

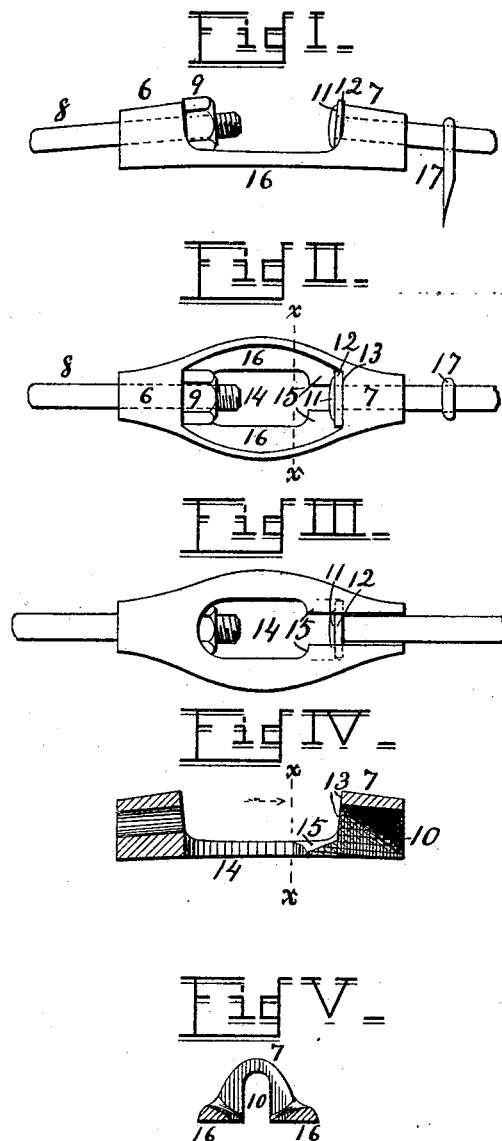
(No Model.)

H. M. LOURIE.

TUB HOOP.

No. 386,478.

Patented July 24, 1888.



Witnesses,  
S. E. Stevens,  
P. E. Stevens.

Inventor,  
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By his Attorney W. E. Stevens.

# UNITED STATES PATENT OFFICE.

HERBERT M. LOURIE, OF KEOKUK, IOWA.

## TUB-HOOP.

SPECIFICATION forming part of Letters Patent No. 386,478, dated July 24, 1888.

Application filed April 18, 1888. Serial No. 271,016. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT M. LOURIE, a citizen of the United States, residing at Keokuk, in the county of Lee and State of Iowa, have invented certain new and useful Improvements in Tub-Hoops; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to that class of devices which are adapted to connect the ends of a metallic hoop together, thus becoming a part of the hoop and called "hoop-lugs." The staves of a common wash-tub are particularly liable to shrink and allow the hoop to drop off, owing to the fact that the hot water used in them swells the fibers of the wood to their greatest extent for one day in a week, usually, and then the tub, being set away for the other six days, frequently becomes very dry and shrunk, and common tub-hoops have no provision allowed whereby they may be mechanically reduced in size to meet the shrinkage.

The object of this invention is to adapt a hoop for wash-tubs to be reduced or expanded at will to the extent required to meet the shrinkage and swell of the tub.

To this end my invention consists in the construction and combination of parts forming a hoop proper and a double lug, as hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure I represents a side elevation of a portion of a hoop showing my invention. Fig. II is a plan view, and Fig. III is an under side view, of the same. Fig. IV is a central longitudinal section of my double lug in the plane of the hoop. Fig. V is a transverse section of the lug at the line *x x*.

Number 6 represents one lug, 7 the other lug, and 16 the side bars joining the two lugs forming my double lug. The lug 6 is bored through longitudinally to receive one end of a wire hoop, 8. This end of the hoop is screw-threaded to receive a screw-nut, 9. The lug 7 is cast with a longitudinal slot, 10, in its under side to receive the opposite end of the hoop 8, which is provided with a head, 11. This head may be formed directly upon the wire of the hoop by upsetting its end, or it may be formed by a nut screwed or otherwise secured

upon the wire; or a small head may be reinforced by a washer, 12, to provide sufficient surface to engage the shoulder 13 of the lug. The aperture 14 between the bars 16 is wide enough to admit the hoop end with the head 11 and washer 12.

15 represents two shelves at the sides of the groove 10, projecting inward from the side bars, 16, and from the shoulder 13 to engage the edge of the hoop-head, or the washer when the latter is in place, as shown, to keep the lug from disengaging the head or washer even though the ends of the hoop were to approach each other somewhat by the shrinking of the tub, and to keep the hoop-head in the lug while the hoop is being tightened by means of the screw-nut 9.

While the whole amount of shrinkage in a common wash-tub would probably not exceed one-quarter of an inch in general use, I would adapt my lug and the screw on the hoop to a range of about three-quarters of an inch of adjustment.

In applying this hoop it is only necessary to place the hoop proper, 8, with the double lug attached to it by the nut 9, around the tub, bring its head 11 to the aperture 14 in the lug, and press the lug back against the tub and let the hoop go. Its natural effort to straighten itself draws the head to its seat above the shelves 15 against the shoulder 13, and, however loose it may be on the tub, the hoop has no tendency to disengage at the lug.

This hoop may be used with parallel-sided staves. In any case the shrinkage of the tub renders it liable to fall off, and to prevent this I provide staples 17, to be driven loosely over the hoop into the tub. Three staples are enough to produce the best result with each hoop, and two would do very well.

The hoop is preferably of wire; but it may be flat or other formed hoop metal along its body and reduced at its ends to form the screw and head described. It is evident that each end of the hoop might be provided with a screw, a screw-nut, and washer, and that both of the lugs 6 and 7 might be provided with the slot 10 and shelves 15 without departing from the characteristics of my invention.

Having thus fully described my invention, what I desire to secure by Letters Patent is the following claim:

1. The combination, in a tub-hoop, of a hoop-body provided with a head at one end, a screw and a nut therefor at the other end, and the double lug described, comprising two end lugs joined by two side bars, all in one piece, one of the lugs being slotted in its back and provided with shelves at the sides of the slot, and the other lug having a longitudinal aperture in it, substantially as shown and described.
2. The double lug for hoops described, comprising the two end lugs, 6 and 7, joined by the side bars, 16, and the shelves 15, each of the end lugs having a longitudinal aperture, one of them having a slot at its back, substantially as shown and described.

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

HERBERT M. LOURIE.

Witnesses:

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NANNIE M. SMITH.