

(No Model.)

S. E. BRICKNELL.
HAME TUG.

2 Sheets—Sheet 1.

No. 460,229.

Patented Sept. 29, 1891.

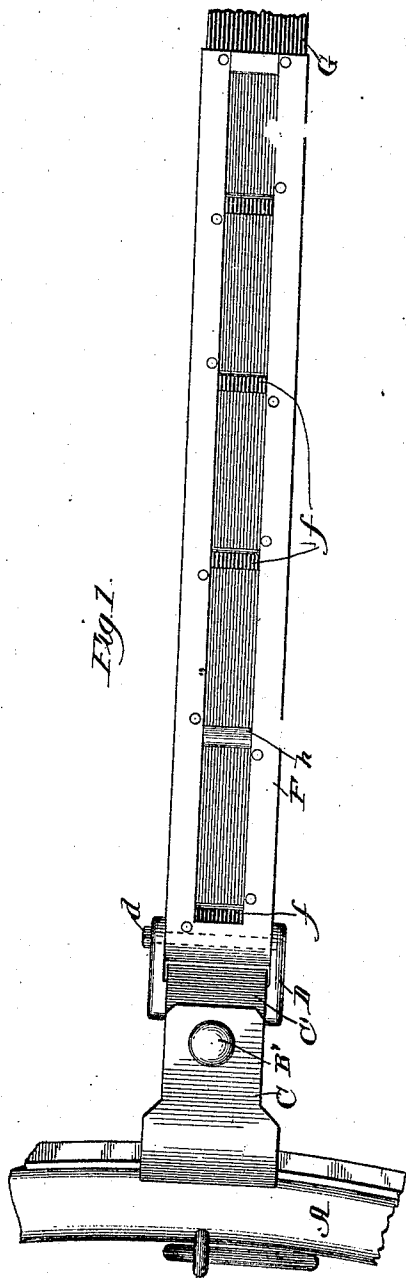


Fig. 1.

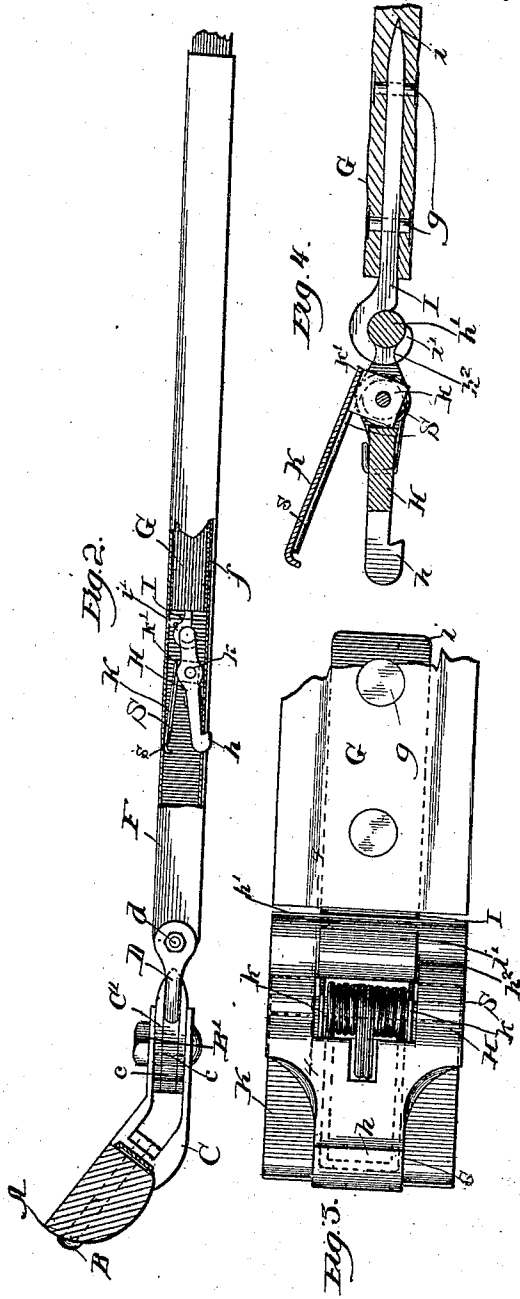


Fig. 2.

Fig. 4.

Fig. 3.

