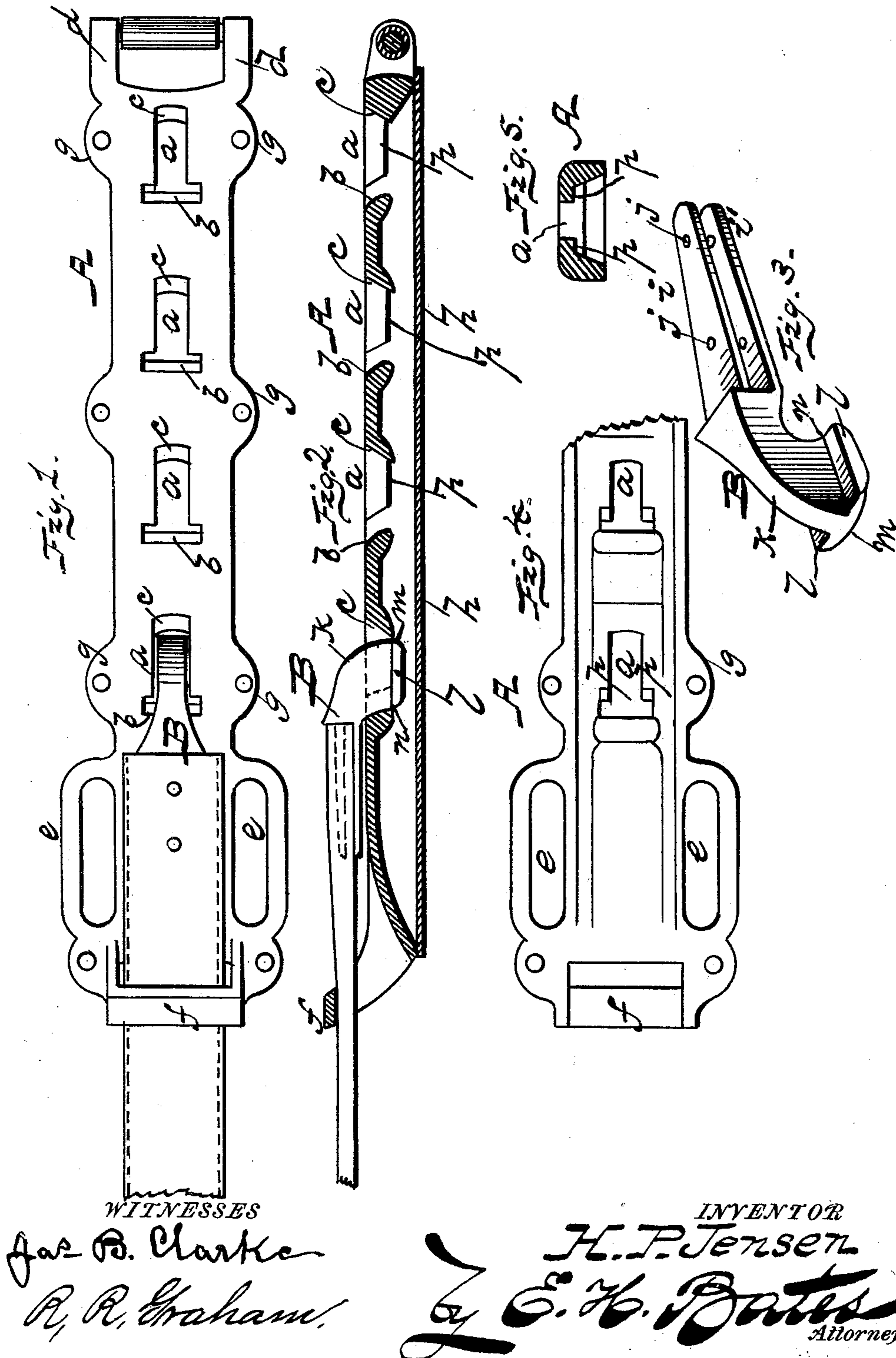


(No Model.)

