

Feb. 14, 1939.

W. E. TURNER

2,147,563

OCTAGONAL BOX

Filed Dec. 14, 1937

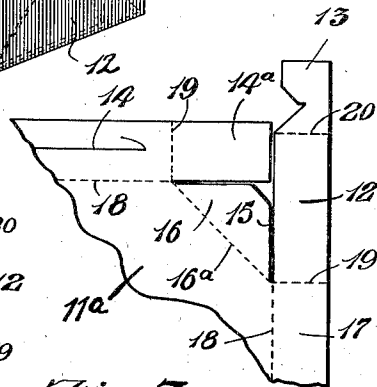
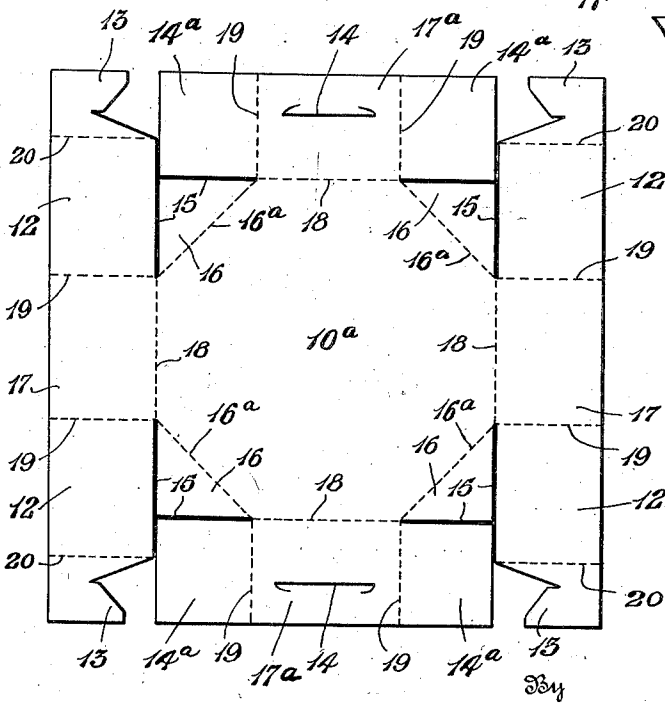
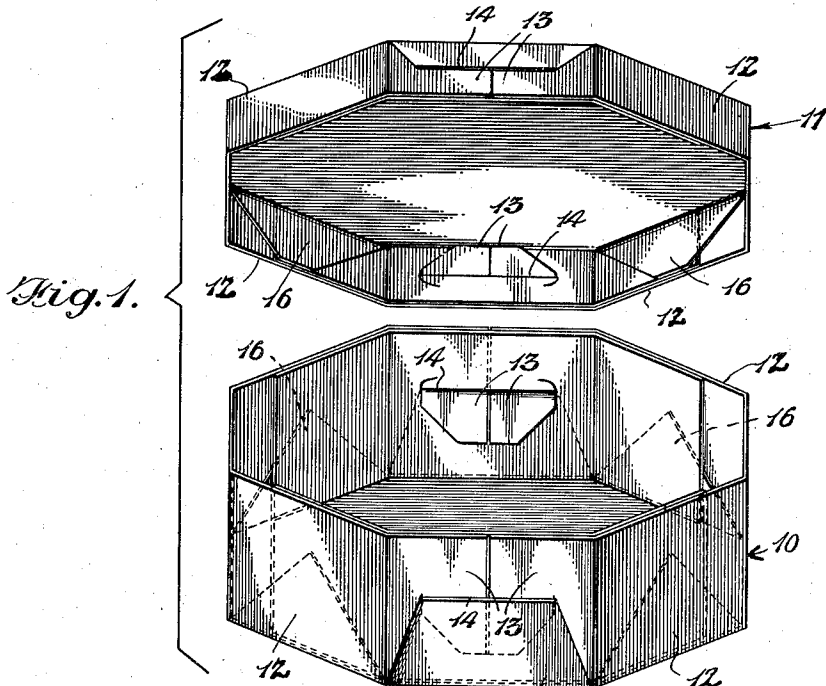


Fig. 3.

