B. E. G. NOBLE.

HOOP.

APPLICATION FILED AUG. 21, 1914.

1,199,595. Patented Sept. 26, 1916.

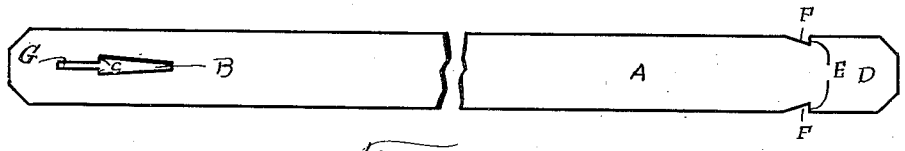


Fig. 1

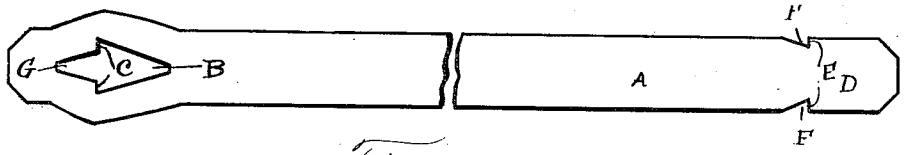


Fig. 2

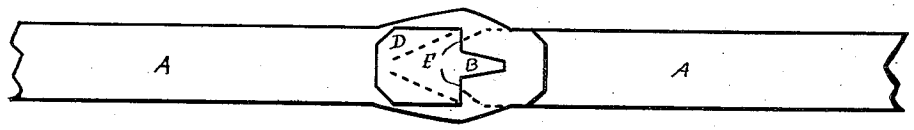


Fig. 3

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UNITED STATES PATENT OFFICE.

BION E. G. NOBLE, OF BALDWIN, MAINE.

HOOP.

1,199,595. Specification of Letters Patent. Patented Sept. 26, 1916.

Application filed August 21, 1914. Serial No. 857,962.

To all whom it may concern:

Be it known that I, BION E. G. NOBLE, citizen of the United States, residing at Baldwin, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Hoops, of which the following is a specification.

This invention relates to improvements in metal hoops and more particularly to means for uniting the ends thereof.

It is common at the present time to make hoops provided with a tongue-receiving opening in one end and a shouldered tongue on the other end adapted to be inserted into said opening and locked therein by bringing said shoulders on said tongue into engagement with the bottom of said opening, but up to the present time no means has been devised that does not require that at least one-half of the hoop be removed on one or both ends so that thereby the hoop can have not exceeding one-half of its normal strength.

The object of the present invention is to accomplish the same locking result with a much less weakening of the hoop.

Figure 1 is a plan view of a blank from which my improved hoop may be made by permanently separating the parts adjacent the tongue-receiving opening. Fig. 2 is a plan view of my improved hoop whether made from the blank shown in Fig. 1, by separating the parts adjacent the opening or from a blank having an enlarged end in which the tongue-receiving opening is formed without separating the sides adjacent the opening, and Fig. 3 is a detail inside plan showing the ends interlocked.

Same reference characters indicate like parts in the several figures.

In said drawing A is a ribbon of metal from which the hoop is made. As shown at Fig. 1, one end is provided with a tongue D having shoulders E formed by reëntrant cuts, which combined are less than one half the width of the ribbon, and the other end is provided with a tongue seat C, the sides about said opening being together equal to more than one half the width of the ribbon.

In Fig. 1 the seat is formed by removing less than one-half the width of the ribbon, and the shouldered tongue is formed by removing less than one-half of the width of the ribbon. The sides of the ribbon adjacent the opening are then permanently separated laterally, preferably by the die which makes the opening, a sufficient distance to permit the seat to receive the shoulder of the tongue, whereby a much smaller portion of the ribbon is removed and the strength of the hoop is impaired to a much less extent than in the old way. The same result is attained by enlarging the end of the ribbon which is provided with the opening. In this case the blank has the normal contour shown in Fig. 2 and the sides adjacent the opening are not forced apart, but the opening is formed full size in the enlarged end of the hoop.

It will be observed that the hoop is provided, at the outer broader end of the opening B with a slot G which extends outwardly from and communicates with said opening. This slot G is in effect a longitudinal extension of the opening so that the latter is rendered sufficiently long to allow the sides to be spread apart to widen the opening sufficiently to receive the tongue and at the same time allows the side dimensions between the sides of the opening and the sides of the band to be substantially unaltered.

Having described my said invention and its uses, I claim:

A blank for a hoop of the class described having a tongue at one end having notches in the opposite sides forming shoulders at the inner end of the tongue, said hoop blank being provided at a point near but spaced from the opposite end with an opening midway between the sides of said end portion, said opening having inwardly converging sides and said hoop blank being also provided with a slot extending outwardly from, communicating with the widened portion of, and forming a longitudinal extension of said opening, said opening being sufficiently long so that when the same is extended laterally to receive the tongue, the metal upon either side of said opening will be of substantially the same cross-sectional area as in the blank.

In testimony whereof I affix my signature in presence of two witnesses.

BION E. G. NOBLE.

Witnesses:

CHARLES L. FOSTER,

ELGIN C. VERRILL.