(No Model.) 2 Sheets—Sheet 1.

J. R. ALLGIRE.

METHOD OF MANUFACTURING VENEER BARRELS.

No. 342,672. Patented May 25, 1886.

Fig. 5.

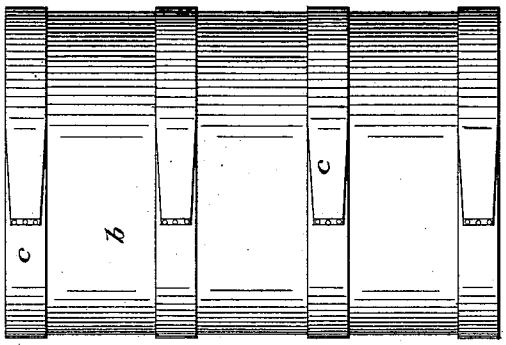


Fig. 4.

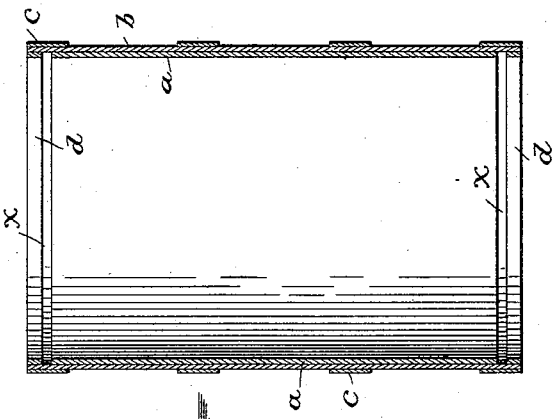
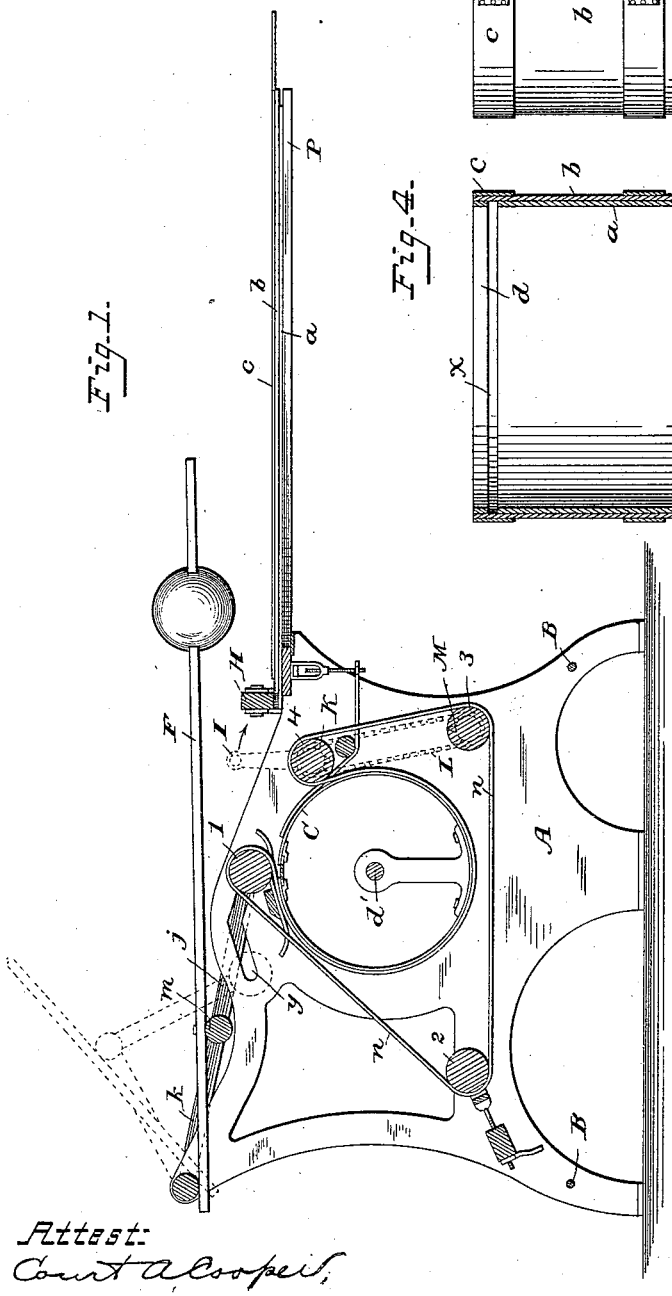


Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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METHOD OF MANUFACTURING VENEER BARRELS.

No. 342,672. Patented May 25, 1886.

Fig. 2.

