Jan. 6, 1925. 1,521,845

J. J. TYER

METHOD FOR MAKING BOXES

Filed June 6, 1923 2 Sheets-Sheet 1

Fig. 1.

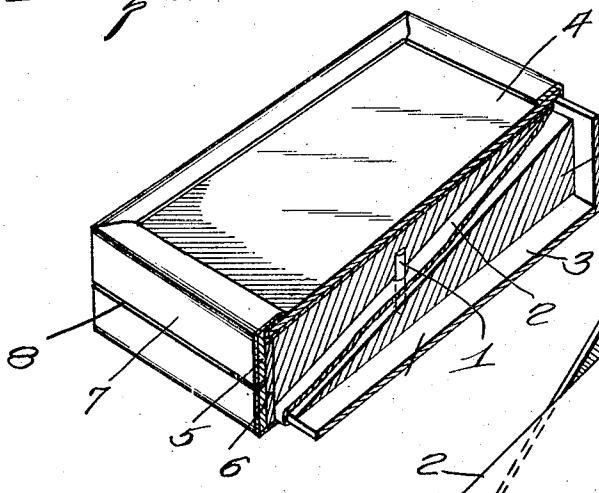


Fig. 2.

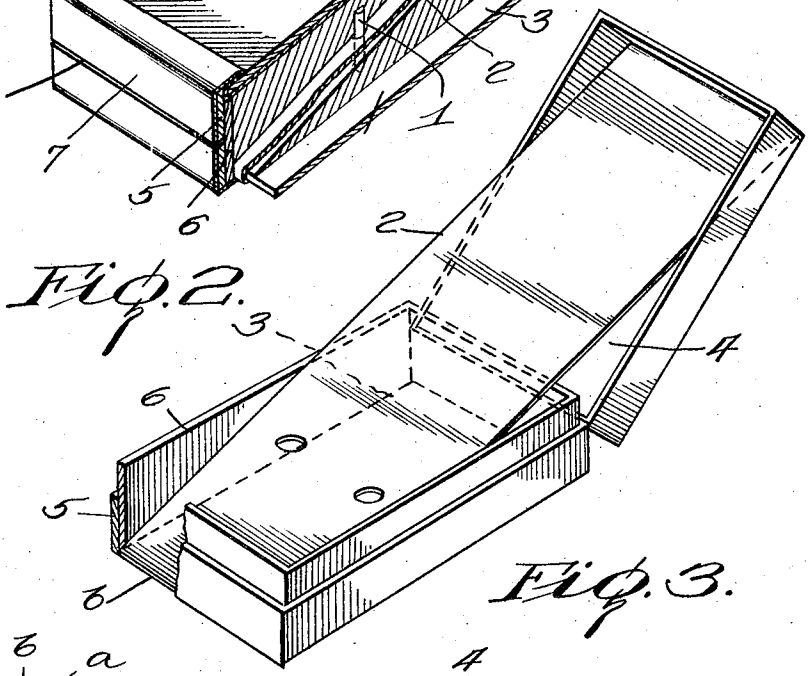
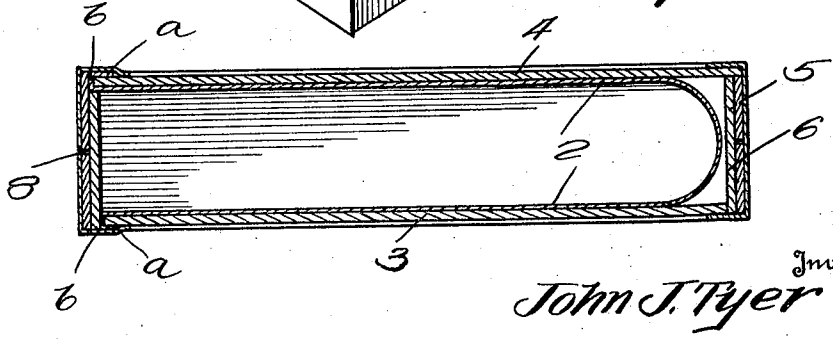


Fig. 3.



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Fig. 4.

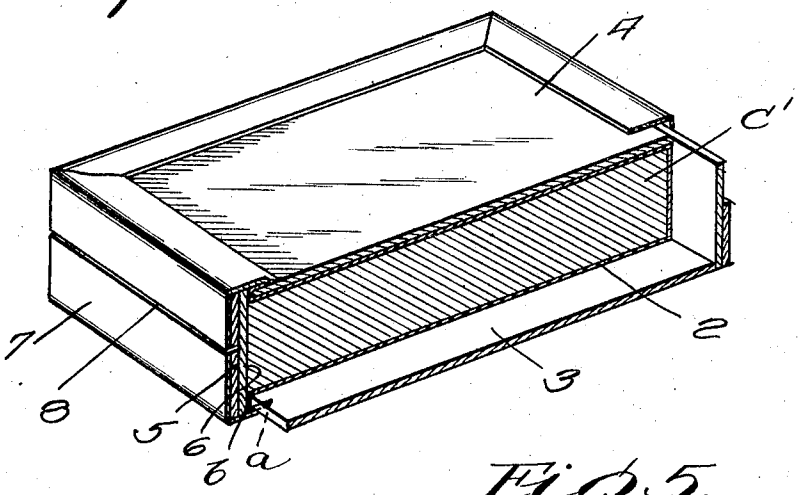


Fig. 5.

