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J. STELLA ET AL

CORNER FASTENING MEANS FOR FOLDING BOXES

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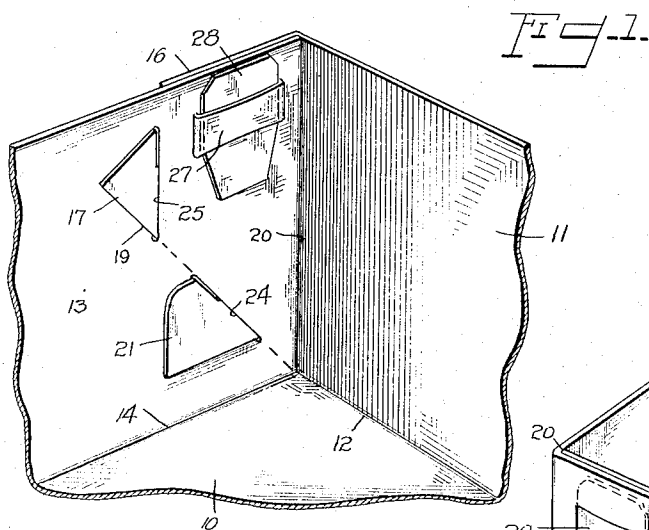


Fig. 2.

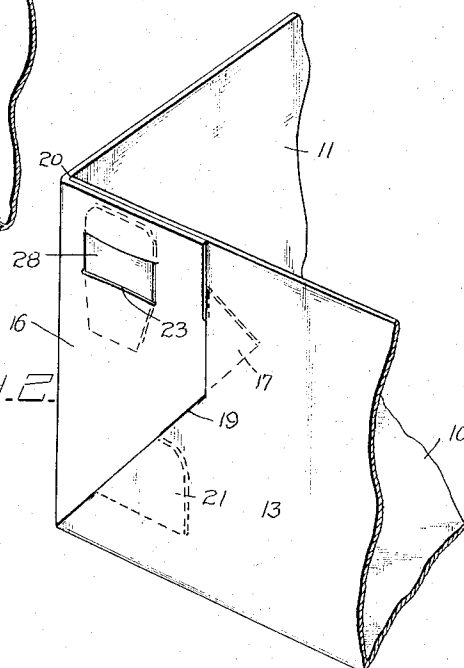
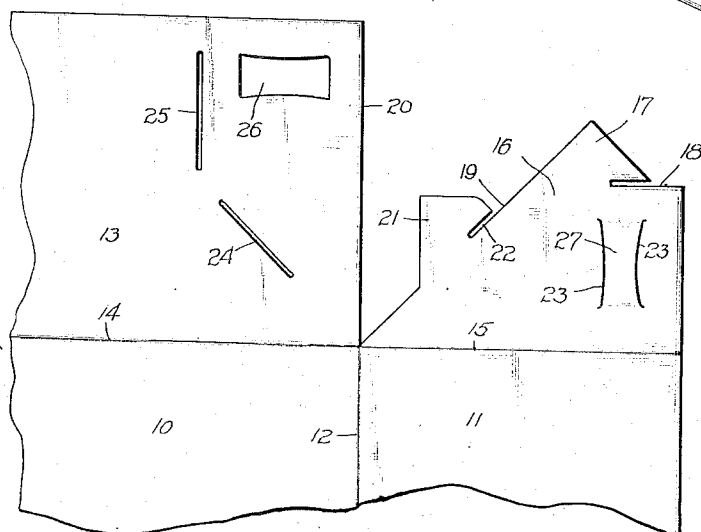


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH STELLA, OF NEW YORK, AND WILLIAM R. WISSER, OF BROOKLYN, NEW YORK,
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CORNER-FASTENING MEANS FOR FOLDING BOXES.

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To all whom it may concern:

Be it known that we, JOSEPH STELLA and WILLIAM R. WISSER, citizens of the United States of America, residing at New York city, New York, and Brooklyn, New York, have invented new and useful Improvements in Corner-Fastening Means for Folding Boxes, of which the following is a specification.

Our invention relates to corner fastening means for folding paper or cardboard boxes.

The principal object of the invention is to provide a folding box of the character described with interlocking corner flaps and means for utilizing the flaps to hold the sides of the box in upright position when the latter is folded to form a container.

A further object of our invention is to provide a fastening means which will prove inexpensive to manufacture, strong in construction, and simple to set up for use.

