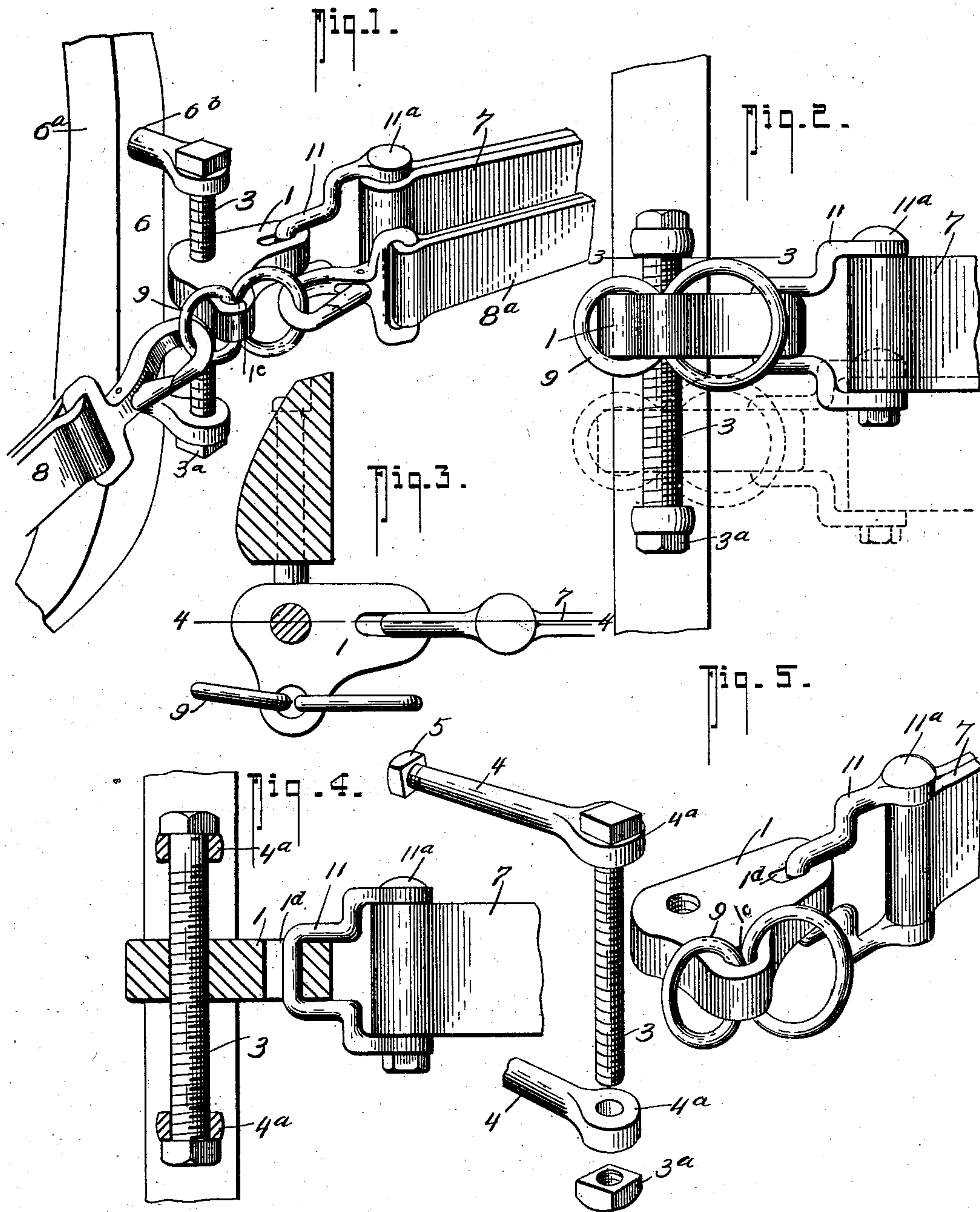


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A. G. SHIELDS.  
HAME TUG FASTENER.  
APPLICATION FILED JULY 2, 1903.

NO MODEL.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

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## HAME-TUG FASTENER.

SPECIFICATION forming part of Letters Patent No. 754,716, dated March 15, 1904.

Application filed July 2, 1903. Serial No. 164,060. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER G. SHIELDS, residing at L'Anse, in the county of Baraga and State of Michigan, have invented a new and Improved Hame-Tug Fastener, of which the following is a specification.

My invention is in the nature of an improved attachment for tug-harness; and it primarily seeks to provide a simple, inexpensive, and easily-manipulated tug-fastener for harness and which will readily adjust itself to the draft of the horse and which reduces the corner-friction of the tug to the minimum.

My invention in its generic nature comprehends a tug device adapted to be detachably joined with the hame and having vertical adjustment with respect to the hame and to suit the draft of the horse and which is mounted to oscillate in a horizontal plane on its support, whereby to avoid corner-friction usually incidental to harness connection of the character stated and which is also provided with means for conveniently attaching or disconnecting the trace and the breast-straps.

