J. B. MILLER.

FOLDING BOX AND BLANK THEREFOR.

APPLICATION FILED JAN. 23, 1911.

1,069,021.

Patented July 29, 1913.

2 SHEETS—SHEET 1.

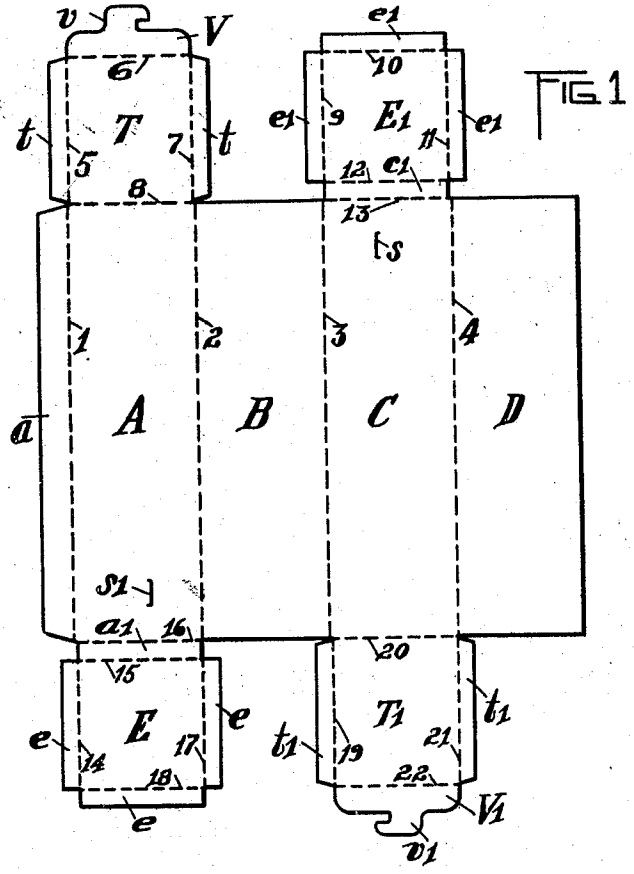

FIG. 1

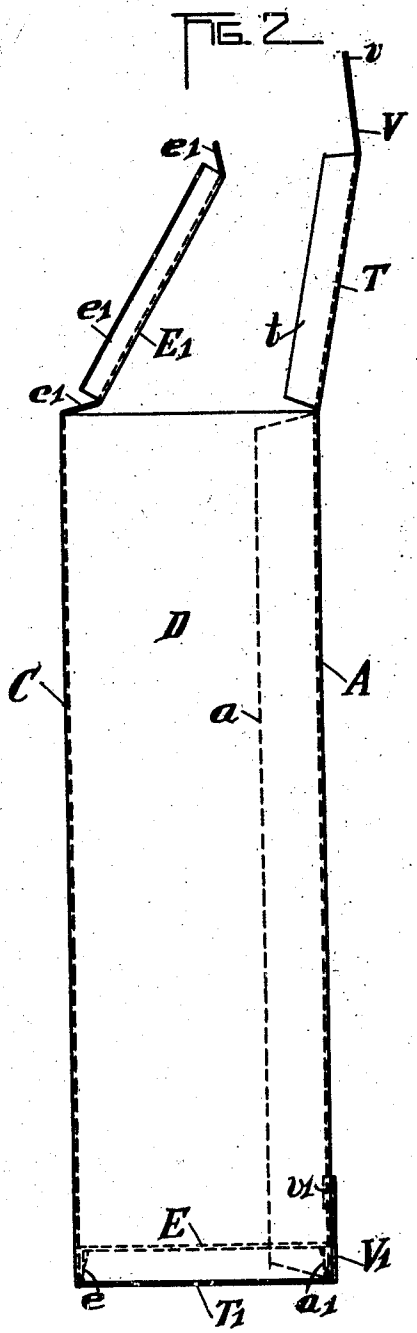

FIG. 2

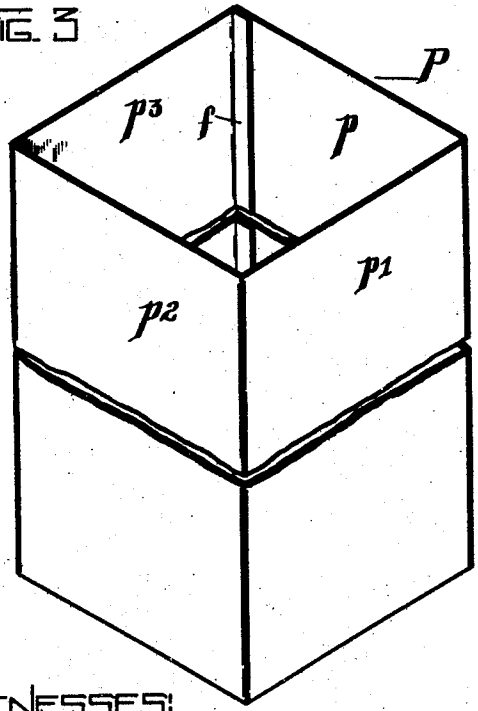

FIG. 3

WITNESSES:

Martha M. Nelson

Osborne F. Gurney

INVENTOR:

James B. Miller

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2 SHEETS—SHEET 2.

