(No Model.)

S. H. FRENCH & W. J. MALTBY.

TUG.

No. 385,855. Patented July 10, 1888.

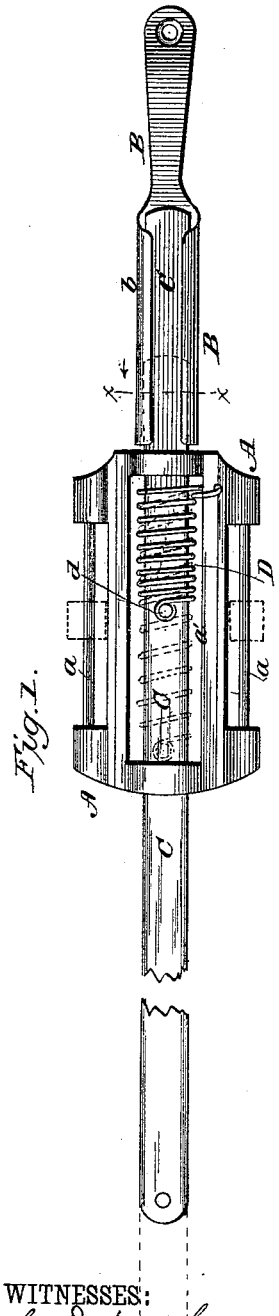

Fig. 1.

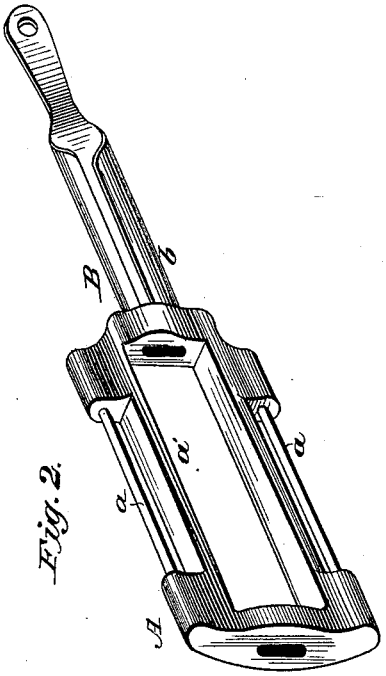

Fig. 2.

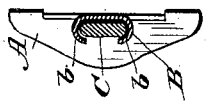

Fig. 3.

WITNESSES:
Fred G. Dieterich.
P. B. Turpin.

INVENTOR:
S. H. French.
W. J. Maltby.
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

STEPHEN H. FRENCH AND WILLIAM J. MALTBY, OF BAIRD, TEXAS.

TUG.

SPECIFICATION forming part of Letters Patent No. 385,855, dated July 10, 1888.

Application filed February 1, 1888. Serial No. 262,623. (No model.)

To all whom it may concern:

Be it known that we, STEPHEN H. FRENCH and WILLIAM J. MALTBY, of Baird, in the county of Callahan and State of Texas, have invented a new and useful Improvement in Tugs, of which the following is a specification.

This invention is an improvement in hame-tugs; and it consists in certain features of construction and novel combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a side view of our improvements. Fig. 2 is a detail view showing the carrier; and Fig. 3 is a detached section on line *x x*, Fig. 1.

The carrier A has at its upper and lower edges rods *a*, forming keepers for the connection of the back and belly bands, which bands may be secured to their keepers by rivets, screws, stitching, buckles, or in other suitable manner. When desired, the keepers *a* may be divided centrally, forming each the upper and lower keeper into two sections or keepers proper, as will be understood from the dotted lines, Fig. 1. A bar or connection, B, extends forward from the carrier and may in practice be attached to the hame either by hook, ring, or snap, as desired. The tug C, being preferably a bar, as shown, slides through a way in the carrier and projects normally in advance of the carrier, where (that is, in advance of the carrier) we provide guides *b* for the forward end of the tug-bar. By preference we form these guides *b* on the connection B, as shown. The carrier is chambered at *a'*, where the tug-bar passes through it, so as to provide a recess for the spring D, which may be made in single or double coil, as desired, and is connected at one end to the tug-bar and at its other end to the carrier, and operates to connect such parts, so the tug will be spring-cushioned in both its forward and backward movement, a stop, *d*, being provided to limit the rearward movement of the tug-bar.

This tug or slide-bar C may be all metal and flat, round, oval, or other desired shape in cross-section, or it may be constructed partly of metal and partly of leather, as desired.

It will be seen that the device will take up all slack when the team is standing, will enable the team to start the load without any sudden jerk, and will enable a teamster to make a balky horse or horses start a load that would otherwise not be moved. The device also serves to prevent the collars from working forward on the necks of the horses; will take up all slack when the team is descending a grade, thus preventing the tugs from becoming detached from the singletree, and will prevent the tugs dragging on the ground when the horses are free of the vehicle.

It will be seen that the openings through the front and rear walls of the spring-recess form guides or ways for the tug-bar, which guides or ways lead forward and back from the spring-recess.

Having thus described our invention, what we claim as new is—

1. In a tug, the carrier, substantially as described, adapted for connection with the belly and back bands, constructed with a recess for the spring and provided with guides or ways for the tug-bar, such guides or ways leading forward and back from the spring-recess, whereby the tug-bar may extend entirely through and beyond the opposite ends of the spring-receiving recess, combined with the tug-bar and the spring, substantially as and for the purposes specified.

2. As an improvement in tugs, the herein-described carrier, having a recess for the spring and keepers for the connection of the belly and back bands, and having the bar B extended forward from it and formed with guides *b* for the forward end of the tug-bar, all substantially as and for the purposes specified.

3. The improvement in tugs, substantially as herein described and shown, consisting of the carrier A, having keepers at its upper and lower edges and chambered at *a'*, forming a recess, the connecting-bar B, extended forward from the carrier A and formed with guides *b*, the tug-bar movable through the carrier and having its forward end arranged to be engaged by the guides *b*, and the spring located in recess *a'* and connected substantially as and for the purposes specified.

STEPHEN H. FRENCH.
WM. J. MALTBY.

Witnesses:
D. RICHARDSON,
DAVID HENRY.