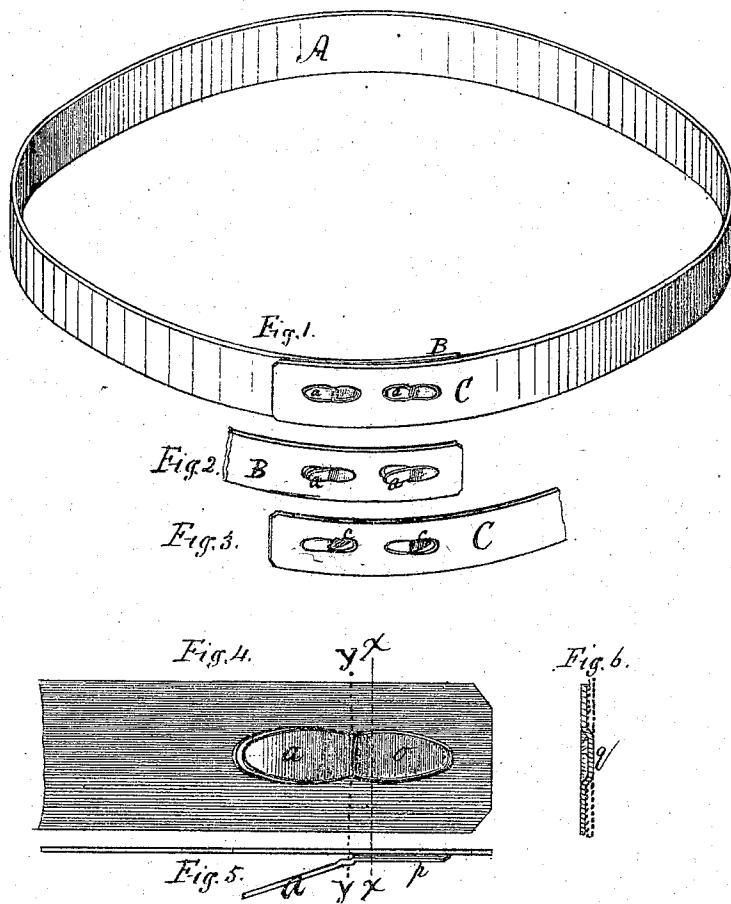


Sylvester Lewis, Metal Hoop

118252

PATENTED AUG 22 1871



Witnesses.

D. J. Brown
W. P. K. Peck

Sylvester Lewis *Inventor*

UNITED STATES PATENT OFFICE.

SYLVESTER LEWIS, OF ROCHESTER, NEW YORK, ASSIGNOR TO HIMSELF AND HENRY CHURCHILL, OF SAME PLACE.

IMPROVEMENT IN METAL HOOPS.

Specification forming part of Letters Patent No. 118,252, dated August 22, 1871.

To all whom it may concern:

Be it known that I, SYLVESTER LEWIS, of the city of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Metal Hoops; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Figure 1 represents a perspective view of my improved metal hoop as locked. Figs. 2 and 3 represent the inner and outer ends of the same as detached. Fig. 4 represents the inner end of the hoop on an enlarged scale. Fig. 5 is an edge view of the same, exhibiting the shoulder at the base of the tongue. Fig. 6 is a transverse section taken at the line *xx* of Fig. 4, and represents the depression formed in closing up the hoop-fastening.

My invention relates to a novel manner of constructing fastenings or locks for metal hoops; and consists in the formation of tongues punched out of the metal with square-shouldered bases and corresponding openings, arranged to interlock and form smooth surfaces, as hereinafter more fully described.

The hoop *A* is made with two pairs of tongues, *a a c c*, near its ends. These tongues are formed by punching out laterally a portion of the metal constituting the hoop, as indicated in the drawing. The two tongues *a a*, which are punched from the inside end *B* of the hoop, stand outwardly at a slight angle thereto, in proper position to be interlocked with the two tongues *c c*, which project from the outside end *C*, and stand, at a like angle, inwardly; and when the ends of the hoop are brought properly together the tongues *a* and *c*, which point in opposite directions, will each enter the opening from which the other was punched; and when the fastening is drawn together it may be compressed or hammered to complete the connection. At the base of the tongues *a c*, where they remain attached to the hoop, there are square shoulders, which are formed by the punch, and these transverse shoulders, denoted at the dotted lines *yy*, are brought into close contact, inclosing the hoop, and resist the tensile strain given in driving the hoop upon a barrel or other article. The punch with which the tongues

are formed is provided with a suitable recess or depression at one edge of its face, so as to form the shoulders referred to, and at the same time to prevent detaching the tongues from the hoop in the operation of punching them out. The metal at the line of the base of the tongue should remain at its full integrity as regards strength, although it is required that a laterally angular shoulder should be formed as a seat for the corresponding shoulder at the base of the tongue at the other end of the hoop.

When the hoop is punched as described, and the tongues are interlocked by being inserted in the opposite openings, the fastening is subjected, as hereinbefore stated, to the percussive action of a hammer or to a pair of rollers, which will cause those portions of the hoop immediately behind the tongues *a c* to be depressed with the tongues and forced, laterally to the face of the hoop, into the spaces or openings which were formed by punching out the tongues.

o p q, in Figs. 4, 5, and 6, indicate the impression or configuration produced by the rolling or hammering process just described. This final operation, which gives to both sides of the hoop a smooth and even surface where it is fastened together, also secures the lock of the hoop firmly.

My new method of constructing metal hoops saves the cost of rivets, greatly cheapens and facilitates the cost of manufacture, and furnishes an article of superior quality as respects strength and smoothness where the ends of the hoop are fastened together.

It is evident that this improved hoop may be used for other purposes besides the manufacture of cooperware.

Having fully described my improvement in hoops, what is claimed herein is—

In a hoop-lock substantially as herein described, the angular seats *y* at the base of the interlocking tongue, for the purpose set forth.

In testimony whereof I have hereunto set my hand this 22d day of May, A. D. 1871.

SYLVESTER LEWIS.

Witnesses:

D. F. BROWN,
E. STAFFORD.