

(No Model.)

A. R. SPROUT.

HOOP.

No. 293,916.

Patented Feb. 19, 1884.

Fig. 1.

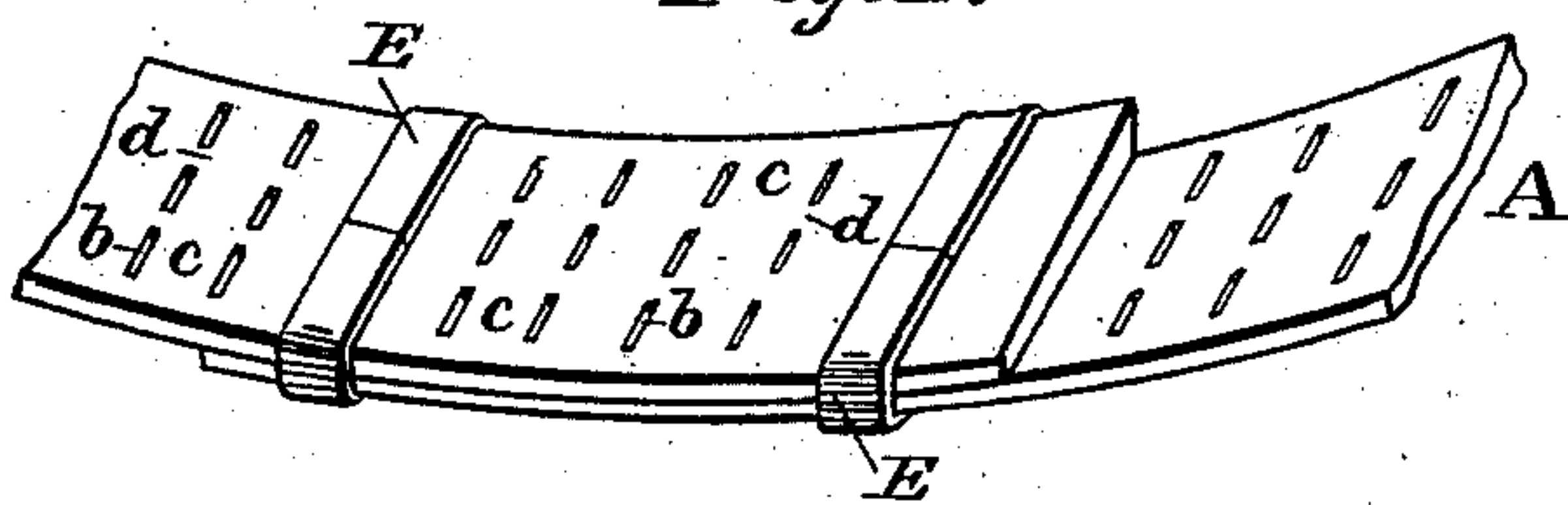


Fig. 2.

