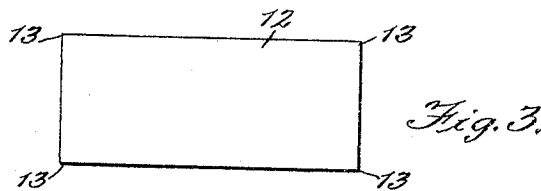
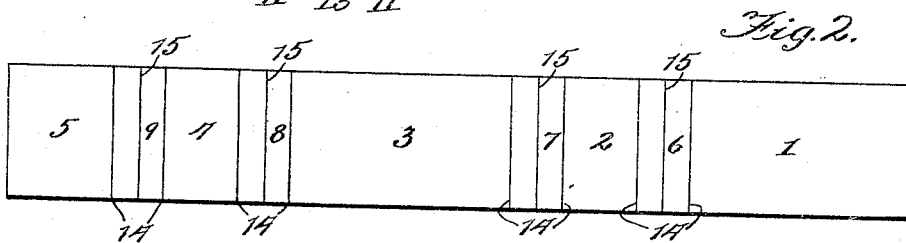
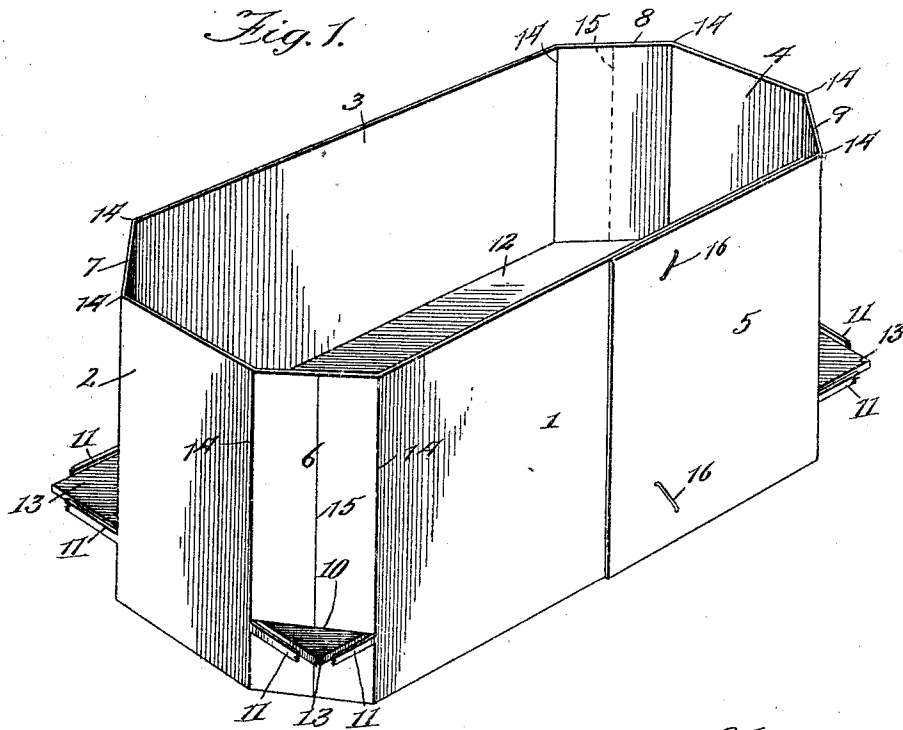


J. F. ADAMS.
 BOX BLANK AND PROCESS OF USING THE SAME.
 APPLICATION FILED MAY 8, 1909.

959,098.

Patented May 24, 1910.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH F. ADAMS, OF ST. CLAIR, MICHIGAN.

BOX-BLANK AND PROCESS OF USING THE SAME.

959,098.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed May 8, 1909. Serial No. 494,786.

To all whom it may concern:

Be it known that I, JOSEPH F. ADAMS, a citizen of the United States of America, and resident of St. Clair, St. Clair county, Michigan, have invented a certain new and useful Improvement in Box-Blanks and Processes of Using the Same, of which the following is a specification.

My invention relates to the manufacture of boxes of that particular kind in which the corners of the bottom project through the side walls of the box. Prior to my invention, the holes or slots for the corners were made before the parts of the box were assembled. Now, however, and in accordance with my invention, the said holes or slots are formed during the assembling of the sides and bottom of the box. The corners of the bottom are caused to punch holes or slots in the side walls of the box, by exerting sufficient pressure during the assembling of the different parts. In this way the expense of cutting the said holes or slots by special machinery is entirely eliminated. Consequently, a reduction is accomplished in the manufacture of this kind of a box. The same expedient may be used in other boxes.

