No. 847,314. PATENTED MAR. 19, 1907.

J. D. BURNS.

BOX.

APPLICATION FILED FEB. 8, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

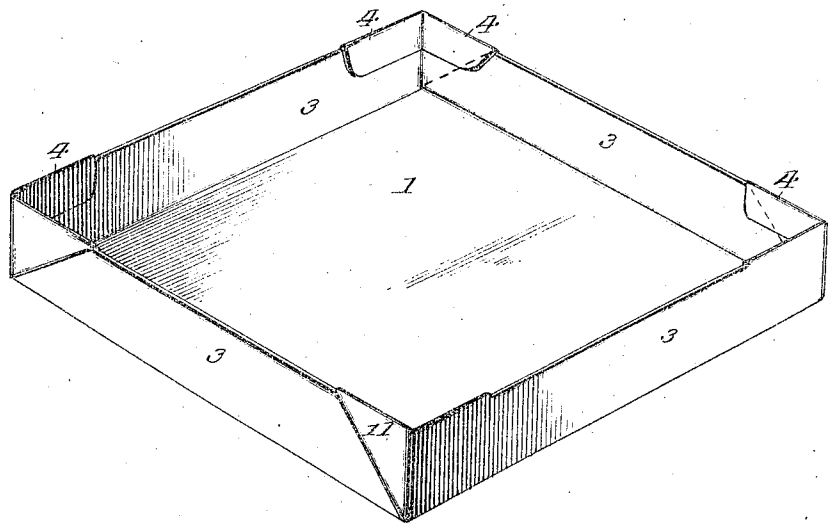


Fig. 2.

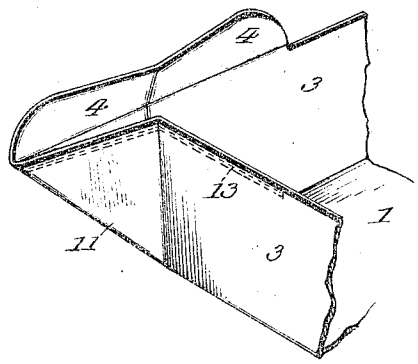


Fig. 3.

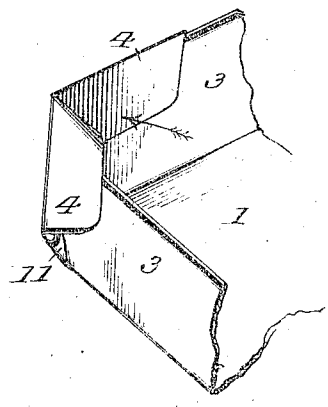
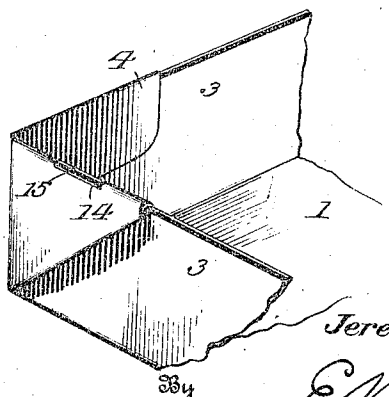


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

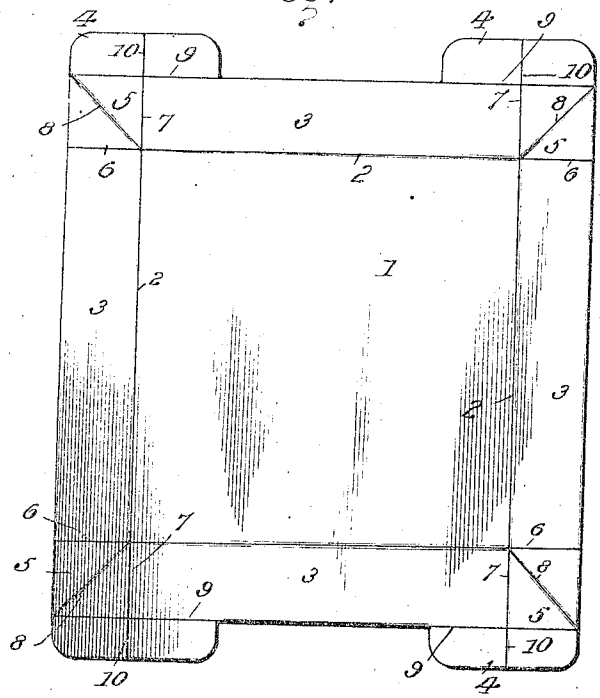


Fig. 6.