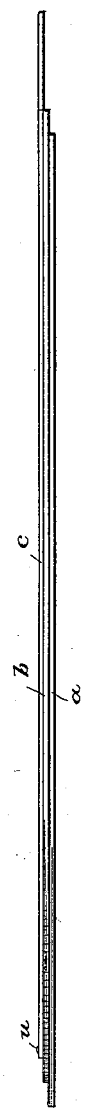
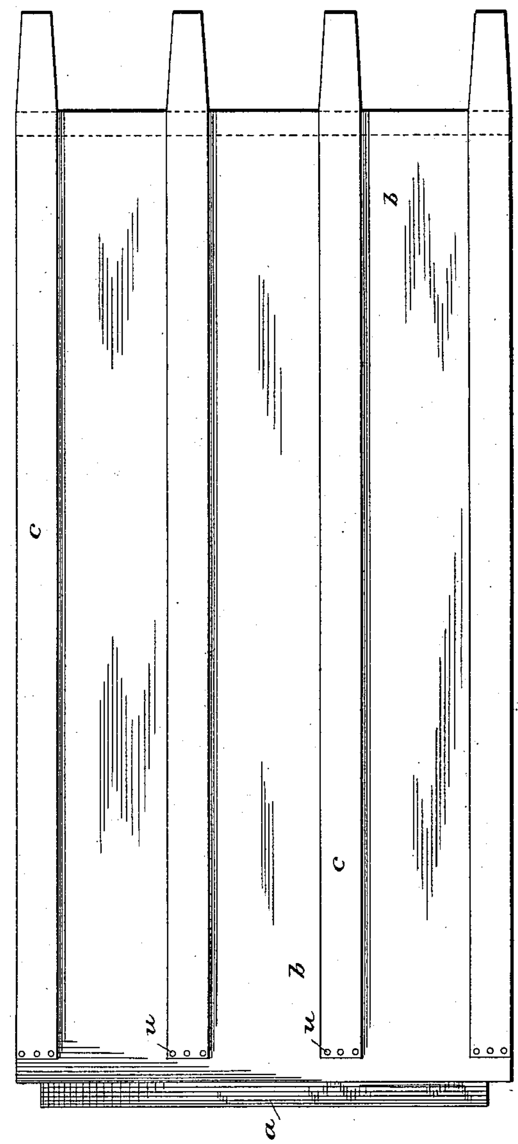


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES R. ALLGIRE, OF INDIANAPOLIS, IND., ASSIGNOR OF TWO-THIRDS TO GEORGE F. ADAMS AND MARSHALL D. WILLIAMSON, OF SAME PLACE.

METHOD OF MANUFACTURING VENEER BARRELS.

SPECIFICATION forming part of Letters Patent No. 342,672, dated May 25, 1886.

Application filed March 25, 1886. Serial No. 196,464. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. ALLGIRE, a citizen of the United States, and a resident of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in the Method of Manufacturing Veneer Barrels, of which the following is a specification.

My invention relates to an improved method of manufacturing veneer barrels; and it consists, generally, in the manner of arranging and partly securing the several thicknesses of veneer or other light material and the binding strips or hoops previous to bending them into shape, and in then simultaneously bending such parts into cylindrical form and securing them permanently, as fully hereinafter set forth.

In the drawings, Figure 1 illustrates in side elevation one form of machine for carrying my process into effect. Fig. 2 is an enlarged edge view of the layers of veneer and hoop-strips, showing their relative arrangement before being bent into shape. Fig. 3 is a plan view of the layers of veneer and hoops shown in Fig. 2. Fig. 4 is a longitudinal section of the barrel in its completed form, and Fig. 5 is a side view of the completed barrel.

It has heretofore been found difficult to manufacture barrels of two sheets or thicknesses of veneer with the grain running in the same direction from the fact that it is impossible to so dry or season the material that the several thicknesses thereof can be made to lie closely together without great expense and care in the drying process and in the operation of fitting. In order to overcome these difficulties I dispose the various parts constituting the barrel-body while flattened in proper position and securely hold them together under pressure and simultaneously bend them rapidly into cylindrical shape, and then firmly secure the same so that veneers or other similar light material dried in the usual way may be employed with great facility and good results, whatever may be the relative arrangement of the grain of the wood.

The barrel produced by my process consists, preferably, of two thicknesses or sheets of veneer, *a b*, formed into a cylinder, as hereinafter described, and securely bound together by encircling strips or hoops *c*, the grain of the wood in both sheets of veneer preferably running lengthwise of the barrel, thereby avoiding the unequal expansion of the inner and outer layers, which results when the grain in one is placed at an angle to that of the other. The inner sheet, *a*, of veneer is somewhat narrower than the outer layer, *b*, so as to form at each end of the completed article an edge or bearing, *x*, for the head, the latter being secured in place by a narrow band or hoop, *d*.

To more clearly describe the manner of making barrels, as herein contemplated, I will illustrate the invention in connection with a machine specifically designed by me for carrying it into effect, and which forms the subject-matter of an application for Letters Patent filed January 9, 1886, Serial No. 188,116, and of which this present case is a division. It will be understood, however, that I do not wish to be confined to any particular character of machine for producing barrels of the kind indicated, as it will be apparent that the invention is applicable to many and various forms of barrel-making machines.

