J. D. McEACHERN & D. H. BURRELL.

WOODEN BARREL HOOPS.

No. 189,869. Patented April 24, 1877.

Fig. 1.

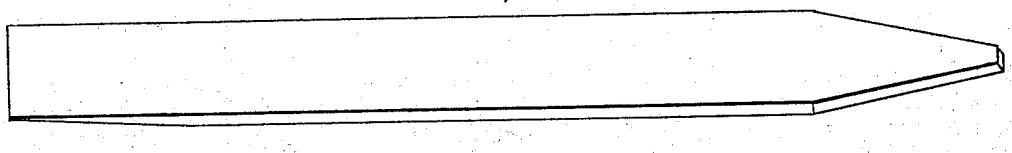
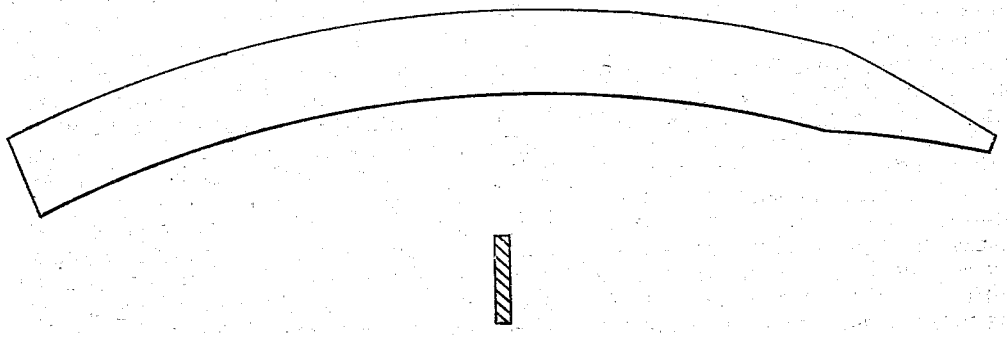


Fig. 2.



Attest.

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UNITED STATES PATENT OFFICE.

JOHN D. McEACHERN, OF GALT, ONTARIO, CANADA, AND DAVID H. BURRELL, OF LITTLE FALLS, NEW YORK.

IMPROVEMENT IN WOODEN BARREL-HOOPS.

Specification forming part of Letters Patent No. **189,869**, dated April 24, 1877; application filed March 17, 1877.

To all whom it may concern:

Be it known that we, JOHN D. McEACHERN, of Galt, in the county of Waterloo, Province of Ontario, Dominion of Canada, and DAVID H. BURRELL, of Little Falls, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Wooden Barrel-Hoops; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of this invention is to produce a hoop from veneers of wood that shall fit perfectly upon the tapering ends of a barrel, or other article of coopers' ware, and shall, at the same time, preserve the continuity of its fibers from end to end; and the invention consists in bending a hoop of the proper width and thickness edgewise until its curvature, or in other words, the length of its edges, corresponds with the difference in the distance around the tapering part of a barrel or cask proportionate to the width of the hoop, as will be hereinafter fully described, and specifically pointed out in the claims.

Figure 1 is a perspective view of the hoop as cut from the sheet before being bent. Fig. 2 shows the hoop bent and finished ready for the market.

In forming these hoops the veneers are cut from the log upon any of the machines now in common use for that purpose, though those which cut the material in a continuous sheet around the log, parallel with the grain, are preferred, as the bending action then comes across the grain at right angles, causing the hoop to bend equally in all its parts, and to retain its shape without warping. After the veneer is cut from the log it is divided into strips of suitable width to form hoops, which are pointed at one end and thinned down, or chamfered at the other, so that when bent into a circular form, and the ends joined, the joint shall present a neat appearance not unduly increased in thickness at that point. Should it be found desirable, the hoop up to this point in the process of construction may be formed by cutting from a piece of wood of the requisite length, and having a thickness equal to the width of a hoop, slices of suitable thickness, which are then pointed and chamfered in the same manner as those cut from the sheets of veneer. In order to complete the process the hoop, after being otherwise properly formed, is bent edgewise to such an extent as will cause the curve formed to produce a straight line around a barrel or cask when the hoop is placed upon it. This curve in hoops having a length of about six feet, or such as are intended for ordinary flour-barrels, will be about four and one-half inches, and will of course vary according to the size and shape of the barrel or cask upon which they are placed.

It will be seen that this method of constructing hoops wholly obviates the necessity of beveling them in order to make them fit the taper of the article to which they are applied, and they are readily packed in bundles for transportation, the convex side of one fitting into the concavity of its neighbor, so that little more space is taken up than would be occupied by the same number of straight hoops bound up in similar packages.

It is well known that iron hoops are stretched upon one edge to make them conform to the taper of the cask or barrel to which they are applied; but in doing this the inner edge of the curve retains its full length, while, in the bent wooden hoop the conditions are reversed, the outer edge of the curved hoop retaining substantially the same length as before bending, while the inner edge is shortened.

Curved hoops have also been cut from sheets of veneer by means of a knife having a corresponding curvature; but these have proved to be of little value, as the cut of necessity crossed the grain of the wood, thus destroying the continuity of the fiber and rendering the hoop weak and nearly worthless.

Having thus described our invention, we claim as new, and desire to secure by Letters Patent of the United States, the following:

The process of forming wooden hoops by bending them edgewise after being cut from the sheet of veneer, in the manner and for the purpose hereinbefore specified.

In testimony that we claim the foregoing as our own we hereunto affix our signatures in presence of two witnesses.

J. D. McEACHERN.
DAVID H. BURRELL.

Witnesses:
GEORGE A. PORTER,
GEO. B. LEONARD.