No. 748,020. PATENTED DEC. 29, 1903.

H. RUNTZ.

PAPER BOX.

APPLICATION FILED JUNE 8, 1903.

NO MODEL.

Fig. 1

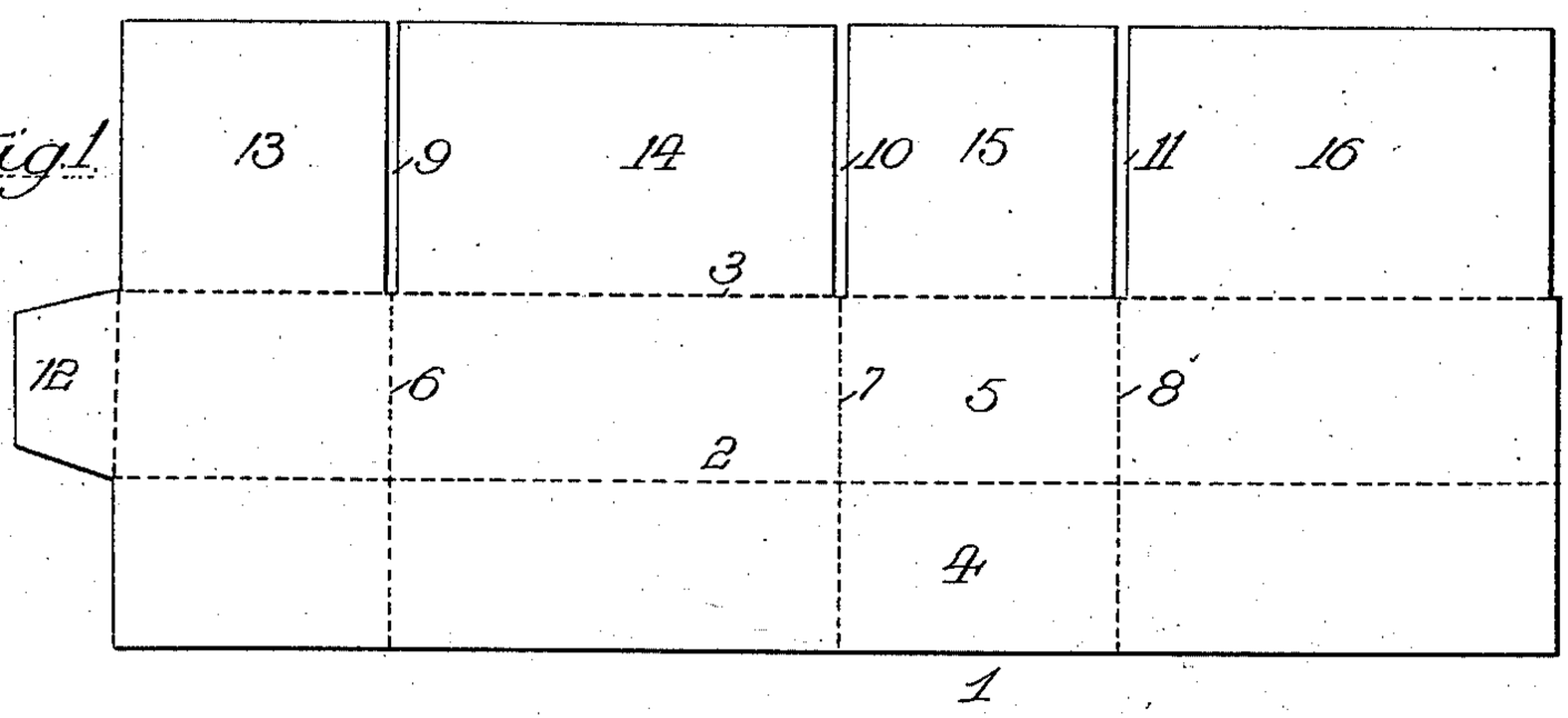


Fig. 2

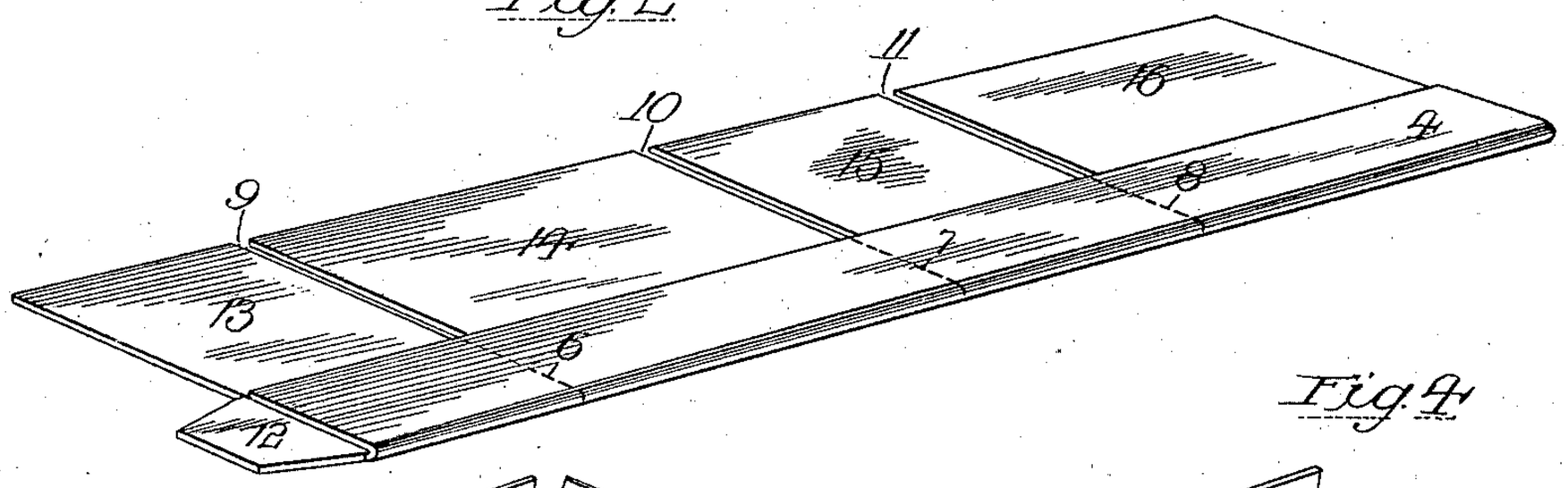


Fig. 3

