

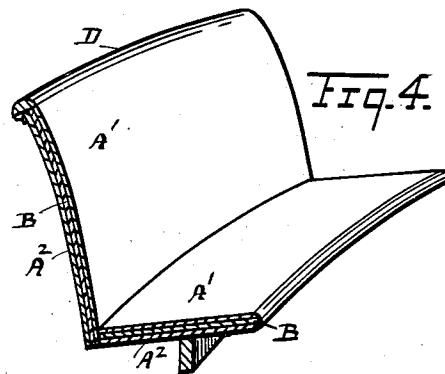
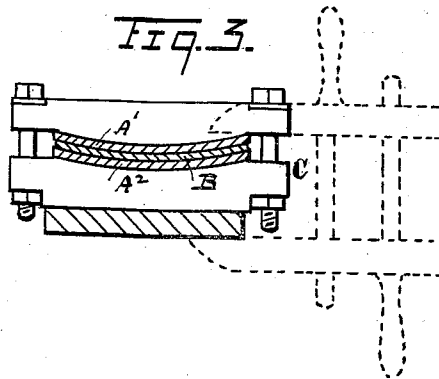
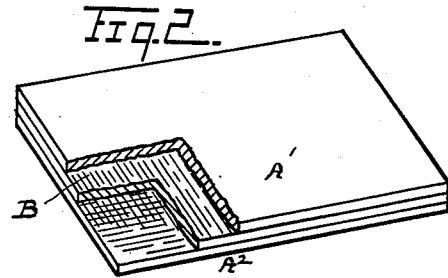
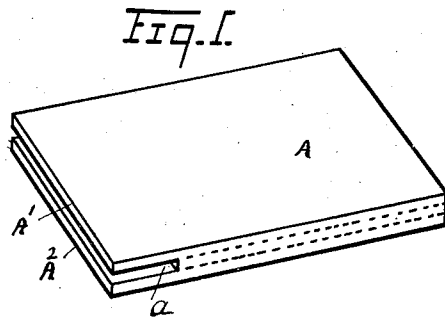
(No Model.)

M. LANCASTER.

PROCESS OF MAKING BUILT UP WORK FOR PEW BACKS, &c..

No. 486,479.

Patented Nov. 22, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

MORRIS LANCASTER, OF NORTHVILLE, MICHIGAN, ASSIGNOR OF ONE-HALF
TO THE GLOBE FURNITURE COMPANY, OF SAME PLACE.

PROCESS OF MAKING BUILT-UP WORK FOR PEW-BACKS, &c.

SPECIFICATION forming part of Letters Patent No. 486,479, dated November 22, 1892.

Application filed December 28, 1891. Serial No. 416,282. (No model.)

To all whom it may concern:

Be it known that I, MORRIS LANCASTER, a citizen of the United States, residing at Northville, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in the Process of Making Built-Up Work for Pew-Backs, Chairs, &c.; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in the method of constructing built-up work for seating, and more particularly in the process of making built-up work for pews, chairs, and other articles of furniture; and it consists of the method hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective showing a board A and indicating the kerf where it is sawed in two. Fig. 2 is a view in perspective showing a completed piece of seating, parts being broken away. Fig. 3 shows the built-up work in the press. Fig. 4 shows in perspective and section the seating worked up into a pew back and seat.

My invention is designed more specifically as a supplementary improvement in the construction of seat-backs embodied in the patent to Faulhaber, granted November 24, 1885, No. 331,122.

I carry out my invention as follows: A plain flat board A is prepared of such dimensions in length, breadth, and thickness and of a kind and quality of lumber as is desired in the size and shape of the work required. This board A, while in its normal flat and straight condition in which it is left after being so prepared, is smoothed through the ordinary smoothing or sanding machines, one or both sides being thereby dressed or smoothed, or the surfaces thereof may be finished by any other means desired. The board after being so dressed and prepared is then passed through a resawing-machine and sawed or split in two edgewise, as along the

kerf a, (indicated partly in full and partly in dotted lines, Fig. 1,) preferably as nearly through the middle as possible, making thus two boards A' A² thereof of the same dimensions as the original board A, except as to thickness, the two boards A' A² being dressed on their outer surfaces. Between these two boards A' A², I then place a thin sheet, core, or layer of wood B, of the same dimensions in length and width as the boards A' A². For the sheet B, I prefer to use rotary cut layers of about the same thickness as the saw-kerf made in resawing the board A, as above described; but I do not limit myself thereto. The sheet B need not consist of a single integral piece, but may be composed of any number of pieces desired, laid edge to edge and substantially covering the adjacent inner surfaces of the boards A' A².

The inner surfaces of the boards A' A² made by the kerf in resawing the board A need not be dressed or smoothed. When the layer B is to be secured in place, said inner surfaces are coated with glue, the sheet B applied therebetween, and the whole is then put into any suitable or desired presses C and compactly pressed together in the presses, forms, or molds to the shape required until dry. When removed from the presses, forms, or molds, the material will retain the shape into which it has been so pressed. The outer surfaces or sides of the work being already dressed and finished, it is only necessary, furthermore, to trim the edges to any required shape.