H. P. JENSEN.  
HAME TUG.

No. 407,013.

Patented July 16, 1889.



# UNITED STATES PATENT OFFICE.

HANS P. JENSEN, OF NEW HARTFORD, IOWA.

## HAME-TUG.

SPECIFICATION forming part of Letters Patent No. 407,013, dated July 16, 1889.

Application filed April 8, 1889. Serial No. 306,437. (No model.)

*To all whom it may concern:*

Be it known that I, HANS P. JENSEN, a citizen of the United States, residing at New Hartford, in the county of Butler and State of Iowa, have invented certain new and useful Improvements in Hame-Tugs; 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 improvements in hame-tugs; and it consists in the novel construction and arrangement of the same, whereby a trace of a harness may be readily and quickly lengthened or shortened to suit the size of a horse, all as will be hereinafter fully described, and pointed out in the appended claim.

The annexed drawings, to which reference is made, fully illustrate my invention, in which—

Figure 1 represents a side view of my device. Fig. 2 is a longitudinal sectional view, and Fig. 3 is a perspective view, of the adjusting-arm detached from the tug-plate. Figs. 4 and 5 are detail views.

Referring by letter to the accompanying drawings, A designates a plate, which is hollow on its inner side, to insure light weight, and the same is constructed with a series of T-shaped slots *a*, the end faces *b* and *c* of which are inclined or beveled outwardly, for a purpose hereinafter explained. At the forward end of this plate is a loop formed by the side arms *d d* of said plate, and a screw or bolt passing transversely from one arm to the other through eyes in the end of said arms. This bolt has a roller upon it, to which is connected the strap that connects with the hame. This plate is also provided with side loops *e e*, to which the back-strap and girth of a harness is attached. A loop *f*, is arranged on the face of the plate, through which the trace passes, and is held in place thereby, and the side lugs *g* on said plate, having the perforations, is designed to receive rivets for the attachment of the leather back of the tug, as shown at *h*.

B represents the attaching-arm, which is of a peculiar shape. The same is provided with twin plates *i i'*, having perforations *j*, through which pass rivets which secure said arm to the end of a trace. The arm *i* enters between the two layers of leather of the trace, while the arm *i'* remains on the outside thereof and protects the said end of the trace from wear on the plate A. The end *k* of this arm B curves forwardly and downwardly, and is provided with side flanges or projections *l l*, and the extreme end *m*, as well as the inner end *n*, is rounded, as shown in the drawings.

It will be observed that the peculiar construction of the curved arm B and the beveled T-shaped slots in the plate A are intended to present a fastening of one to the other in such a manner that there is no loose play between the two, and there is no liability of the parts, when adjusted, to become accidentally displaced.

In adjusting the arm B from one slot to the other, in order to let out or take up the trace, the said arm is held in an inclined position, and the curved end is passed into the slot, after which said arm is brought to a horizontal position, when the flanges or projections engage shoulders *p p* on either side of said slot, thus locking the removable arm B to the plate A, the inclined ends of said slot permitting insertion of said flanged portion of the arm B. Thus, when so connected, all lateral as well as endwise movement is prevented, and the trace end is held firmly in place, and it is simple in operation, being easily and quickly adjusted, durable, and at the same time cheap to manufacture.

It will be observed by reference to Fig. 2 of the annexed drawings that the plate A is arched longitudinally, so that the lowest bearing or impinging points of the strap *h* shall be below the plane of the engaging parts *a b c*, the loop *f* being above the upper or highest plane of the said plate.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The within-described improved article of manufacture, consisting of a hame-tug having a longitudinally-arched plate A, provided with a series of T-shaped beveled slots having under flanges or shoulders *p p* and beveled ends, the bridges provided with outwardly-beveled lips, the strap *h*, subtending the arch of plate A, and a removable arm having twin plates *i i'*, and a curved end provided

with side flanges *l l*, adapted to interlock with the plate A, all as specified and shown.

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

HANS P. JENSEN.

Witnesses:

J. A. COUSINS,

W. J. SHERMAN.