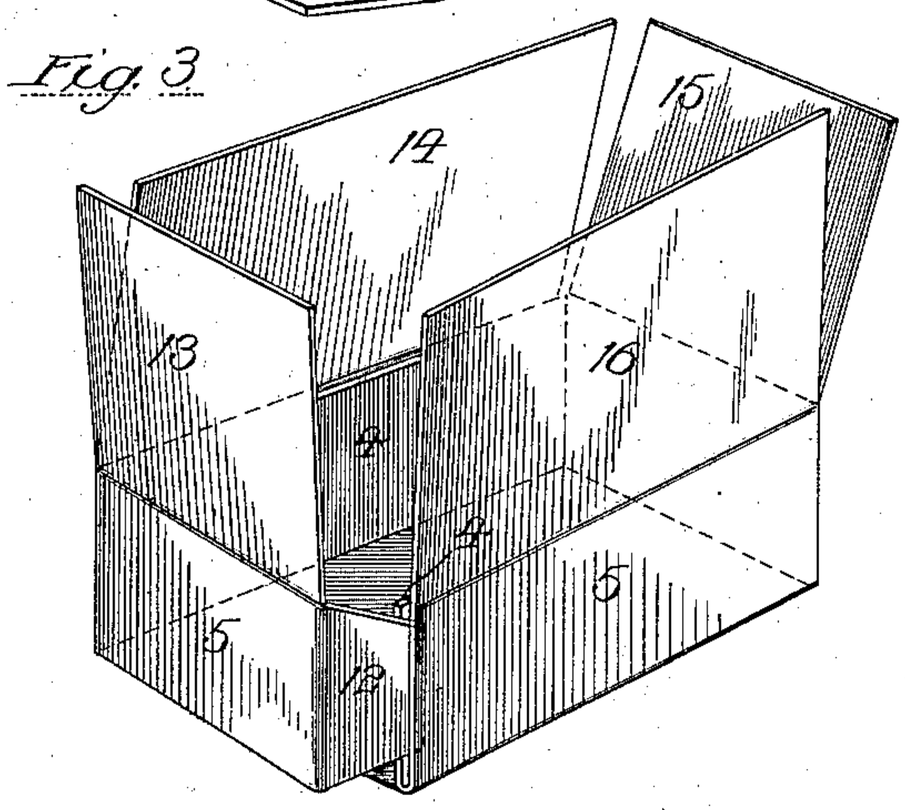


Fig. 4

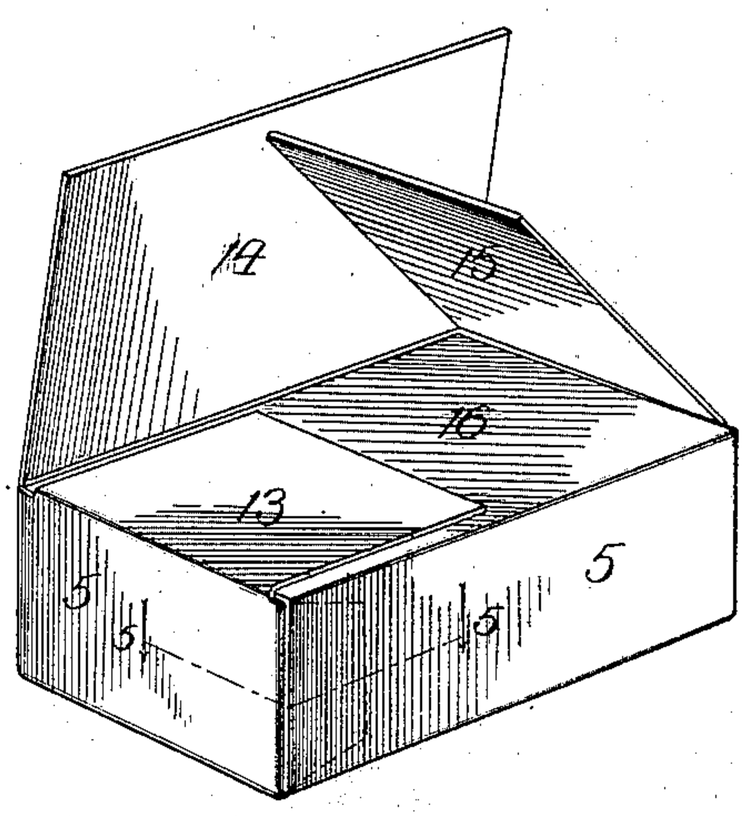


Fig. 5

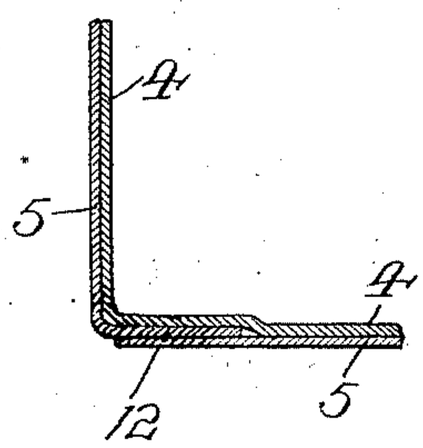
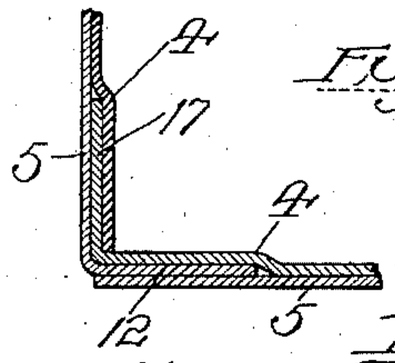


Fig. 6



Witnesses:
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By David H. Fletcher.
Attorney.

No. 748,020. Patented December 29, 1903.

UNITED STATES PATENT OFFICE.

HENRY RUNTZ, OF CHICAGO, ILLINOIS.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 748,020, dated December 29, 1903.

