G. M. HUBBARD.

Trace-Carrier.

No. 220,761. Patented Oct. 21, 1879.

Fig. 1

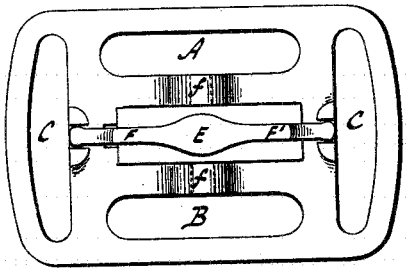


Fig. 4

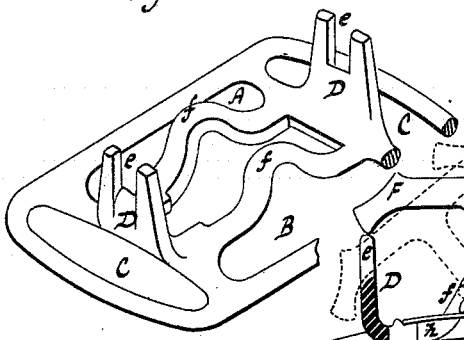


Fig. 2

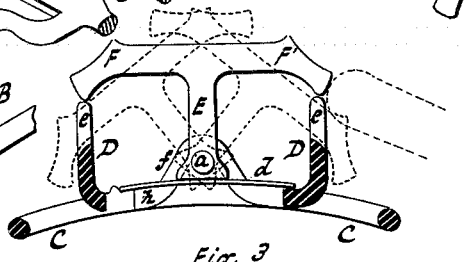


Fig. 5

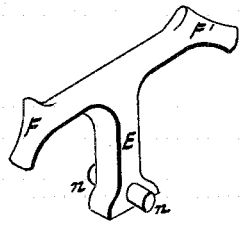
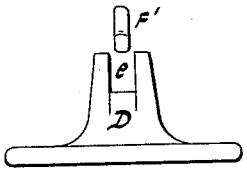


Fig. 3



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE M. HUBBARD, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO O. B. NORTH & CO., OF SAME PLACE.

IMPROVEMENT IN TRACE-CARRIERS.

Specification forming part of Letters Patent No. **220,761**, dated October 21, 1879; application filed August 13, 1879.

To all whom it may concern:

Be it known that I, GEORGE M. HUBBARD, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Trace-Carriers; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, which said drawings constitute part of this specification, and represent, in—

Figure 1, top view; Fig. 2, sectional side view; Fig. 3, end view; Fig. 4, plate detached; and in Fig. 5, T-shape bar detached.

This invention relates to an improvement in the article known to the trade as "trace-carriers"—that is to say, a device to be attached to the back-straps of a harness, at the junction of the breeching-straps, and with which the cockeye of the traces may be engaged when not required for use, or easily disengaged when required; and the invention consists in the construction as hereinafter described, and particularly recited in the claims.

The base is constructed with a slot, A, for the back-strap, B for the crupper-strap, and a slot, C, at each end for the breeching-straps. D D are two posts, one each side of the center, which serve as hooks, onto which to place the respective cockeyes. In the center, and on a pivot, *a*, a T-shape bar, E, is hung, one arm, F, of which extends over the post at the left, and the other bar, F′, at the right, and so as to be turned on the pivot *a* either to the right or left, as seen in broken lines, Fig. 2; but when in a vertical position the two arms coincide with the two posts, so as to inclose the space bounded by the arms and posts; but, turning in one direction, opens to the space on the opposite side.

The vertical position is the normal condition of the arms, as seen in Fig. 2, and to hold them in that position I make the end of the bar below the pivot flat, and so as to rest on a longitudinal spring, *d*. This spring is supported at either end, and its force being upward, bears on the lower end of the bar, as seen in Fig. 2, turning the bar to either right or left. The opposite angle at the bottom acts as a cam to depress the spring, as seen in broken lines, Fig. 2, and when free the spring reacts to return the bar to its normal position.

Applied to the harness, the operation is as follows: The cockeye is taken in one hand and pressed between the end of the arm and the post, which tends to raise or turn the arm until the cockeye can pass between the arm and post; then, when fully introduced, the cockeye falls over the post, and the arm returns, securing it in that position until the cockeye be lifted with force against the arm sufficient to raise it, or the arm be otherwise turned to release the cockeye.

A vertical slot, *c*, is made in each post, to permit the arms to be turned downward, the arm in so doing passing through the slot, as shown in broken lines, Fig. 2.

The hinge is made by casting the base with upwardly-curved bars *f*, as seen in Fig. 4, with a slot, *h*, between, and the T-shape bar with a trunnion, *n*, at each side, to rest upon the under side of the said curved arm *f*, the spring serving to hold the trunnion in position.

This construction simplifies the manufacture and avoids much of the labor usually required.

It will be understood that I do not broadly claim a base-plate with trace-carrying arms, or a movable device in connection with said arms, to permit the introduction or removal of the cockeye from said arms, as such is well known; but

What I do claim is—

1. The combination of the base-plate, vertical arms D, the T-shape bar E, hinged to the base, so that the arms F F′ correspond, respectively, to the posts, and a spring, *d*, bearing upon the end of the T-shape bar below the pivot, substantially as and for the purpose described.

2. The base constructed with the posts D D, and the curved bars *f*, with a slot between, combined with the T-shape bar, constructed with trunnions *n*, and the spring *d*, substantially as described.

GEORGE M. HUBBARD.

Witnesses:

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