Aug. 9, 1927. 1,638,262

J. L. HERZOG

METHOD FOR THE RAPID PRODUCTION OF WOODEN PANELS FROM MILL CLIPPINGS AND THE LIKE

Filed April 18, 1925

Fig. 1.

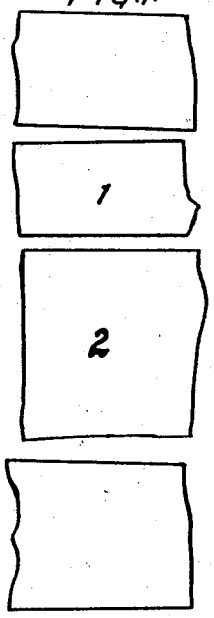


Fig. 2.

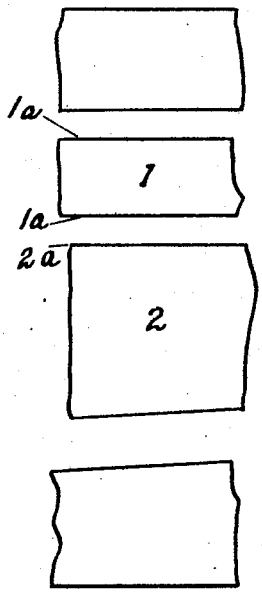
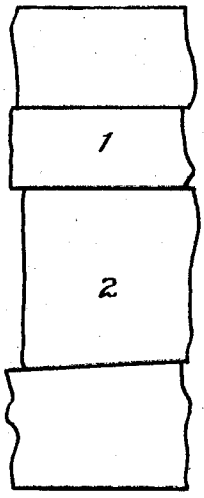


Fig. 3.



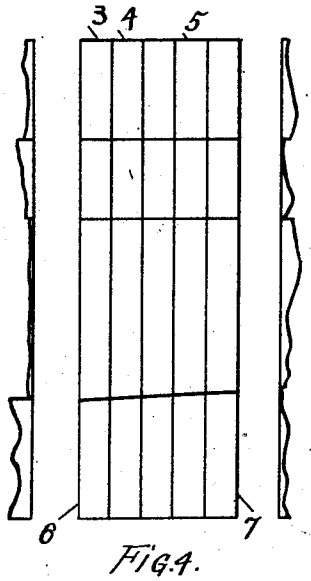


Fig. 4.

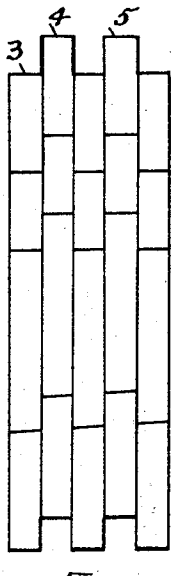


Fig. 5.

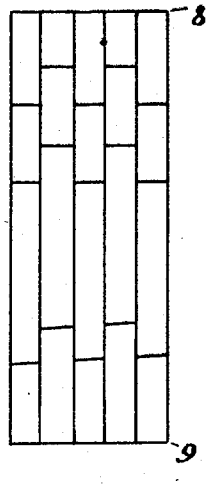


Fig. 6.

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Patented Aug. 9, 1927. 1,638,262

UNITED STATES PATENT OFFICE.

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METHOD FOR THE RAPID PRODUCTION OF WOODEN PANELS FROM MILL CLIPPINGS AND THE LIKE.

Application filed April 18, 1925. Serial No. 24,142.

This invention relates to a novel method for the rapid production of wooden panels from mill clippings and the like, enabling mill refuse to be recovered and usefully employed in the manufacture of wooden articles which ordinarily are made only from dimension lumber.

More specifically, my improved method pertains to the manipulation and arrangement of a plurality of clippings in the form of a board or panel in such manner that the work can be done with great rapidity and inexpensively, and the panel when finished will not disclose end wood glued joints that are of sufficient length to show objectionably through a veneered surface which may be later applied to the panel.

As is well known, if two pieces of wood of considerable width are glued together end to end, so as to form a relatively long end wood joint, that joint is apt to be observable on the polished surface of the finished veneer, but if the end wood joints are short it is not likely to occur. Therefore, one of the objects of my invention is to avoid long end wood joints in the finished panel and still secure rapid production.

