C. T. FAIRCHILD.

METHOD OF MAKING HOOPS FOR CHEESE BOXES.

No. 186,002. Patented Jan. 9, 1877.

Fig: 1.

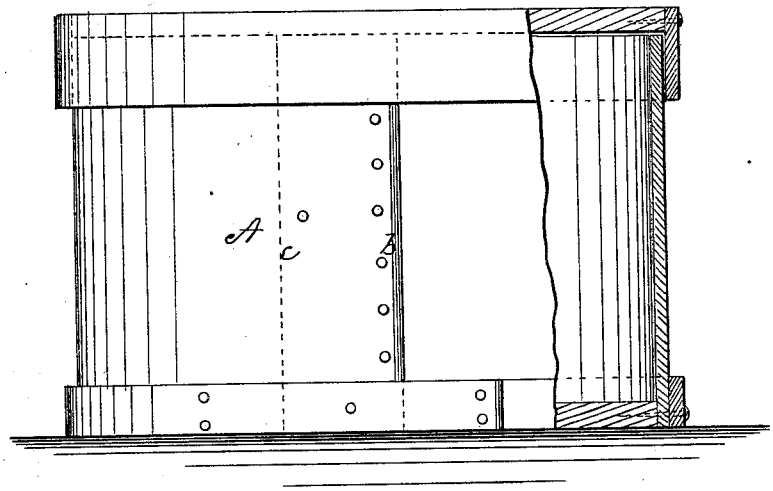


Fig: 2.

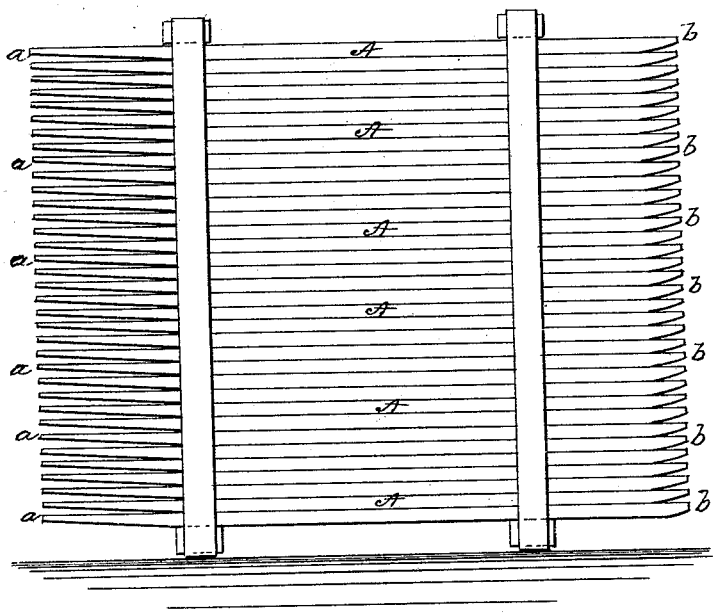


Fig: 3.

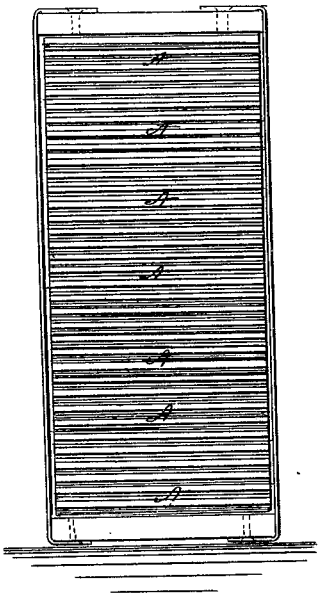
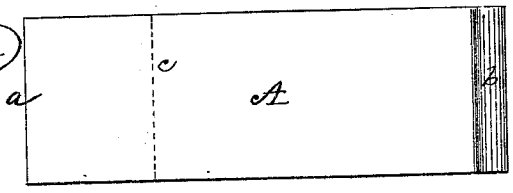


Fig: 4.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN METHODS OF MAKING HOOPS FOR CHEESE-BOXES.

