

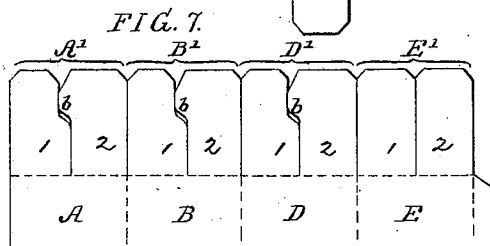
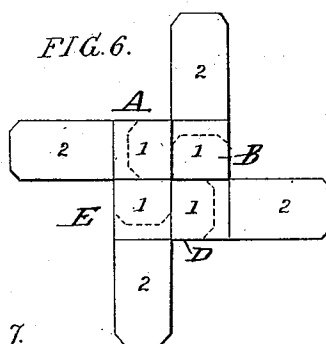
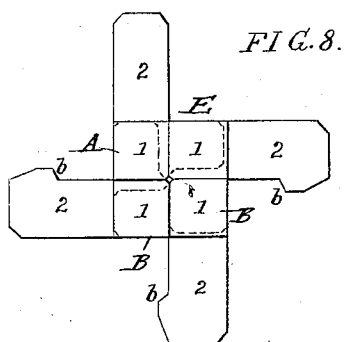
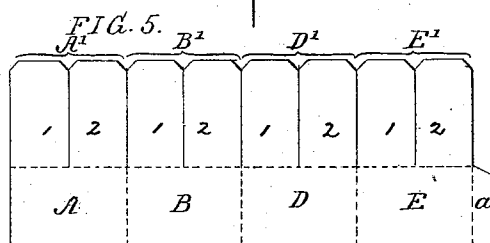
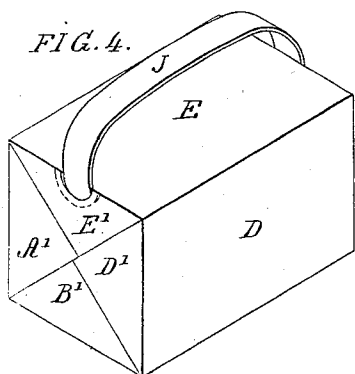
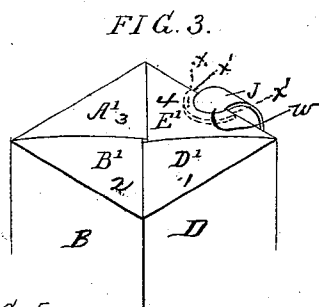
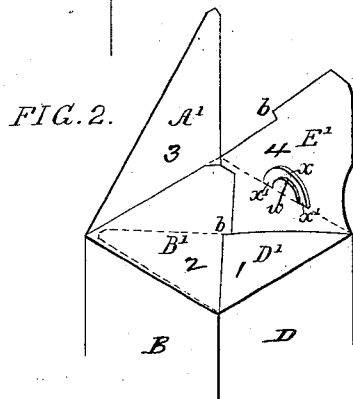
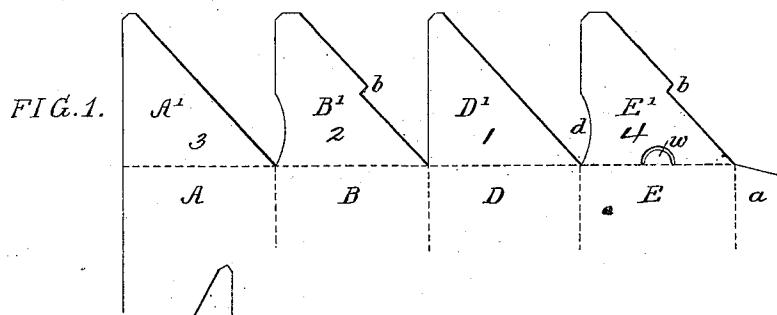
(Model.)

J. W. TATUM.

PAPER BOX.

No. 291,805.

Patented Jan. 8, 1884.



WITNESSES:

James F. Johnson
John E. Parker

INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN W. TATUM, OF CHESTER, PENNSYLVANIA.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 291,805, dated January 8, 1884.

Application filed December 8, 1883. (Model.)

To all whom it may concern:

Be it known that I, JOHN W. TATUM, a citizen of the United States, and a resident of Chester, Delaware county, Pennsylvania, have
5 invented certain Improvements in Paper Boxes, of which the following is a specification.

One object of my invention is to so construct a paper box as to readily but securely
10 close the ends of the same, a further object being to confine a handle-strip to the box in such a manner that it will not interfere with the folding of the end flaps or with the flattening out of the blank, and cannot be detached when the box has been folded.