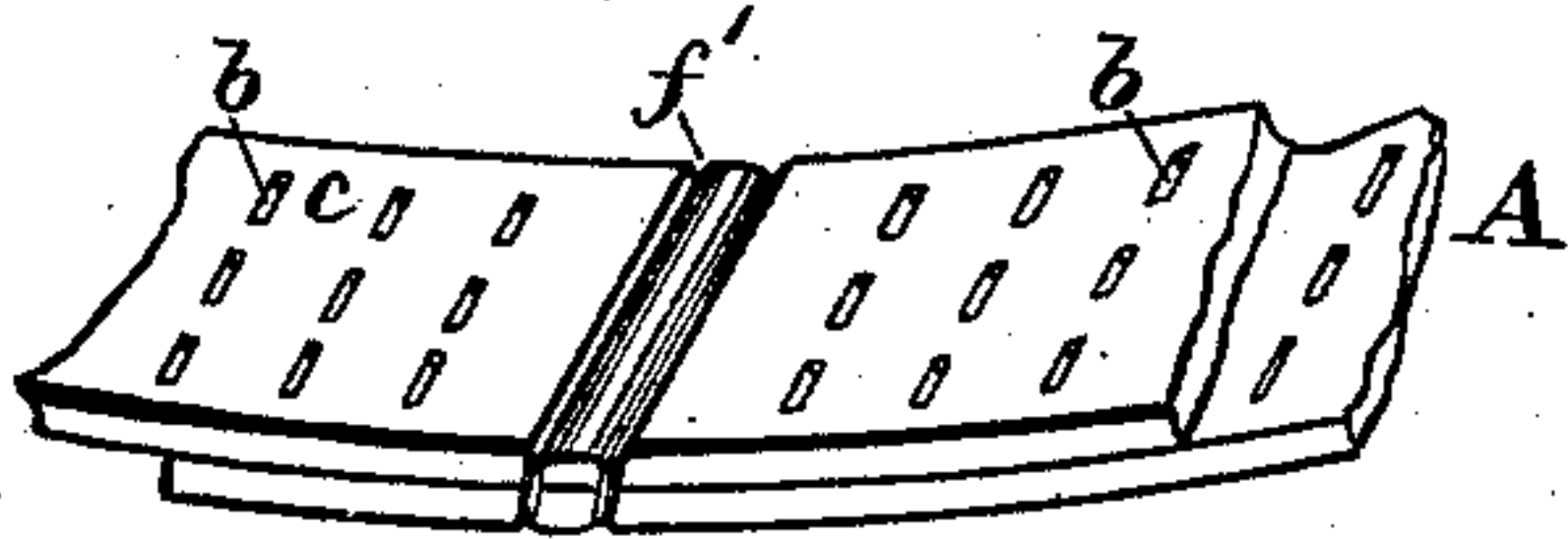


Fig. 4.

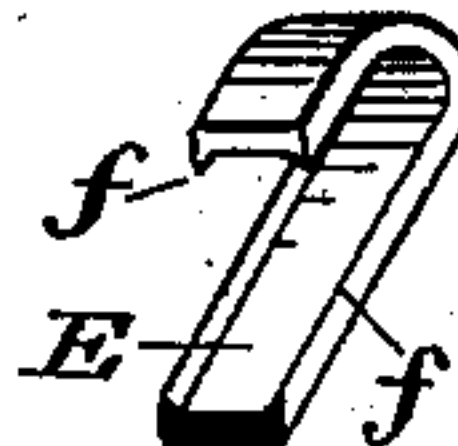


Fig. 3.