Fig. 2.

Inventor

William E. Turner

Engel C. Taylor

Attorney

# UNITED STATES PATENT OFFICE

2,147,563

## OCTAGONAL BOX

William Eugene Turner, Chattanooga, Tenn., assignor to O. B. Andrews Company, Chattanooga, Tenn., a corporation of Tennessee

Application December 14, 1937, Serial No. 179,778

3 Claims. (Cl. 229—35)

This invention relates to cardboard or such relatively stiff paper boxes, which may be readily formed or set up into a desired shape by bending and interlocking portions of a single cut and scored paper blank.

More particularly, the invention relates to the formation of a blank, the portions of which may be folded along certain preformed lines therein to produce boxes or ornamental configuration, and particularly boxes having eight sides, which are adapted to receive a similarly formed and shaped closure or top, without interference of the folded or interlocked portions of the body or top members of the box.

Heretofore, boxes of this character have been found unsuitable due to the fact that the foldable portions have been so constructed and related in the blank to produce the desired shape of container that considerable waste of material has resulted. Further, the arrangement of foldable and overlapping portions have required permanent fastening means such as glue, staples, or the like, to hold such portions in definite flat relation at the sides of the box; and finally that such irregularly shaped blanks usually necessitate the use of expensive and complicated machinery to perform the stamping out and setting up operation, particularly where such operations are to be automatic.

In the example herein illustrated, the blank from which the box body is to be folded is of uniform dimensions on all sides, and the same is true of the blank from which the top is folded. Obviously the end wall portions of the blank from which the cover is folded may be slightly larger than the similar portions of the blank for the body.

It is, therefore, an object of the instant invention to provide ornamental and attractive boxes of simple construction which may be readily fabricated of stamped or cut sheet material having uniform dimensions, the folded portions of which are adapted to be overlapped and interlocked in a manner to provide a strong, durable, and secure container as well as a closure therefor.

It is an additional object of the invention to provide a container and closure of the character set forth, each of which may be fabricated from a single blank having foldable side portions of substantially uniform dimensions which may be readily bent in a manner to reinforce its construction, yet deeply conceal the interlocking portions therefor and retain such portions so as not to protrude and interfere with a similarly

formed structure when used as a top or closure.

Other objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawing, wherein—

Figure 1 is a perspective view of my improved ornamental container and the closure therefor; the parts thereof being shown in spaced relation so that both interior and exterior formations of the wall structures are illustrated;

Fig. 2 is a plan view of the blank or stamped sheet of uniform dimensions from which the body of the ornamental container shown in Fig. 1 is adapted to be folded; and

Fig. 3 is a fragmentary view of one corner of the blank from which the cover illustrated in Fig. 1 may be folded.

Referring to the drawing, in Fig. 1 a generally octagonal-shaped box 10 is shown provided with a corresponding octagon-shaped cover 11, each fabricated from blanks of similar rectangular configuration designated at 10a and 11a in Figs. 2 and 3 respectively.

The body of the blank 10a may be generally formed in the shape of a square, with suitable cutaway portions on opposite sides and near its corners, to form the foldable flap and locking tab portions 12 and 13. The said opposite sides of the blank are further cut so as to provide oppositely disposed tab-retaining slots or slits 14 adapted to receive the locking tabs 13 when the blank is folded into its final shape, as will be more fully understood hereinafter.

From the cut-out portions adjacent the tabs 13, the blank is further cut along lines 15, which extend at right-angles to each other, to provide inner triangular flaps 16 adapted to be bent upwardly on diagonally scored lines 16a to position the flaps 16 for engagement between other foldable wall portions of the blank in the formation of a reinforced wall structure surrounding the octagon-shaped base 10a of the container body 10. Midway between the tabs 13, which are disposed at the four corners of the square blank, are provided four rectangular flaps 17 and 17a, two of which contain the slits 14 above referred to and to each side of these slitted flap portions 17a are formed foldable flap extensions 14a.

