J. S. STOKES & H. G. SCHWERDTLE.

BOX BLANK.

APPLICATION FILED JULY 6, 1914.

1,265,273.

Patented May 7, 1918.

3 SHEETS—SHEET 1.

Fig. 1.

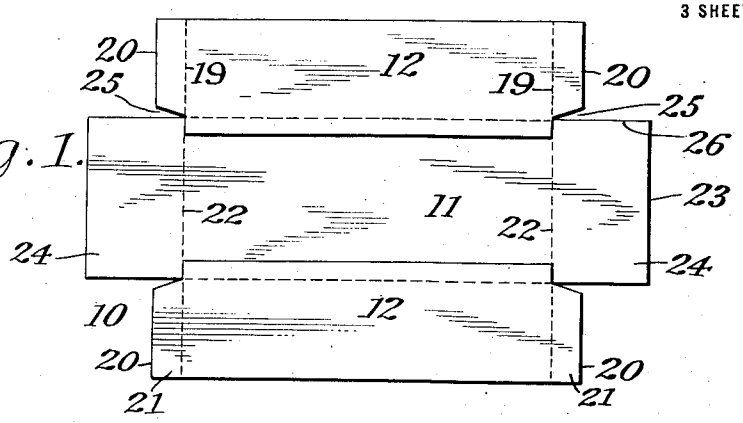


Fig. 2.

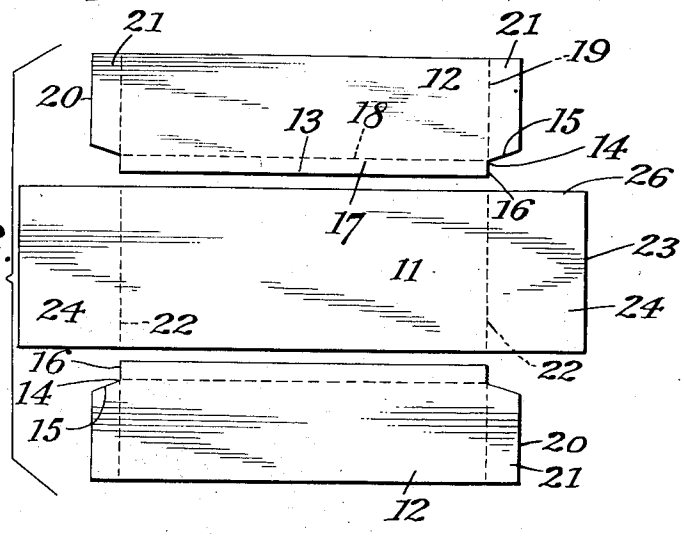
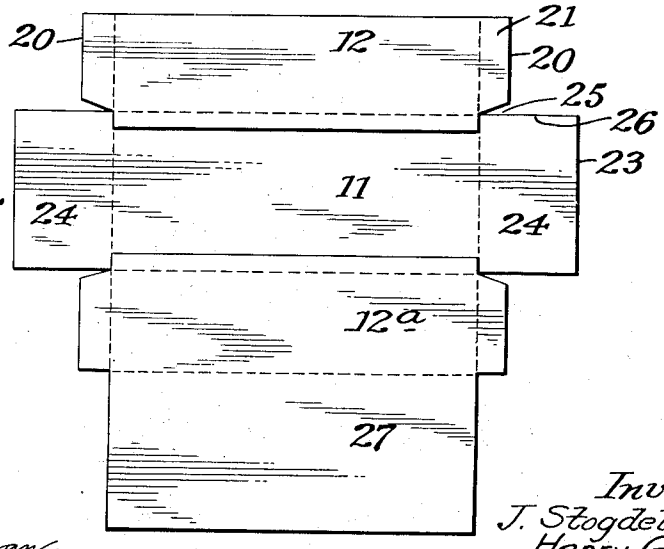


Fig. 3.



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3 SHEETS—SHEET 2.

Fig. 4.

