

(No Model.)

I S. HAGENBACHER & A. STRAUSS.

HOOP FOR BARRELS, &c.

No. 324,021.

Patented Aug. 11, 1885.

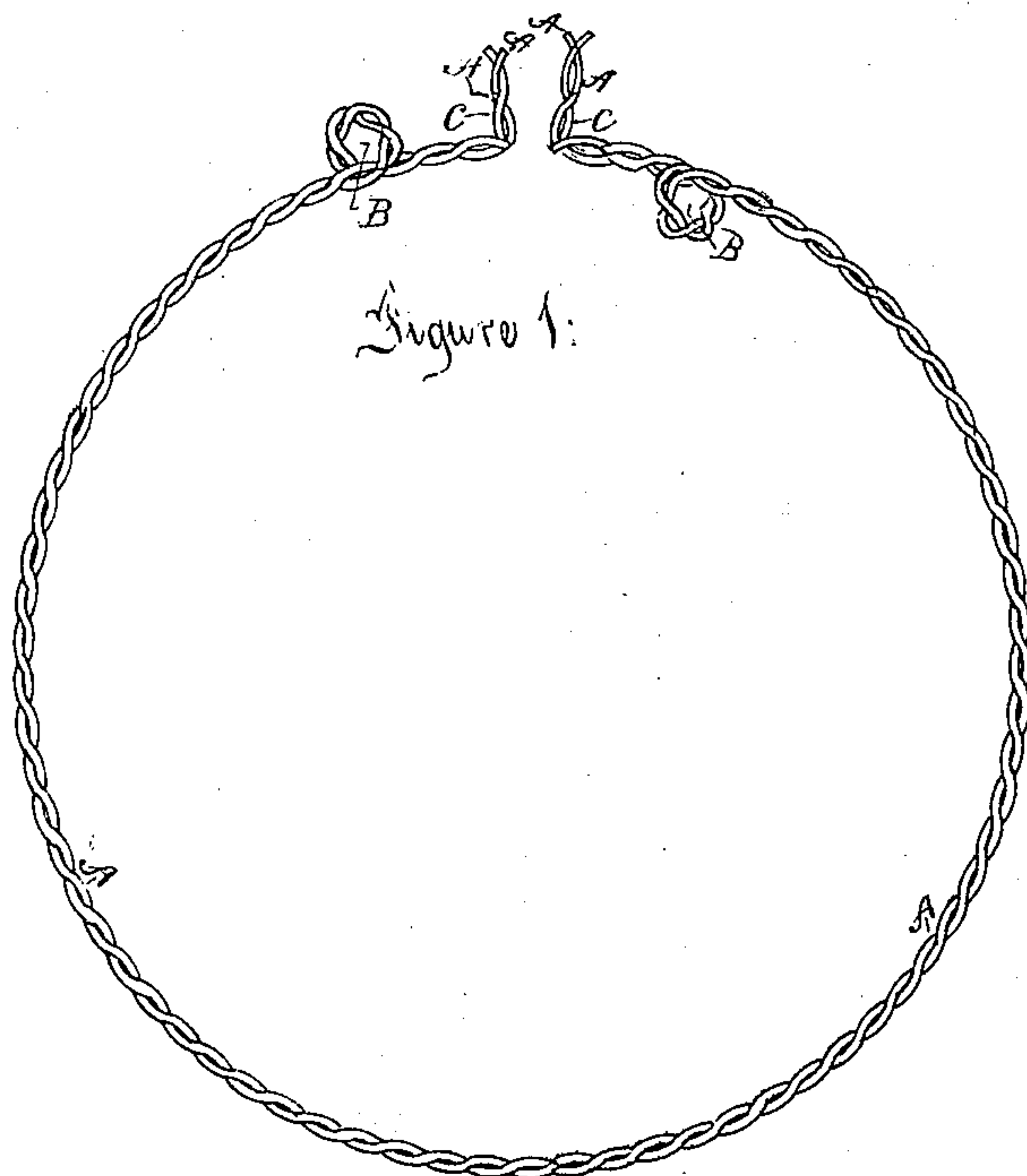


Figure 1:

