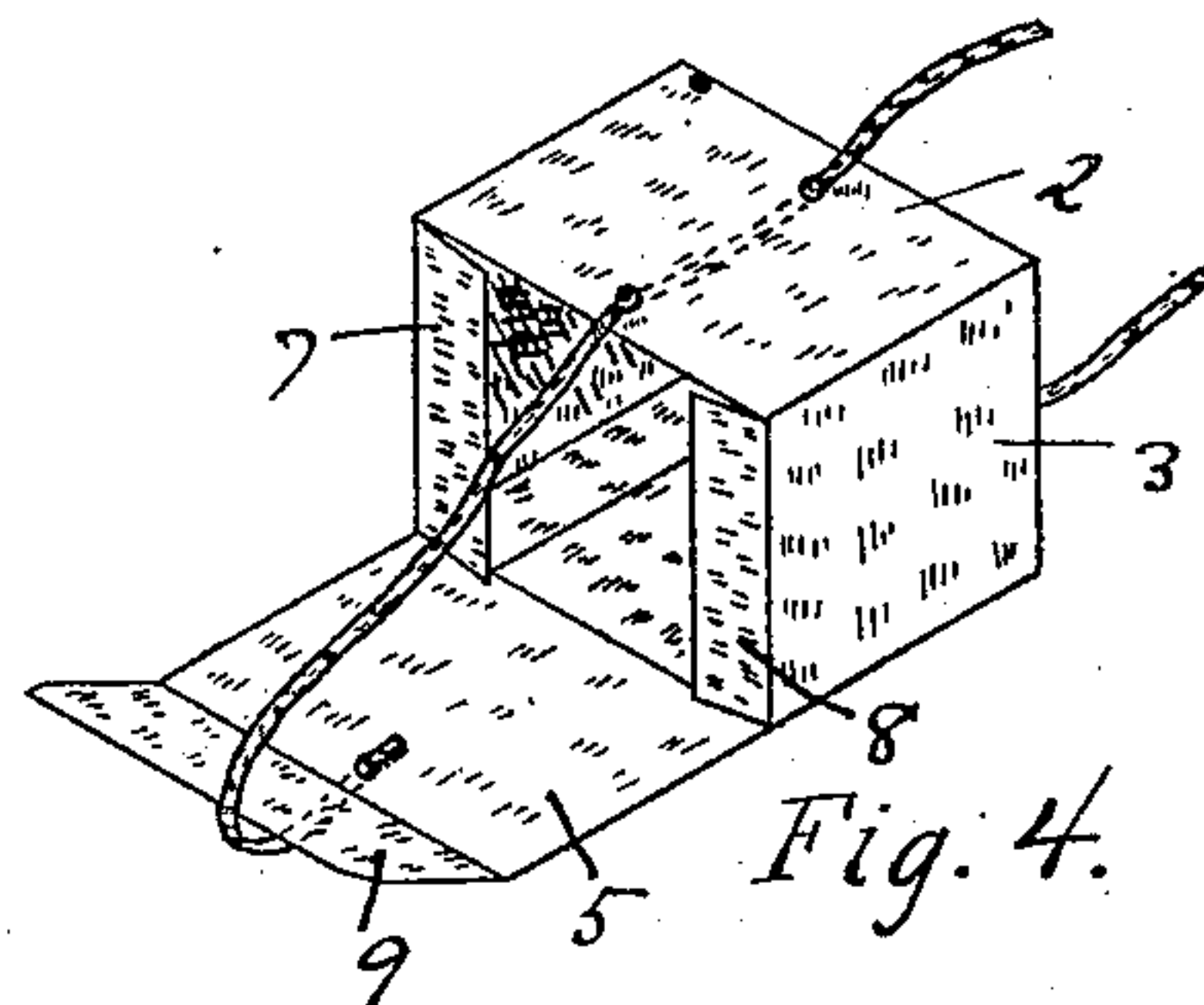


Fig. 4.