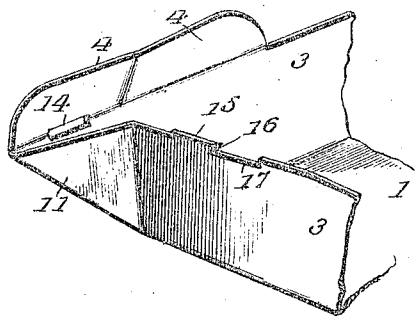


Fig. 7.

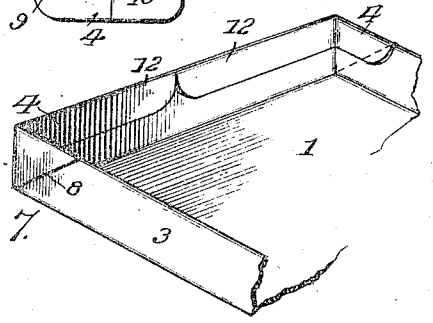
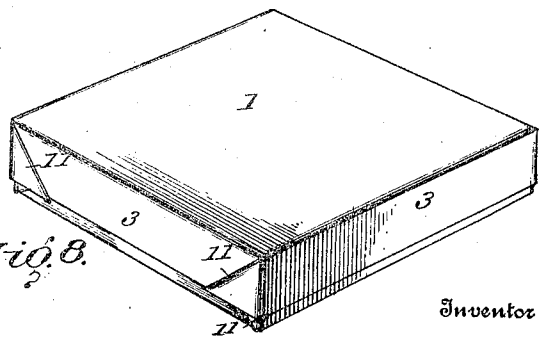


Fig. 8.



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UNITED STATES PATENT OFFICE.

JEREMIAH D. BURNS, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO THE COLUMBIA FOLDING BOX CO., OF WASHINGTON, DISTRICT OF COLUMBIA.

BOX.

No. 847,314. Specification of Letters Patent. Patented March 19, 1907.

Application filed February 8, 1906. Serial No. 300,173.

To all whom it may concern:

Be it known that I, JEREMIAH D. BURNS, a citizen of the United States of America, and a resident of Washington, in the District of Columbia, have invented certain new and useful Improvements in Boxes, of which the following is a specification.

This invention relates to certain new and useful improvements in boxes of that class known as "folding" boxes, and while in the present instance I have chosen to show the embodiment of the invention in what is known to the trade as a "suit-box" it is evident that the present improvements are applicable to any and all styles and shapes of boxes irrespective of the use to which they are to be put.

The present invention has for its object primarily to provide a box which shall possess maximum strength with lightness without adding materially to the cost of its production.

A further object is to provide a cheap yet strong and durable box that can be easily and quickly set up and in which the corners shall be strengthened or reinforced by a diagonal or triangular fold and a corner overlap which extends upon the side and end of the box at the corner and is disposed upon the side of the box opposite that upon which the diagonal or triangular fold is located.

In one form of the invention I provide a lock between the overlap and the adjacent upper edge of the adjoining side or end of the box.

I dispense with the usual interlocking tongues and slots which are so liable to become torn and which are difficult to interengage and also provide an inner and an outer folded reinforce at the corner.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

The invention is capable of embodiment in a variety of forms, all embracing the generic idea, some of which are illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of one portion of a box, it may be the body portion or its cover, constructed in accordance with my invention. Fig. 2 is a perspective detail, on an enlarged scale, of one corner of the box, showing the same partially folded. Fig. 3 is a similar view showing the corner overlap just about to be pressed into its final position. Fig. 4 is a perspective detail of one corner of a box, showing a lock for the corner overlap. Fig. 5 is a view of the blank from which the body portion or its cover is to be formed. Fig. 6 is a perspective detail similar to Fig. 2, but illustrating the form of construction seen in Fig. 4. Fig. 7 is a perspective detail of a portion of a box, showing another modification of the generic feature of the invention. Fig. 8 is a perspective view of the box complete.

Like numerals of reference indicate like parts throughout the several views.

In carrying out my invention I employ a blank as seen in Fig. 5, in which 1 is the body portion, scored along the lines 2 to form the ends and sides 3 of the box, the overlaps 4, and the rectangular portions 5, which when folded constitute the triangular or diagonal corner-reinforcing folds. The blank is further scored along the lines 6 7, and each rectangular portion 5 is scored diagonally, as along the line 8. Further score-lines 9 are provided at the lines of junction between the overlaps 4 and the sides or ends 3, and these overlaps are also scored at substantially their mid-length, as seen at 10 in line with the score-lines 7.