The invention is illustratively exemplified in the accompanying drawing, in which Figure 1 is an interior perspective view of the corner of a box having our improved fastening means; Figure 2 is an exterior perspective view of the same corner; and Figure 3 is a plan view of the blank cut to form the corner lock.

In the following description but one of the corners of a folding box is described in detail, it being understood of course that all the corners are cut and assembled after the same pattern.

Referring to the drawings, the box comprises a bottom 10 and a side 11 integrally hinged thereto along a side score 12, and an end section 13 integrally hinged to the bottom along an end score 14. The terms side and end are used merely to differentiate between adjacent walls in the blank, but it will be clear the different elements of the fastening means may be applied to either wall with equal facility and the same result.

In the pattern or blank of one corner of a folding box shown in Figure 3, the scored line 14 is projected across the side section 11 to form a hinge 15 for a triangular shaped flap 16, which is adapted to fold inwardly at right angles and lie against the outside surface of the adjacent end section 13, when the box is assembled for use. The free angle of the flap 16 forms an arrow

shaped tongue 17 which is cut at its lower angle to form a slot 18 having the lower wall thereof extending to the edge of the flap, said edge being a straight continuation of the outer edge of the side 11. The inner edge 19 or side of the triangular flap 16 is disposed on an angle of 45° with respect to the end edge 20 of the end section 13, said end being substantially a continuation of the scored line 12 of the side section 11. A second arrow shaped tongue 21 projects from the edge 19 substantially midway of its length and a slot 22 is cut in the lower edge of the tongue 21 adjacent the tongue 17. A pair of spaced parallel slots 23 are cut in the flap 16 along lines parallel to the outer upright edge of the flap and between points short of the slot 18 and score line 15.

Referring now to the end section 13, the latter is provided with slots 24 and 25 to receive the tongues 21 and 17, respectively. The slot 24 is cut along a line at right angles to the edge 19, and 45° from the end edge 20, and the slot 25 is cut along a line parallel to the end edge 20 and likewise 45° from the edge 19. The location of the slots 24 and 25 is such that when the side and end sections are folded and the flap 16 is in position, the edge 19 and line of the slot 18 will coincide respectively with said slots. The end section 13 is further provided with an opening 26 which is located to register with the slits 23 when the box is folded for use, the strap 27 between the slits 23 being adapted to project through the opening 26 and receive a tapered wedge member 28 in the form of a flat piece of cardboard or metal.

To fold the corner to the locked position illustrated in Figures 1 and 2, the end section 13 is raised about its hinge 14 to upright position with respect to the bottom 10. The flap 16 of the side section 11 is then folded about the hinge 15 to an upright position with respect to the side 11 and the latter is thereafter folded about the hinge 12 to an upright position. As the side section is being raised the flap 16 is disposed outside of the end section 13 and the tongues 17 and 21 guided through the slots 25 and 24, respectively, toward the interior of the corner. As stated when the tongues are projected to their full length through the

slots the edge 19 and lower wall of the slot 18 will abut the end section material at opposite ends of the slots. The slots 18 and 22 under the tongues 17 and 21 are adapted to receive the adjacent end walls of their respective slots 24 and 25, when the side and end of the box move relatively to each other, to prevent the sections from becoming detached. To insure final locking of the two adjacent sections in folded position the wedge member 28 is passed through the space formed by the strap 27 and adjacent face of the section 13, as clearly illustrated in Figure 1.

What we claim is:—

1. A folding box made of a cut blank comprising a body portion, side portions having cooperable tongue and slot connections, and supplementary corner fastening means comprising loop and wedge members.

2. A folding box made of a cut blank, the margins of which are bent erect to form side and end sections on two of which sections are flaps adapted to fold outside adjacent section to form corners and cooperating fastening means for said corners, comprising a pair of tongues on each flap disposed in the plane thereof and at an angle to each other and to be inserted in openings in the

said adjacent section, the flap being further provided with a loop adapted to move into register with and to project through an opening in the said adjacent section, and a wedge insertable in the space formed by the loop and the surface of the adjacent section.

3. A folding box made of a cut blank, the margins of which are bent erect to form side and end sections, on two of which sections are flaps in the form of triangles having one side provided with a tongue and the free angle forming a second tongue, each flap being further provided with a loop cut from the blank and disposed above the plane thereof, the other two of said sections being provided with openings adapted to receive said tongues and loop therethrough and a wedge to be inserted in said loop to hold the flap and last named sections together.

4. A corner construction for a folding box as claimed in claim 3, in which said tongues are provided with slots to receive the end walls of the said openings to prevent distortion of said sections with respect to each other.

In testimony whereof we affix our signatures.

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