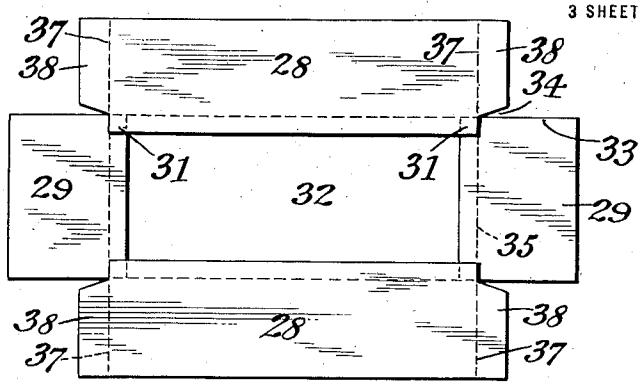


Fig. 5.

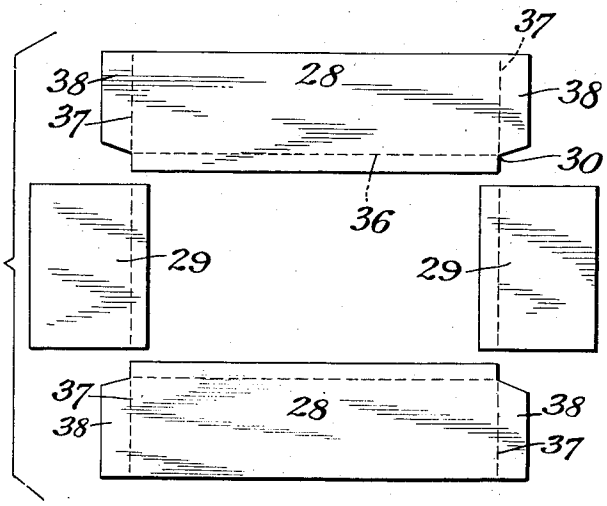
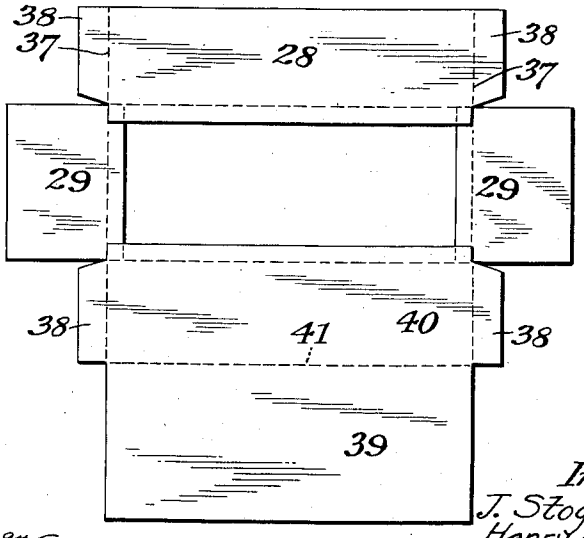


Fig. 6.



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3 SHEETS—SHEET 3.

Fig. 7.

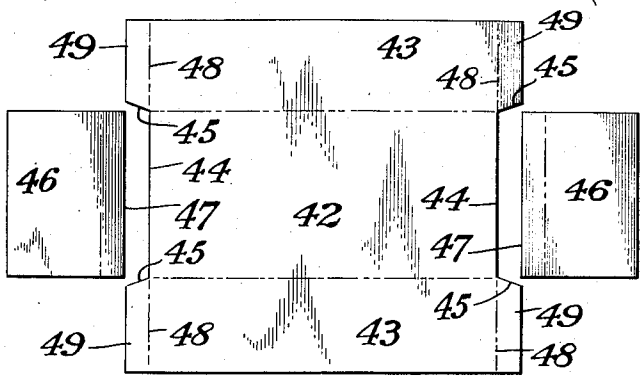


Fig. 8.

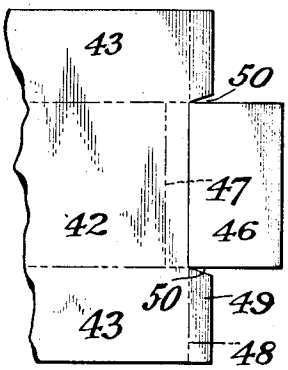


Fig. 9.

