J. W. SCHLEICHER.

SHIPPING BOX.

APPLICATION FILED JUNE 20, 1910.

1,116,632. Patented Nov. 10, 1914.

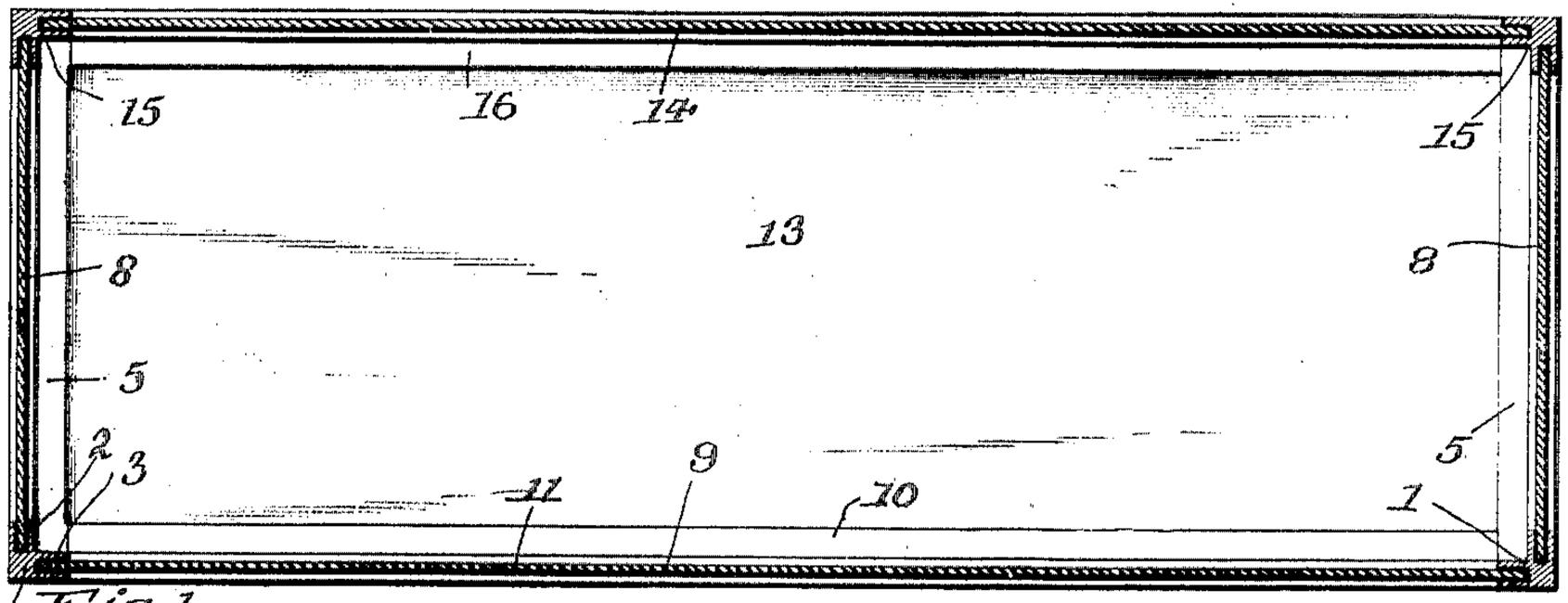


Fig. 1.

Fig. 2.