My improved method, while being capable of being carried out by hand, is also workable by suitable automatic machinery. It is admirably adapted for the economical reclaiming of small pieces, say, fifteen to twenty square inches area, and of longer and narrower strips which ordinarily are disintegrated and used in the manufacture of molded articles, or burned.

The rapidity with which panels can be built up according to my method, and the strength and smoothness which the finished panel possesses, as well as the absence of long end wood glued joints, is due to my present method of manufacture, which will now be described.

Mill clippings and the like are received in large quantities and consist of end clippings, side trimmings from boards, and various shaped small pieces, some of which contain defective parts that must be discarded. The pieces are first sorted approximately according to width, that is to say, those pieces which contain good material to the width of, say, five inches or over are placed together, and those of between three and four inches are sorted together, so that when the pieces of any one lot are placed end to end they will make roughly a board-like structure.

In the drawings, Fig. 1 shows a plurality of clippings which have been sorted as to the width of good material in them.

Fig. 2 shows the same parts after their adjacent edges have been trimmed to fit one with another.

Fig. 3 shows the same parts glued together end to end, forming a board-like structure having uninterrupted transverse joints.

Fig. 4 shows the same parts after having been ripped into a plurality of longitudinal strips.

Fig. 5 shows the strips secured together to again form a board-like structure having interrupted transverse joints.

Fig. 6 shows the completed board with ends trimmed.

The adjacent edges of successive pieces 1, 2 are trimmed to fit one with another, as indicated at 1^a and 2^a. These edges are secured together by any suitable means, as by gluing. Obviously each glued joint is continuous, or uninterrupted, transversely across the width of the board, as shown in Fig. 3.

To increase the strength of the panel, and also to avoid the objectional feature in the finished panel of long end wood joints, these uninterrupted transverse joints are made into interrupted joints, as shown in Figs. 5 and 6, by first cutting the board lengthwise into a plurality of parallel strips, as 3, 4 and 5. This is preferably done by ripping with gang saws. The several strips are then reassembled and secured together to again form a board-like structure, but this time with staggered or interrupted transverse joints. This may be conveniently done by endwise displacement of one strip 4 with respect to the adjacent strip 3, or it may be done by turning some of the strips end for end and not reversing the other strips.

A panel of any desired width can be built up from a plurality of such boards in the usual manner, after the edges 6, 7 and the ends 8, 9 of the board have been trimmed, as shown in Figs. 4 and 6.

The final board and panel has parallel glued joints extending lengthwise, while the transverse joints are overlapped by the adjacent solid pieces, thus giving great

strength to the finished panel, although the panel may have been made of very small clippings or strips.

A given lot of clippings can by this method be easily fabricated into a plurality of boards of various widths and of any desired length, the wider of such boards in themselves constituting panels; or a number of such boards glued together comprising a wider panel.

Such panels are suitable for all the purposes to which panels made from commercial lumber are adapted, such as furniture, phonograph and radio cabinets and the like.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. The herein described method of manufacturing panels from clippings, consisting in first securing together end to end a plurality of clippings to form a board-like structure comprising a single layer of material having uninterrupted transverse joints, then cutting said layer lengthwise into a plurality of strips and finally securing said strips together along their longitudinal edges to again form a board-like structure comprising a layer of material having interrupted transverse joints.

2. The herein described method of manufacturing panels from clippings consisting in first gluing together end to end a plurality of clippings to form a board-like structure comprising a single layer of material having uninterrupted transverse joints, then cutting said layer lengthwise into a plurality of parallel sided strips and finally gluing said strips together along their longitudinal edges to again form a board-like structure comprising a layer of material having interrupted transverse joints.

3. The described method of manufacturing panels from clippings consisting in first trimming the adjacent edges of successive clippings to fit one with another, then securing together end to end a plurality of said trimmed clippings to form a board-like structure comprising a single layer of material having uninterrupted transverse joints, then cutting said layer lengthwise into a plurality of strips and finally securing said strips together along their longitudinal edges to again form a board-like structure comprising a layer of material having interrupted transverse joints.

In testimony whereof, I affix my signature.

JOHN L. HERZOG.