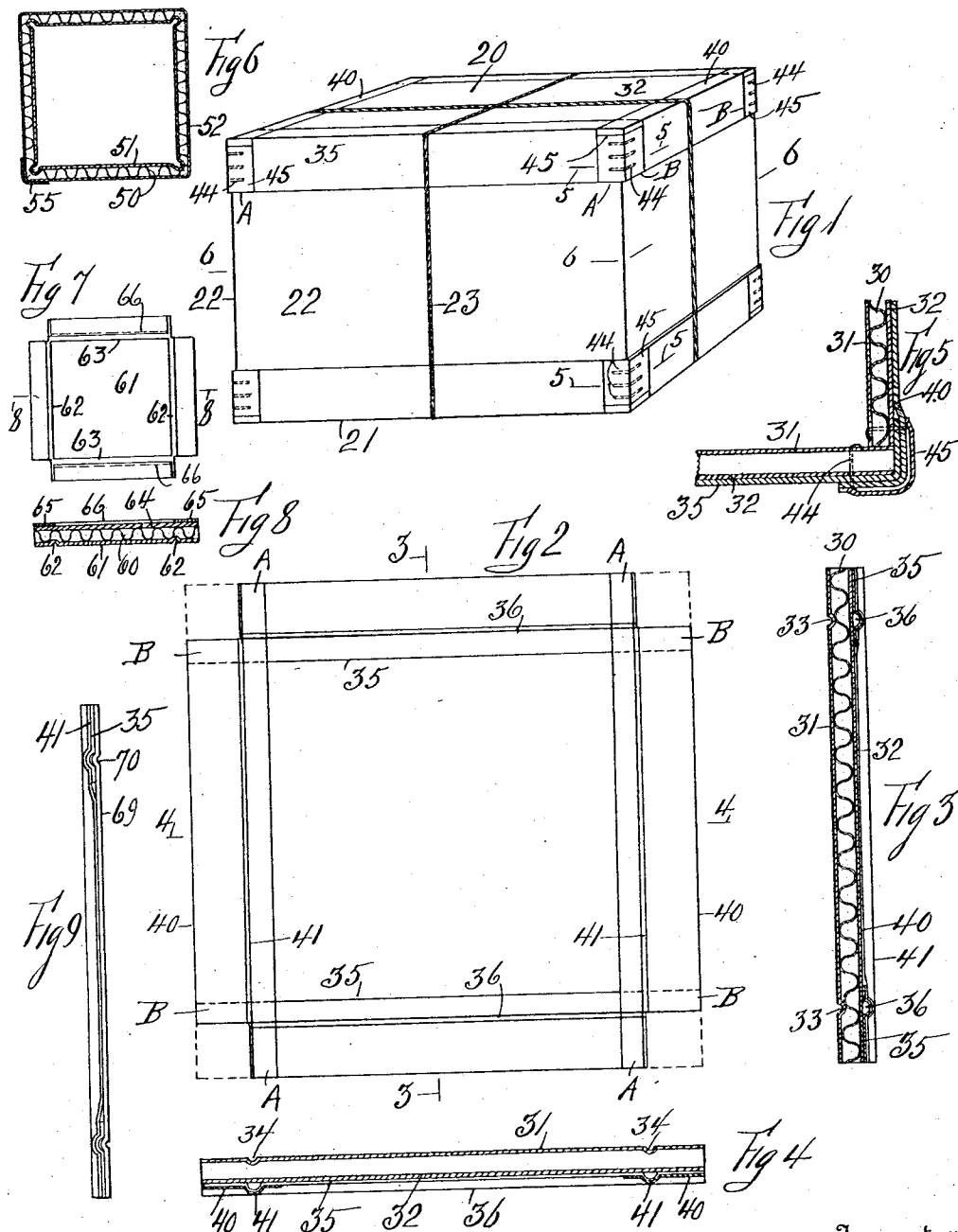


1,182,424.

Patented May 9, 1916.



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UNITED STATES PATENT OFFICE.

BERNARD ROUS, OF BROOKLYN, NEW YORK.

METHOD OF MAKING A BOX.

1,182,424.

Specification of Letters Patent.

Patented May 9, 1916.

Application filed June 26, 1915. Serial No. 36,489.

To all whom it may concern:

Be it known that I, BERNARD ROUS, a citizen of the United States, and a resident of the borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Methods of Making a Box, of which the following is a specification.

This invention relates to the method of making a box.

The novelty of the invention consists in producing a box which shall be of simple construction, very strong and easily manufactured.

The essential novel feature of the invention consists in fastening, preferably by means of glue, stiffening and strengthening strips to the cover and bottom of a box, and adjacent to the edges thereof before the said cover is bent to form the sides of the said cover or bottom. The ends of said strips are made to overlap each other to form double thicknesses of strips at the corners of the cover or bottom. Heretofore similar strips have been used and fastened to the cover or bottom after it had been formed into shape with the sides at right angles to the main body thereof. For that reason only strips of thin material could be used for the said stiffening and strengthening strips, as thick strips cannot be properly glued in place except on a flat piece of material. By my method a thin facing can be used for the cover and thick stiffening and strengthening strips in conjunction therewith produces a cheaper and stronger cover or bottom than by the old method.

In the accompanying drawings Figure 1 represents a perspective view of a box exemplifying the invention, Fig. 2 shows a top plan view of the cover of the box before being formed into shape; Fig. 3 is a section of Fig. 2 on the line 3, 3 with its thickness enlarged; Fig. 4 represents a section of Fig. 2 on the line 4, 4 with its thickness enlarged; Fig. 5 shows an enlarged section of Fig. 1 on the line 5, 5; Fig. 6 shows a section on a reduced scale of Fig. 1 on the line 6, 6; Fig. 7 shows a modification of the cover or bottom before being formed into shape; Fig. 8 is a section of Fig. 7 on the line 8, 8, and Fig. 9 shows an end view of a further modification.