The frame of the machine shown consists of side pieces, A, connected by suitable cross-bars, B, and supports at the forward end a platform, P, while near the center is located a collapsible forming-cylinder, C, sustained by and turning round a spindle, *d*. Parallel and adjacent to the cylinder C, in suitable bearings, turn the guide-rolls 1 2 3 4, the guide-rolls 2 3 4 revolving in fixed bearings, and the journals of the roll 1 projecting through slots *y* in the side frames and turning in the ends of links *j j*, jointed to the links *k k*, the rear ends of the latter being suitably pivoted to the machine-frame. Upon a cross-bar, *m*, extending between the joints of the links *j k*, bears a weighted lever, F, the action of which tends normally to throw the roller 1 to a forward position, the lifting of the lever permitting the parts to assume the position shown in dotted lines, Fig. 1. Around the rollers 1 2 3 4 pass a number of endless bands, *n*, each of which also passes partly round the cylinder C, and as the weighted lever F descends

by gravity the bands are drawn to a high degree of tension and brought to bear with great pressure upon the cylinder. To the journal of the roller 4 is secured a sprocket-wheel, K, around which a chain, L, passes to a similar wheel, M, on the journal of the roller 3, and a crank-handle, I, is also secured to the journal of one of the rollers. A bar, H, pivoted to one of the side frames of the machine, is maintained in a horizontal position above the platform P by suitable catches upon the opposite frame, and has at its under side a series of notches corresponding in width and position to the hoops which are to be placed upon the body of the barrel.

The features of this machine and their operation are the same as in my other application before mentioned, so that a more detailed description of the apparatus need not here be given.

In order to make the body of the barrel the sheet *a*, which constitutes the inner layer of the body of the barrel, is first placed upon the platform P, and the sheet *b*, constituting the outer layer of said body, is placed upon the sheet *a*, but so much farther to the right that about six or eight inches of the lower sheet will remain uncovered at the end nearest the bar H. Upon the upper sheet, *b*, are placed at proper intervals, the strips *t*, of thin wood or metal, which constitute the hoops of the barrel, the said strips being longer than the veneers, and are placed so far to the right that their inner ends will be six or eight inches away from the inner edge of the upper sheet, *b*, of veneer, each hoop-strip being opposite one of the notches or openings in the bar H. Nails *u* are now driven through the inner ends of the hoop-strips and through both layers of the veneer, so that all the parts are firmly secured together at their inner ends, after which they are pushed inward until they are caught between the bands passing round the roller 1 and the face of the cylinder, around which they are bent as the handle I is turned in the direction of its arrow. As the parts from which the barrel is formed are secured together at their inner ends they will not be displaced from their relative positions in the act of bending, and, as they are free to move one upon the other throughout their remaining portions, any excess of material resulting from the flattening and compressing of the parts together will be worked toward the free ends until the two ends of the parts are brought in contact and overlap each other upon the cylinder, and the ends of the hoop strips or bands are folded down upon the parts on the body of the cylinder, where they are nailed to firmly bind the various parts together.

The pressure of the bands upon the veneers is so regulated by the adjustment of the weighted lever as to flatten the inequalities or wrinkles and bring both layers closely together at all points, and, as the hoop-strips are nailed while the parts are closely confined and held under compression, they will be retained in close contact throughout all their adjacent surfaces after the removal of the barrel-body from the forming-cylinder.

While I have stated that the preferable disposition of the grain of the wood is parallel to the axis of the completed article in the several thicknesses of material of which it is composed, still I do not confine myself to any particular arrangement in this respect, as barrels are also produced by my process in which the grain of the wood runs in various directions.

Without limiting myself as to the character of machine for carrying my invention into effect, I claim—

1. The within-described improvement in the manufacture of veneer barrels, the same consisting in arranging two or more sheets or layers of veneer one upon the other, and hoop-strips upon the upper sheet connecting all the parts together at one end, as described, and in then bending them into a cylindrical form under pressure, beginning the bending at the connected ends and nailing the overlying ends of the hoop-strips to the portions beneath them upon the completion of the cylinder, substantially as and for the purpose set forth.

2. In the manufacture of veneer barrels composed of several layers of material, applying the hoop-strips to the veneers, and partially connecting the parts, as described, then simultaneously bending said strips with the several layers of veneer in forming the cylindrical body, and upon completion of the cylinder permanently securing the parts together, substantially as and for the purpose set forth.

3. In the manufacture of veneer or other similar barrels, arranging two or more layers of material one upon the other, with the end of the inner layer projecting beyond that of the adjacent layer, placing the hoop-strips upon the upper layer with their ends within the inner end of the latter, securing all the said ends together, and then bending the whole into cylindrical form and binding the adjacent ends together, all substantially as and for the purpose set forth.

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

JAMES R. ALLGIRE.

Witnesses:
G. F. ADAMS,
AUSTIN B. PRATHER.