Witnesses:
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Inventor:
Samuel E. Bricknell

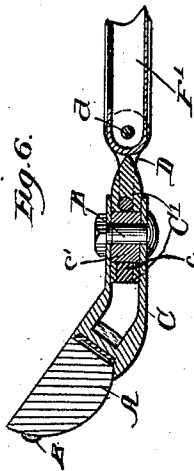
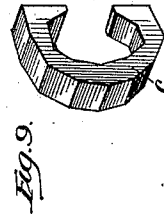
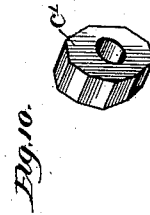
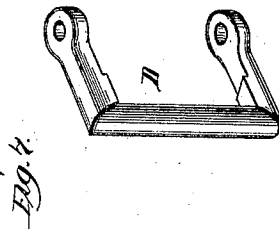
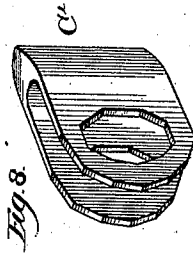
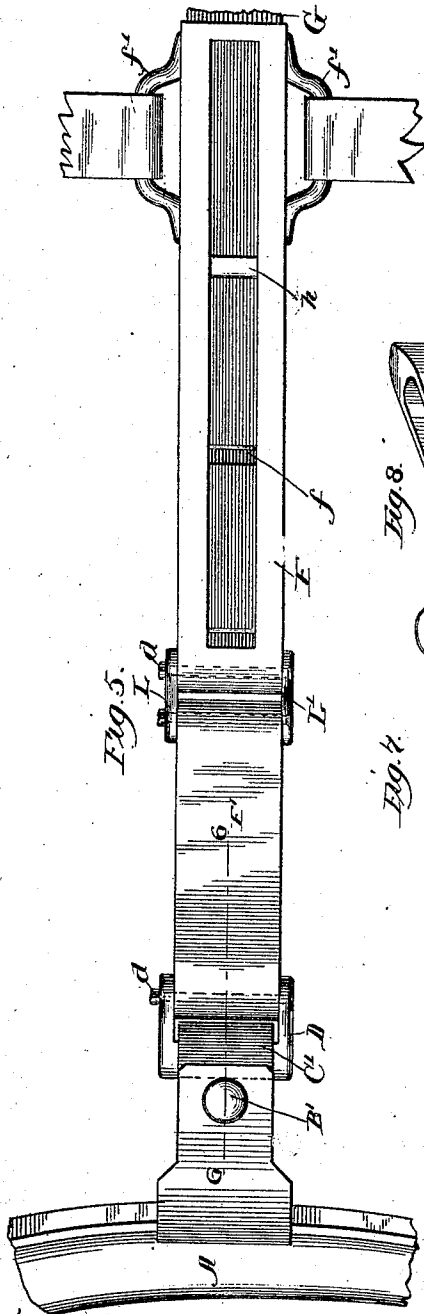
(No Model.)

2 Sheets—Sheet 2.

S. E. BRICKNELL.
TAME TUG.

No. 460,229.

Patented Sept. 29, 1891.



Witnesses:
Chas. C. [Signature]
Andrew [Signature]

Inventor:
Samuel E. Bricknell

UNITED STATES PATENT OFFICE.

SAMUEL E. BRICKNELL, OF OREGON, ILLINOIS.

HAME-TUG.

SPECIFICATION forming part of Letters Patent No. 460,229, dated September 29, 1891.

Application filed January 29, 1891. Serial No. 379,484. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. BRICKNELL, a citizen of the United States of America, residing at Oregon, in the county of Ogle and State of Illinois, have invented certain new and useful Improvements in Hame-Tugs, of which the following is a specification.

My invention relates to certain improvements upon hame-tugs of the class fully described in my application for Letters Patent of the United States filed on October 29, 1890, Serial No. 369,709, the desirability for which has been suggested in the practical use of the hame-tug described in said application.

These improvements are illustrated in the accompanying drawings, wherein—

Figure 1 is a side view of a hame-tug, illustrating certain of my new improvements. Fig. 2 is a top view, partly in section, of the same. Fig. 3 is a detail view of the end of the tug and the hook attached thereto. Fig. 4 is a section taken in line 4 4 of Fig. 3. Fig. 5 is a side view of a hame-tug, showing certain additional improvements. Fig. 6 is a broken section cut in line 6 6 of Fig. 5; and Figs. 7, 8, 9, and 10 are perspective views of certain details of construction.

The general features of the construction here shown are old and are fully described in my prior application. They consist of a hame A, having a yoke-shaped plate C bolted to it by bolts B, a block C', pivoted within the yoke C by a horizontal bolt B', a box F, containing holes *f* in one side, a link D, vertically pivoted to the block C' and also to the box F, and a tug G, having at its end a pivoted hook H, the undercut head *h* of which is pressed by a spring S into the openings *f*.

