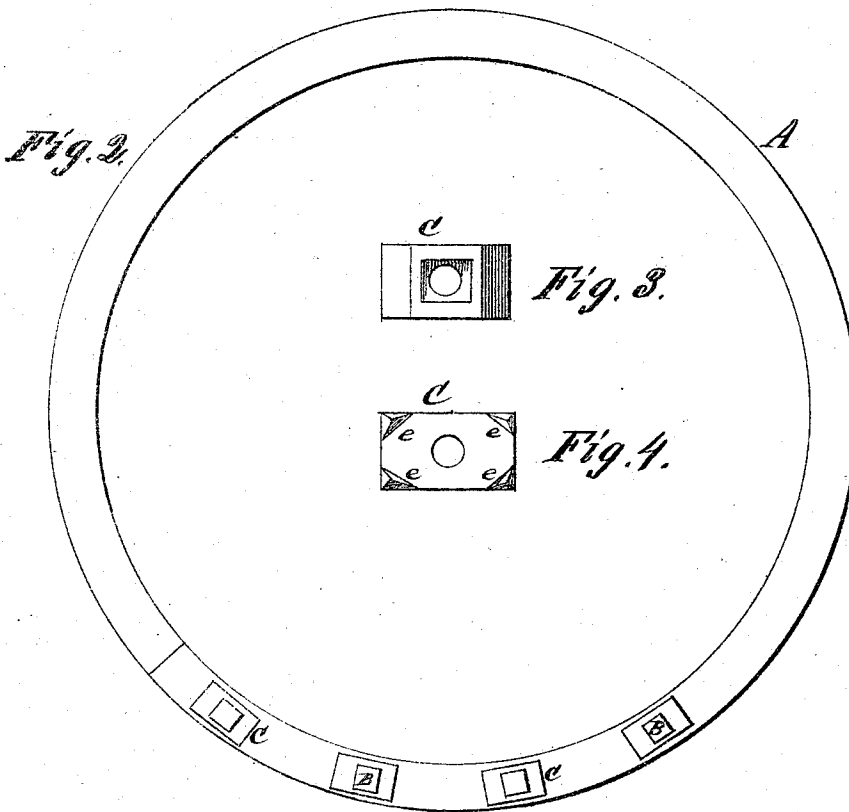
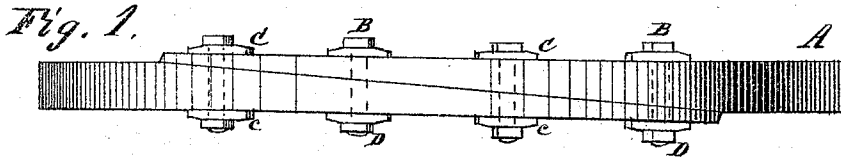


ELMINA C. RYDING.

Improvement in Truss-Hoops.

No. 118,281.

Patented Aug. 22, 1871.



Witnesses

A. Allgren
J. A. Morley

Inventor.

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UNITED STATES PATENT OFFICE.

ELMINA C. RYDING, OF TULLY, NEW YORK.

IMPROVEMENT IN TRUSS-HOOPS.

Specification forming part of Letters Patent No. 118,281, dated August 22, 1871.

To all whom it may concern:

Be it known that I, ELMINA C. RYDING, of Tully, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Truss-Hoops; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is an edge view of my improved truss-hoop, and Fig. 2 is a face view of the same. Figs. 3 and 4 are detail views enlarged.

Similar letters of reference indicate like parts in the several figures.

This invention relates to certain improvements in the construction of truss-hoops for coopers, whereby the hoops wear much longer and are less liable to mar the work; and the invention consists in making a sidewise lap of the ends of the hoop instead of an inside and outside lap, as heretofore, and putting the fastening-bolts through the lap perpendicular to the plane of the hoop, as hereinafter more fully explained.

In the accompanying drawing, Figs. 1 and 2 show the manner of making the lap, it being made on the faces of the hoop instead of lapping one end on the outside of the other, as usually; and the bolts B are thus reversed in the hoop with the lap, by which means the blows that are struck on the hoop to drive it onto the work are struck in a direction that is endwise to the bolts, so that in pounding down a hoop the bolts do not split it and then tear or draw through the split, which ruins the hoop. The fastening-bolts B can be rivets, but I prefer screw-bolts, each with a nut, D, and washers C c. These washers are made usually of malleable cast-iron, and each one has on its side next to the wood small projections or spurs e e, Fig. 4, that enter the face of the hoop on each side of a bolt-hole to give great-

er security against the hoop being split by rough usage, and also to prevent the bolts from tipping in the hoop by great strain. To prevent the bolts from turning with their nuts as they are screwed on or off each one has a square head that is seated in a square socket or countersink cast in the upper washer, as seen in Fig. 3. By using the screw-bolts in place of rivets the joint can be tightened in case it is driven together by use, and shrinkage of the timber is taken up readily, which keeps the joint always tight and solid.

One of the advantages of this construction is, that in driving the hoop on it does not mar the work by the washers or ends of the bolts coming in contact therewith, but presents a wooden surface to the work on all sides alike; but the greatest advantage is the greater endurance of the hoop by obviating the tendency for them to split at the bolts, as before mentioned. The labor of mortising for the fastenings of the joint is also done away with, so that the hoop is made with less labor and is stronger, as the wood is not cut away at the lap by said mortising. Also, the greater thickness of the lap is out of the way in passing one hoop over another on the work. The bolts can be distributed on the lap as desired, or in such manner as to leave a hammering space between the fastenings at the center of the lap.

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

A cooperage or truss-hoop, when the lap of its joint is made perpendicularly to the plane of the hoop, substantially as specified.

The above specification of my invention signed by me this 6th day of July, 1871.

ELMINA C. RYDING.

Witnesses:

THEODORE W. RYDING,
F. A. MORLEY.