In its more subordinate features my invention provides an attachment for joining the hame, the breast-strap, and the trace having vertical adjustment with respect to the hame, mounted to oscillate in the horizontal plane and adapted to be put on any kind of tug or harness without necessitating any change in the construction of either the hame or the tug and in which the parts are especially designed to permit of being readily attached or detached in a few moments of time, certain other combinations and peculiar arrangement of parts being embodied, which will hereinafter be fully explained, and specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved fastener and connecting device joined with the hame, the trace, and breast-strap. Fig. 2 is a side elevation of the same, the adjustability of the tug or oscillating member being shown in dotted lines. Fig. 3 is a horizontal section of the same on the line 3-3 of Fig. 2. Fig. 4 is a vertical section of the same on the line 4-4 of Fig. 3. Fig. 5 is a detail view of

the several parts constituting my improvement separated.

In the practical construction my invention comprises a metal tug-piece 1 of substantial triangular shape, provided with a threaded aperture at one of its angle ends to engage a threaded bolt 3, which is vertically mounted in the eyes 4<sup>a</sup> of a pair of bracket-bolts 4, detachably connected with and projected laterally from the outer edge 6<sup>a</sup> of the hame side 6, which may be of any usual construction, and to facilitate the convenient removal of my improved attachment as a whole the said hame-piece has apertures 6<sup>b</sup> to receive the bracket-bolts 4, which are readily secured by the jam and clamp nuts 5 and 5<sup>a</sup>, as clearly shown in the drawings, and the vertical bolt 3 is detachably held in the eyes of the bracket-bolts by a nut 3<sup>a</sup>, also rotatably mounted within the bracket-eyes, whereby by holding the member 1 from turning and turning the screw-bolt 3 in another direction the said member 1 can be readily adjusted vertically to suit the draft of the horse and provide for a proper connection with the trace 7 and the breast-strap 8. At the other angle end the member 1 has an aperture 1<sup>c</sup> to receive a ring 9, with which connects the breast-strap 8, and an elongated slot 1<sup>d</sup> to receive the loop 11, which includes the adjustably-held bolt 11<sup>a</sup>, to which the end of the trace-strap 7 connects in the usual manner.

By constructing the parts as shown and described the tug-piece 1 is held for a free horizontal oscillation to conform with the movement of the parts caused by the movement of the animal, and thereby cause a direct or square pull on the tug without wear on the corners thereof.

To attach the tug connections, the same can be removed as a whole by simply taking off the nuts 5<sup>a</sup> on the inner ends of the bracket-bolts 4 and pulling the latter from the hame side, or by turning off the nut on the bolt 3 and unscrewing the nut from the tug-piece 1 the same can be disconnected without removing the bolts 4 from the hame.

The coöperative arrangement of the several parts is such that all necessary horizontal



movement of the tug required is provided to enable the tug, trace, and the breast-strap to readily accommodate themselves to the movement of the horse without chafing or binding and at the same time retain the several parts properly in place.

While my improvements can be readily applied to any of the ordinary styles of harness, I have found the same especially well adapted for heavy draft-harness.

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

1. In a hame-tug as described; the combination with brackets projected laterally from the hame, and a screw-bolt rotatably mounted in said brackets and held from endwise movement therein; of a triangular-shaped tug-piece mounted on the said bolt for vertical adjustment and horizontal oscillation, a means at the outer ends of said tug-piece for connecting with the breast and trace straps, as set forth.

2. In a hame-tug as described, the combination with the screw-bolt and supports for mounting the same vertically on the hame-piece; of a substantial triangular-shaped tug member having a threaded aperture at its apex end to engage the screw-bolt, a ring in one of its outer ends for connecting with the breast-strap and a loop at the other outer end for connecting with the trace-strap, as set forth.

3. The hereinbefore-described improvement in hame-tugs comprising the combination of

eyebolts detachably connected to and projected laterally from the hame, a screw-bolt detachably and rotatably mounted in the eyes of said bolts, and held from vertical movement therein; of a triangular-shaped tug-piece having a threaded aperture in its apex end to engage the threaded bolt an elongated slot in one of its outer ends and an aperture in the other outer end, a loop including a detachable bolt for connecting the trace and a ring in the apertured end of the tug for connecting with the breast-strap, all being arranged substantially as shown and described.

4. The hereinbefore-described improvement in hame-tugs, comprising in combination with the eyebolts detachably connected to and projected from the hame, a screw-bolt detachably and rotatably mounted in the ends of said eyebolts and held from vertical movement therein; of a triangular-shaped apertured tug-piece having a threaded aperture in its apex end to engage the screw-bolt, and an elongated slot in one of its outer ends, a loop including a detachable bolt for connecting with the trace and passing through said elongated slot, a pair of rings held in the apertured end of the tug-piece one for connecting with the breast-strap and one for connecting with the breeching, for the purposes specified.

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Witnesses:

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