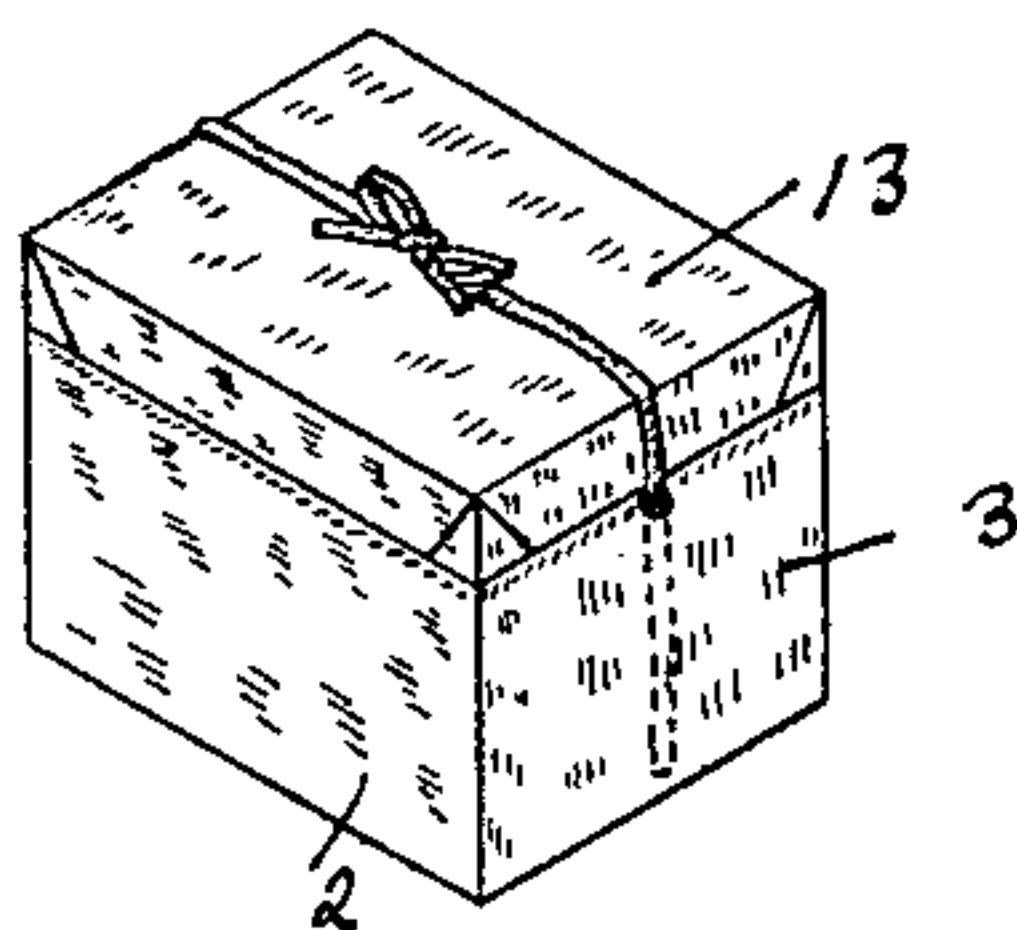


Fig. 5.

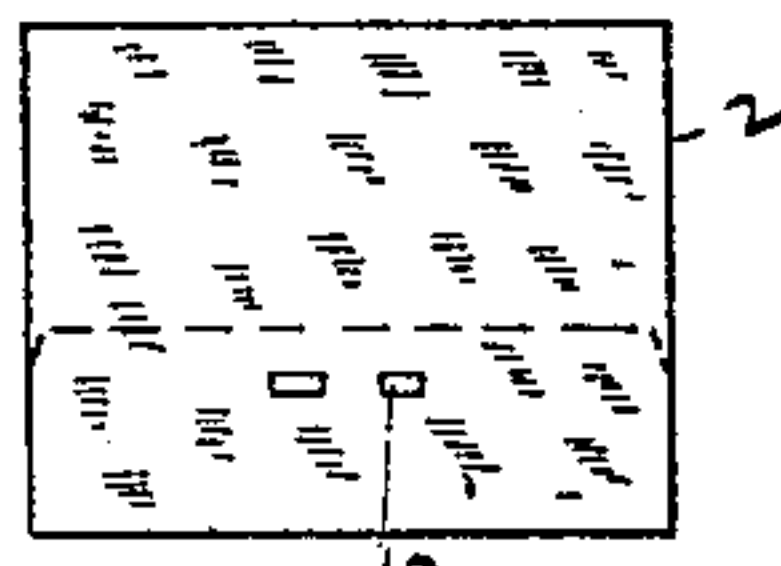


Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 366,773, dated July 19, 1887.