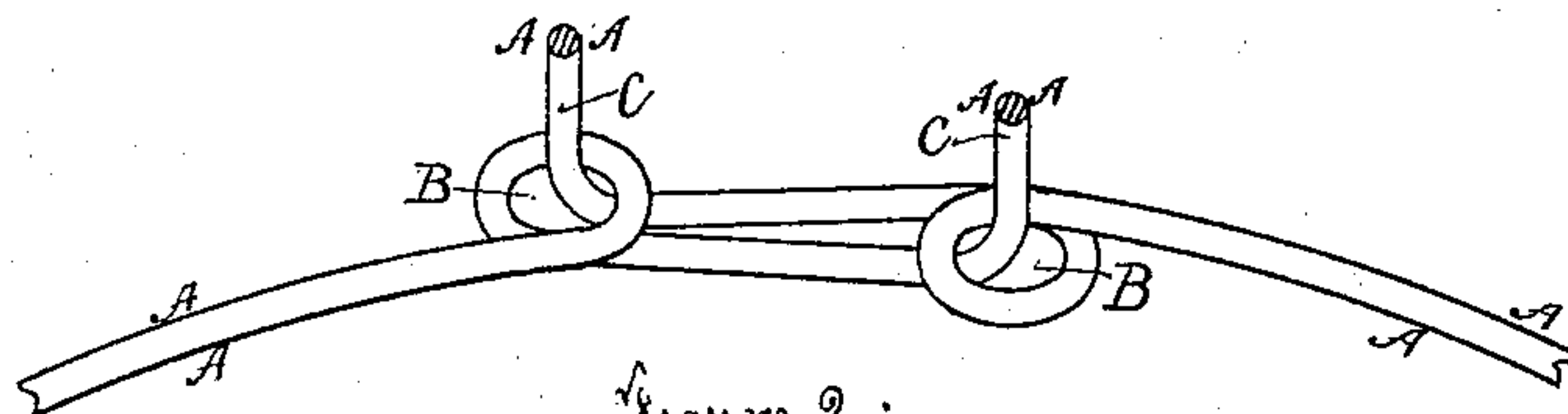


Figure 2:

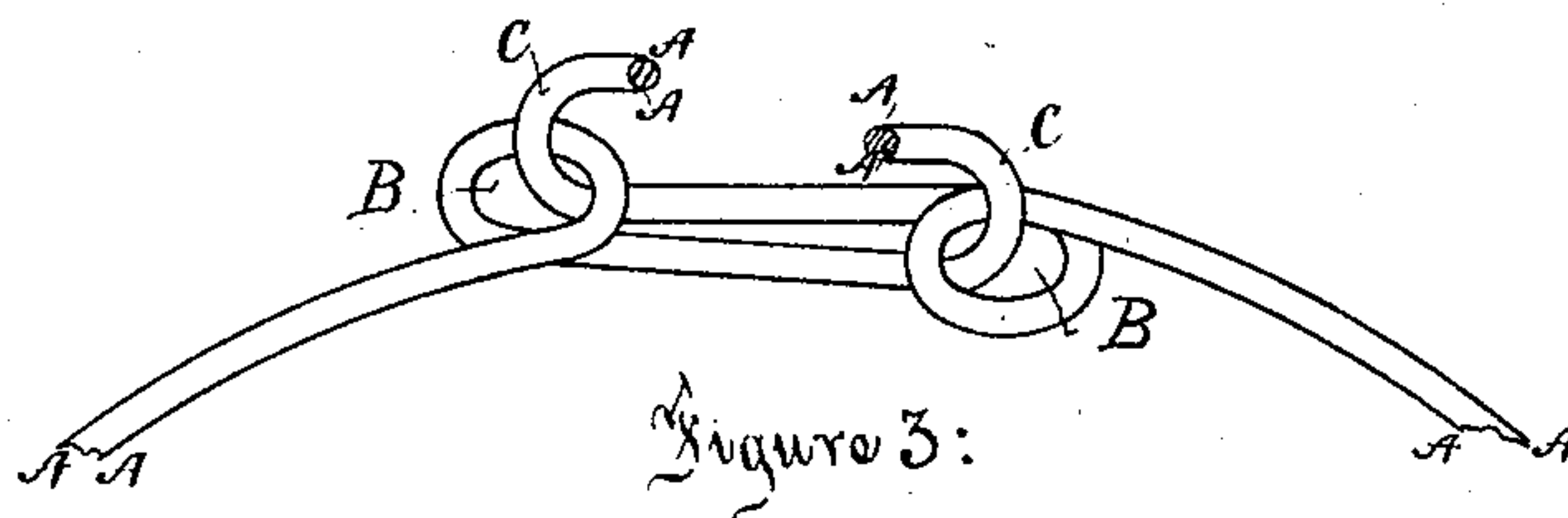


Figure 3:

Witnesses:
Joseph L. Ferry.
John F. Caldwell

Inventor:
Sidor S. Hagenbacher
and Abram Strauss
by Phillips, Abbott & their
Attorneys.

UNITED STATES PATENT OFFICE.

ISIDOR S. HAGENBACHER AND ABRAM STRAUSS, OF BROOKLYN, N. Y.

HOOP FOR BARRELS, &c.

SPECIFICATION forming part of Letters Patent No. 324,021, dated August 11, 1885.

Application filed January 30, 1885. (No model.)

To all whom it may concern:

Be it known that we, ISIDOR S. HAGENBACHER and ABRAM STRAUSS, citizens of the United States, and residents of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Hoop for Barrels, Casks, Tubs, Pails, and Similar Articles, of which the following is a specification.