My first improvement relates to the spring S, which tends to force the head *h* into the openings *f*. I find that when the tug and the hook upon its end are removed entirely from the box and possibly thrown upon the floor the end *s* of the spring S swings so far from the hook under the torsion of the coiled spring that if anything happens to be thrown upon it or if it is stepped upon it is bent backward still farther and sometimes broken. To prevent this I have added a device adapted to prevent the free end of the spring from swinging backward any farther than is necessary to give the hook the required amount

of play. It is of course immaterial what particular device is employed for this purpose, as any mechanic could doubtless construct a great number which would be equally satisfactory; but the best which I have tried consists of a plate K, arranged behind the spring and pivoted at one end upon the arbor thereof by means of tongues *k*, turned up from said plate. The amount of play is fixed by constructing the tongues *k* so that they will strike against the hook H, as shown in the drawings. It is obvious, of course, that the portion *k'* of the plate itself could be allowed to strike against said hook. This improvement keeps the end *s* of the spring in such a position that, no difference what falls upon it, it can only be forced down against the hook H but little beyond the position which it occupies when in the box F.

My second improvement is in the manner of pivoting the hook H to the tug G. This is done by means of a plate I, sharpened at the end *i*, so that it can be driven into the end of the tug and secured thereto by rivets *g*, and having at the opposite end a hook *i'*, adapted to receive and hold the round portion *h'* of the hook H. The open part of the hook is not large enough to allow this round portion to be slipped therefrom; but at one edge said hook H is reduced in size at *h²*, so that by turning the hook backward until this reduced portion is above the open part of the hook *i'* it can be slipped downward through said open part and the hooks disengaged from each other.

My third improvement relates to the universal-joint connection between the box F and the hame A, and is designed at once to simplify said connection, to enable the different parts included therein to be easily and readily taken apart, and to make the portions where the greatest wear occurs separable, so that when they are worn out they can be removed and replaced by new pieces of uniform size kept in stock by the dealer and readily applied when needed with but slight trouble and expense. Said connection consists in a clevis-shaped link D, (see Fig. 7,) pivoted directly to the box F by means of a pin *d* and having the block C' pivoted upon its side opposite to said pin. To enable said block to be readily removed from the clevis

the middle portion thereof in front of the clevis is made in the shape of a separate piece *c*, (see Fig. 9,) so that it can be removed when the bolt *B'* is taken out. As a further improvement the portion of the block *C'* about the hole through which the bolt *B'* passes is also made in a separate piece *c'*, (see Fig. 10,) which can be removed and replaced with a new piece as the bolt *B'* wears it away, and which also serves to hold the part *c* in place when the bolt *B'* is removed.

To adapt my improvements, both as heretofore described and as now modified, to what is known as a "long hame-tug," I have interposed between the box *F* and the link *D* a second box *F'*, made of the same general appearance as the box *F*, but lacking, of course, the features of the latter which adapt it to engagement with the tug. The two boxes are hinged together by means of links *L L'* and pins passing through the ends of said links and the two boxes. The box *F* has brackets *f'* secured to it above and below to enable the belly-band and the back-band to be secured thereto, and the lengths of the two boxes are so proportioned that when the two fold together upon their hinged connection the hames and said bands shall fall together and the entire harness be in compact form, so that it may be hung up in the least possible space.

I do not of course limit myself to the combination of all the different improvements above described, as it is evident that they can be used either conjointly or separately.

The different combinations which I believe to be new, and desire to secure by Letters Patent, are as follows:

1. The combination of a tug *G*, a hook *I*, secured to the end thereof, having an open

head *i'*, a second hook *H*, having a portion *h'* fitted to the interior of the head *i'* of the hook *I* and having an adjacent portion *h²* reduced sufficiently to slide through the opening in the head *i'*, substantially as described.

2. The combination of a tug, a hook *I*, having a shank sharpened at *i*, suitably secured to the tug, and an open head *i'*, and a hook *H*, having a round portion *h'* fitted to the interior of the head and an adjacent reduced portion *h²*, adapted to slide through the opening thereof, substantially as described.

3. The combination of a tug, a link secured by suitable devices to the end thereof, a block *C'*, pivoted upon said link and having the removable piece *c*, and a pivotal connection between said block and the other portions of the harness adapted to hold the portion *c* in place, substantially as described.

4. The combination of a tug, a link *D*, suitably secured to one end thereof, a block *C'*, pivoted upon said link and having the separable portions *c* and *c'*, and a pivot *B'*, passing through the latter and suitably connected with the other portions of the harness, substantially as described.

5. The combination of a tug, a box *F*, adjustably secured to the end thereof, a clevis-shaped link *D*, pivoted to one end of the box by means of a pin *d*, a block *C'*, pivoted upon the link and containing the separable portions *c c'*, a hame, a yoke *C*, secured thereto, and a pivot *B'*, passing through the yoke and the portion *c'* of the block *C'*, substantially as described.

SAMUEL E. BRICKNELL.

Witnesses:

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