No. 683,532. Patented Oct. 1, 1901.

J. A. WAGNITZ.

FOLDING BOX.

(Application filed Apr. 27, 1901.)

(No Model.)

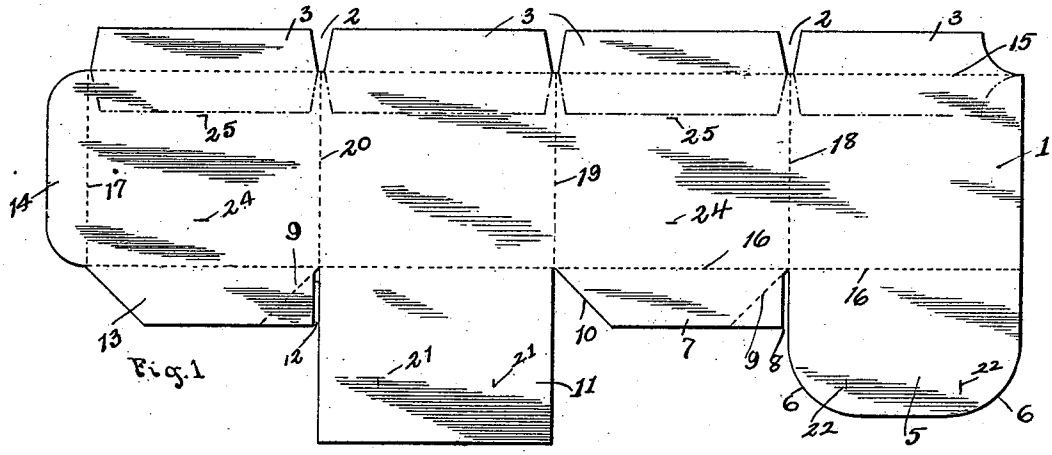


Fig. 1.

Fig. 2.

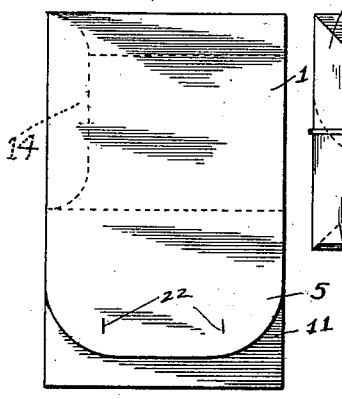


Fig. 3.

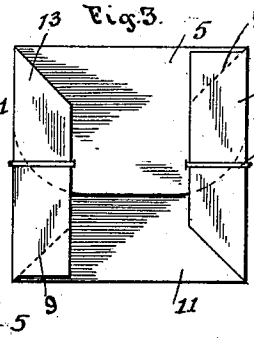
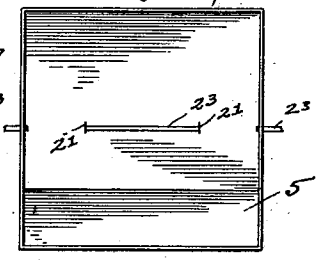


Fig. 4.



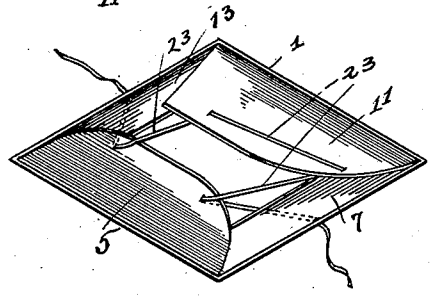
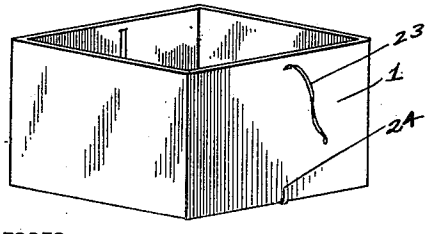


Fig. 5.

Fig. 6.



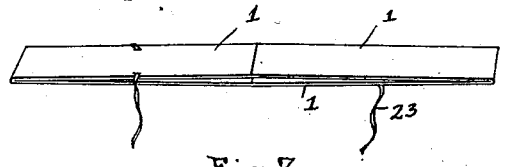


Fig. 7.

WITNESSES:

H. B. Bradshaw

A. L. Phelps

INVENTOR

John A. Wagnitz

BY

C. C. Shepherd

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN A. WAGNITZ, OF COLUMBUS, OHIO.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 683,532, dated October 1, 1901.

Application filed April 27, 1901. Serial No. 57,652. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. WAGNITZ, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Folding Boxes, of which the following is a specification.

My invention relates to the improvement of folding boxes, and has particular relation to the production of that class of boxes which are adapted for use as hat-receptacles.