It will be observed that the form in which the boards A' A² and intervening sheet B are thus pressed together determines the shape of the work. In this manner seating may be formed straight or curved in any direction or on any radius desired. The advantages of this method of making built-up work are that it is accomplished with greater economy of material, as finished three-ply work is thus obtained of the standard thickness of the lumber used by the addition of only a thin layer of wood. Seating can also be so made with great economy of labor and time, as the work is largely made and finished while the

board A is in a flat and straight condition before it is ripped in two, when it can be dressed and prepared by the smoothing-machinery in common use, thus avoiding the difficulty of smoothing the work after being pressed into desired shape, no redressing being required after the work is pressed into curved or irregular forms. It will be furthermore evident that the completed work will be of even and regular thicknesses throughout, no matter how crooked or devious the line of the saw-kerf may be, since at any point the exact thickness of the board A will be still retained in the completed back, the interposed layer B being of even thickness.

In the formation of a seat-back, for example, when the built-up work has been thus prepared the edges need only further to be trimmed and a cap or molding D applied thereto to complete the back.

In manufacturing the device embodied in said Faulhaber patent it has been the common practice to take two boards for the exterior layers and dress their two surfaces to form a board of requisite thickness—say one-fourth of an inch. Both boards for the exterior layers are so dressed on both sides separately. A third board, designed for the interior layer, is then dressed on both sides to a similar thickness—say one-fourth of an inch. We have thus three one-fourth-inch boards, each planed and dressed on both surfaces to uniform thickness. These are then glued together and shaped as desired. It is common for the two outside boards to saw an inch board in two longitudinally, then plane each half down on both surfaces to form a board of the uniform thickness of one-fourth of an inch. Another inch board is similarly sawed in two, and one half of it taken for the interior layer, to be glued between the two parts, dressed down to one-fourth of an inch, as above described. Since the exterior boards are so dressed, the interior board must be also dressed in like manner. Thus we have, in the process heretofore common, three one-fourth-inch boards, each dressed on all sides to a uniform thickness, the three when glued together forming a seat-back three fourths of an inch in thickness.

The process which I herein describe, it will be seen, differs quite materially. A board A is dressed on its two surfaces—say to a thickness of three-fourths of an inch. A saw is then run through it to form two boards A' and A², the inner surfaces of which are left undressed as they come from the saw. A thin layer, preferably a thin rotary-cut veneer, as above described—say one-sixteenth of an inch in thickness—is interposed as an interior layer of a thickness ordinarily simply corresponding to the thickness of the saw-kerf in ripping the board A in two. It will be seen that in sawing the board A in two certain unevennesses of thickness will arise in the two boards A' A², due to the wobbling of the saw or un-

evenness of feeding the board to the saw; but inasmuch as the same two boards A' A², formed by resawing the board A, are put together for the exterior layers with a thin yielding veneer between them, any unevenness in the two boards A' A² is immaterial, inasmuch as the two boards hold the same relation one to the other in the completed article, and the thin veneer of the thickness of the kerf yields to the unevenness, and so the completed back is still of uniform thickness. The grain of the rotary-cut veneer extends across the grain of the two boards A' A² and makes a strong three-ply back, whereas by the Faulhaber process the grain of the inner board, formed as above stated, extends in the same direction as the grain of the two outside boards. In my process the very same two boards formed by resawing the board A must be employed in constructing a given back. By the Faulhaber process any three boards of desired thickness may be put together without regard to whether the two outside layers formed one board originally or not. The Faulhaber process also, as heretofore carried out, necessitates the dressing of the interior layer on both sides, as well as all the surfaces of the exterior layers. I am enabled by my process to dispense thus with the labor, time, and expense of dressing four surfaces—viz., the two inner surfaces of my outside boards and both surfaces of my inner veneer—a saving which is very considerable, at the same time securing a much stronger back than has heretofore been secured in forming the Faulhaber seat-back. The real and most important saving effected by my process is due to the fact that the mechanic does not have to take the lumber A' A² back to a planer and to a sandpapering-machine after the board A is resawed, and the inner layer does not have to be run through a planer at all, and this has had to be done prior to my invention.

What I claim as my invention is—

1. The process herein described of constructing built-up work for seating, consisting of preparing a board A of desired length, breadth, and thickness, smoothing the surfaces of said board in its normal flat condition, then resawing said board to form counterpart exterior boards A' A², then applying a thin layer or veneer between the undressed surfaces of said counterpart exterior boards, and compressing said exterior boards and the intermediate layer by desired forms or molds to form seating of uniform thickness, substantially as described.

2. The process herein described of constructing built-up work for seating, consisting of preparing a board of desired length, breadth, and thickness, smoothing said board in its normal flat condition, then resawing said board to form counterpart exterior boards A' A², then cementing between the undressed inner surfaces of the boards A' A² a thin rotary-

cut veneer having its grain extended across
that of the exterior boards, compressing said
exterior boards and said veneer together by
desired forms or molds while the cement is
5 green to form seating of uniform thickness,
and then trimming the edges of said seating,
substantially as described.

In testimony whereof I sign this specification
in the presence of two witnesses.

MORRIS LANCASTER.

Witnesses:

H. P. ADAMS,
CHAS. BOOTH.