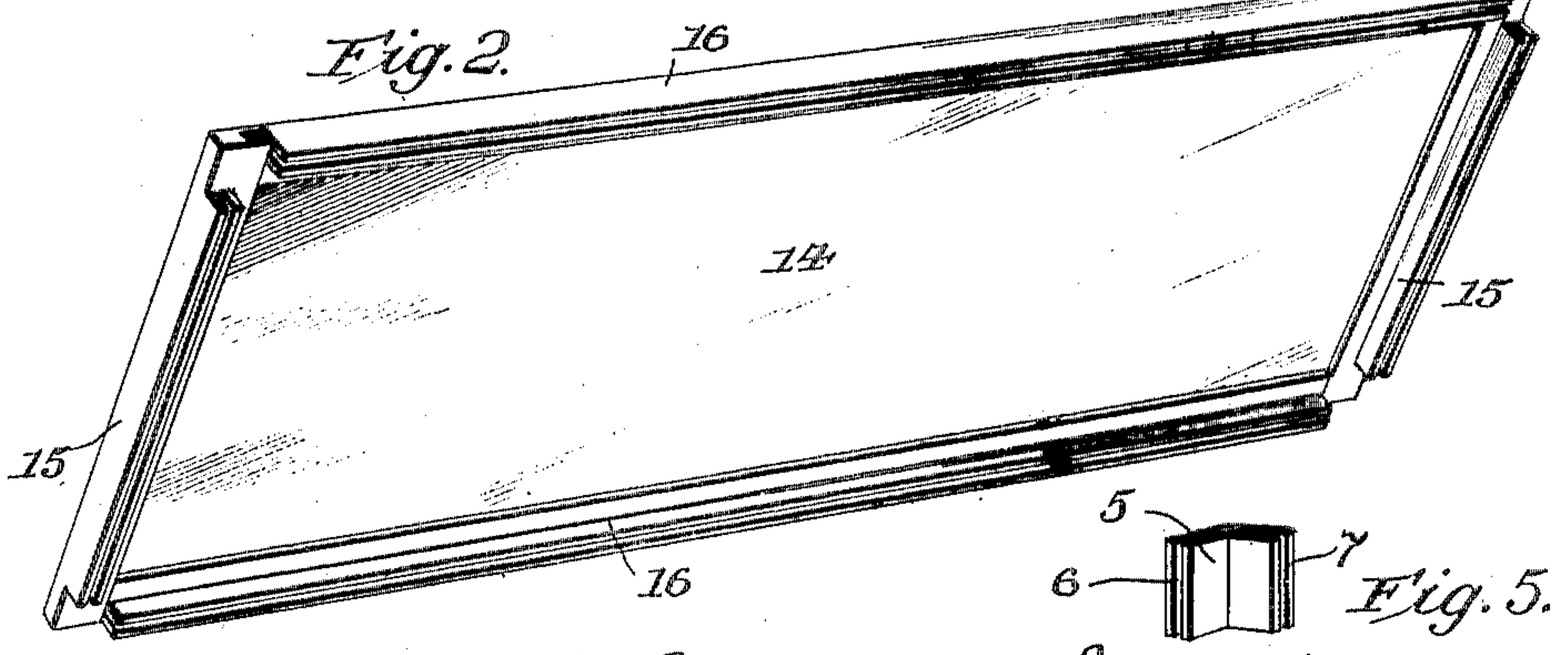


Fig. 5.

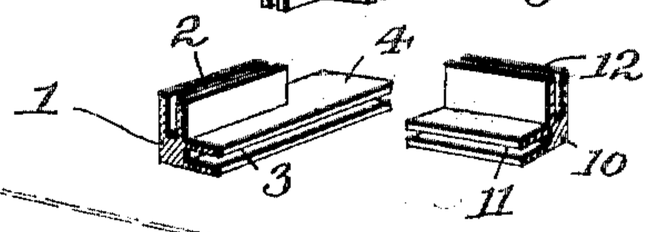


Fig. 3.

Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

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SHIPPING-BOX.

1,116,632. Specification of Letters Patent. **Patented Nov. 10, 1914.**

Application filed June 20, 1910. Serial No. 568,021.

To all whom it may concern:

Be it known that I, JOHN W. SCHLEICHER, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Shipping-Boxes, of which the following is a specification.

My present invention pertains to improvements in shipping boxes, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings, wherein:

Figure 1 is a horizontal transverse sectional view, taken through the body of the box, looking toward the bottom thereof; Fig. 2 a perspective view of the cover as viewed from the under side; Fig. 3 a perspective view of the framework of the body of the box, a portion of one side, one end and the bottom being shown in full and the sides and ends being likewise indicated in dotted lines; Fig. 4 a horizontal sectional view, showing a corner of the box, parts being broken away to more clearly illustrate the construction; and Fig. 5 a perspective view of certain portions of the component members of the frame.

The main object of the invention is to provide a light and simple shipping box, which may be readily assembled and the members thereof secured together.

A further object of the invention is to provide a shipping box wherein light material, such as single-ply veneer lumber, may be employed for the sides, ends, bottom and top, the structure being such that said members are normally out of contact with any body upon which the box may be placed, this being particularly advantageous should the box happen to rest upon a moist or damp surface, for if said members of the box come into contact with such moist surface they would tend to warp and consequently split.

The framework of the box-body and of the top is composed of a series of strips, L-shaped in cross-section, each member of said strips being provided with a groove or channel along its edge for the reception of the adjacent side, end, bottom or top as the case may be.