A box is shown with a cover 20 and a bottom 21 which are detachably connected to the body 22.

The cover is shown to comprise a central sheet of corrugated paper 30, to which is glued an inner facing 31 and an outer facing 32, each of which may be of paper. The inner facing 31 has formed thereon two pairs of creases or indentations 33 and 34. Upon the outer surface of the outer facing 32 and at opposite ends thereof are fastened, preferably glued, the stiffening and strengthening strips 35, each having a crease or indentation 36. At the other ends of the surface of the facing 32 are glued or otherwise fastened the stiffening and strengthening strips 40, each with a crease or indentation 41. The strips 40 lap over and are also glued or otherwise fastened to the end portions of the strips 35. At each corner of the cover 20 when it is finished it will be noted, that there are two thicknesses of the said strengthening strips 35 and 40 indicated at A and B. Staples 44 of metal connect the corners of the cover 20 and braces or covers 45 of cloth are glued over the corners of the box. The bottom 21 is a duplicate of the cover 20.

The body 22 of the box comprises a central sheet of corrugated paper 50 to which is glued an inner facing 51, generally of paper, and an outer facing 52 also generally of paper. The body after being formed to its rectangular shape has its ends connected by gluing thereto a connecting brace or cover 55 preferably of cloth.

After the cover 20 and the bottom 21 are made they are placed over the top and bottom ends of the body portion 22 of the box. The said three elements are held together by a rope 23.

The method of making the cover 20 includes the following steps: The central sheet of corrugated paper 30 is cut of the requisite width. Then one of the facings, and for the purpose of explanation it may be considered the inner facing 31, is glued or otherwise fastened to the corrugated paper 30, after which the outer facing 32 is glued to or otherwise fastened to the other side of the said central sheet 30. Next the three connected elements are cut to the requisite size. The next step is to form the creases or indentations 33 and 34 in the facing 31. Before bending over the corners of the cover and while it is still a flat sheet of material the stiffening and strengthening strips 35 are glued or otherwise fastened to the facing 32, and then the strengthening

strips 40 are glued or otherwise fastened to the said facing 32. The portions near the ends of the strips 40 are glued or otherwise fastened to the portions of the strips 35 that are adjacent to the ends thereof. The square portions 42 of the cover indicated in dotted lines are then cut away. Next the cover is bent over on the creases or indentations 36 and 41 and thereby are formed double thicknesses of stiffening and strengthening strips at the corners of the cover as indicated at A and B. The said creases 36 and 41 as well as the other creases allow the easy bending of the cover into proper shape. The wire staples 44 are then connected to the corners of the cover of the box, the end of each staple passing through five elements. The covers or braces 45 are then glued or otherwise fastened to the corners of the cover over said staples.

The steps for making the bottom 21 are the same as described for the cover 20 and the steps for making the body portion 22 have already been described.

In the modification shown in Figs. 7 and 8, the central piece of corrugated material is indicated at 60 to which is glued an inner facing 61 with creases or indentations 62 and 63. An outer facing is shown at 64 to which are fastened at the edges thereof the pairs of stiffening strips 65 and 66.

In Fig. 9 the cover is constructed similar to the one shown in Figs. 1 to 5 with the inner facing 31 and corrugated sheet of material 30 omitted; it is shown to comprise the facing 69 with the strips 35 and 41. The facing 69 has creases 70 similar to 33 and creases not shown similar to 34.

Having described my invention what I desire to secure by Letters Patent and claim is:

1. The herein described method of making a cover or bottom of a box consisting in fastening a pair of strengthening strips to the outer surface of said cover or bottom before said cover or bottom has been bent into shape and while still flat and to cover a pair of bent edges thereof, a second pair of strengthening strips fastened to the cover or bottom to cover the other bent edges of said cover or bottom, the ends of each of

the latter strips overlapping the adjacent end of its accompanying first strip, cutting out square pieces from the corners of the cover or bottom, bending the cover or bottom into shape and connecting the ends of the adjacent bent over portions.

2. The herein described method of making a cover or bottom of a box consisting in gluing a pair of strengthening strips to a surface thereof, while said cover or bottom is flat and thereby strengthening the edges of the same, gluing a second pair of strengthening strips to the cover or bottom adjacent to the other ends thereof to strengthen the edges of the same, the ends of the latter pair of strips overlapping the accompanying ends of the first pair of strips, the said accompanying ends being glued together, cutting square pieces from the corners of the cover or bottom and bending the cover or bottom on the lines of creases of the same and connecting staples to the corners of the cover or bottom.

3. The herein described method of making a cover or bottom of a box consisting in securing facings of continuous pieces of material to the opposite sides of a continuous inner piece of material, one composing an inner facing and the other an outer facing, cutting the three connected elements to proper size, forming creases in the surface of one of said facings, fastening a pair of strengthening strips to the surface of one of said facings and adjacent to a pair of the ends thereof, fastening a second pair of strengthening strips to the said facing with their ends fastened to the ends of the first pair of strengthening strips, cutting away square pieces from the corners of the cover or bottom, bending the cover or bottom on the lines of the creases of the facing, connecting the ends of the adjacent bent over portions by staples and braces glued over the corners of the said cover or bottom.

Signed at the borough of Manhattan in the county of New York and State of New York this 15th day of June A. D. 1915.

BERNARD ROUS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."