A. EISELEIN.

Corrugated-Hoop for Barrels.

No. 219,351. Patented Sept. 9, 1879.

Fig. 1.

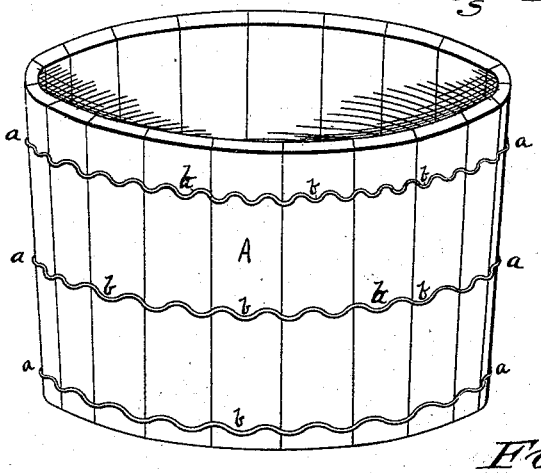


Fig. 2.

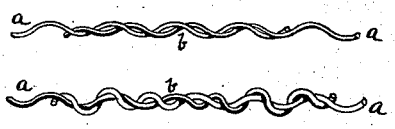
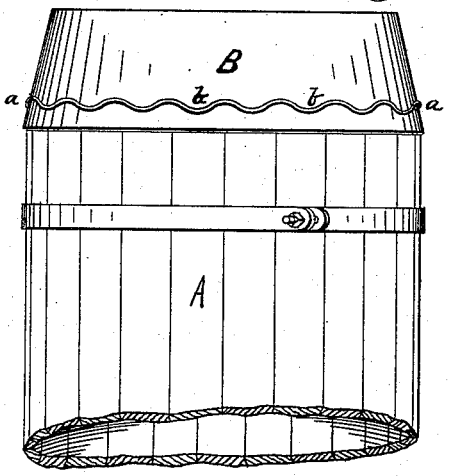


Fig. 3.



WITNESSES.

John T. Halsted.

Eno. M. Nichols.

Adolph Eiselein,

INVENTOR, BY

Louis Fecser and Charles N. Woodward,

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UNITED STATES PATENT OFFICE

ADOLPH EISELEIN, OF WACONIA, MINNESOTA.

IMPROVEMENT IN CORRUGATED HOOPS FOR BARRELS.

Specification forming part of Letters Patent No. **219,351**, dated September 9, 1879; application filed June 30, 1879.

To all whom it may concern:

Be it known that I, ADOLPH EISELEIN, of Waconia, in the county of Carver and State of Minnesota, have made certain new and useful Improvements in Corrugated Hoops for Barrels, Tubs, Firkins, &c., which improvements are fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of a tub with my improvement attached thereto. Fig. 2 represents two methods of locking the ends of the hoop together. Fig. 3 represents the method of applying the hoop to straight or bulgeless barrels, &c.

This invention relates to hoops for barrels, tubs, firkins, &c.; and consists in forming them of wire bent into a corrugated or serpentine form, whereby the spring or elasticity of the metal will hold the staves tightly together, whether they are damp or dry.

Much annoyance is experienced in using barrels, tubs, &c., from the frequent loosening and bursting of the hoops, caused by the shrinking and swelling of the staves.

To avoid this is the object of my invention, which consists of a hoop, *a*, made of wire bent into corrugations *b*, so that the hoop will have a serpentine form. When thus formed and driven upon a dry barrel or tub, it will compress and hold the staves tightly together like the ordinary hoop, but will have elasticity or spring enough to stretch when the staves expand by moisture and return to its former position when the staves again contract upon becoming dry; or, in other words, the hoops will adapt themselves to the expansion and contraction of the barrel, and thus avoid the annoyance of loose or bursting hoops.

By forming the corrugations to rest flatwise against the staves no obstruction is offered to rolling in case of barrels, while at the same time a much larger amount of friction is brought to bear upon the staves, and thus increase their holding-power.

The ends of the wire will be secured together in any suitable manner; but I find the most effective method to be by twisting one end around the other, as shown in Fig. 2.

The corrugations may be made of any radius desired—the longer the curve, of course, the less elasticity, and consequently the greater the power required to expand the hoops; but I do not wish to confine myself to any particular form.

The hoops, being made of wire, will withstand corrosion much better than flat hoops, as less metal comes in contact with the wood; consequently less opportunity is afforded for the retention of moisture.

This hoop is more easily and cheaply made than the ordinary hoop, is easier applied, occupies less space, and can be made very ornamental.

The corrugations may be made of irregular sizes, if desired.

The corrugated hoops may be used in conjunction with ordinary hoops to advantage under some circumstances; but one peculiar advantage of this hoop is, that it may be applied to straight or bulgeless barrels.

Fig. 3 illustrates the method of applying the hoop to such a barrel. This consists of a tapering mandrel, B, with its larger end the same size or slightly larger than the end of the barrel A. The hoop is placed upon the small end of this mandrel, which is then placed in position upon the barrel after the latter has been "trussed" and the hoop driven down over the mandrel upon the barrel, and thence down to its proper position, its elasticity enabling it to conform to the barrel and compress it at all points, so that it will remain wherever left. These hoops may also be used upon receptacles of polygonal or other shapes differing from a circle.

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

As a new article of manufacture, a hoop made of wire bent or corrugated transverse to the plane of the hoop, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ADOLPH EISELEIN.

Witnesses:

C. N. WOODWARD,

LOUIS FEESER.