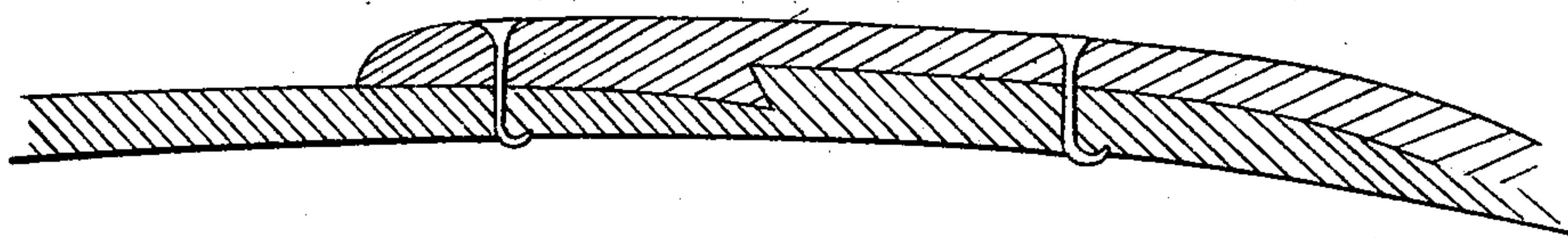
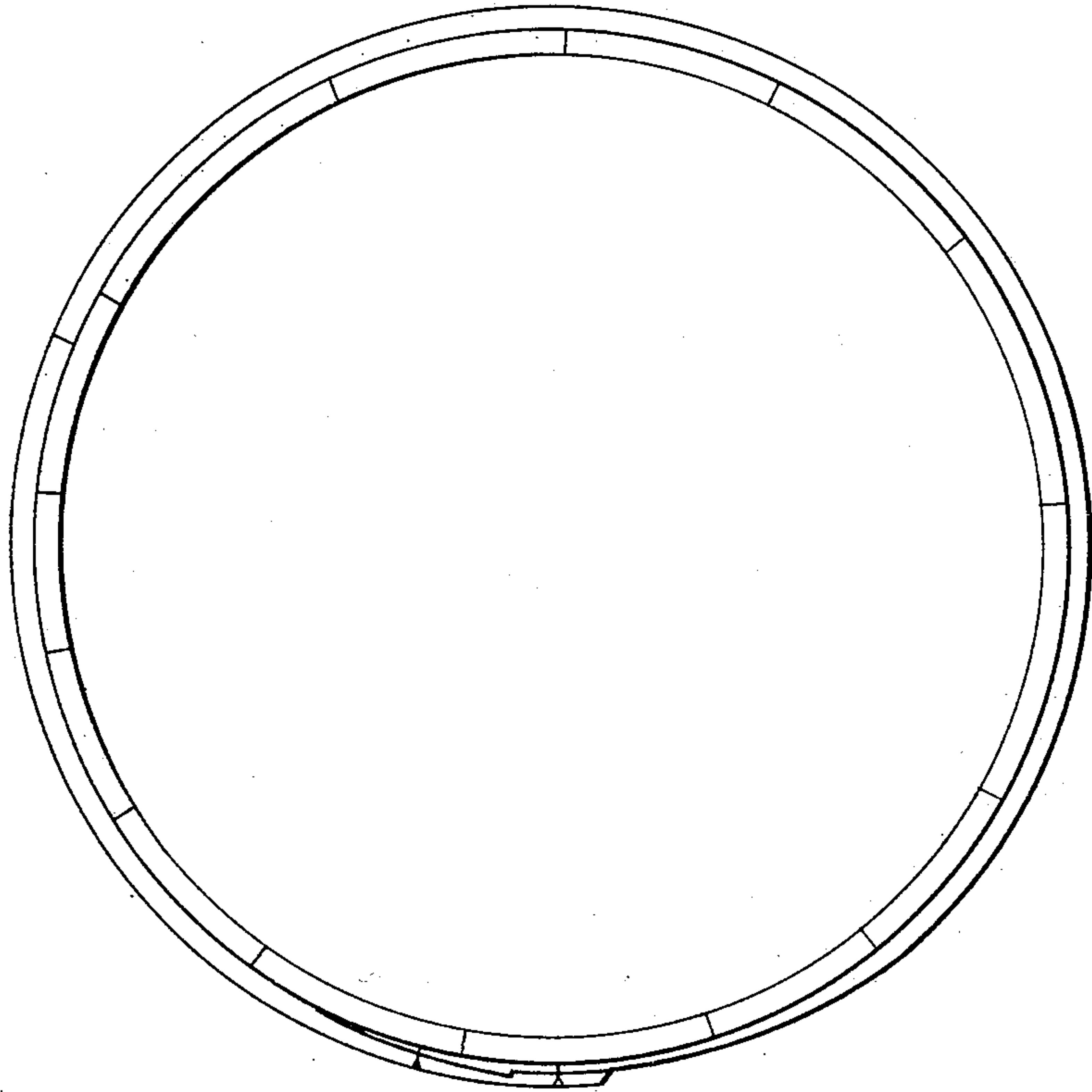