Application filed January 3, 1887. Serial No. 223,263. (No model.)

*To all whom it may concern:*

Be it known that I, OLIVER M. HAMILTON, of Springfield, in the county of Hampden and Commonwealth of Massachusetts, have invented a new and useful Improvement in Folding Boxes, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

My invention relates to boxes of paper-board or similar material, formed from a blank by folding said blank upon predetermined lines, and suitably securing certain parts thereof together.

The object of my invention is to provide a box of this nature which can be quickly set up from the blank, which will be strong and durable, and in which the bottom portion will be retained in position by tapes or similar devices, said tapes also serving to retain the cover upon the box, and as a convenient means of carrying the latter.

To these ends my invention consists in the box constructed as hereinafter fully described.

Referring to the drawings, in which like parts are designated by like letters or numbers, Figure 1 is a plan view of the blank when made in one piece. Fig. 2 is a similar view thereof when made in two pieces. Fig. 3 is a perspective view showing the box at that stage of its formation when the sides and ends have been folded and secured in place, and showing one manner of securing the bottom portion by tapes. Fig. 4 is a similar view thereof, showing another mode of arranging the tapes. Fig. 5 is a perspective view of the completed box, having its cover secured thereon by the tapes. Fig. 6 is a face view of the box, showing the bottom portion retained in position by a clip, as hereinafter described.

The blank from which the box is formed is shown in Figs. 1 and 2, and consists of a part, A, from which the sides and ends are formed, as hereinafter described, and a part, B, extending therefrom at a right angle, which forms the bottom of the box. This blank is shown in Fig. 1 as being in one piece; but for the purpose of economizing the stock I prefer to make it in two pieces, as shown in Fig. 2, and unite the two pieces by gluing or otherwise, the overlapping portions for that purpose being indicated by the dotted line in Fig. 2. It is

obvious that the division between the two portions of the blank could be made at some point other than that shown in said figure; but I prefer to make it at that point, as it divides the blank into two substantially rectangular portions.

The portion A of the blank is divided by fold-lines running transversely thereof into four panels, numbered, respectively, 1 2 3 4. Panels 1 and 3 are identical in size and outline and form the ends of the box when set up. Panels 2 and 4 are also identical in size and outline and form the sides of the box. The respective dimensions of said end and side panels will of course be governed by the size and shape of the box which it is proposed to construct—that is to say, for a square box the side and end panels would be of the same dimensions, and for an oblong box the side panels would be of the same depth as the ends, but longer, such being the form shown in the drawings. Upon panel 1 is an end flap, 6, and a side flap, 7, separated therefrom by fold-lines, as shown, and upon panel 3 is a side flap, 8, corresponding to flap 7.

The portion B of the blank consists of a single panel, 5, connected to panel 4 by a fold-line, as shown, and having a tongue, 9, connected thereto by a fold-line upon the side opposite said panel 4. This panel 5 forms the bottom of the box.

In the preferred form holes or slits are made in the blank, as shown in Figs. 1 and 2—that is to say, one each in panels 1 and 3, near the edge opposite the flaps 7 and 8, and midway between the fold-lines forming the side boundaries thereof; one each in the flaps 7 and 8, opposite those in said panels, and close to or within the fold-lines, and two in the panel 5, one near each edge thereof, and midway between the fold-lines separating said panel from the panel 4 and tongue 9.

The blank will be cut or stamped from paper-board or similar material by a suitably shaped die, or by two dies when the blank is in two pieces, as shown in Fig. 2.

In forming the box from the blank the part A is folded to bring the panels 1 and 2 opposite the panels 3 and 4, and the flap 6 is secured to the contiguous edge of the panel 4, upon the inner side thereof, as shown in Figs. 3 and



4, by gluing, or in any other suitable manner. The sides and ends of the box being thus formed, the flaps 7 and 8 are folded inwardly, as shown in said figures, after which the panel 5 is folded against said flaps to close the bottom of the box, and the tongue 9 is inserted between the ends of flaps 7 8 and the panel 2 to the position indicated by the dotted line in Fig. 6, thus completing the formation of the box.

