

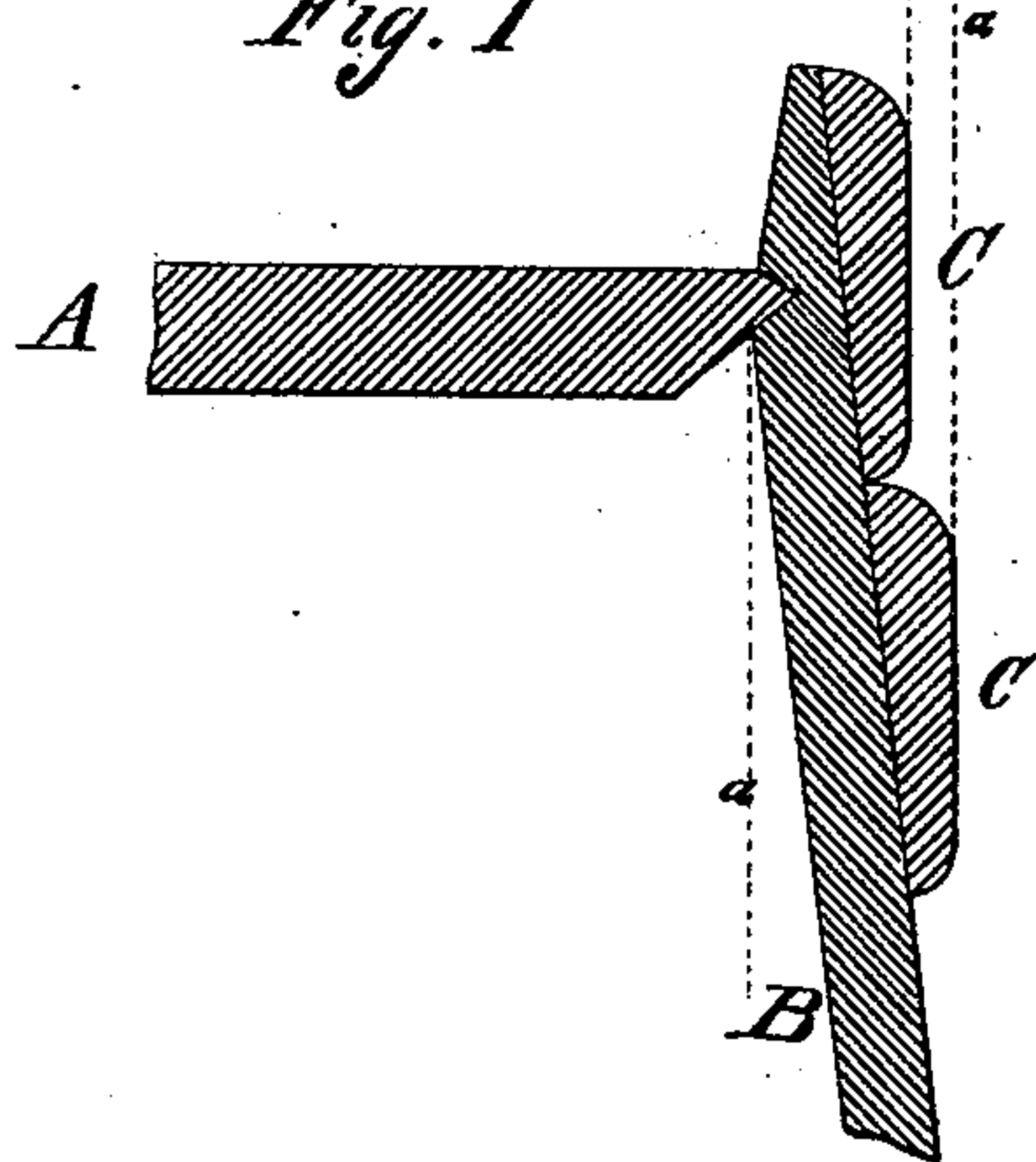
(Model.)

