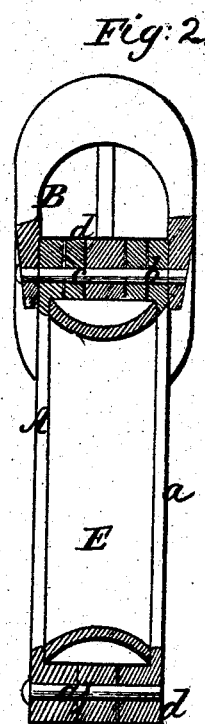
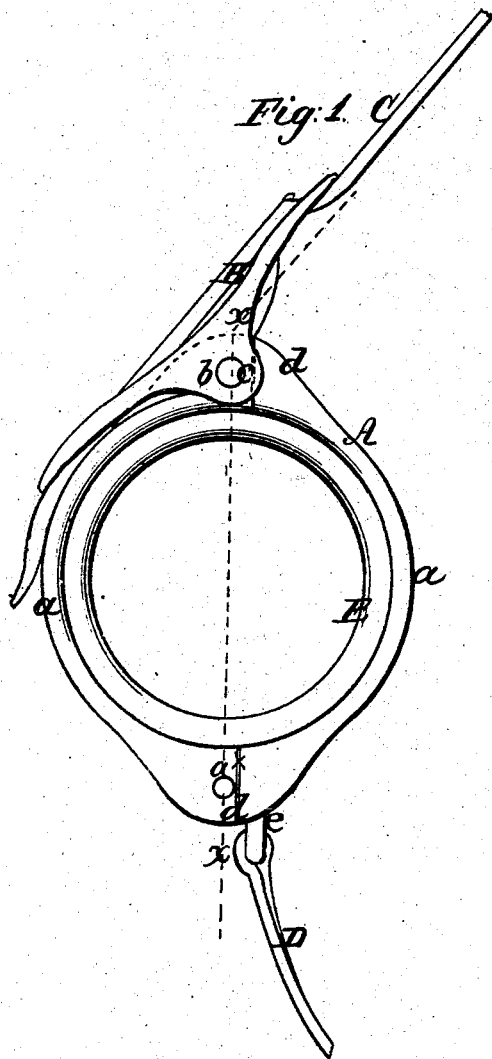


W.H. Noyce,
 Thill Tug,
 No. 47903, Patented May, 23, 1865.



Witnesses
 J. M. Corington
 Geo. T. Luce

Inventor
 W. H. Noyce
 By J. M. Corington

UNITED STATES PATENT OFFICE.

WILLIAM H. NOYES, OF HOMER, NEW YORK, ASSIGNOR TO HIMSELF AND
CHARLES H. WHEADON, OF SAME PLACE.

IMPROVED THILL-TUG.

Specification forming part of Letters Patent No. 47,903, dated May 23, 1895.

To all whom it may concern.

Be it known that I, WILLIAM H. NOYES, of Homer, in the county of Cortland and State of New York, have invented a new and Improved Thill-Tug; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a section of the same, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved metallic thill-tug for harnesses; and it consists in constructing the tug of two parts, connected by a joint, and providing the tug with a lining or inner ring of india-rubber, leather, or other suitable material, which will prevent the chafing or abrasion of the thills, the chafing-ring or lining, in consequence of the peculiar construction of the tug, as stated, being capable, when worn by use, of being readily removed from the tug and replaced by new.

A represents the tug, which may be of malleable cast-iron and formed of two parts, *a a*, connected by a joint, *b*, the pintle *c* of which also connects a buckle, B, to the tug, by which buckle the tug is suspended to the saddle-strap C. The two parts *a a* of the tug are of equal dimensions, and when closed

their inner surfaces form a circle, their outer surfaces deviating from a circle by having protuberances *d* where the joint *b* is formed, and where the opposite ends are joined in contact by a pin, *a**. One of the parts *a*, near its end which is opposite to the joint *b*, is provided with a loop, *e*, to receive the band or strap D, which passes under the thills. The inner surfaces of the parts *a a* of the tug are grooved, as shown in Fig. 2, to receive a ring, E, of india-rubber, leather, or other suitable soft or elastic material, to prevent the chafing of the thills. The chafing-ring is of such a thickness that it will project inward beyond the edges of the tug sufficiently to prevent the thill from coming in contact with the tug. By this means I obtain a very durable and efficient thill-tug. The metallic part A will last indefinitely, and when the chafing-ring or lining becomes worn by use the pin *a** is withdrawn and the two parts *a a* opened or distended, the worn ring or lining removed, and a new one inserted in its place.

I do not claim, broadly, a metallic thill-tug; but

I do claim as new and desire to secure by Letters Patent—

A metallic thill-tug composed of two parts, *a a*, connected by a joint, *b*, and provided with a chafing-ring, E, substantially as herein shown and described.

WILLIAM H. NOYES.

Witnesses:

J. M. PIERCE,

EDWARD C. REED.