(No Model.)

A. M. BROWN & D. S. KING.

HAME.

No. 466,768. Patented Jan. 12, 1892.

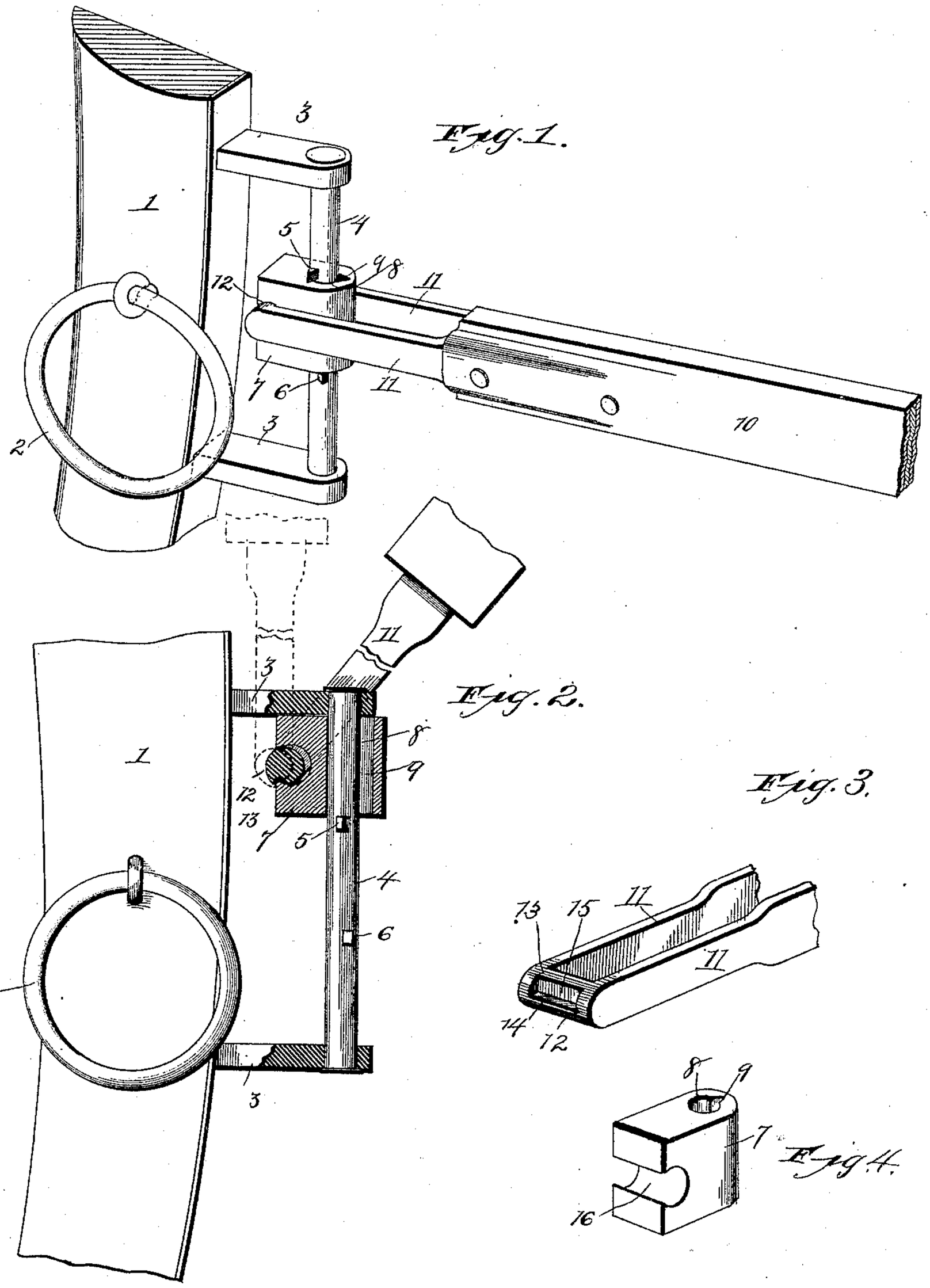

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

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HAME.

SPECIFICATION forming part of Letters Patent No. 466,768, dated January 12, 1892.

Application filed April 2, 1891. Serial No. 387,408. (No model.)

To all whom it may concern:

Be it known that we, ALVIN M. BROWN and DANIEL S. KING, of Hamilton, Caldwell county, Missouri, have invented certain new and useful Improvements in Devices for Connecting Traces to Harness, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to devices for connecting traces or tug-straps to hames, and the objects are to produce a simple and durable form of connection by means of which the draft or pulling strains shall be brought properly upon the animal's shoulders, thus insuring the comfort of the animal while working and preventing all chafing of the animal's shoulders by the collar; furthermore, to produce a connection which, while permitting the tug or trace to be easily and quickly attached to and detached from the connecting-block, shall prevent all possibility of accidental disconnection of such parts.