Our invention relates to a new and useful hoop for barrels, casks, tubs, and similar articles; and it consists in forming the hoop out of wire or equivalent strips of metal, either in a single piece or two or more pieces twisted together or otherwise united, and in forming loops, eyes, or ring-like openings at or near the ends of the wire or strips, into which the meeting ends of the wire or wires or strips may be locked to form firm union between the ends, thus completing the hoop.

In the drawings the same letters indicate the same parts.

Figure 1 shows a view of our improved hoop before the ends are inserted in their respective loops or eyes. Fig. 2 shows the ends inserted in the loops or eyes, ready to be hammered down to fasten them, the rest of the hoop being removed, and in this figure a single wire is shown. Fig. 3 shows a finished joint at the end of the strips or wires, the interlocking hook having been hammered down. A single wire only is shown in this figure also.

In the drawings the hoops are drawn in such a manner as to show the loops or eyes and the hook-like ends of the wires prominently. In practice the eyes are relatively smaller, and the interlocking ends of the wires are flattened down snugly upon the eyes.

A A represents the wire or wires or strips of metal composing the hoop. There may be one or more wires or flattened or square pieces of iron or steel twisted or otherwise combined to form the hoop. We prefer to twist two or more pieces together, believing that we thus secure greater strength per weight of metal. Near the ends of the wire or wires or strips of metal, as the case may be, we take a turn in them, thus forming the loops or eyes B B, the hole through the eyes being preferably just sufficient to allow the ends of the wires to pass through. We also turn up the ends of the wires, preferably at about right angles, as seen at C C, so that the ends may be more conven-

iently inserted in the eyes. When the hoops are thus far completed, they are in their best shape, as we believe, for transportation, since they can be done up in bundles of any desired number, and make a very compact, easily-handled package, which can be conveniently bound together by simply putting a piece of wire around each end and in the center, if desired, the ends of which will be twisted together, as usual in such cases. When the hoops are desired for use, the upturned ends C C are passed through the eyes B B in the opposite ends, respectively, as shown in Fig. 2, and then bent back upon themselves, respectively, and hammered or pressed down firmly with any suitable instrument. This can be readily done by machinery, if desired. The resulting hoop is shown in Fig. 3.

We do not claim, broadly, a barrel or other hoop made from wire having the ends interlocked, since we are aware that such hoops have been heretofore made; but in such prior hoops the ends have been so formed that one end was bent from outside inwardly and the other from inside outwardly. Thus the end which was passed through the loop which receives it, and in which it locks, was brought in contact with the staves of the barrel or other article on which it was driven, and while being driven the end scraped against the stave and turned and bent the end out of shape and at substantially right angles to the line of the hoop, thus impairing the strength of the joint, the end thus twisted out of shape being more easily pulled out of the loop than if it turned directly back upon itself. The side of the barrel or other article also was injured by the scraping of the sharp rough end of the wire or wires over it as the hoop was driven in place.

It will be seen that in our invention both ends of the wire or wires are bent from inside outwardly, and both ends pass through the loops from the inside outwardly. Thus we obviate the objections above stated.

The hoops are applied to the barrels, casks, tubs, or other like structures, as wooden hoops, ordinarily are, by being driven down by the use of a suitable cooper's tool, as usual, the tool having a groove in its face adapted to receive and hold onto the wire or wires or strips of metal, as the case may be. When driven

home, they are held in position, preferably by a short staple which is driven into the staves spanning the wire or wires or strips; and we prefer to so cut the points of the staples that
5 they will spread when entering the staves, thus locking themselves in the staves and adding to their efficiency for the purpose desired. Instead of the staples, however, the hoops may be confined by nails or equivalent
10 devices driven into the staves in front of the hoops; or they may be confined in place in any other desired manner.

The wire or wires or strips of metal of whatever shape may be protected from the elements
15 by painting, galvanizing, or otherwise coating them with any desired protecting medium; and they are adapted to be used not only on barrels, casks, tubs, pails, &c., but also on square boxes or the like articles wherever
20 there is a tapering surface or surfaces upon which they can be driven, and also upon any package which may be compressed sufficiently to allow them to inclose it.

Having described our invention, we claim—
The above-described hoop, consisting of one 25
or more wires or strips of metal having the ends united by means of a loop or eye formed near each end, respectively, into which pass
from the inside outwardly the extreme opposite ends of the wires or strips, respectively, 30
which are then bent back to lock the ends together, the ends of the wires or strips, when the hoop is completed, being both on the outer side of the hoop, substantially as and
for the purposes set forth. 35

Signed at Brooklyn, in the county of Kings and State of New York, this 26th day of January, A. D. 1885.

ISIDOR S. HAGENBACHER.
ABRAM STRAUSS.

Witnesses:

A. ODASZ,
ANIETA ODASZ.