J. E. MARQUIS.

MACHINE FOR DRYING VENEER.

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1,086,194. Patented Feb. 3, 1914.

Fig. 1.

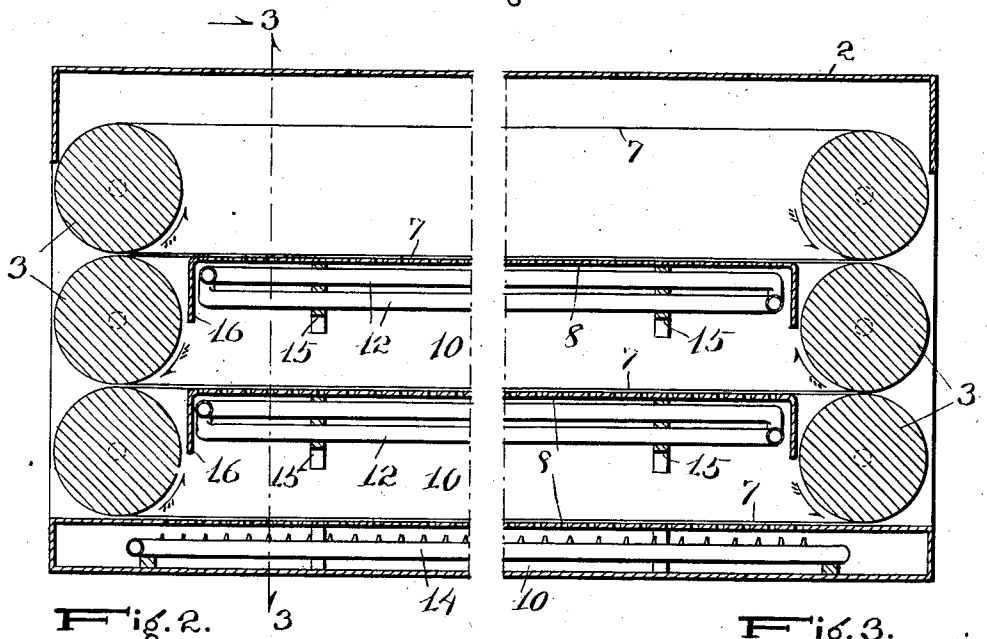
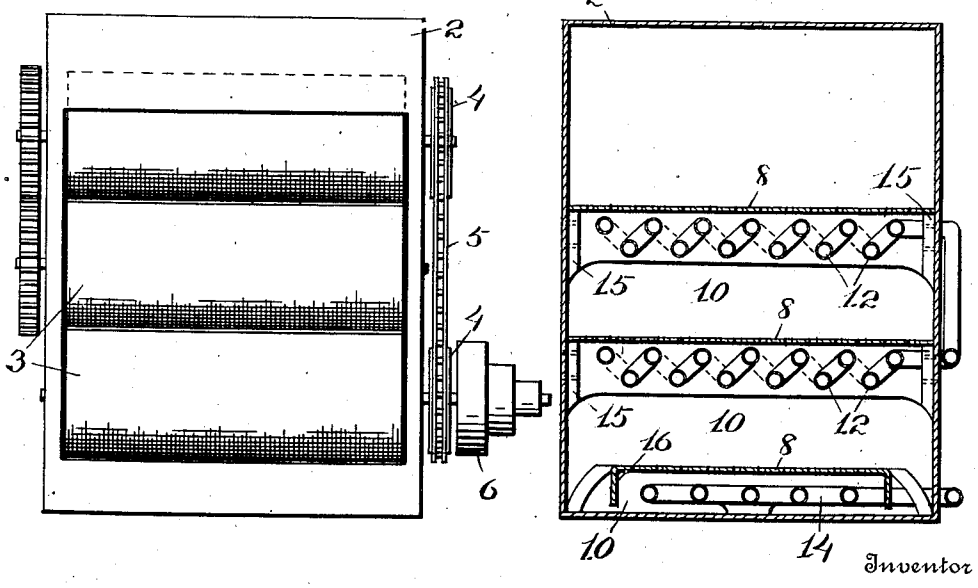


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR DRYING VENEER.