FIG. 4

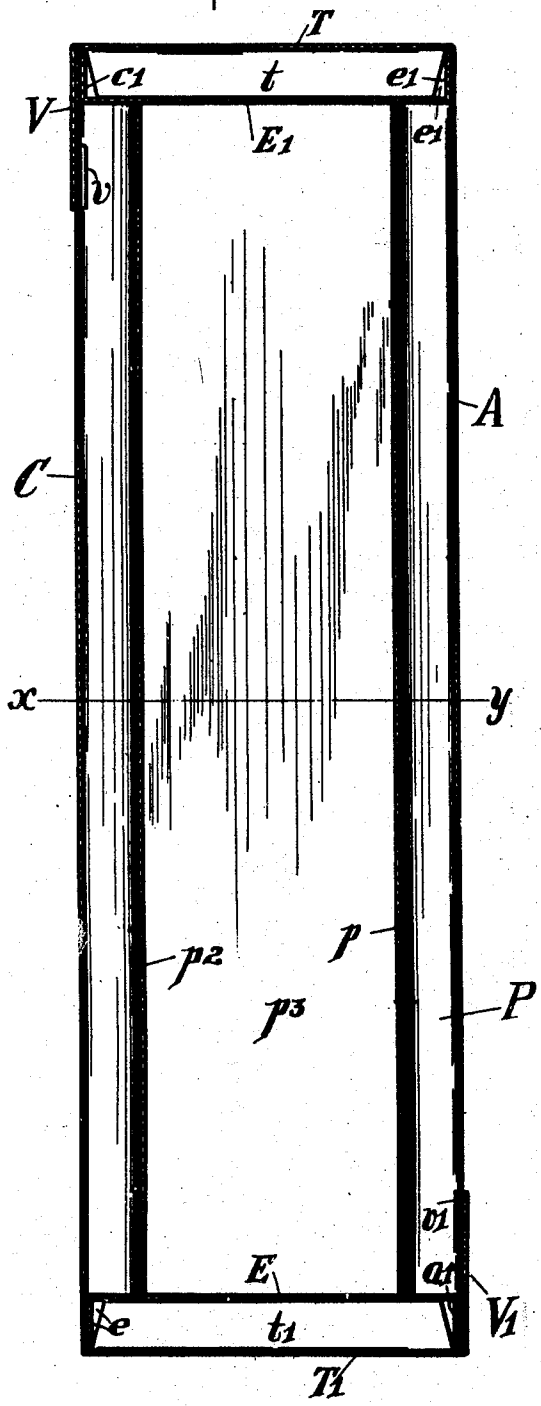


FIG. 5

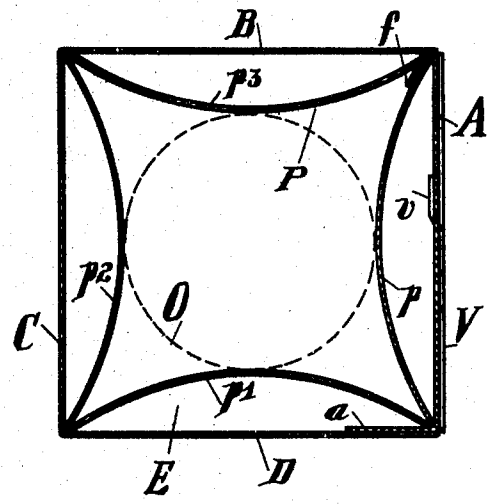
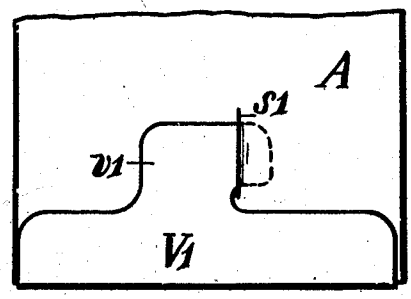


FIG. 6



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UNITED STATES PATENT OFFICE.

JAMES B. MILLER, OF ROCHESTER, NEW YORK.

FOLDING BOX AND BLANK THEREFOR.

1,069,021. Specification of Letters Patent. Patented July 29, 1913.

Application filed January 23, 1911. Serial No. 604,051.

To all whom it may concern:

Be it known that I, JAMES B. MILLER, a citizen of the United States, and a resident of Rochester, in the county of Monroe and State of New York, have invented a new and Improved Folding Box and Blank Therefor, of which the following is a specification.

This invention relates to folding boxes and has more especial reference to that class of such boxes which are provided with means for protecting the contents of the box from fracture or injury in handling storage and shipment therein.