To the above purposes our invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that our invention may be fully understood, we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a front elevation of the lower part of one of the hames with our improvements applied thereto, the trace being in connection with the block. Fig. 2 is a similar view of a like part of the hame with our improvements applied thereto, the connecting devices being shown in position for connection or disconnection. Fig. 3 is a detached perspective view of the trace or tug loop. Fig. 4 is a detached perspective view of the adjustable block.

In the said drawings, 1 designates the lower part of a hame, which may be of the usual or any preferred form and which may also be provided with the usual ring 2 for the yoke-strap, or such ring may be omitted, if desired.

3 designates two arms or supports, which extend outwardly from the outer side of the hame and which are firmly attached thereto in any suitable manner. For example, the said support may extend entirely through the hame and may be secured by suitable nuts screwed upon their inner ends. In any event the outer ends of these supports 3 are connected by a rod 4, which is cylindrical in cross-section and the ends of which extend through the outer ends of the said supports and are riveted or otherwise strongly secured thereto. Upon the front side of this rod are formed two lugs 5 and 6, which divide the length of the rod 4 between the two supports 3 into three equal spaces. These lugs do not lie immediately in alignment with each other, but are placed somewhat out of alignment, as shown in Figs. 1 and 2, and for a purpose to be hereinafter explained.

7 designates a block which is of a height equal to the width of each of the spaces formed by the lugs 5 and 6, and this block is formed with an opening or bore 8, extending lengthwise of the block and adapted to receive the rod 4. At one side of this opening is formed a recess 9, extending longitudinally of the opening and adapted to receive the studs or lugs 5 and 6, as hereinafter described.

10 designates the trace or tug-strap, and 11 a loop which is riveted or otherwise suitably secured to the end of said trace. This loop is connected to the block in a manner hereinafter to be particularly explained; but the operation of the structure thus far described is as follows: In order to bring the pulling or draft strain either higher up or lower down upon the hames, and consequently upon exactly the proper part of the animal's shoulders, the block 7 is turned so that the recess 9 shall register with either the upper lug 5 or the lower lug 6. Now by moving the block upward or downward, as the case may be, the lug is caused to pass through the recess 9, and the block is brought into either one of the three spaces formed by the lugs, and the draft is brought exactly upon the required part of the hame, and consequently upon the precise part of the animal's shoulder best adapted to stand the strain. It is to be observed, however, that the two lugs 5 and 6 are placed out of alignment, as hereinbefore described, and it will thus be seen that if the block be placed at the upper part of the rod 4 it cannot drop the entire length of the rod, but will be stopped by the lower lug 6, a slight additional turn of the block being required to pass the block over

the said lower lug; also, that when between the two lugs the block cannot rise or drop accidentally out of the middle space. The loop 11, hereinbefore referred to, consists of two parallel arms, the outer ends of which are connected by a cross-bar 12, as shown. The outer side of this cross-rod is formed with a longitudinal recess 13, which is L-shaped in cross-section, the wall 14 extending parallel with the arms of the loop and the wall 15 extending at right angles to the wall 14. The front side of the block 7 is formed with a C-shaped recess or cavity 16, extending transversely of said block and opening at its front side. From this construction it will be seen that the cross-bar 12 can only be inserted into the recess 16 by lifting the outer end of the loop upwardly at an angle sufficient to bring the wall 14 of the recesses 13 over the lower edge of the recess 16 and then turning the loop downward, so that the cross-bar shall snap into the said recess 16. When thus placed in the recess 16, the upper and lower edges of the recess 16 embrace the cross-bar, so that there is no possibility of the loop being accidentally disconnected from the block, as by the sudden stopping of the animal or the jolting produced by its gait. The cross-bar can only be brought out of the recess 16 by being tilted upward, as before, so as to bring the wall 14 over the lower edge of the recess 16 and then lifting the loop into vertical position. This causes the wall 15 of the recesses 13 to bind upon the outer side of the lower edge of the recess 16 and permits the cross-bar to snap out of the recess 16. It is obvious that, if desired, more than two lugs or studs 5 6 can be formed upon the rod 4 without departing from the essential spirit of my invention, the height of the block 7 being in such case made to correspond to the width of the spaces between such lugs or studs. In any event, however, the lugs or studs are placed out of alignment with each other, as hereinbefore explained.

From the above description it will be seen that we have produced a simple, strong, and durable device, which forms a secure attachment for the traces and which enables the draft to be readily adjusted as required for the most effective work.

Having thus described our invention, what we claim as new therein, and desire to secure by Letters Patent, is—

An improved device for securing tugs or traces to hames, comprising a rod secured to a hame and having a number of lugs or studs formed on its outside and out of alignment with each other, a movable block embracing said rod and having a recess to receive the studs and provided, also, with a C-shaped recess, and a loop for the trace having a cross-bar to enter the said recess, the said bar having upon one side a longitudinal recess of L shape in cross-section, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ALVIN M. BROWN.
DANIEL S. KING.

Witnesses:
HENRY BOROFF,
ELVA DENISON.