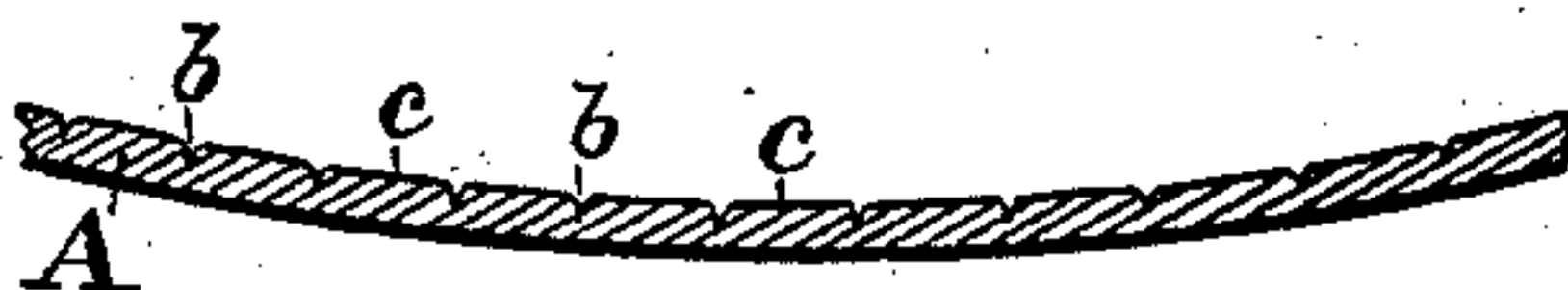
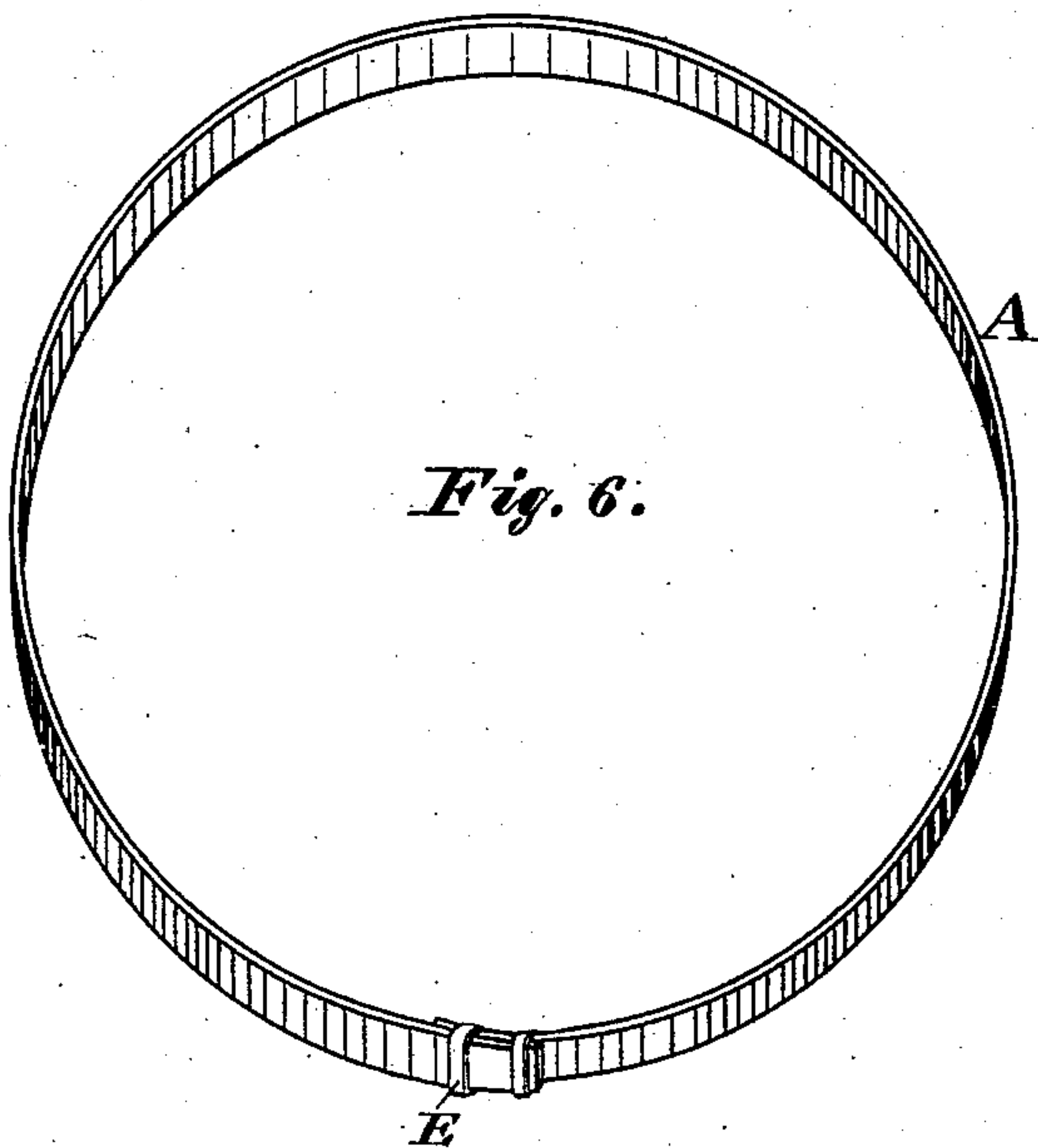


Fig. 5.

Fig. 6.



Witnesses:
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A. RENSSELAER SPROUT, OF PICTURE ROCKS, PENNSYLVANIA.

HOOP.