1,086,194. Specification of Letters Patent. Patented Feb. 3, 1914.

Application filed June 9, 1913. Serial No. 772,635.

To all whom it may concern:

Be it known that I, JOSEPH E. MARQUIS, a citizen of the United States, resident of Williamstown, in the county of Wood and State of West Virginia, have made a certain new and useful Invention in Machines for Drying Veneer; 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 invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a central longitudinal section of the invention. Fig. 2 is an end view of the same. Fig. 3 is a section on the line 3—3 Fig. 1.

The object of the invention is to provide improved means for drying veneer, in large quantities as it comes from the cutter, and it consists chiefly in the novel construction and combinations of parts involving a novel method or process of preparing veneer, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the numeral 2, indicates a straight elongated casing, which is designed to be from fifty to one hundred feet, more or less, in length, and comparatively narrow, its width being sufficient to accommodate the run of veneer, as cut.

At each end of the casing are provided transverse rollers 3, one above another, said rollers being of proper width to fit between the casing walls and having shafts, mounted in suitable bearings in said walls. They are provided with sprocket wheels 4, for a chain 5, and gearing, whereby the rollers are turned. A driving pulley 6 is secured to the shaft of the lower roller at one end of the casing. The shafts of the rollers at each end of the casing are in the same vertical plane, and the rollers are designed to carry endless wire belts 7. In the drawing, three of such belts or bands, one above another, are shown, but there may be more if required to dry the veneer. These wire belts extend nearly the length of the casing, and are supported on iron plates 8, which extend horizontally from roller to roller, being substantially tangential to their rolling surfaces at top and bottom. Below the belt-supporting plates are heating chambers 10, having suitable heating means, as steam pipes 12 and gas pipes having jets as indicated at 14. These heating chambers are substantially closed at their ends by the rolls, in the chambers above the lowest, which is closed by walls. Supporting plates 15, for the heating pipes, are secured to the side walls of the casing, and guard plates 16, are interposed at the sides and ends of the heating devices. The heated air is designed to be forced through the fine wire belting by means of ventilators or fans (not shown).

In the construction shown in the drawings, the lower stretch of the upper belt and the upper stretch of the middle belt run at the same speed and are in contact except when carrying veneer, which is held firmly between them because of the weight of the upper belt, the perforated plate under the upper stretch of the middle belt affording proper support. In the same manner the sheet of veneer is firmly held between the lower stretch of the middle belt and the upper stretch of the lower belt.

In the operation of this apparatus, the sheets of veneer are fed into the casing at the entrance end between the wire belts carried by the upper rollers and the rollers next below. These wire belts hold the sheets of veneer between them and admit the hot air freely to the surfaces of the veneer, while the sheets are carried by the belts to the other end of the casing and discharged, or turned downward and fed between the wire belts of the second and third sets of rollers. In this proceeding the veneer is not designed to have motion relative to the belting, its surfaces remaining in the same position between the belt surfaces during the carrying movement. In this manner it is intended to provide for rapid drying, and to avoid causing the surfaces of the veneer to become smooth while being heated. The veneer surfaces are left by the belts in rough condition when heated and dried, this condition being best for taking the glue, when the veneer is to be applied.

I claim:

1. Apparatus for drying veneer, consisting of an elongated casing, therein an upper endless wire belt engaging rollers at the ends of the casing, an endless lower wire belt of even length to said upper endless wire belt, and in contact therewith throughout its upper stretch, a perforated plate secured to the casing and supporting the upper stretch of the lower wire belt, heating chambers above and below said perforated

plate, means for heating said chambers, and means for turning the rollers.

2. Apparatus for drying veneer, comprising an elongated casing, therein an upper endless wire belt, a lower endless wire belt, an intermediate endless wire belt in contact by its upper and lower stretches with the upper and lower wire belts, rollers at the ends of the casing engaging the belts, perforated plates supporting the contact stretches of the belts throughout the length of the casing, hot air chambers within said belts and means for heating said chambers.

In testimony whereof I affix my signature, in presence of two witnesses.

JOSEPH E. MARQUIS.

Witnesses:
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O. B. ROSE.