J. NAYLOR, Jr.

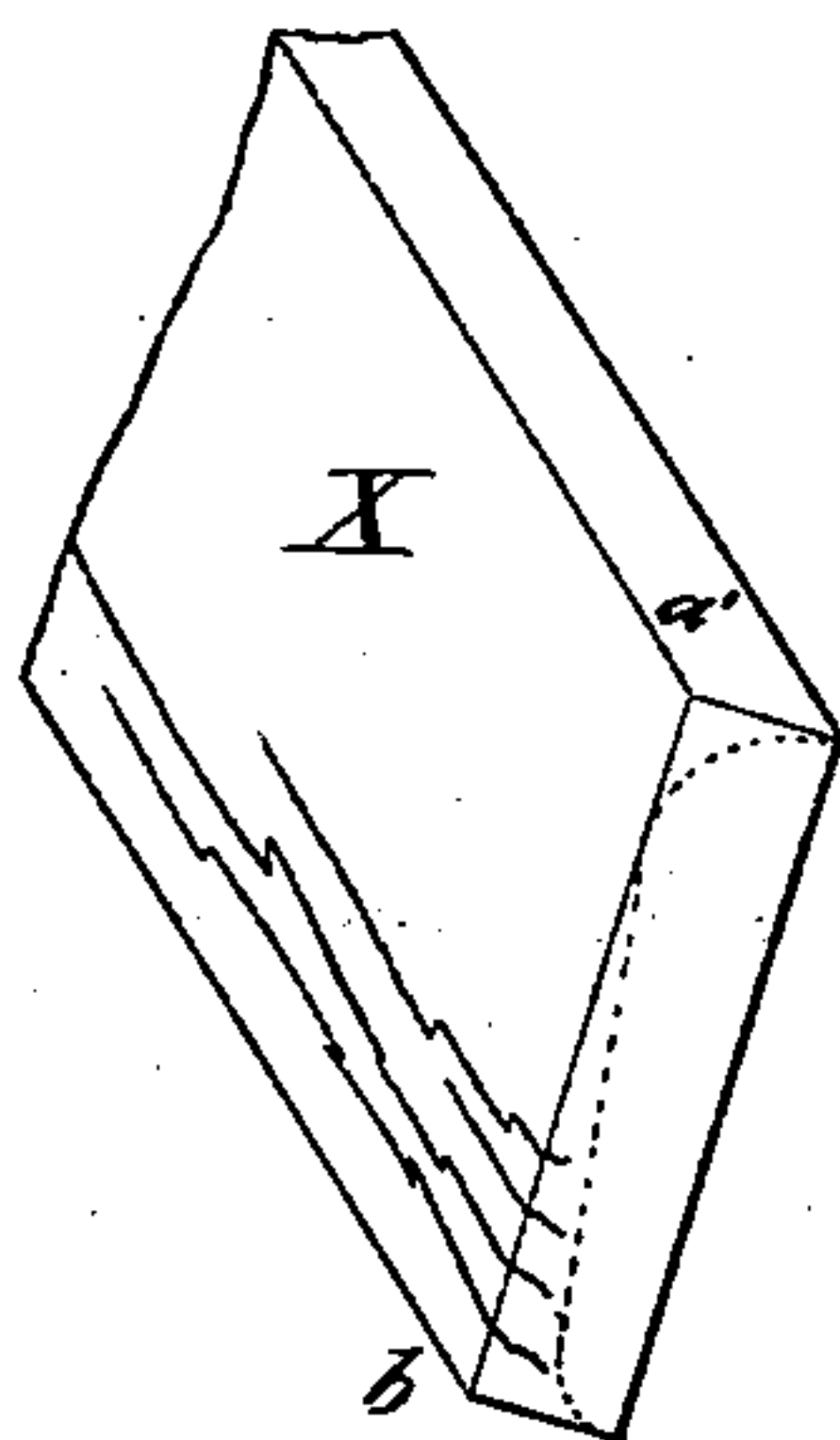
Barrel Hoops and Method of Dressing and Coiling Hoops.  
No. 233,870.

Patented Nov. 2, 1880.