Referring to the drawings, each end frame of the box is provided with a base piece 1 (see Figs. 3 and 5) L-shaped in cross-section and having grooves 2 and 3 formed therein. The upstanding member or wing of the base piece 1 is cut away at each end, forming a flat face 4, upon which flat faces the lower ends of corner posts 5 are seated when the parts are in their final position. Each of said corner posts is provided with grooves 6 and 7 similar to the grooves 2 and 3. The box ends are designated by 8, and may be formed of single-ply veneer, or if a stronger box be desired, of two or three-ply veneer. The bottom is designated by 9, and its ends enter the grooves 3 in the respective base pieces 1. Side members or sills 10, each provided with grooves 11 and 12, arranged at right angles to each other, are placed intermediate the corner posts 5, the oppositely-disposed edges of the bottom entering the grooves 11.

The sides 13 of the box are placed in the grooves 7 of the corner posts, the lower edge of each side passing into the groove 12 of the sill immediately below the same.

The particular order in which the parts are placed in position is immaterial, the boards which compose the bottom, sides and ends being treated along their edges with glue so that when the parts are assembled they will maintain their proper relation, and if need be the various pieces, corner posts and sills may be nailed together, though in practice this is found unnecessary.

The top 14, which will preferably be formed of the same material as the bottom, sides and ends, is provided with end pieces 15, each formed with a groove to receive the adjacent end of the top, and likewise with a groove to receive the upper edge of the underlying box-end 8 when the top is forced down to position. The downwardly-projecting member or wing of each end piece 15 is cut away, as clearly shown in Fig. 2, at each extremity thereof, to permit the top 14 to pass down, so that the ends 8 and the sides 13 will enter the respective grooves in the end pieces 15, and in the longitudinally-extending members 16 which embrace the forward and rear edges of the top 14, said members 16 abutting against the end pieces 15, as clearly shown in Fig. 2. The members 16 are of the same form as the sills 10, being L-shaped in cross-section and having grooves formed therein along each edge. When the top is placed in position the upper ends of the corner posts 5 will bear directly upon the cut-away or flat surfaces upon the end

pieces 15. At the same time, as just noted, the upper edges of the front, back and ends of the box will pass into the grooves formed in the members which overlie them.

Glue may be applied to the edges as the box top is put in place, and if it be desired to more securely fasten the box, nails may be driven through the end pieces into the upper ends of the corner posts 5. Moreover, the construction is such that the base pieces 1, the corner posts 5, and the end pieces 15 form a structure about which a band or strap may be passed.

It will be readily appreciated that the box may take a form other than that herein disclosed; that is to say, the base pieces 1 may be of the same length as the sills 10, or even longer. It is, therefore, to be understood that the terms "ends," "sides," "front" and "back" are merely relative and used for the purpose of clearness of description, and that the claims are to be read with this in view; these members may be termed "sides."

The base pieces 1 and sills 10 may be said to comprise a base frame, and the terms "base piece" and "sill" are relative terms. So, too, the members 15 and 16 produce what may be designated the "top frame."

Boxes of this general character are sometimes called "panel-side" boxes, the bottom, top, sides and ends being called "panel sides," and the various members forming the rigid frame being called "edge frames."

Having thus described my invention, what I claim is:

1. A box comprising a base frame having a groove formed in and extending around the inner face thereof and a similar groove in its upper face, the upper face of the frame being provided with an angular recess at each of its corners; a bottom secured in the inner groove; corner posts having angular lower ends seated and fitting in the respective recesses, said posts being grooved upon those sides which stand next adjacent to the upper grooves in the base frame; sides mounted in the grooves in the corner posts and the adjacent grooves in the base frame; a top board; and a frame embracing the edges of the top board, said frame being provided with a groove along its under face and being recessed at each corner similarly to the base frame, whereby when the top is positioned the top frame will embrace the upper edges of the sides and the upper ends of the corner posts will enter the recesses in the corners of the frame.

2. A corner construction for panel-sided boxes, comprising, in combination, three mutually perpendicular edge frame members provided with lateral grooves to receive the panel sides of the box, all said frame members being square-ended and butt-jointed together, with their lateral grooves in register, and one of said members being shouldered at its end to a depth substantially equal to the depth of said lateral grooves and for a length sufficient to receive and embrace the end of an abutting frame member.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN W. SCHLEICHER.

Witnesses:
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