In the accompanying drawings, Figure 1 is a view of one end of a paper-box blank, showing one method of cutting the flaps to carry out my invention; Fig. 2, a perspective view
20 of the end of the box with two of the flaps folded; Fig. 3, a perspective view of the end of the box with all of the flaps folded; Fig. 4, a perspective view of the complete box, showing the handle-strip; and Figs. 5, 6, 7, and 8,
25 views illustrating another form of my invention.

A, B, D, and E are the four parts of the blank, constituting, when the blank is folded, the four sides of the box, *a* being a strip which
30 projects from the part E, and, when pasted to the part A, completes the body of the box.

On the parts A, B, D, and E are projecting flaps, A', B', D', and E', respectively, and these flaps are interlocked to close the ends of
35 the box by first folding down the flap D', then the flap B' over the same, as shown in Fig. 2, then the flap A' over the flap B', and finally the flap E' over the flap A', said flap E' being secured by tucking its end beneath the flap
40 D', as shown in Fig. 3, the tucking operation being facilitated by the curved recess *d* in the edge of the flap E'. The end of each flap is thus secured beneath the base of an adjoining flap, and the end of the box can only be opened
45 by withdrawing the last flap E' longitudinally from beneath the flap D', which covers it.

In order to permit the tucking of the flaps, they are made of triangular form, as shown; and in order to prevent longitudinal withdrawal of the flaps, the inclined edges of the

flaps B' and E' have notches *b*, which engage with the inclined edges of the flaps D' and A' and serve to lock the flaps together. These notches are not absolutely necessary; but it is preferred that at least two of the flaps should
55 be so notched, and, if desired, all of the flaps may be notched.

My invention may be carried into effect without resorting to the triangular-shaped flaps shown in Figs. 1 to 4. For instance, in
60 Figs. 5 and 6, I have shown a form of box in which each flap is halved, the halves 1 of the flaps being first folded down in succession, as shown in Fig. 6, and the second or alternate halves, 2, then likewise folded, so as to form a
65 double end, the flaps of each being completely locked. In this case the first folds may be short; but it is preferred to make both halves of the same length, so as to form a double locked end, as described.

The mode of forming locking notches on the flaps of the double-ended box is shown in Figs. 7 and 8. I combine a handle-strip, J, with the box by forming in opposite end flaps—for instance, the flaps E'—segmental
75 slots *w* and providing the strip with enlarged ends *x'*. The width of the strip is equal to the distance between the ends of the slot *w* in a straight line, and the width of the ends *x* is such that they will pass through the slot when
80 curved to coincide with the curve of the same, but cannot be withdrawn on being afterward allowed to expand, as shown in Fig. 2. By forming the slots *w* in the end flaps, the strip J can be made so much longer than the box as
85 to permit the desired bow of the strip, and yet the projecting ends of the strip do not interfere with the ready folding down of the flaps, and although the handle-strip can be readily applied to the box before the folding down of
90 the end flaps, the latter operation effectually secures the handle-strip, as it prevents any withdrawal of the enlarged ends of said strip through the slots *w*, for each enlarged end of the strip is confined between two of the end
95 flaps—for instance, in the box shown, between the flaps A' and E'; hence it cannot be bent so as to be drawn through the slot. The enlargement *x* is preferably so shaped as to form opposite abrupt shoulders *x'*, as this insures a
100

firm hold of the strip and most effectually prevents the detaching of the ends of the same.

In order to insure firm seats for the enlarged ends of the handle-strip, the bases of the slots *w* are on the line of fold of the flaps *E'*, so that the pull of the strip is against the flat side of the box, and not against sharp edges at the ends of the slots.

A segmental recess may be used in place of the segmental slot; but the latter is preferred.

The closing of the ends of the box can be very readily effected, because, although each flap is alike fastened, the outer flap only is tucked.

The shape of the flaps is such that the blanks are cut without waste and without the use of elaborate and costly dies.

I claim as my invention—

1. A paper box having a series of end flaps folded in succession around the box, the end of each flap being retained by the body of that on the side adjoining and at right angles thereto, as set forth.

2. A paper box having interlocked end flaps folded in succession around the box, the end of each flap being retained by the body of that on the side adjoining and at right angles

thereto, and one or more of the flaps having a locking-notch, *b*, as set forth.

3. A paper box having end flaps halved so as to form a double series of flaps, the flaps of each series being folded in succession, so that the end of each flap is overlaid by the base or body of that on the adjoining side, thereby forming a double locked end on the box, as set forth.

4. The combination of the handle-strip *J*, having enlarged ends *x*, with a paper box having segmental slots *w* in opposite end flaps, the strip being adapted to the slots and each enlarged end of the strip confined between two end flaps, as set forth.

5. The combination of the handle-strip *J*, having enlarged ends *x*, with abrupt shoulders *x'*, with a paper box having in opposite end flaps segmental slots *w*, the bases of which are on the line of fold of the flaps, as set forth.

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

JOHN W. TATUM.

Witnesses:

HARRY DRURY,
HARRY SMITH.