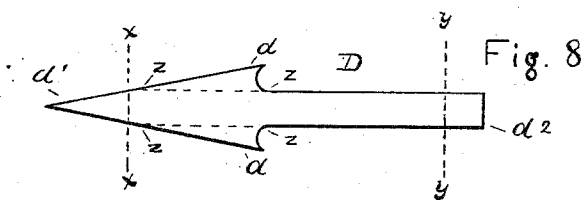
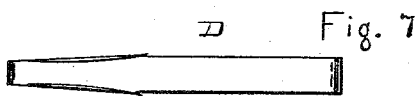
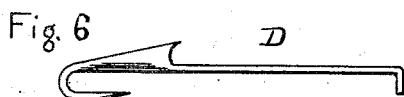
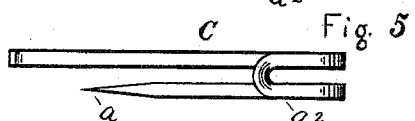
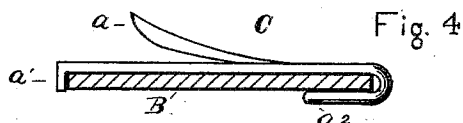
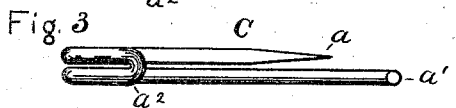
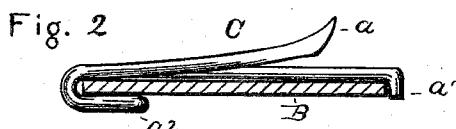
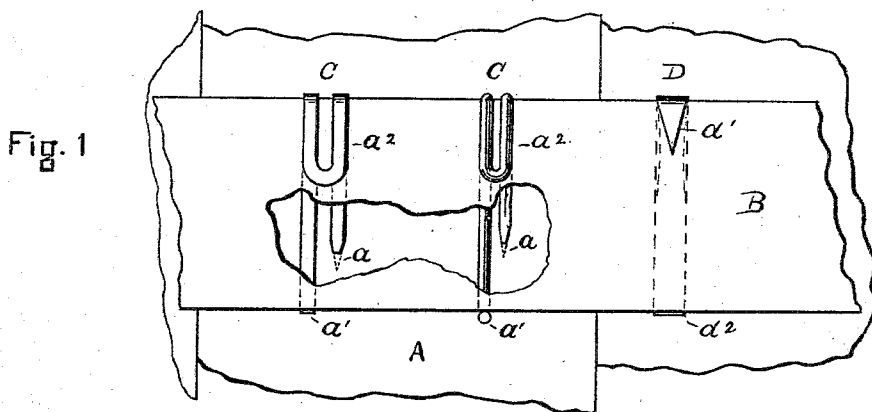


(No Model.)

C. W. BARNES.
CASK HOOP FASTENER.

No. 303,253.

Patented Aug. 12, 1884.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES W. BARNES, OF CROOKSTON, MINNESOTA.

CASK-HOOP FASTENER.

SPECIFICATION forming part of Letters Patent No. 303,253, dated August 12, 1884.

Application filed June 9, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. BARNES, a citizen of the United States, residing at Crookston, in the county of Polk and State of Minnesota, have invented a new and useful Hoop-Fastener; and I do hereby declare that the following is a full, clear, and exact description of the invention, reference being had to the accompanying drawings.

My invention relates to means for securing the hoops of casks, tubs, buckets, and analogous articles in place; and it consists in a device made of wire or flat metal suitably bent to clasp the upper and lower edges of the hoop, and provided with a projecting sharpened portion between the two portions which clasp the hoop, which sharpened portion penetrates the stave beneath the hoop and prevents the slipping of the hoop.

As is well known, the hoops of casks and all similar articles, when not nailed or otherwise fastened, become loose from shrinkage of the cask and are liable to slip off; and the object of my invention is to provide a device which may be attached to the hoop and put on with it to hold the hoop in place.

In the drawings, Figure 1 is a broken view of a portion of a cask and hoop with the fastening devices. Figs. 2 and 3 show side and plan views of the device as made from round wire and its position on the hoop; Figs. 4 and 5, the same as made from square or flattened wire; Figs. 6 and 7, a modification of the device, and Fig. 8 the shape of the blank to be converted into the form shown in Figs. 6 and 7.

A A are portions of the staves of a cask, and B a portion of the hoop. The hoop B is also shown in section in Figs. 2 and 4.

C represents the device as made from round wire, and C' as made from square or flattened wire.

a is a prong formed by slightly bending a metal rod near one end, flattening, sharpening, and rounding that end to an edge and point of about the shape shown in the drawings.

a' is a clasp formed at the other end of the rod by bending the end at right angles to the rod on the side opposite the prong *a*, for the purpose of claspings one edge of the hoop.

a'' is a clasp for grasping the opposite edge of the hoop, which clasp is formed near the

middle portion of the rod by bringing the two portions around parallel to each other with the prong *a* a half-inch or more back of the clasp *a'*, and by then bending the doubled middle part over sufficiently to clasp the edge of the hoop opposite that held by the clasp *a'*, both of said clasps being on the same side of the device and opposite the prong. It is preferable to have the prong *a* about midway between the two clasps, and the arm on which the prong is formed should be slightly curved outward and have more or less springiness.

In the modified form of the device shown in Figs. 6 to 8 a thin plate of metal is cut into a blank of about the shape shown in Fig. 8, which blank is then bent on the lines *xx*, *yy*, and *zz*, to form the prongs *d d* and clasps *d'* and *d''*. The point is formed into the clasp *d''*, for engaging one edge of the hoop, and the other end is bent into the clasp *d'*, for claspings the opposite edge of the hoop from the same side. The prongs *d d* are made to project from the side opposite the clasps, and are sharpened to insure their entering the stave. In using either form of the fasteners they are clasped to the hoop before it is driven onto the cask. The clasps *a' a''* or *d' d''* are passed over the edges of the hoop from within, having the prongs *a* or *d d* beneath the hoop and projecting backward from the direction the hoop is to be driven. Thus the fastener is held firmly in place on the hoop, and the hoop being driven on in the usual manner the prongs enter the staves beneath the hoop and prevent it from slipping back. To remove the hoops, the clasps *a'* or *d'* can readily be straightened out, and the hoop thus freed from the clasps.

By modifying the form of the clasps *a''* and *d''* they may be adapted for use with metal or wooden hoops of any of the ordinary forms.

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

A hoop-fastener having two parts capable of claspings the hoop at its edges, and an intervening projecting prong, as and for the purpose set forth.

CHARLES W. BARNES.

Witnesses:

JOHN McLEAN,
ARCHD. SHANNON.