

(No Model.)

H. W. DEMING.  
PAPER BOX.

No. 415,859,

Patented Nov. 26, 1889.

Fig. 1.

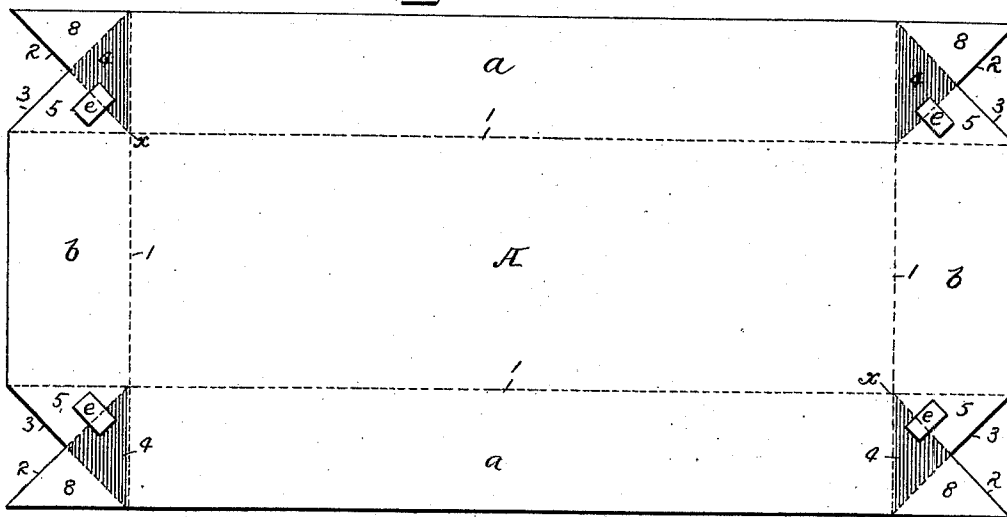


Fig. 2.

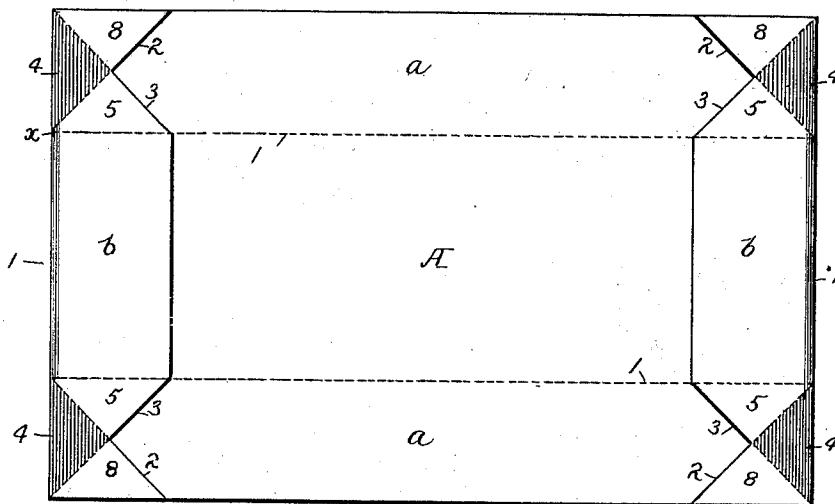
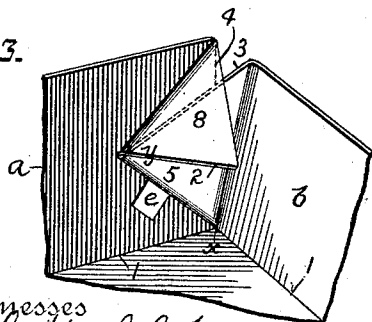
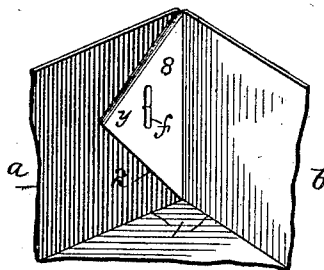


Fig. 3.



Witnesses  
*July Hinkel Jr.*  
*J. O. Barker*

Fig. 4.



Inventor  
*Henry W. Deming*  
By his Attorneys  
*Forster & Freeman*

# UNITED STATES PATENT OFFICE.

HENRY W. DEMING, OF WATERBURY, CONNECTICUT, ASSIGNOR OF ONE-HALF TO SAMUEL P. WILLIAMS, OF SAME PLACE.

## PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 415,859, dated November 26, 1889.

Application filed July 22, 1889. Serial No. 318,302. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY W. DEMING, a citizen of the United States, residing at Waterbury, New Haven county, Connecticut, have invented certain new and useful Improvements in Paper Boxes, of which the following is a specification.

My invention is a knockdown box consisting of a blank formed so as to be folded in its corners when the edges are turned up to form the sides, and provided with a locking-flap, as fully set forth hereinafter, and as illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the blank from which my box is formed. Fig. 2 is a plan view of the blank with the end turned in and a portion thereof pasted to the underlying side portion of the blank. Fig. 3 is a perspective view illustrating the position of the parts at one corner before the sides are brought to their final position. Fig. 4 is a perspective view of one corner of a completed box.

The box is made from an oblong or rectangular strip of paper or board A, which is scored or creased along lines 1 1, parallel to the edges and extending the whole length and width of the strip, and also on diagonal lines 2 and 3, each of the lines 2 extending diagonally from one of the corners of the blank to the point *x*, where the adjacent lines 1 1 intersect, and each of the lines 3 extending between the ends of the crease lines 1 1 and crossing the lines 2 at right angles. The outer triangular portion between the lines 2 and 3 is cut away, leaving the three triangular portions 4, 5, and 8. The blank thus formed may be bent or folded upon the lines 1 1, to form upturned side and end flanges *a* *b*, and upon the lines 2 and 3, as well as upon the extension of the lines 1 1 beyond the intersecting points *x*, to form at each corner an infold *y*, Fig. 2, consisting of the sections 4 and 5, which fold may be turned down against the side *a*. When thus folded, the triangular portion 8 constitutes a flap adapted to be folded over the infold *y*, as indicated in Figs. 3 and 4, thereby constituting a locking-flap which holds the corner parts of the box in position, either by its own stiffness or by the

aid of some other fastening means—for instance, by means of cement applied to the inner face of the flap.

As another means of securing the sections of the fold together and to the side *a* of the box, I employ a gummed strip of cloth or paper *e*, which may be secured to the side *a* of the box, and when the box is set up the gummed side of the said strip is moistened and folded down against the side of the flap 8, to which it will adhere. This gummed strip, as a means of securing the corner folds of boxes, I do not claim herein; but do so in another application of mine of even date herewith. Instead of the gummed strips *e*, I may make use of an eyelet or McGill paper-fastener *f*, Fig. 4, which may be passed through the flap 8 and one or more thicknesses of the infold *y*, or through the entire fold *y* and the side *a* of the box.

To the face of that triangular section 4 of the infold which is brought against the adjacent face of the side of the box I may apply cement of suitable character, so that when the end portion of the blank is folded over upon the body of the same the triangular section (indicated by the shaded portion of Fig. 2) will consist of two thicknesses cemented together, so that when the side *b*, which is folded over onto the body of the blank, is raised and turned outward the side *a* will also be raised, and the triangular connecting portion 5 will swing naturally, without any manipulation, into position against the face of the thickened portion, as shown in Fig. 3, after which the locking-flap 8 may be folded against the portion 5.

When the corners are pasted together, as above described, the box will constitute a regular permanent box; otherwise it is a knockdown box.

Without limiting myself to the precise construction and arrangement of parts shown, I claim—

1. A box-blank scored on the lines 1 parallel with its edges to form the sides of the box, and on the lines 2 and 3, crossing the corner portions diagonally, to form corner infolds, and cut to form a locking-flap, substantially as set forth.

2. A box-blank scored on lines parallel with its edges to form the sides of the box, and the corner portions and on the lines 2 and 3, crossing the corner portions diagonally, and cut away between the lines 2 and 3 to form three triangular sections 4, 5, and 8, which together constitute a corner infold and locking-flap adapted to fold over the infold, substantially as set forth.
- 10 3. A box-blank scored on lines parallel with its edges to form the sides and corner portions, and on the lines 2 and 3, crossing the corner portions diagonally to form the corner infolds, and cut to form the locking-  
15 flaps and provided with fastening devices for the corner-flaps, substantially as set forth.
4. A box scored on the lines 1 1 parallel with its edges to form the sides and corner portions, and on the lines 2 and 3, crossing the corner portions diagonally to form the corner 20 infolds, and cut to form the triangular portions 4, 5, and 8 at each corner, the section 4 being cemented to the adjacent face of the side of the box, and the section 8 constituting a locking-flap, substantially as set forth. 25

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY W. DEMING.

Witnesses:

P. J. STRAIN,  
D. P. CHABOB.