The objects of my invention are to provide an improved box of this character of simple construction and arrangement of parts, to so construct the blank therefor as to admit of the box-body being readily formed of a single piece of material, and to produce other improvements in details of construction and arrangement of parts, which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a face view of the blank from which my improved box is formed. Fig. 2 is a side elevation of the box when partially completed and with the bottom flaps shown unclosed or unfolded. Fig. 3 is a bottom view of the box when completed. Fig. 4 is a plan view of the box. Fig. 5 is a view of the same folded into a partial knockdown form. Fig. 6 is a view in perspective of the box-body when completed, and Fig. 7 is a perspective view of the box in its knockdown form.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ a blank of paper, cardboard, or similar material and which, as indicated at 1, is of general oblong form. The upper side of this blank may, if desired, be separated, by means of V-shaped cuts or recesses 2, into projecting lips 3. These lips, however, are not essential to the construction of my improved box, as will be more clearly set forth hereinafter. At the bases of said lips is formed throughout the length of the blank a score-line. On the lower side of the blank and at one end thereof I form a projecting flap 5, this flap having its corners rounded, as indicated at 6, the curvatures of these rounded corners forming arcs of imaginary circles drawn on said flap. Adjacent to the flap 5 is formed a shorter flap 7, which is separated from the flap 5 by a narrow slit or recess 8, the corner of said flap 7 which adjoins said recess being supported from the body of the flap through the medium of a diagonal score-line 9. The remaining end of the flap 7 is cut on an incline, as indicated at 10, the base of this cut meeting the base of a short outwardly-projecting substantially square flap 11. On the opposite side of the flap 11 from that on which is formed the flap 10 and separated therefrom by a recess or slit 12 is a fourth short or shallow flap 13, corresponding in form and construction with the flap 7. That end of the body 1 which is adjacent to the flap 13 has an end extension or flap 14, the corners of which are preferably rounded. The lips 3, as well as the flaps 5, 7, 11, and 13, are separated from the body of the blank 1 through the medium of parallel longitudinally-arranged score-lines 15 and 16, while the end flap 14 is similarly separated from the end of said blank by a transverse score-line 17.

In constructing a box from my improved blank the lips 3 when employed may be turned inward upon the body of the blank to the positions indicated by the short and long dotted lines, in which positions they may be glued or otherwise secured, the object in these lips being to impart a desirable rigidity to the upper edge portions of the box-body. As indicated at 18, 19, and 20, the blank body 1 is provided with transverse or cross score-lines which connect points between the flaps 5, 10, 11, and 13. The formation of the box is continued by the folding or bending of the blank on the score-lines 18, 19, and 20 until a substantially square or rectangular body or box-form is produced. This being accomplished, the end flap 14 is bent on its score-line 17 and glued or otherwise firmly secured, as indicated in dotted lines in Fig. 2 of the drawings, to the inner side of the opposite end portion of the blank. This being accomplished, it is obvious that the flaps 11 and 5 may be bent inward in the order named at right angles with the sides of the box, these flaps serving when thus overlapped to close or form the lower end of the box-body. The shallow flaps 13 and 10 are now turned inward against the under sides of the flaps 5 and 11, and those corner portions of said shallow flaps which

are formed within the score-lines 9 of the same are respectively glued to the flaps 5 and 11. As indicated in the drawings, I preferably provide the flap 11 in its outer portion with separated openings or punctures 21, while the flap 5 is provided with similar openings 22. Through these openings is adapted to pass the central portion of a flap connecting or drawing string 23, the ends of the latter after passing through the lower flap 5 being carried outward, thence through openings 24 in opposite sides of the box, and thence upward and outward through openings 25 in the upper edge portion of the box sides. These strings when employed serve when pulled upward to draw the bottom flaps of the box together or in their proper relation. However, it is obvious that the strings may be omitted, if desired, and that the shallow flaps 7 and 13 may be glued to the under sides of the flaps 5 and 11. Owing to the fact that the flap 5 is formed with rounded corners it is obvious that in bringing the flaps 5 and 11 together to form the box-bottom the tendency of the edges of said flaps to catch or engage each other is obviated.

As indicated in Figs. 5 and 7 of the drawings, the box formed as herein described may be readily folded into knockdown form by turning the flaps 5, 11, 7, and 13 inward and so bending the box on its score-lines 17, 18, 19, and 20 as to produce the rounded and substantially flat body indicated in Fig. 7 of the drawings, thus facilitating the folding or crushing of the box for shipping or packing purposes. Although, as set forth, my improved box is particularly designed as a hat-box or similar receptacle, it is obvious that the same may be made in different sizes and heights for the reception of other classes of goods.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

A paper box formed of a blank comprising an oblong blank body having on one of its longer sides a projecting flap 5 provided with rounded corners, a projecting flap 11 and shallow flaps 7 and 13 on opposite sides of said flap 11, said last-named flaps having corner score-lines 9 and an end flap or tongue 14 for said body 1, said body being provided with transverse score-lines 17, 18, 19 and 20, substantially as specified.

JOHN A. WAGNITZ.

In presence of—
C. C. SHEPHERD,
W. L. MORROW.