(Model.)

C. J. HIGGINS.

BENT CORNER FOR BOXES, SLATE FRAMES, &c.

No. 249,468. Patented Nov. 15, 1881.

Fig. 1.

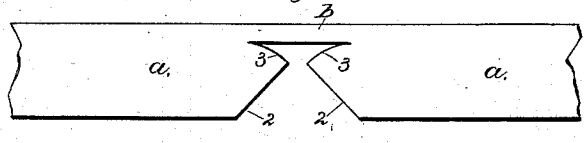


Fig. 2.

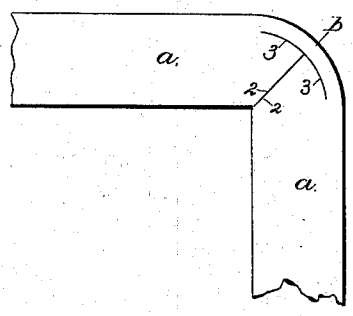


Fig. 3.

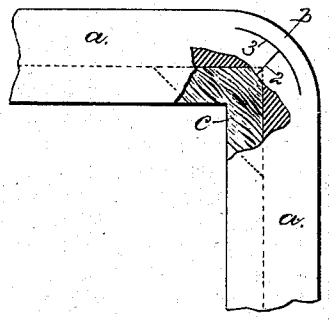


Fig. 4

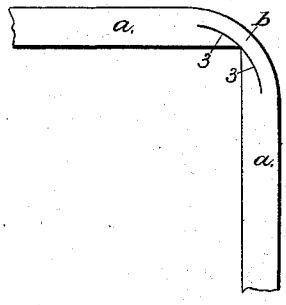
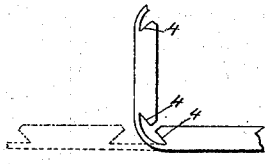


Fig. 5.



Witnesses.
John F. C. Printhart
Geo W. Gregory

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UNITED STATES PATENT OFFICE.

CHARLES J. HIGGINS, OF HALLOWELL, MAINE.

BENT CORNER FOR BOXES, SLATE-FRAMES, &c.

SPECIFICATION forming part of Letters Patent No. 249,468, dated November 15, 1881.

Application filed June 11, 1881. (Model.)

To all whom it may concern:

Be it known that I, CHARLES J. HIGGINS, of Hallowell, county of Kennebec, State of Maine, have invented an Improvement in Bent Corners, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to bent corners for boxes, slate-frames, chair-seats, and other articles of wood or other material, and has for its object a novel construction thereof, whereby a strong serviceable corner may be readily, cheaply, and easily made without matching.

In this my invention the blank or strip to form the box or frame corner to be made is partially cut or severed at one side, so as to produce what I denominate "forming-surfaces," about and in contact with which the remaining uncut portion of the blank or strip is bent and shaped as the blank or strip is bent into the desired shape, the corner so produced being practically solid by reason of the close contact of the parts forming the corner.

Figure 1 represents a narrow strip of wood, suitable for a frame, and cut at one side or edge, in accordance with my invention, opposite where a corner is to be made by bending. Fig. 2 shows the strip bent. Fig. 3 shows the bent strip partially cut away to represent the corner-stay introduced at the intersection of the corner, as I prefer, in chair-seats and other corners which are to be subjected to considerable strain. Fig. 4 represents a modification, and Fig. 5 an old form of corner.

The strip of wood or other material, *a*, (shown in Figs. 1 and 2 as suitable for a frame,) is cut at one edge or side to form two beveled or inclined edges, 2, and two forming-surfaces, 3, against which latter the thin or usual portion *b* of the said strip is gradually brought and pressed closely as the strip is bent, as in Fig. 2, to form a corner. The amount of space between the convexed surface of the formers and the thin strip determines the extent of external curvature of the corner.

If a box is to be made, the board or piece of wood selected will be as wide as the box is to be deep and as long as the entire length of the box, measured about its ends and sides. This board will be cut at one side at proper places, as represented by the strip, Fig. 1, and it may thereafter be bent as described of Fig. 2.

In some instances with thin material I may omit the beveled portion of the cut, as shown in Figs. 1 and 2, and start the convex cut for the production of the forming-surface directly from the edge or side of the wood to be bent, as shown in Fig. 4, that depending upon the article to be produced.

This corner may be strengthened by the introduction of a corner-stay, *c*, as represented in Fig. 3, it being inserted in a longitudinal slot made in the strip, where it is secured, as in the said figure, preferably by glue.

Fig. 5 represents an old form of corner; but it will be seen that the shape of the cut to form the corner does not leave a forming-surface, which is the essential feature of my invention, and that a strip cut as represented in the said figure and having a straight surface, 4, inclined, as described, with relation to the blank or strip, cannot be bent so as to form a substantially solid corner, as in Fig. 2, when the parts of the strip or board at each side of the said cut are brought at right angles, or substantially so; and it is obvious that the said surface 4 cannot serve the purpose of a former which shall act gradually upon the portion of the strip.

In all cases of this my invention the quantity of wood removed or cut from the wood to be bent is always such with relation to its thickness that when the faces of the wood at opposite sides of the cut made therein to form the thin strip *b* are brought substantially at right angles to each other the forming-surfaces and inner face of the thin strip *b* will be brought closely in contact, and also inclined edges 2, if used, as in Figs. 1 and 2. The inclines 2, when used, are always so shaped as to curve in contact and form a substantially solid joint when the surfaces 3 meet the inner face of the thin strip *b*.

In bending wood to form round or curved corners, as now commonly practiced, it is customary to employ independent formers corresponding in shape with the shape of the corner to be produced.

I claim—

1. The bent corner, composed of forming-surfaces and a thin part, *b*, firmly supported by them, substantially as described.

2. The bent corner, composed of a thin strip, *b*, and forming-surfaces, and surfaces 2, all ar-

ranged with relation to each other as described, whereby, when the material in which the corner is to be made is bent substantially at right angles, the said thin part comes firmly in contact with the forming-surfaces and the surfaces 2 abut together.

3. In a bent corner composed of a thin part, *b*, and forming-surfaces, as described, a corner-stay to operate substantially as set forth.

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

CHARLES J. HIGGINS.

Witnesses:
GEO. W. GREGORY,
L. F. CONNOR.