Each of these flaps 17 and 17a are joined to the centrally disposed bottom portion 10a of the blank, as are the triangular flaps 16, and are adapted to be folded relative to the bottom portion on the scored lines 18 in forming four of the sides of the octagon-shaped container.

With reference to Fig. 1 it will be seen that

when flap portions 16, 17, and 17a are folded at right-angles to the bottom 10a of the container that the foldable end extensions 12 and 14a, of the flaps 17 and 17a, may be bent on lines 19 in a manner to overlap opposite sides of the triangular flaps 16 which are embraced therebetween. The triangular flaps are thus prevented from returning to their original unfolded position.

10 When the extensions of the side wall flaps 17 and 17a are thus folded to provide with the foldable flap portions 16, the triple thickness, angularly disposed wall portions, the locking end portions 13 of the flap extensions 12 are further folded along the lines 20, at an obtuse angle, to overlie one-half of the outer face of the flap portions 17a. The outer ends of each pair of these foldable flap portions 13 are thus adapted to come into abutting relation on opposite sides of the container and in such position to be inserted into the slits 14 to extend parallel with the inner surface of the wall flaps 17a.

The foldable construction thus provided forms an octagonal shaped container which is sturdy, simple, durable in construction, and one in which alternately arranged walls of the container are of single thicknesses where they adjoin the bottom with the intermediate walls of triple thickness at such points to thus reinforce the structure as a whole and to offset the oppositely arranged single thickness pair of walls in which the locking flaps are inserted through the slits in tying the structure together, whereby no protruding end portions are provided which could mar the appearance of the ornamental box or interfere with a telescoping member when fitted thereupon such as the similarly formed top 11, as shown in Fig. 1.

It will be obvious from an inspection of the fragmentary portion of the blank of Fig. 3, and the top 11 of Fig. 1, which is folded from said blank, that the only difference in the construction of the blanks for the top and bottom need be in the width of the foldable flap portions which provide the eight sides, as the top must telescope upon the similarly shaped body of the container designated at 10.

It will be obvious to those skilled in the art that various changes may be made in the device herein illustrated, without departing from the spirit

of the invention and, therefore, I do not limit myself to what is shown in the drawing or what is described in the specification, but only as indicated by the appended claims.

I claim—

1. An octagonal receptacle formed from a single rectangular blank of relatively stiff foldable material, comprising an octagonal end wall, a pair of opposite side wall flanges each integral with one side of the end wall and extending the full length of the blank, a second pair of opposed side wall flanges each integral with one side of the end wall and being in length equal to the width of the end wall, four triangular reinforcing side wall flanges foldable along their bases each integral with one of the four remaining sides of the end wall, the first-mentioned side wall flanges having locking tabs at their free ends, the second-mentioned side wall flanges having in each a central slit for interlocking reception of the locking tabs.

2. A single piece rectangular blank for an octagonal box comprising an octagonal end wall, a pair of opposed side walls each integral with one side of the end wall and extending the full length of the blank, a second pair of opposed side walls each integral with one side of the end wall and being in length equal to the width of the end wall, four triangular side wall portions each integral with a side of the end wall and alternately located with respect to the aforementioned side walls, all of said side walls having fold lines along their bases with the end wall.

3. A single piece rectangular blank for an octagonal box comprising an octagonal end wall, a pair of opposed side walls each integral with one side of the end wall and extending the full length of the blank, a second pair of opposed side walls each integral with one side of the end wall and being in length equal to the width of the end wall, four triangular side wall portions each integral with a side of the end wall and alternately located with respect to the aforementioned side walls, all of said side walls having fold lines along their bases with the end wall, the first-mentioned pair of side walls having locking tabs at their free ends, the second pair of side walls having in each a slit for interlocking reception of the locking tabs.

WILLIAM EUGENE TURNER.