J. B. DOUGHERTY.

BARREL HOOP.

No. 40,250.

Patented Oct. 13, 1863.



*Witnesses:*

*John Plin*

*J. S. Simber*

*Inventor:*

*John B. Dougherty*

# UNITED STATES PATENT OFFICE.

JOHN B. DOUGHERTY, OF ROCHESTER, NEW YORK.

## IMPROVEMENT IN BARREL-HOOPS.

Specification forming part of Letters Patent No. 40,250, dated October 13, 1863.

*To all whom it may concern:*

Be it known that I, JOHN B. DOUGHERTY, of the city of Rochester, county of Monroe, and State of New York, have made and invented certain new and useful Improvements in the Construction and Mode of Manufacture of Barrel-Hoops; and I do hereby declare the following to be a full and accurate description of the same, reference being had to the accompanying drawings, making part of this specification.

Of said drawings, Figure 1 is a section of a barrel to which my improved hoop has been applied. Fig. 2 is an enlarged drawing of that portion of Fig. 1 which shows the form of the lock.

The nature of this invention consists, primarily, in a new and improved form of lock for the hoop; and, secondly, in a new method of manufacturing the same.

The lock will be most readily understood from an inspection of Fig. 2, where it will be seen that, instead of being cut edgewise into the hoop, it consists of a notch cut across its entire width. This notch is dovetailed or barbed—that is to say, those edges of the notches in each end of the hoop upon which the tension comes, are placed at such an angle that all tension has a tendency to bring them closer together. This will be readily understood from an inspection of Fig. 2. In order, however, to provide perfect security against all chance of the two notches slipping apart, I take the precaution of riveting or nailing the two ends of the hoop together, as shown in Fig. 2, and to effect this more neatly and securely that end of the hoop which comes outside is left thick, as shown in the drawings, so as not only to afford a good hold for the nail, but avoid all liability of its being splintered by any rough usage to which the barrel may be exposed.

These locks are, of course, cut by machinery, and it is obvious that we may not only cut the lock, but also shave and taper the ends of the hoop at the same time and by the same oper-

ation, thus saving the cooper all further trouble in this respect. With the ordinary form of lock this requires a separate operation.

The advantages of this mode of construction consist not only in the fact that the whole process is effected at one operation and by machinery, but also in the greater strength which is left to the hoop. In the ordinary lock the strain is applied to the hoop at the lock, so as to twist it. Here the strain is applied straight to the whole width of the hoop, and the result is found on trial to afford a marked increase in strength, a point of the utmost importance, as we are thereby enabled to secure tighter and more perfect barrels.

In the manufacture of these hoops before cutting or sawing the splint from the board or block, I mark the proper distance or position of the locks across the face of the board, so that each splint has the position of the notches marked on one edge. This guides the operator, so that any number of splints may be manufactured with the notches at precisely the desired distance apart. After cutting the splints from the board, I curve them round a cast-iron former, as described in my former patent.

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

1. The mode herein described of forming the lock of a barrel-hoop, said lock consisting of two notches cut across the entire width of the hoop, in the manner described.

2. Cutting the hoop-splints from a block or board having the position of the locks marked across its face, in the manner described.

3. Leaving the outer end of the hoop the full thickness of the material used, and riveting or nailing it to the other end of the hoop, in the manner and for the purpose set forth.

JOHN B. DOUGHERTY.

Witnesses:

JOHN PHIN,  
J. L. LUCKEY.