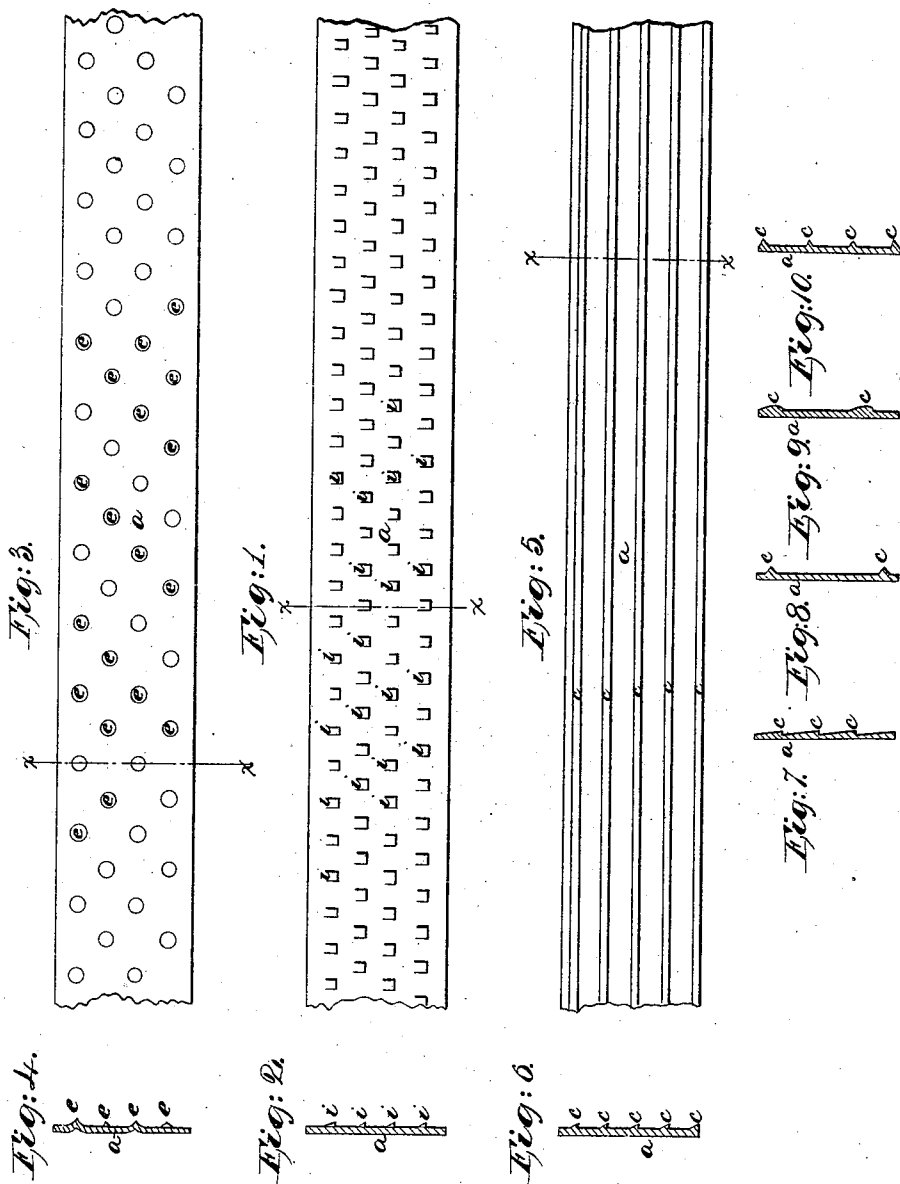


H. W. C. TWEDDLE.

BARREL HOOP.

No. 59,097.

Patented Oct. 23, 1866.



Witnesses:  
George H. Christy  
By N. Bakewell

Inventor:  
Herbert W. C. Tweddle  
by his attorney  
N. Bakewell

# UNITED STATES PATENT OFFICE.

H. W. C. TWEDDLE, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN BARREL-HOOPS.

Specification forming part of Letters Patent No. 59,097, dated October 23, 1866.

*To all whom it may concern:*

Be it known that I, HERBERT W. C. TWEDDLE, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Metallic Hoops for Barrels; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of a piece of hoop-iron with dentations projecting from its surface. Fig. 2 is an edge view of Fig. 1. Fig. 3 represents a piece of hoop-iron with projecting bosses, and Fig. 4 an end view thereof. Fig. 5 is a piece of hoop-iron with longitudinal ridges projecting from one side. Fig. 6 is an end view of Fig. 5. Figs. 7, 8, 9, and 10 are end views of pieces of hoop-iron with longitudinal ridges of different shapes.

My improvement consists in abrading or roughening the surface of hoop-iron, or making projecting dents, bosses, or longitudinal ridges thereon, for the purpose of facilitating the driving of the hoop on a barrel, cask, or other vessel made of staves, and causing it to remain in place when driven home by the sinking of the projecting points or edges formed on its inner surface into the wood of which the barrel or cask is made.

Hoops are commonly made with smooth surfaces, and, owing to the tapering form of barrels, casks, and other vessels made of staves, it is a difficult matter to drive them. This is especially the case with casks which have been used for petroleum and other oleaginous or greasy articles, so that it is necessary to apply sand, chalk, plaster-of-paris, or other substance to the outer surface of the barrel to enable the hoop to take hold of the wood when it is driven.

I propose to remedy this difficulty by abrading or roughening that surface of the metallic strip which is to form the inner surface of the hoop, or by making longitudinal ridges or dents or bosses, with either sharp or rounded edges or points, projecting from the inner surface of the metallic hoop.

In Fig. 1 a piece of hoop, *a*, (of iron, brass, or other metal,) is furnished with dents *i*, projecting from the surface on one side, the opposite or outer side being smooth. These

dents may be formed in any convenient manner, as by rolling the strip of metal through between a pair of rolls one of which is properly provided with sharp teeth for that purpose, or by pressing out the dents from the outside, in which latter case the outer side of the hoop will be indented.

The other forms of hoops herein described may also be made by rolling, although I make no claim to any particular machinery or process for their manufacture.

A hoop thus made, with dents *i* projecting from its inner surface, is placed on the barrel, with the edges of the dents pointing in the direction of the head of the barrel, so that as the hoop is driven down the sharp edges will enter the surface of the wood and overcome its tendency to slip up.

Another mode of securing the same result is to form pointed bosses *e* (see Figs. 3 and 4) projecting from the inner surface of the hoop. These bosses will enter the surface of the barrel, taking such hold of the wood as to prevent the hoop slipping back while it is being driven or afterward.

Still another method is to form one or more ridges, *c c*, (preferably with angular edges, as shown in Figs. 5 to 10,) projecting from the inner surface of the strip of hoop metal, and extending longitudinally, either continuously or with intermissions. These ridges *c c* not only serve to retain the hoop in its place on the barrel, but, when situate near the edge of the hoop, tend to prevent its cracking or bursting.

What I claim as my invention, and desire to secure by Letters Patent, is—

Making metallic hoops for barrels, casks, and similar vessels with the inner surface provided with longitudinal ridges, so constructed as not to prevent the hoop being driven on the cask, while the projecting edge or edges thus provided cause it to remain in place when driven, substantially as hereinbefore described.

In testimony whereof I, the said HERBERT W. C. TWEDDLE, have hereunto set my hand in presence of two witnesses.

HERBERT W. C. TWEDDLE.

Witnesses:

ALLAN C. BAKEWELL,  
A. S. NICHOLSON.