In the accompanying drawings,—Figure 1 is a perspective of a box constructed in accordance with my invention. Fig. 2 is a plan view of the blank from which the sides of the box are made. Fig. 3 is a plan of the bottom of the box.

The side walls of the box consist of sides 1, 2, 3, 4, and flat corners 6, 7, 8 and 9; it being observed that the sides 1 and 3 are wider than the sides 2 and 4, whereby the box is oblong; and that the said corners alternate with the sides. The portion 5 laps upon the outer surface of the side 1, in the manner shown. Each corner is formed between two vertical score lines 14, and each corner is scored vertically at 15 at the center thereof. The sides and corners are formed from the blank shown in Fig. 2. This may be of ordinary veneer with the grain of the wood running lengthwise thereof. Each corner has a horizontal slot 10 near the bottom thereof, with small portions 11 projecting outwardly from the ends thereof. The bottom 12 is rectangular and oblong in shape, and has sharp corners 13. The said bottom may consist of a strip of veneer.

The method of manufacture is as follows: The band consisting of the blank shown in

Fig. 2 is wrapped and bent around the bottom, and the sharp corners 13 of the latter are caused to bear against the inner sides of the score lines 15. The pressure is sufficient to drive or force the said corners through the veneer of the corners, causing the wood to break at the score lines 15, thereby forming the slots 10. Incidentally, also, the small portions 11 are formed that extend along the edges of the bottom when the box is finished. Thus the corners of the bottom punch or make the slots in which they are supported. This saves time and money, as otherwise a special machine is necessary for punching the slots. The box can be folded and assembled by any suitable machinery, or by hand. Staples 16 are inserted through the portions 1 and 5 to hold the same together. One staple is above the bottom, and the other below. Strength and rigidity are thus secured.

The score lines 15 enable the corners 13 to more readily punch their way through the veneer of the band. The portions 11 are thus readily broken apart, and are of less length than the projecting edges of the bottom, whereby they do not constitute an objectionable feature in the finished box. Without the score lines 15, the veneer would be liable to break at one of the lines 14, and a projecting portion would then be formed of a length to extend beyond the corner 13 of the bottom. With my improved method of construction, however, this possibility is eliminated and the punching of the slots for the corners of the bottom is made easy and satisfactory. Thus the cost of manufacture is considerably reduced, and a satisfactory article furnished to the user.

What I claim as my invention is:

1. The process of making boxes, which comprises the bending of the sides and corners around the bottom of the box, and exerting sufficient pressure in so doing to cause the corners of the bottom to punch holes in the corners of the box, as and for the purpose set forth.

2. The process of making boxes, which comprises the scoring of the band, wrapping the band around the bottom of the box, and causing the sharp corners of the bottom to pierce the band at the points where the same is scored, as and for the purpose set forth.

3. The process of making boxes, which comprises the scoring of the band at the

- corner portions of the box, so as to form flat corner portions which are scored vertically at the centers thereof, and then punching out the material of said corner portions to form slots, the punched-out material being caused to break at the said score lines, whereby the displaced material is left projecting from opposite ends of each slot.
4. The process of making boxes from thin sheet material, such as veneer, which includes, as an essential step therein, the transverse scoring of the sheet material to provide flat corner portions for the box, and also the scoring of the said flat corner portions vertically and centrally thereof, as and for the purpose set forth.
5. The process of making receptacles, which includes, as an essential step therein, the forcible disrupting of the fiber of the sheet material from which the receptacle is

made, to permit one or more portions of the bottom of the receptacle to project through said sheet material, by causing said bottom portion or portions to impinge upon the sheet material at the point or points therein to be disrupted, whereby the said portion or portions punch the hole or holes necessary for the bottom of the receptacle.

6. The strip of veneer having four flat corner portions formed by score lines 14, and flat sides between said flat corner portions, said corner portions having vertical and central score lines 15 each score line 15 disposed between two score lines 14, as set forth.

Signed by me at St. Joseph, Michigan, this 5th day of May, 1909.

JOSEPH F. ADAMS.

Witnesses:

SAML. W. HONEY,
WM. R. STEVENS.