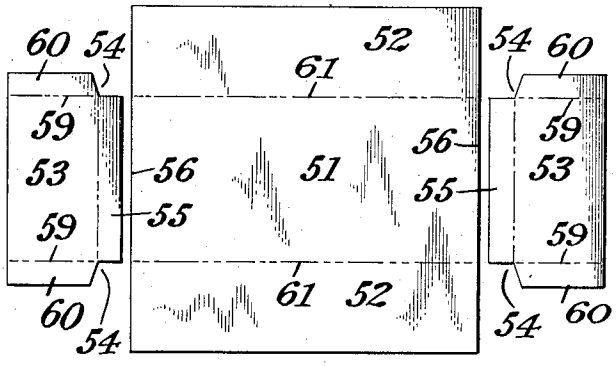
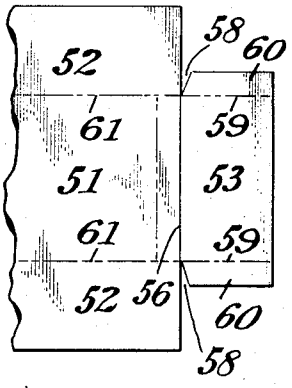


Fig. 10.



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UNITED STATES PATENT OFFICE.

JOHN STOGDELL STOKES, OF MOORESTOWN, NEW JERSEY, AND HENRY G. SCHWERDTLE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO STOKES & SMITH COMPANY, OF SUMMERDALE, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

BOX-BLANK.

1,265,273. Specification of Letters Patent. Patented May 7, 1918.

Application filed July 6, 1914. Serial No. 849,122.

To all whom it may concern:

Be it known that we, JOHN STOGDELL STOKES and HENRY G. SCHWERDTLE, citizens of the United States, residing, respectively, at Moorestown, in the county of Burlington and State of New Jersey, and Philadelphia, State of Pennsylvania, have invented new and useful Improvements in Box-Blanks, of which the following is a specification.

This invention relates to the manufacture of wrappers for boxes, and particularly to such wrappers, when formed of a blank having extensions which are bent up to cover the sides or end portions of the box.

One of the most approved forms for such a blank to take, is a form in which the general outline of the blank is of substantially rectangular form, having laterally extending flaps or extensions on the sides which will cover the side walls of the box, and end extensions which will cover the end walls, the folding of the flaps or extensions being effected on the score lines which form the rectangle of the body portion of the blank.

It is customary to form these blanks from a single sheet, the side and end extensions being integral with the body of the blank. When the blanks are formed in this way, there is, at each corner, a substantially rectangular piece which is punched out. These pieces are waste and may amount to a considerable loss, particularly where the wrappers are formed of a relatively good quality of material.

One of the objects of this invention, is to produce a blank having the desired form but produced in such a way as to prevent substantially any waste of material at the corners of the blank.

A further object of the invention is to produce a blank particularly adapted to form a wrapper and which is extremely economical of paper and constructed so that when such a blank is used to cover a box, a saving in paper may be effected equivalent to substantially the area of a wall such as the bottom of the box.

Further objects of the invention will appear more fully hereinafter.

In the drawing, which fully illustrates the preferred embodiment of our invention,

Figure 1, is a plan of a blank formed according to our invention,

Fig. 2, is a plan showing the parts of the blank separate from each other and arranged nearly in the relation which they assume in the finished blank,

Fig. 3, is a plan similar to Fig. 1 but showing the blank with a lid flap or lid extension,

Fig. 4, is a plan of a blank showing the manner of forming the blank where the body portion of the blank is omitted,

Fig. 5, is a plan showing the members of this blank detached from each other and nearly in the relation which they assume when the blank is finished,

Fig. 6, is a plan similar to Fig. 4 but showing the blank with a lid extension or flap,

Fig. 7, is a plan showing another way of carrying out the invention and showing the pieces which form the blank separated from each other,

Fig. 8, is a view showing part of the end of the finished blank of the form illustrated in Fig. 7,

Fig. 9, is a view similar to Fig. 7 but showing another way of carrying out the invention,

Fig. 10, is a view showing a portion of the end of a blank when constructed in the manner illustrated in Fig. 9.