In forming the box from the blank above described and illustrated in Fig. 5 the blank is folded along the lines 2 7 10 and along the lines 2 6 and then along the lines 8, which brings the blank at the corner into substantially the shape shown in Fig. 2, and then by pressure on the overlap in the direction of the arrow seen in Fig. 3 the corner fold or reinforce 11 is brought against the side of the box and the overlap brought over upon the inside of the box and embraces the corner and the adjacent portions of the end and side of the box, as seen best in Fig. 1. When thus pressed into position, the overlaps fit snugly against the ends and sides of the box, as seen in Fig. 1, and the ends and sides are held in a perpendicular position, the corners being reinforced upon both inside and the outside of the box.

In Fig. 7 I have shown substantially the same construction, except that the overlaps are lengthened, as shown at 12, so as to reinforce the entire side and end of the box. It will thus be evident that the length of the overlaps can be varied as may be deemed most expedient.

In Fig. 2 I have indicated by dotted line 13 how the top edge of the side or end of the box may be slightly cut away, so that when the overlaps are folded down into position the folded edge will come flush with the upper edge of the side or end of the box. This construction also constitutes a form of lock for the overlap.

In Figs. 4 and 6 I have shown another form of lock for the overlap. In this construction I form one portion of the overlap at its score-line with a slot or opening 14, and the top edge of the adjacent end or side of the box over which it folds is provided with a tongue 15, adapted to engage therein, as seen in Fig. 4, the wall of said tongue farthest from the corner fold being undercut, as seen at 16, for an obvious purpose, the notch 17, formed by the making of said tongue, serving to receive the portion of the overlap beyond the slot, so as to bring the fold thereof substantially flush with the upper edge of the side or end of the box. This notch, however, may be dispensed with and the folded edge of the overlap lie in a plane above that of the upper edge of the end or side of the box.

The box-body and its cover are similarly constructed, and in Fig. 8 I have shown such a box complete. Therefore where in the following claims I employ the term "box member" I mean to include either the body portion or the cover. The triangular fold and the overlap may be reversed as to their relative positions—that is, the fold may be upon the inside of the box and the corner overlap upon the outside. This would be a mere reversal of the construction above described and comes within the scope of my invention, although I consider the former preferable.

From the above it will be seen that I have constructed a novel form of box well suited to the purposes to which it is designed, and while the structural embodiments of the invention as herein disclosed are what I at the present time consider the preferable one it is evident that the same is subject to changes, variations, and modifications without departing from the spirit of the invention or sacrificing any of its advantages. I therefore do not intend to restrict myself to the details of construction herein disclosed, but reserve the right to make such changes, variations, and modifications as come properly within the scope of the protection prayed.

What I claim is—

1. A box member provided with an integral corner fold and an integral corner overlap extended over two adjacent sides of the box member, one portion of the said overlap being integral with one portion of said corner fold and the other portion thereof integral with the adjacent side of the box.

2. A box member formed with an integral triangular fold at the corner upon the exterior of said member, and an integral corner overlap integral with the one side of the box and with the adjacent portion of said triangular fold, said overlap being folded over two adjacent sides of the box and over the said fold.

3. A box member formed with an integral triangular fold at the corner and a corner overlap bent over adjacent side portions of said member and over the said triangular fold, one of said side portions having a tongue opposite one of the portions of the fold and the adjacent portion of the overlap having a slot to receive said tongue.

4. A box member formed with an integral triangular fold at the corner and a corner overlap one portion of which is integral with one portion of said fold bent over adjacent side portions of said member, one of said side portions having a tongue and the adjacent portion of the overlap having a slot to receive said tongue, one wall of said tongue being undercut.

5. A box formed from a single piece of material and comprising a bottom and four walls extending at an angle therefrom and connected at the corner by triangular folds, said box being formed at each corner with an integral overlap extending over the triangular fold and bent over the edge of two adjacent walls.

6. A box formed from a single piece of material and comprising a bottom and four walls extending at an angle therefrom and connected at the corner by triangular folds, said box being formed at each corner with an integral overlap extending over the triangular fold and bent over the edge of two adjacent walls, and a lock between said overlap and wall.

7. A folding-box blank having score-lines upon its four sides, rectangular portions at the corners with core-lines at right angles to each other, and additional diagonal score-lines, and extensions upon opposite sides of said blank opposite said rectangular portions at the corners and beyond the same to form corner overlaps to extend around the corners of the box, said extensions being scored substantially as and for the purpose specified.

Signed by me at Washington, District of Columbia, this 8th day of February, 1906.

JEREMIAH D. BURNS.

Witnesses:

E. H. BOND,

M. A. BOND.