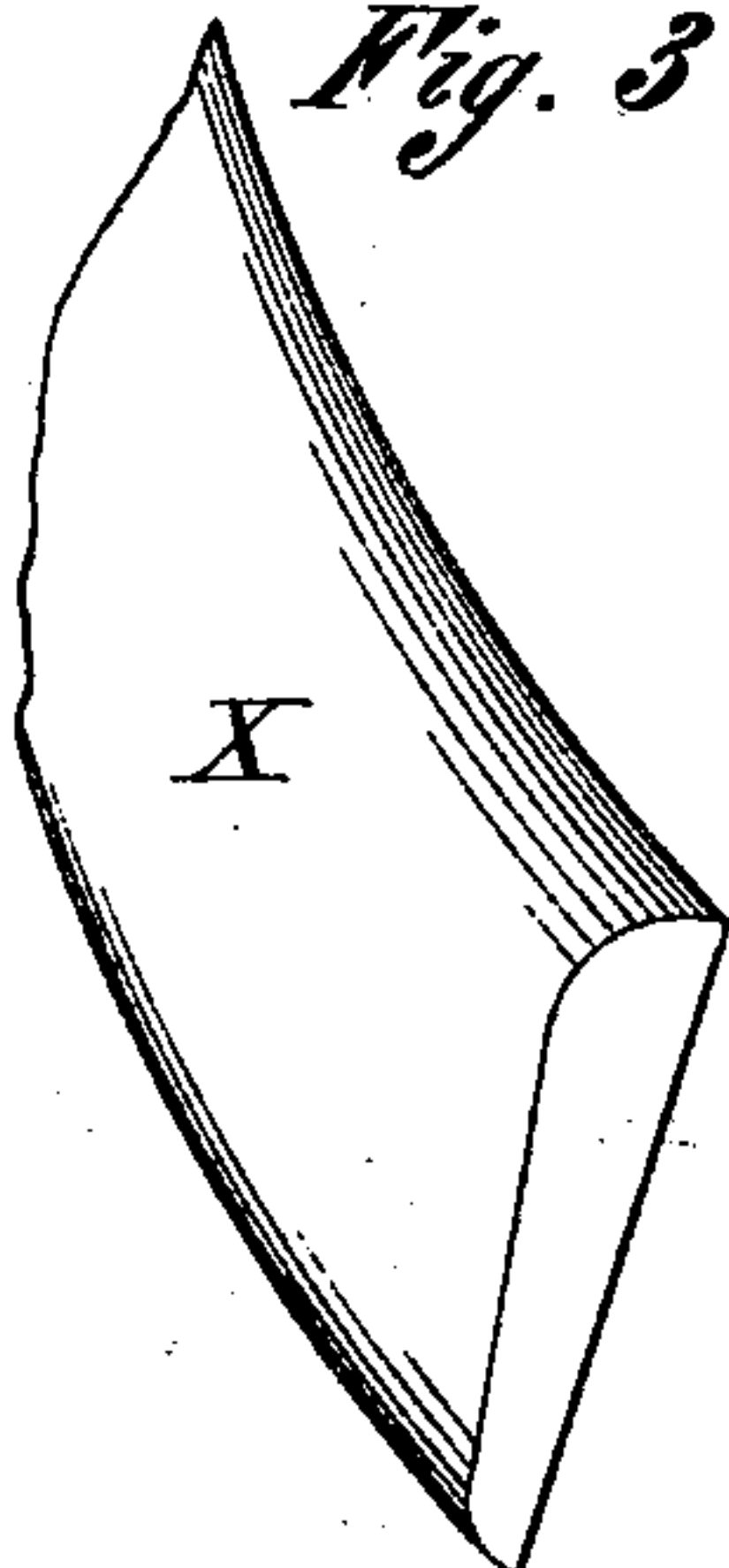
*Fig. 1*



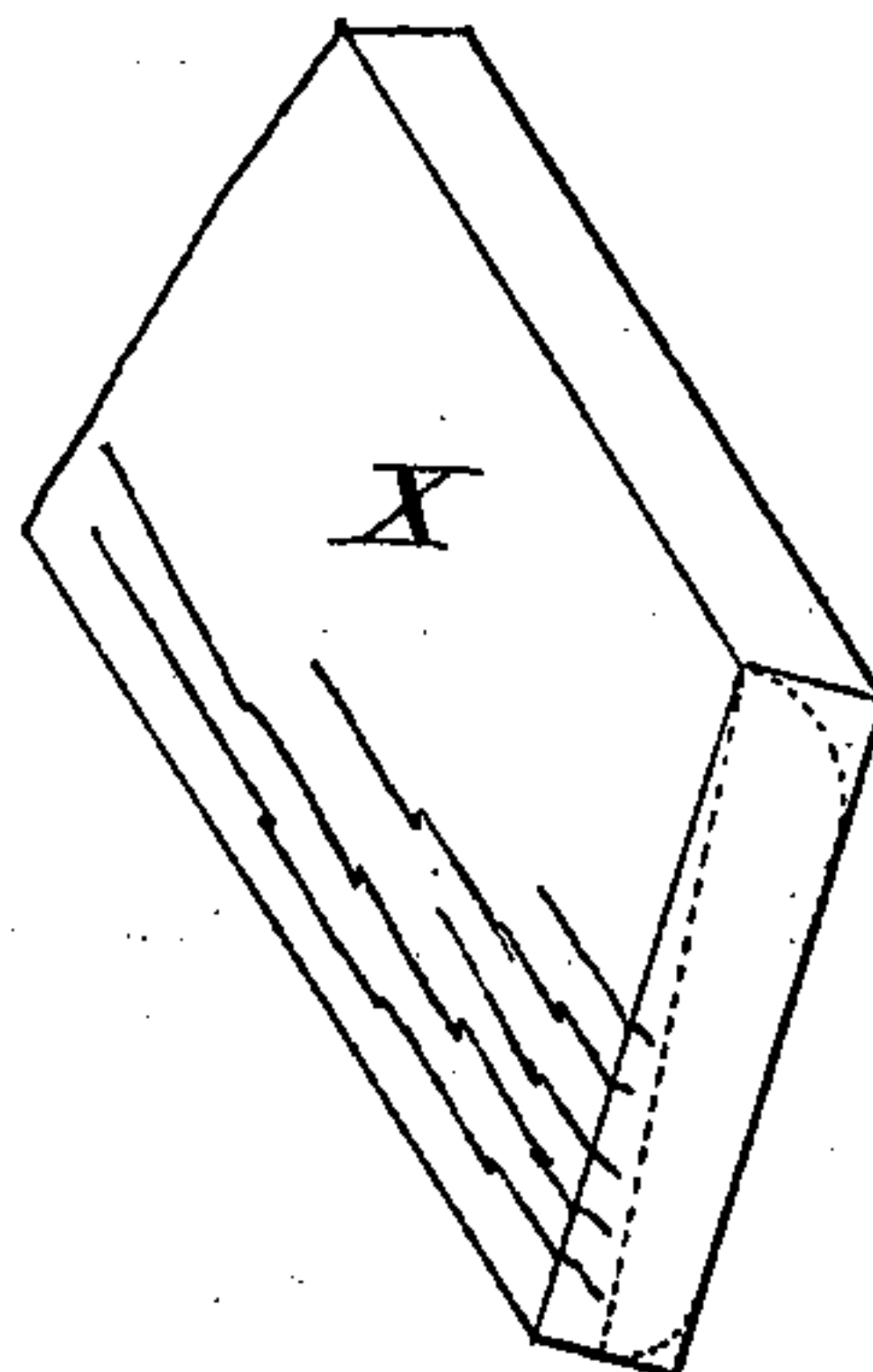
*Fig. 2*



*Fig. 3*



*Fig. 4*



WITNESSES.

*Selden S. Brown.*  
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INVENTOR.

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# UNITED STATES PATENT OFFICE.

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## BARREL-HOOP AND METHOD OF DRESSING AND COILING HOOPS.

SPECIFICATION forming part of Letters Patent No. 233,870, dated November 2, 1880.

Application filed April 19, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, JAMES NAYLOR, Jr., of the city of Rochester, in the county of Monroe and State of New York, have invented and discovered certain new and useful Improvements in Barrel-Hoops and in the Method of Dressing and Coiling the same; and I do hereby declare the following to be a full, clear, and exact description thereof, sufficient to enable others skilled in the art to make the same.

The object of this invention and discovery is to produce finished barrel-hoops ready for the cooper at less cost and in better shape and condition than what has been done heretofore; and it consists, essentially, in the manner of dressing and coiling, which will be hereinafter more fully explained, and in the hoop produced.