Referring more particularly to the parts, 10 represents a blank which is built up in accordance with our invention and this blank which is of readily foldable material preferably comprises a body portion 11 of substantially uniform width. In Fig. 2, this body portion is clearly indicated, detached from the other parts of the blank. This body portion 11 is most conveniently cut from a continuous strip or web of the paper which is to form the blank. We then form side members or side flaps 12, the outline or form of which is most clearly shown in Fig. 2. These side members are of substantially rectangular form but are of slightly reduced length at their inner edges 13, and this shape is given to them preferably by forming small notches 14 at the ends of the rectangle which they form, said notches, having inclined edges 15 that form an obtuse angle with the edge 16 which extends at right angles to the edge 13. In this way, side laps or margin laps 17 are formed lying between the edges 13 and the line 18, which join the

vertices of the angles 14. These margin laps 17 are then attached to the side edges of the body portion 11 by an adhesive so that the line 18 lies over the top of the body portion 11, that is, the vertices of the notches 14 are in line with the adjacent side edges of the member to which said members are attached. The side members 12 are preferably formed with score lines 19 in line with the lines 16 and between the end edges 20 of the side members and these lines 19 relatively short end laps 21 are formed. The body portion 11 is preferably provided with transverse score lines 22 in line with the lines 19 and between these score lines 22 and the end edges 23 of the blank, end flaps or end portions 24 of the blank are formed.

After the side members have been attached to the body portion, the blank presents the flat appearance indicated in Fig. 1 as all parts of the blank lie in substantially the same plane; and it will be seen that on each end of the end portions 24, reëntrant angles 25 are formed in the angles between the sides of the end portions and the ends of the side members. The box may be covered with this blank by bending the end portions 24 upwardly into the space between the notches or angles 14, to attach them to the ends of the box, and the side portions 12 are then folded upwardly and the corner laps 21 folded around the edges 26, being secured by an adhesive or in any other manner to the walls of the box adjacent the corners. If desired, one of the side members of the blank, such as the side member 12^a in Fig. 3, may be provided with an integral extension 27, which is of the same length as the finished box, so as to completely cover the upper side of the box.

It will be seen from the above description, that the separate or unintegral members which form the built up wrapper blank, are substantially of rectangular form so that they can be cut from a web or cut from a sheet of paper without any substantial waste of material.

If desired, the blank may be formed in such a way that the body portion of the blank is omitted and this arrangement is illustrated in Figs. 4 and 5. A wrapper formed in this way, leaves the bottom of the box uncovered, and this form of blank may be used when desired for forming very inexpensive wrappers.

In the embodiment of the invention shown in Figs. 4 and 5, we provide separate or unintegral side members 28, and separate or unintegral end members 29. The side members 28 are substantially of the same form as the side members 12 already described, being formed with notches, forming obtuse angles 30 at their ends. The end members 29 are of rectangular form. These four members are placed in the arrangement shown in Fig. 5, and then are attached together with their adjacent corners overlapping, as indicated at 31 in Fig. 4. They are attached by an adhesive or in any other suitable manner. This leaves substantially a rectangular opening 32 at the location of the body portion of the ordinary blank. When the end members 29 are attached in this way, their side edges 33 lie at the vertices of the notches 30, so that in this blank also, acute reëntrant angles 34 are formed in the angle between the ends of the side members 28 and the sides of the end members. The box is covered with this blank in the same manner as the blank illustrated in Figs. 1 and 2, that is, the end members 29 are folded up on the score lines 35 which connect the notches 30, and the side members 28 are then folded up on longitudinal score lines 36 which connect the angles. Score lines 37 are provided near the ends of the side members, beyond which corner laps 38 are formed, which bend around the corners of the box on the lines 37 in the usual manner.