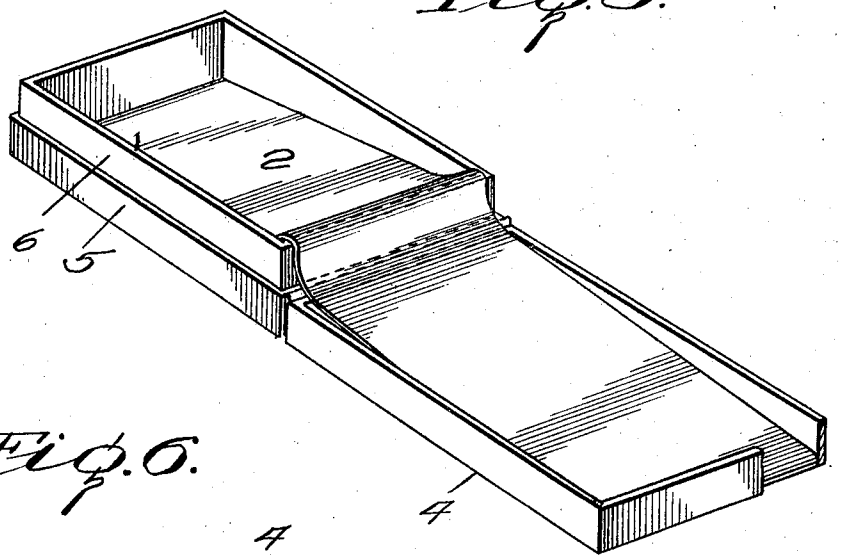
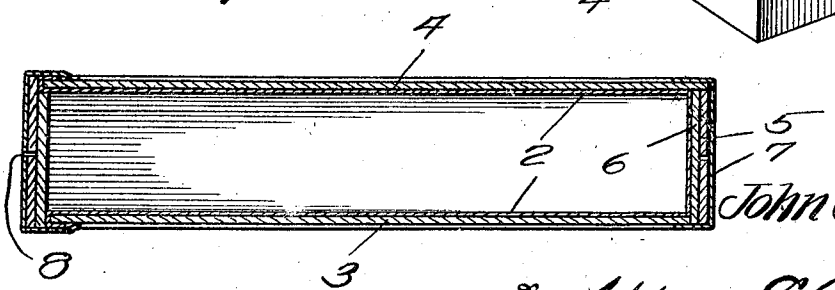


Fig. 6.



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Patented Jan. 6, 1925. 1,521,845

UNITED STATES PATENT OFFICE.

JOHN J. TYER, OF GREENSBORO, NORTH CAROLINA.

METHOD FOR MAKING BOXES.

Application filed June 6, 1923. Serial No. 643,655.

To all whom it may concern:

Be it known that I, JOHN J. TYER, a citizen of the United States, residing at Greensboro, in the county of Guilford and State of North Carolina, have invented certain new and useful Improvements in Methods for Making Boxes, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in boxes and the method of making the same and it is an object of the invention to provide a novel and improved box comprising a box bottom part and a box cover part having associated therewith a lifting web or strip, said lifting web or strip operating upon movement of the box cover part to raise or elevate the contents of the box bottom part.

Another object of the invention is to provide a novel and improved box comprising a box bottom part and a box cover part having associated therewith a lifting web or strip which, upon opening of the box cover part serves to lift the contents of the box bottom part to a height at least equal to the height of the shoulder or neck of the box and which strip or web also serves to substantially reinforce the strength of the hinged connection between the box bottom part and the box cover part.

It is also an object of the invention to provide a novel and improved box having a lifting web or strip associated with the box bottom part and the box cover part, said strip or web serving to conceal or obscure from view the back part of the finished box or the hinged portion thereof whereby the necessity of covering such portion is not required although this heretofore has been thought necessary and desirable in making high-class and fancy boxes.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved box whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:—

Figure 1 is a fragmentary view in perspective illustrating a box and the method of making the same in accordance with an embodiment of my invention;

Figure 2 is a view in perspective with a portion broken away of a box constructed in accordance with an embodiment of my invention, the box cover part being shown raised and showing the position of the lifting web or strip;

Figure 3 is a longitudinal sectional view taken through a box constructed in accordance with an embodiment of my invention with the box cover part closed;

Figure 4 is a fragmentary view in perspective illustrating a box and method of making the same in accordance with a further embodiment of my invention;

Figure 5 is a view in perspective illustrating a box constructed in accordance with the second embodiment of my invention with the box cover part in open position;

Figure 6 is a longitudinal sectional view taken through a box constructed in accordance with the further embodiment of my invention.