My invention comprises a box having a body portion and a blank for forming the same which is provided not only with the usual end closures but also with a second end closure at one or both ends of the box of a character adapted to hold the sides of the box in their opened out positions for receiving the contents to be placed therein.

Another feature of my box comprises a cushion member which may preferably be closed upon itself and provided with the same number of sides as the body of the box, each of which is, however, somewhat wider than the distance apart of the angles in the box between which they are intended to engage, resulting in a buckling or inwardly bowing action on the part of the cushion member which tends normally to hold the box in shape and which provides a yielding cushion member spaced apart from the sides of the box and against which the contents of the box may engage.

While a box made in accordance with my present invention may be provided with any number of cushioned receptacles adapted to receive bodies of any desired conformation, still, in the accompanying drawings I have shown an embodiment of my invention provided with a single cushioned receptacle adapted to receive a prismatic body such as a bottle or like article. Such drawings are as follows:—

Figure 1 is a plan view of the blank from which the body of the box is formed. Fig. 2 is a side view of the body of a box formed from such a blank and with the upper end open. Fig. 3 shows in perspective an integrally formed interior cushion member in open position. Fig. 4 is a vertical sectional view through the center of the closed box with the cushion member therein. Fig. 5 is a horizontal sectional view of such a box closed, with the cushion member therein, taken along the line x—y of Fig. 4. Fig. 6 is a side view of the lower end of such a box showing the means for holding the bottom or lower end closure in position.

Similar parts are designated by similar reference characters throughout the several views of the drawings.

Referring to the drawings,—the body of such a box is formed from a blank having the general conformation such as indicated in Fig. 1 and is scored along the dotted lines 1 to 22 inclusive. The lines 1 to 4 inclusive divide the blank into side members A, B, C and D. To the side member A at its upper end there is flexibly connected the cover member T provided with flaps t and a locking flap V having the locking member v adapted to engage through a slit therefor s in the side member C. To the side member A there is also flexibly connected at the lower end, an end member E through the medium of the flap member a^1 and this member E is provided with flaps e. The side member C has connected therewith the cover member T^1 provided with flaps t^1 and a locking flap V^1 having the locking member v^1 adapted to engage in the slit therefor s^1 in the side member A. To the side member C there is also connected at its upper end the end member E^1 through the medium of the flap member c^1 and this member E^1 is provided with flaps e^1.

In forming the body of a box the side members A, B, C and D are folded to form an open ended tube with the flap a on the side member A secured to the side D. The flap a^1 is then folded upwardly inside of the box and the member E is forced to a level position spaced above the bottom edge of the sides A, B, C and D with the lower edges of the flaps e thereon even with the lower edge of such sides. Then the flaps t^1 are folded inwardly so as to engage within the flaps on the member E and the flap V^1 folded upwardly and against the side A and the locking member v^1 inserted within the slit therefor s^1, thus holding the bottom member T^1 in place.

The cushion member P formed of sides p, p^1, p^2 and p^3 is formed up with the flap f on the side p^3 secured, preferably, on the inner side of the flap p as indicated in perspective in Fig. 3. The widths of the sides of the cushion member P should be somewhat in excess of the distance between the corners of the body of the box between

which they are to engage. The sides of the cushion member are then forced inwardly so as to shorten the distance between adjacent corners thereof and permit the insertion thereof within the body of the box to the position such as indicated in Figs. 4 and 5 when the sides of the inner cushion member will be held bowed inwardly as indicated in Figs. 4 and 5.

In Fig. 5 there is indicated in dotted outline a cylindrical body such as O. The space between the sides of the cushion member and the sides of the box is determined, it will at once be understood, by the relation of the width of the side members of the cushion to the distance between the corners of the box against which they engage and may be regulated as desired.

A cushion member such as shown may be variously conformed to boxes of different shape and operates to protect the body inclosed therein against injury.

The member E^1 with the flaps e^1 thereon is forced inwardly at the top of the box in the same way as already described with reference to the member E and the cover member T is closed over the top of the box in the same way as already described with reference to the member T^1 and with the locking member v inserted in a slit s therefor in the side wall C for holding the cover in closed position.

It is obvious that the cushion members p, p^1, p^2 and p^3 may be formed separately although for convenience it is preferable to have them connected or formed integrally as shown.

It is believed from the foregoing description of the blank and the method of forming my box and cushion members therefrom that the operation of the same is sufficiently clear to call for no further description herein.

What I claim is:

A blank for the purpose described comprising a series of side members connected *seriatim* end to end and adapted to form in operative position an open ended tubular structure, two of such side members having each on one end thereof, a member carrying flaps adapted to engage within and against the sides to hold such member within and between the sides and spaced from the ends thereof, and on the other end thereof a member adapted to form an end closure and provided with means for making locking engagement with one of the sides, the end closure on one side member located on the end thereof relatively opposite to the end closure on the other side member.

JAMES B. MILLER.

Witnesses:
MARTHA M. NELSON,
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