Specification forming part of Letters Patent No. **186,002**, dated January 9, 1877; application filed January 24, 1876.

To all whom it may concern:

Be it known that I, CURTISS T. FAIRCHILD, of Salisbury, in the county of Herkimer and State of New York, have invented a new and useful Improvement in the Method of Making Hoops for Cheese-Boxes; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

This invention relates to an improved process of manufacturing cheese-box hoops by the use of suitable machines, as hereinafter described; and it has for its object the production from suitable timber, in a rapid and economical manner, of hoops for cheese-boxes or any similar packages, said hoops being of any desired length and width, and beveled or rounded on the flat side at their ends, and so marked as to designate the proper length of the lap when they are formed up into a box of the desired size.

In the accompanying sheet of drawings, Figure 1 is a side view of a cheese-box hoop manufactured from a hoop formed by my improved process; and Fig. 2 is a side view of a bundle of such hoops. Fig. 3 is an end view of same; and Fig. 4, a plan view of hoop, showing the pointing, dubbing, and marking.

By my process the timber is at once reduced to the proper thickness in a manner which renders planing unnecessary, and the hoops are made from the sheets thus produced with the minimum amount of handling and waste of material.

In my process logs suitable for the manufacture are crosscut into the proper lengths—usually a little longer than the desired length of the hoop—and are placed in vats to be softened by steaming or boiling, which is done by discharging either live or exhaust steam into the vats. When sufficiently softened, the logs are raised from the vats by a derrick or crane, the bark is removed from them, and they are swung into position to be placed in a rotary veneer-cutting machine.

I prefer to use the machine constructed with a compression-roller, and known as the "Brown cutter." The logs are chucked in this machine, and by it cut into sheets of the proper thickness.

In cutting cheese-box material the two pairs of feed-gears are so proportioned that the feed-carriage moves one-fourth of an inch, or one-fifth of an inch, for each revolution of the log. The sheets, as they come from the log of the proper thickness, are separated by hand into convenient lengths of fifteen or twenty feet. They are then placed flat on cars, which are so arranged that as one car becomes full, it may be run off to the dividing-machine, and another substituted in its place. From the cars the sheets are fed by hand, sometimes singly, sometimes two or more at once, into the dividing-machine, which may be worked either by power or hand, and in which the sheets are divided lengthwise of the grain by a straight knife, which has either a reciprocating motion itself, or is placed above a movable bed. A gage determines the width of the hoops. Behind the machine an operator removes the divided material from the machine, and sorts it at the same time. The good cheese-box hoops go into one pile, the narrower or defective pieces into another, from which they are passed through a machine containing a gang of saws, by which they are divided into the proper widths for cheese-box rims or other purposes.

The divided material is next passed through a suitable rotary planing-machine, in which the hoops or rims, being fed sidewise, are presented by feeding-rollers to suitably placed and shaped cutter-heads, by which the ends of the hoops are equalized, dubbed, and pointed. This machine cuts the hoops to the length desired, dubs one end, points the other end for the lap, and marks them to show how far they are to be lapped when formed up into a box of the desired size. The marking is done by a pencil-point placed in the machine in the proper position with regard to the cutter-heads, and which bears on the hoops as they pass under it.

After the cheese-box hoops are all pointed and dubbed, they are placed in suitable racks to dry. These racks are so constructed that the hoops are prevented, by supports on each

side of them, from warping or twisting while drying—the hoops being placed vertically in rows during this time—after which operation is completed they are bundled and strapped while compressed in a suitable press, and are then ready for market. By this process cheese-box hoops and rims are produced in a rapid and economical manner, and with almost no waste of available material.

I claim—

The herein-described process of manufacturing cheese-box hoops by cutting the lumber to the proper thickness in a rotary cutting-machine, dividing the sheets by a reciprocating knife, and passing the hoops laterally through a pointing and dubbing machine, also marking and drying them, substantially as described.

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