Application filed June 8, 1903. Serial No. 160,622. (No model.)

To all whom it may concern:

Be it known that I, HENRY RUNTZ, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Paper Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding numerals of reference in the different figures indicate like parts.

The object of my invention is to so construct a paper box that the body thereof, including the sides, ends, and preferably the bottom, may be made from a single piece, the sides and ends being double or two-ply and locked at one corner only. I accomplish said object in the manner hereinafter more particularly described and specifically claimed.

In the drawings, Figure 1 is a plan view of a sheet or blank from which I form the body of my improved box. Fig. 2 is a perspective view thereof as it would appear when the first fold is made therein for the double sides and ends. Fig. 3 is a perspective view showing the blank partially folded to form the sides and ends. Fig. 4 is a like view showing the manner in which the bottom elements are folded. Fig. 5 is a sectional view in detail taken upon the line 5 5, Fig. 4, viewed in the direction of the arrows there shown to show the manner of locking the corner; and Fig. 6 is a like view showing a modification of the locking feature.

Referring to the drawings, 1, Fig. 1, indicates generally a blank formed by means of a suitable die or otherwise from a sheet of box-making material of a quality having sufficient strength to fold without breaking. Said blank is creased throughout its length on the lines 2 and 3, respectively, thus leaving two long strips 4 and 5, the length of which corresponds to the measurement of the circumference of the finished box. Creases 6, 7, and 8 are formed in the blank across the parts 4 and 5 to the line 3, from whence slits 9, 10, and 11 are formed in the remainder of the blank, said slits being continued on the lines of the creases 6, 7, and 8. A wing or flap 12 is formed upon one end of the part 5. The sections separated by the slits 9, 10, and 11 constitute the bottom members 13, 14, 15, and 16.

In forming the box-body the entire face of the blank, as shown in Fig. 1, except the part 16, is glued or pasted. The part 4 is then folded along the line of the crease 2 upon the part 5, as shown in Fig. 2. It is then bent upon the lines of the creases 6 7 8 in rectangular form, as shown in Fig. 3, which represents the box-body as it would appear when inverted. The flap 12 is then inserted between the plies 4 and 5 and the parts pressed together, thus forming the sides and ends of the box, which are locked together at one corner by means of said flap, as clearly shown in Fig. 5. The part 16 is then folded downwardly, as shown in Fig. 4. Then the parts 13 15 are folded in turn upon the part 16, and, finally, the part 14 is folded upon the parts 13 15, thereby completing the bottom, which is made up of three separate plies (assuming the parts 13 15 to be half of the length of the box) which are integral with the sides and ends. It will thus be seen that with this construction a complete box-body may be formed having a three-ply bottom and two-ply sides and ends locked together at one corner, as stated.

In large boxes requiring great strength the lock may be made double, as shown in Fig. 6, in which case a flap 17 is formed upon the opposite end of the part 4 from the flap 12, which former flap may be interposed between the plies 4 and 5, as shown.

In folding the bottom elements it is immaterial whether the part 14 or 16 is folded first provided said part is unpasted, as it is obvious that the result would be equally good in either case. It is also obvious that the parts 13 and 15 may be made of a size corresponding to the entire area of the bottom, in which case of course the bottom would be of a four-ply thickness instead of three.

Having thus described my invention, I claim—

1. A box-body of the class described, made from a single piece folded longitudinally upon itself to form two-ply side and end walls, said double plies being folded without cutting at three corners and locked at the fourth corner by means of a flap extending from one wall to and between the plies of the contiguous wall and bottom pieces integral respectively with the outer plies of the side and end walls, whereby a smooth finish is formed at the bottom and top.

2. A box-body of the class described, made from a single piece folded longitudinally upon itself to form two-ply side and end walls, said double plies being folded without cutting at three corners and locked at the fourth corner by means of a flap extending from each of the meeting walls to and between the plies of the contiguous wall, and bottom pieces integral respectively with the outer plies of the side and end walls, whereby each of the four corners is of a double thickness of material.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 4th day of June, 1903.

HENRY RUNTZ

Witnesses:
D. H. FLETCHER,
CARRIE E. JORDAN.