

J. M. JOHNSON.
Hame-Tug Loop.

No. 216,618.

Patented June 17, 1879.

Fig: 1.

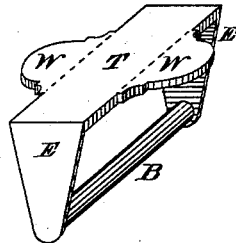


Fig: 2.

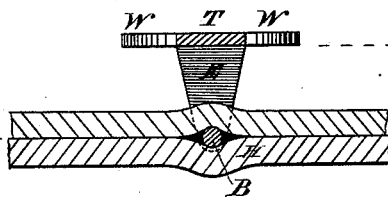


Fig: 3.

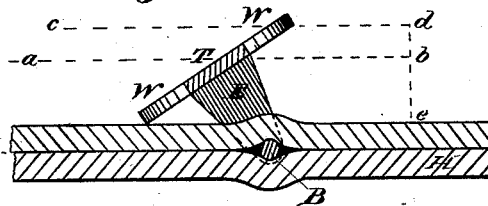
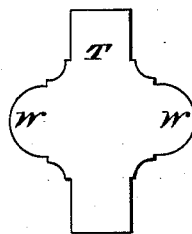


Fig: 4.



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IMPROVEMENT IN HAME-TUG LOOPS.

Specification forming part of Letters Patent No. **216,618**, dated June 17, 1879; application filed May 7, 1879.

To all whom it may concern:

Be it known that I, JAMES M. JOHNSON, of the city of Niles, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Hame-Tug Loops; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a metal tilting loop, intended to be applied to the hame-tugs of heavy harness to receive the ends of the draft-tugs, which, because of their extreme thickness and rigidity, are inserted beneath the ordinary loop with great difficulty.

My invention consists in providing lateral wings or extensions upon the sides of the top plate of a swinging or tilting loop, for the purpose of sustaining said top at a distance from the hame-tug or increasing the entrance-opening beneath the same, and thereby enabling the trace or draft-tug to be more easily inserted under the loop; and also in making the pivotal bar upon which the loop swings continuous and solid with the loop itself, in order to prevent the latter from being detached or drawn away from the hame-tug by any of the severe strains put upon it from the catching of the free or exposed end of the draft-tug, which strains are common with this class of harness.

Figure 1 of the drawings shows, in perspective, my improved loop detached. Fig. 2 is a transverse section of the loop, showing the same in an upright position and applied to a hame-tug, which is shown in longitudinal section. Fig. 3 is a corresponding section of the same parts, showing the loop in a tilted position or resting at one margin upon the hame-tug. Figs. 2 and 3 are arranged on the same horizontal line in the drawings, for the purpose of more clearly showing by the several dotted lines the relative increase in the height of the opening which results from the addition of the lateral wings to the top when the loop is tilted. Fig. 4 is a top view of the winged plate of the loop.

T is intended to represent the top plate of a loop of the common width or of the greatest

width hitherto known in harness-loops, or that portion of the top plate in the figures embraced between the dotted lines of Fig. 1. W W are lateral wings of any desired form, applied to the top plate T. E E are the vertical sides of the loop, continuous with the top plate, and B is the solid or continuous cross-bar, cast in a single piece with the other parts mentioned.

The distinctive or more important characteristic of my improved loop is that which relates to the wings W, whereby when a loop is applied to the hame-tug or straight strap, as shown in Figs. 2 and 3, the opening beneath it is made greater the farther the loop is tilted. Said Figs. 2 and 3 are intended to show the height of the loop, the space beneath it, and the breadth of the winged top in about the proper relative proportions.

It is made obvious by means of the dotted lines *a b* and *c d* that the entrance beneath the loop is very materially increased by means of the wings, for not only does the wing which rests upon the hame-tug support the top plate proper at a material elevation, but it equally supports the opposite wing also, which of itself forms a guide to direct the trace into the space beneath the loop. The actual height of the effective entrance is, therefore, measured by the line *c d*, while the height of the erect loop is measured by the line *e b*.

It is obvious from Fig. 3, without the aid of further lines, that if both wings were removed the opening or entrance would be materially less than that presented by the vertical loop.

The special utility of my device becomes apparent if we attempt to insert beneath the loop a trace of the thickness of *e b*, which is the exact height of the entrance beneath the loop when vertical, as seen in Fig. 2. It is at once evident that this can be done far more readily when the loop is tilted, as shown in Fig. 3, and the entrance is increased to the height *c d*.

By adding central lateral wings to the loop-top, as shown in the drawings, every advantage is obtained that would result from equally widening the whole loop-top, and a material saving of metal is effected, besides giving to the loop a more ornamental appearance.

In the use of the heavy grade of harness, to

which my improved loop is especially intended to be applied, it is common for the end of the draft-tug which protrudes through the hame-tug loop to catch against fences, posts, or other similar objects. Leather loops are thereby often soon turned or ripped away, and the metal loops in which the cross-bar is not continuous and cast of a piece with the sides, since the cross-bar is necessarily small, are only less easily detached. On the other hand, the loop formed as herein shown is able to resist all strains to which they are commonly subjected, and the cross-bar at the same time may be of only convenient size.

Having thus described my invention, I claim as new—

A pivoted or tilting harness-loop cast in one piece with the continuous cross-bar B, and provided with the lateral top wings W W, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

JAMES M. JOHNSON.

Witnesses:

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M. E. DAYTON.