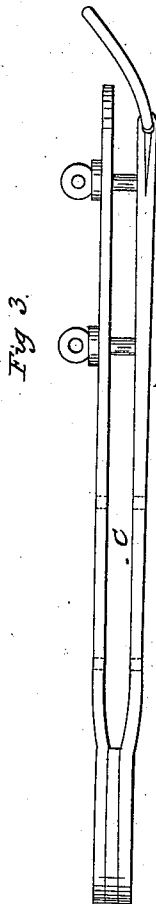
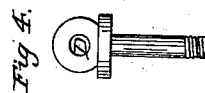
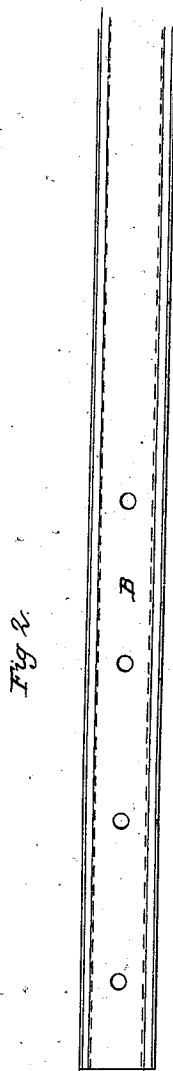
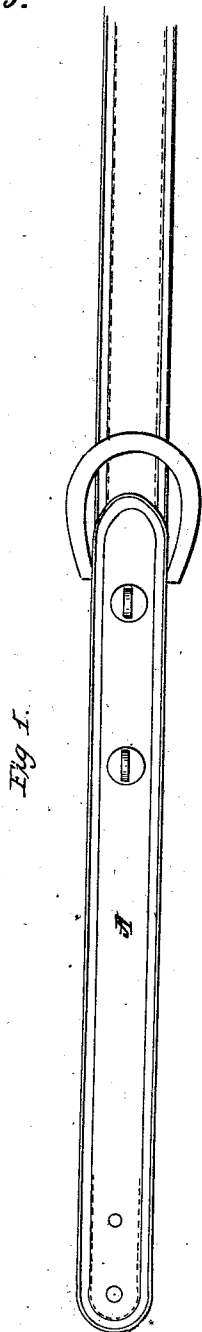


*L. Hall,
Hame Tug.*

N^o 39,443.

Patented July 7, 1863.



*Witnesses;
John A. Hall
William B. Gardner*

*Inventor;
L. Hall*

UNITED STATES PATENT OFFICE.

LEVI HALL, OF HENRIETTA, MICHIGAN.

IMPROVED HAME-TUG.

Specification forming part of Letters Patent No. **39,143**, dated July 7, 1863.

To all whom it may concern:

Be it known that I, LEVI HALL, of the town of Henrietta, county of Jackson, and State of Michigan, have invented a new and Improved Mode of Constructing Hame-Tugs and Connecting the Traces therewith; and I do hereby declare that the following is a full and exact description of the same.

The nature of my invention consists in connecting the traces with the hame-tug by two metallic bolts or thumb-screws, by which the trace can be changed by removing the screws. This mode of fastening is intended to prevent the trace from breaking at the buckle.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the following description reference will be had to the accompanying drawings, making a part of this specification.

In Figure 1, letter A is a plan or top view of the hame-tug and a portion of the trace; also, the other straps that connect with the buckle, showing the connection as it appears on my improved plan. In Fig. 2, letter B represents the forward end of the trace separate. In Fig. 3, letter C is a view of the edge of the hame-tug, with bolts attached. In Fig. 4, letter D is the bolt or thumb-screw.

In making this kind of hame-tug I use the ordinary kinds of tug-buckles without the tongue. I make the hame-tug in two parts, except three or four inches of the forward end, so as to admit the trace between the two pieces of the hame-tug, as shown by drawings, Fig. 3, letter C. I double the strap round the buckle and stitch the inside piece the whole length. The outside piece I make with a single strap. This is the style for farm-harness. The finer grades I double and stitch both pieces. I

fasten the trace to the hame-tug by two metallic bolts or thumb-screws, located on a center line of the trace, about three inches apart, just forward of the buckle. The bolts pass through the outside piece of the hame-tug, through the trace into the inside piece of the hame-tug, the leather of which forms a durable nut for the screw, which I prefer to a metallic nut for this particular place. The two bolts form a double fastening and divide the strain that the trace is subjected to in heavy drawing.

The traces I make in the usual way, except when they are required to be very heavy. I then put in the inside of the forward end of the trace a thin strip of hoop-iron, running back past the last hole in the trace, riveting through the same with holes to correspond with those in the trace. By this plan I am enabled to produce a neater and more substantial harness than can be made with the old-fashioned buckle and loops without increasing the expense.

Having thus fully described my improved method or plan of making hame-tugs, what I claim therein as new, and desire to secure by Letters Patent, is—

1. By making hame-tugs for harnesses in two separate parts, except the forward end where the hame rivets on, so as to admit the trace between the two pieces of the hame-tug.

2. By fastening the trace to the hame-tug by two bolts or thumb-screws, in the manner herein described, and represented by the drawings.

LEVI HALL. [L. S.]

Witnesses:

WILLIAM B. GARDNER,
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