It is obvious that the bottom panel, 5, and tongue 9 could be retained in proper position by any suitable means for connecting said tongue with the side panel, 2, of the box, and in Fig. 6 I have shown, as one example of such means, an ordinary metallic clip, 10, passing through and uniting said parts.

For all of the ordinary purposes for which the box is designed to be used, however, said clip 10, or similar fastening device, may be dispensed with, since the box is provided with tapes or similar devices, which will serve not only to retain the bottom in position when the box is set up, but will also secure the cover upon the box when tied thereover. It is for the purpose of receiving these tapes that the holes or slits previously referred to are formed in the blank. As shown in Fig. 3, the ends of said tapes are secured to the inner side of panel 5, and, passing outwardly through the holes therein, one of them is inserted through the hole in the flap 7, and along the inner side of the panel 1 to and through the hole therein to the outer side of the box, while the other tape passes in a similar manner through the holes in the flap 8 and panel 3. The tapes are of such length that when drawn tight to close the bottom of the box the free ends can be tied together over the cover thereof, as shown in Fig. 5, thus securely fastening both the bottom portion and the cover, and at the same time affording a convenient means for lifting and carrying the box.

Instead of using two tapes, as just described, a continuous tape could be employed, said tape having its two ends inserted through the holes in the bottom panel from the outside, and passing thence through the holes in the flaps and end panels, and when the box is designed for articles of considerable weight such continuous tape should be utilized, because of the additional support afforded thereby to the bottom; but for articles of millinery and other light articles the previously-described arrangement will be sufficiently strong.

In Fig. 4 I have shown still another arrangement of the tapes, in which one is secured to the bottom panel and passed outwardly through a single hole therein, located near the outer edge and midway between the ends thereof, thence through two holes in the side panel, 2, located near the top and bottom thereof and midway between the ends, where its free end is in position to be tied to the end of the second tape, which latter is secured in any suitable manner to the side panel, 4, near

the top and midway between the ends thereof. In this arrangement it will be observed that but one of the tapes directly supports the bottom, and I prefer the former arrangement, because of the increased support afforded by it. The tapes will preferably be secured to the blank and inserted through the proper holes therein by the manufacturer, so that when the purchaser of a blank wishes to form a box therefrom it is necessary merely to fold the side and end panels, as previously described, secure the flap 6 to panel 4, and draw up the tapes, at the same time guiding the tongue 9 to its proper seat.

While the box as thus described is adapted to any of the uses to which paper boxes are usually put, I have devised it with especial reference to use in the millinery business, where the space required for the storage of a large number of boxes is an important consideration. The blanks herein described can be stored in a small space, and, as previously stated, can be quickly folded to form a box as often as one is required. It will be observed that the joints of the box are re-enforced by the flaps 6 7 8 and tongue 9, thus materially increasing its strength and durability.

The cover 13 will preferably have a folding rim, as indicated in Fig. 5, so that it can also be compactly disposed for shipment and storage purposes; but the particular cover shown forms no part of my invention.

It is obvious that the tongue 9, instead of being inserted within the box, as shown, could be folded against the side 2 upon the outside of the box and secured to said side in a manner similar to that shown in Fig. 6, or in any other convenient manner within the spirit of my invention.

I claim—

1. A folding box consisting of the ends 1 3, sides 2 4, inwardly-folded flaps 7 8 upon said ends, bottom portion, 5, integral with side 4, and having tongue 9, and tapes or similar devices secured to bottom portion, 5, passing through holes in flaps 7 8, and thence through holes in ends 1 3, whereby said tapes are adapted to hold said bottom portion in position, substantially in the manner set forth.

2. A folding box consisting of the ends 1 3, sides 2 4, inwardly-folded flaps 7 8 upon said ends, bottom portion, 5, integral with side 4, and having tongue 9 projecting within the box, and tapes or similar devices secured to bottom portion, 5, passing through holes in flaps 7 8 to the interior of the box, and thence outwardly through holes near the top of ends 1 3, whereby said tapes are adapted to hold said bottom portion in position, and also to retain a cover upon the box by being tied together over said cover, substantially as shown and described.

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Witnesses:

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