With this form of the blank, as in the other form described, if it is desired, the blank may include a flap or extension 39 which is integral with one of the side members 40 and folds thereupon on the score line 41 when the blank is applied to the box.

We may form the blank in the manner illustrated in Fig. 7, in which the body portion 42 of the blank is formed integral with the side portions 43. This is preferably accomplished by cutting away the end edges of the blank so as to form flat notches 44 with inclined side edges 45. The width of these notches 44 at the bottom is preferably the same as the width of the end members 46 of the blank which are of substantially rectangular form. In Fig. 7, these end members are shown about to be applied in position. In securing them, their inner edges 47 slightly overlap the edge of the body portion and are secured thereto by an adhesive. In this form of the blank, the side portions 43 are preferably formed with score lines 48, so that the corner laps 49 are formed integral with the sides of the box instead of the ends, is indicated in Fig. 8. The finished blank presents reëntrant angles 50, and the blank presents substantially the same shape and appearance as the blank illustrated in Fig. 1. The blank is applied to the box in the same manner as when the blank has the form shown in Fig. 1.

In Fig. 9, we illustrate another embodiment of the invention. In this case, the body portion of the blank is of simple rectangular form, so that the side portions 52, which will form sides of the blank, are integral with the body portion. The end members 53 are of substantially rectangular shape, but have notches 54 at their inner edges so as to form marginal laps 55 which are

adapted to overlap and be attached to the edges 56 of the body portion of the blank. The notches 54 have inclined edges so that when the blank is finished, it presents reentrant angles 58, as indicated in Fig. 10. Furthermore, the end members have score lines 59 at the vertices of these reëntrant angles, which produce corner laps 60 integrally on the end members. The body portion 51 is separated from the side portions 52 by score lines formed at the points 61 which are in line with the ends of the marginal laps 55. Evidently, the finished blank of this form has the same general shape and characteristics of the blank shown in Figs. 1 and 7.

By forming wrappers from blanks embodying our invention, a very great economy can be effected particularly where boxes to be covered are deep and where the wrappers are formed of a quality of material having a fine finish or decorative effect. With blanks of the ordinary form, the large amount of waste often makes the use of wrappers of fine quality prohibitive. For this reason when our invention is practised, boxes having a very effective appearance and fine finish can be produced at a relatively low cost. This is extremely desirable as the sale of contents of the boxes depends largely upon the external appearance of the box itself.

It is understood that the embodiment of the invention described herein is only one of the many forms or embodiments the invention may take and we do not wish to be limited in the practice of our invention or in our claims to the particular embodiment set forth.

What we claim is:

1. As a new article of manufacture, a wrapper blank to be applied exteriorly of a box shell, consisting of a plurality of separate members of thin flexible material adaptable for folding and attachment to said box-shell, the said members lying in substantially the same plane and having overlapped edges attached together and including a pair of oppositely disposed members with relatively short integral end laps of less width than said members, said end laps adapted to engage the walls of the box-shell when being covered, adjacent the corners thereof.

2. As a new article of manufacture, a wrapper blank for covering a box-shell consisting of a plurality of separate members of readily foldable material lying flat in substantially the same plane, and including a pair of oppositely disposed members with notches formed near the ends thereof, to provide a longitudinal lap and transverse integral end laps on each of the opposed members, all of said members being attached together by overlapping the longitudinal laps of the opposed members over portions of the remaining members, the said transverse end laps being adapted to engage the walls of the box-shell when being covered, adjacent the corners thereof.

3. As a new article of manufacture, a wrapper blank for covering a box-shell consisting of four separate members of readily foldable material lying in substantially the same plane, so arranged as to form a central opening, said members including a pair of oppositely disposed members with notches formed near the ends thereof, to provide a foldable longitudinal lap and foldable transverse end laps on each of the opposed members, all of said members being attached together by overlapping certain portions of the foldable longitudinal laps on the opposed member, and certain portions of remaining oppositely disposed members.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOHN STOGDELL STOKES.
HENRY G. SCHWERDTLE.

Witnesses:
CARL E. SCHAEFFER,
SILAS E. CHILD.