In the embodiment of my invention as illustrated in Figures 1, 2 and 3 the box is produced in substantially the same manner as particularly set forth in my pending application Serial No. 621,025 filed February 24, 1923 except that the core C is sectional, said section being separated at a diagonal line of desired degree, the sections of the core being maintained in superimposed relation by suitable means 1, said means herein comprising a pin carried by one of the sections and fitting within a socket or recess in the second section.

In producing the box a strip or web 2 is first disposed around one of the sections of the core C, in other words overlying the upper and lower faces thereof with the extremities of said web extending beyond the same end of the core section. The sheet or box bottom part 3 and the sheet or box top part 4 are then applied after which the side strips 5 and 6 are disposed around the edges of the core. After this assembly the strip 7 of box trimming paper or the binding part is applied around the strip or part 5. This strip or part 7 has adhesive applied to a face

thereof whereby the strip may be effectively and conveniently applied. The strip 7 is also of a width materially in excess of the width of the part or strip 5 so that the marginal portions of the strip may be caused to overlap and be adhesively secured to the marginal portions of the sheets or parts 3 and 4 and also to the edges of the strips 5 and 6 whereby the various parts of the box are effectively maintained in assembled relation. The extremities of the strip or web 2 in the assembly of the structure are caused to overlie the outer faces of the adjacent end portions of the sheets or parts 3 and 4 and said overlying portions *a* are arranged inwardly of the overlapping portions *b* of the strip 7 whereby the extremities of the strip or web 2 are effectively anchored or secured.

After the parts of the box have been properly assembled an incision is made at a desired position through the strip 7 and the outer strip or member 5 whereby the lid and box is separated from each other and the box provided with a shoulder for requisite coaction with the lid. The incision 8 may be produced at any point between the longitudinal margin of the outer strip or part 5 in order to produce the box with a full shoulder or with a shoulder only reaching a part of the way up toward the top. After this separation adjacent ends of the top and bottom are hingedly connected, said hinged connection being at the end remote from the ends of said parts with which the extremities of the strip or web 2 are connected.

When the cover of the box is moved into open position, as illustrated in Figure 2, the strip or web 2 will be straightened out whereby it is assured that the contents within the bottom of the box will be raised or lifted and the extent of opening movement will depend upon the length of the strip or web 2. The length of the strip or web 2 may be increased or decreased by varying the angle of separation between the sections of the core C.

My improved box may be employed with different kinds of merchandise and it is thought to be obvious that with the use of the web or strip 2 the contents of the box will be readily and conveniently removed.

It is also to be noted that the strip or web 2 lifts the contents of the box for supporting the same at all times from the bottom and that the web or strip 2 is built in with practically no extra cost in the labor of constructing the box. The process of inserting and securing the web or strip is effected without any extra gluing operation and without any pasting or gluing on the inside of the box at any point.

When the cover of the box is closed the applied web or strip 2 prevents the contents from shaking or rattling and also serves to gently draw the contents into a position of a snug or tight fit within the box as and when the lid or cover is closed.

In the embodiment of my invention as illustrated in Figures 5 and 6 I disclose a structure and method wherein the box cover is permitted to swing into a full open position and which is accomplished by employing only a single core C′ and with the strip or web 2 disposed around the upper and lower faces and hinged end portion thereof. Other than this the box is constructed in the same manner as hereinbefore described.

From the foregoing description it is thought to be obvious that a box constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. A method of making a box consisting in disposing a lifting web partially around a core, forming a closed hollow member about the core with the extremities of the web overlying end portions of the box bottom part and the box top part, applying a single adhesive strip around the sides of the hollow member and engaged with the box cover part and the box bottom part and disposed over the overlying portions of the web to anchor the extremities of the web and making an incision through the binding strip and certain of the box parts to separate the hollow member.

2. A method of making a box consisting in disposing a lifting web partially around a core, forming a closed hollow member about the core with the extremities of the web overlying adjacent end portions of the box bottom part and the box top part, applying a single adhesive strip around the sides of the hollow member and engaged with the box cover part and the box bottom part and disposed over the overlying portions of the web to anchor the extremities of the web and making an incision through the binding strip and certain of the box parts to separate the hollow member.

3. A method of making a box consisting of disposing a lifting web partially around a part of a sectional core forming a closed hollow member about the core with the extremities of the web overlying end portions of the box bottom part and the box top part, applying a single adhesive strip around the sides of the hollow member and engaged with the box cover part and the box bottom

part and disposed over the overlying portions of the web to anchor the extremities of the web and making an incision through the binding strip and certain of the box parts to separate the hollow member.

4. A method of making a box consisting of disposing a lifting web partially around a part and between adjacent parts of a sectional core, forming a closed hollow member about the core with the extremities of the web overlying end portions of the box bottom part and the box top part, applying a single adhesive strip around the sides of the hollow member and engaged with the box cover part and the box bottom part and disposed over the overlying portions of the web to anchor the extremities of the web and making an incision through the binding strip and certain of the box parts to separate the hollow member.

In testimony whereof I hereunto affix my signature.

JNO. J. TYER.