Barrel-hoops are made from blanks which are sawed or cut from a log, bolt, plank, or sheet, and in many instances the bevel is given the blank in sawing or cutting; but by sawing there is much waste, fully twenty-five per cent., so that cutting is the only successful method of making these blanks, and it is only to a cut blank that this invention and discovery are entirely applicable. These blanks are cut rectangular, partly beveled or wholly beveled; but, however cut, they have to be dressed and coiled to meet the requirements of the bilge of the barrel.

Heretofore, when the blank was cut rectangular, or nearly so, the bevel was planed or sawed on the side intended to come in contact with the barrel, the reverse side having its corners rounded in dressing or at another operation. This necessitates the blank being acted or operated upon at both its inner and outer surfaces.

By my improvement the blank is acted or operated upon at one side only, the side so operated upon being the outside when coiled. This same operation gives the requisite bevel and dresses the rounded corners at the same time and by the same means.

I usually perform this single operation of beveling and dressing off the corners of the hoop-blank by means of a single cutter-head, the knives of which are each the counterpart

in form of the outline of the outer surface of the hoop in cross-section, the bevel inclination being given to the blank either by the bed over which the blanks are fed to the cutter-head or by the inclination of the knife-edges. The machine by which I dress these hoop-blanks will be made the subject-matter of another application for Letters Patent.

Figure 1 is a section showing the ordinary construction of a bilged barrel. A, the head; B, the staves; C C, the hoops. *a a a* are dotted lines running at right angles to the plane of the head, which serve to show clearly the relative positions of the hoops C C to the barrel, which is that the surfaces of the hoops in contact with the staves are at an acute angle with the lines *a a a*, at right angles to the head, and the outside surfaces coincide with the lines *a a a*, excepting the rounded corners, which are taken off to strengthen and beautify the hoop in its use.

Fig. 2 shows a section of a rough rectangular blank, X being the checked side thereof. In cutting, the knife enters at *a* and cuts toward *b*. During this cut the blank is forced away by the wedging-knife, and as a consequence the grain is strained and checked, as shown in Figs. 2 and 4.

Before the blanks are cut the log, bolt, plank, or sheet has been steamed or boiled, for the purpose of softening the same; but with all this precaution the above effects are plainly discernible, so that by steaming or boiling and then cutting with a wedging-knife it is apparent that the nature of the wood has become changed.

Fig. 3 shows a section and part of a finished hoop dressed and coiled. The dotted lines on Figs. 2 and 4 show, respectively, the difference between the new and the old methods of beveling and dressing the same rectangular blank, Fig. 2 being my improvement over the old method shown at Fig. 4.

It must be observed that by my method in dressing the sound side of the blank is left intact, while in all cases heretofore the rounded corners have been taken off from the sound side, being the same side which is left intact by my method.



Thus it will be apparent that such rectangular hoop-blanks can be dressed at one-half the cost and trouble by my improved method.

Thus far the hoop-blank is dressed or beveled to fit the bilge and the corners rounded to strengthen and beautify the hoop.

In coiling these dressed hoop-blanks I have made the discovery that by a reversion of the universal method in use I obtain full benefit of the bevel in coiling, whereas heretofore and at the present time, by the common practice, the bevel is thrown both inside and outside. I accomplish this benefit as follows: As before stated, the nature of the wood has undergone a change in steaming and cutting, so that one side only is absolutely sound, the strained grain and check extending nearly through the blank from the other side. I present the sound side, left intact in dressing, to the inside, with the checked side (the side on which the bevel and rounded corners are) to the outside thereof. By so doing all the bevel given in dressing to the checked side or the outside is, in coiling, thrown on the inside, or the side that was left intact.

Thus an improved hoop is obtained distin-

guished from others by the outside surface being square with the plane of the coil, the bilge all being on the inside.

Having thus described my invention and discovery, I claim and desire to secure by Letters Patent—

1. The method of dressing hoop-blanks, which consists in cutting off the stock to form the bevel and round the corners from the same side of the blank and at one and the same operation.

2. The method of forming a barrel-hoop from a cut blank, which consists in cutting the bevel on the checked side and coiling the same with the checked side out.

3. As an improved article of manufacture, a barrel-hoop formed of a cut blank coiled with the checked side out, and having the whole bilge thereon upon the inside thereof.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES NAYLOR, JR.

Witnesses:

SELDEN S. BROWN,

CHAS. H. KINGSBURY.