SPECIFICATION forming part of Letters Patent No. 293,916, dated February 19, 1884.

Application filed July 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, A. RENSSELAER SPROUT, a citizen of the United States, residing at Picture Rocks, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Hoops, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain improvements in wood hoops, which will first be described, and then designated in the claims.

In the drawings hereto annexed, Figure 1 is a view of the lapped ends of a hoop, showing the inner side, and illustrating my invention. Fig. 2 is a view of the lapped ends after the metal fastener has been removed. Fig. 3 is a view showing a section of a metal fastener. Fig. 4 is a cross-section of the wood hoop, showing the scores. Fig. 5 is a longitudinal section. Fig. 6 is a view of a hoop, showing the fastener applied.

One feature of my improvement consists in providing the inner side of the hoop with short scores cut crosswise of the wood fibers, and leaving spaces between the ends of the scores where the fibers are not cut. This feature may be applied to wood hoops of equal thickness at both edges, or to hoops which are thicker at one edge than the other.

The letter A designates the wood hoop; *b*, short scores cut across the fibers of the wood before it is bent. It will be noticed there are three rows of scores extending lengthwise of the hoop. The scores in each row are regularly spaced apart, as at *c*, and then between the ends of the scores of one row and the ends of those in the next row there is a space, *d*, extending lengthwise of the hoop where the fibers are uncut. In other words, between each row of scores there is a row of fibers extending from end to end of the hoop which are uncut. The scores should have, preferably, a depth equal to about one-third of the thickness of the hoop; but the depth may vary. The score cut may be made by the pressure on the hoop-splint of a suitable edged tool, or by other means which will at the time of making the cut compress the cut ends of the fibers. A cutting-tool adapted to cut the "score," and also at the same time to properly compress the ends of the fibers where the cut is made,

should have a double basil, each of which should be concaved or hollowed, and the two basils or faces form a sharp cutting-edge. When the edge of such a tool is pressed into the wood, the effect of the hollowed basils is to compress the fibers endwise at each side of the cut. The cutting of short scores and at the same time compressing the fibers where the cuts are made has the effect to in some measure "upset" the fibers, thereby crimping or shortening one face of the hoop-splint, adapting it for the inner side of the hoop, and enabling the splint to be curved readily. A wood hoop thus provided will have a true circular shape, and timber of any size may be worked up into hoops as readily and to better advantage than the small young saplings heretofore generally used.

Another feature of my improvement consists in the special form of metallic fastener E, which is wrapped about the lapped ends of the hoop. The fastener consists of a flat strip of metal, each edge of which on one side is raised or thickened, as at *f*, the other side being flat. This metal strip is cut in pieces of length sufficient to wrap about the lapped ends of the hoop. A piece of this strip is then folded or bent with the raised edge *f* inward, as indicated in Fig. 3, and is thus tightly wrapped about the lapped ends of the hoop. It is then, while on the hoop, subjected to pressure, whereby the raised edge *f* of the metal is embedded in the wood.

By reference to Fig. 2 it will be seen that the raised edge *f* produces an indented groove, *f'*, in the wood, and this view will make clear one of the principal advantages of this form of fastener. The raised edges are more readily embedded in the wood, and thus the metal strip gets a better "grip" on the wood and is less likely to slip than a flat strip.

I prefer to use two metal fasteners; but whether one, two, or more be used is immaterial.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A wood hoop provided on its inner side with scores *b*, cut crosswise of the fibers, and having the cut ends of the fibers pressed inward, as set forth.

2. A wood hoop provided on its inner side

with short scores *b*, cut crosswise of the fibers, said scores being arranged in rows extending lengthwise of the hoop, with a space or row, *d*, of uncut fibers between the rows of scores, 5 also extending lengthwise, as shown and described.

3. A wood hoop having its lapped ends secured by a metallic fastener, consisting of a flat strip, *E*, provided on one side with raised

edges *f*, and tightly wrapped about the hoop, 10 with the raised edges embedded in the wood, as shown and described.

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

A. RENSSELAER SPROUT.

Witnesses:

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