(No Model.)

F. M. BORING.

HARNESS ATTACHMENT.

No. 288,614. Patented Nov. 20, 1883.

FIG. 1.

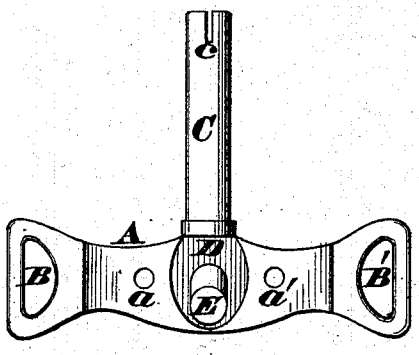


FIG. 2.

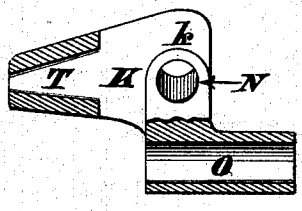


FIG. 3.

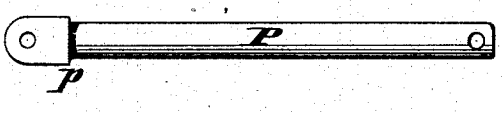


FIG. 4.

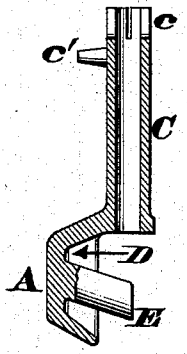


FIG. 4½.

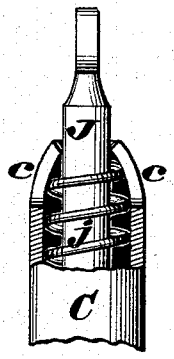


FIG. 5.

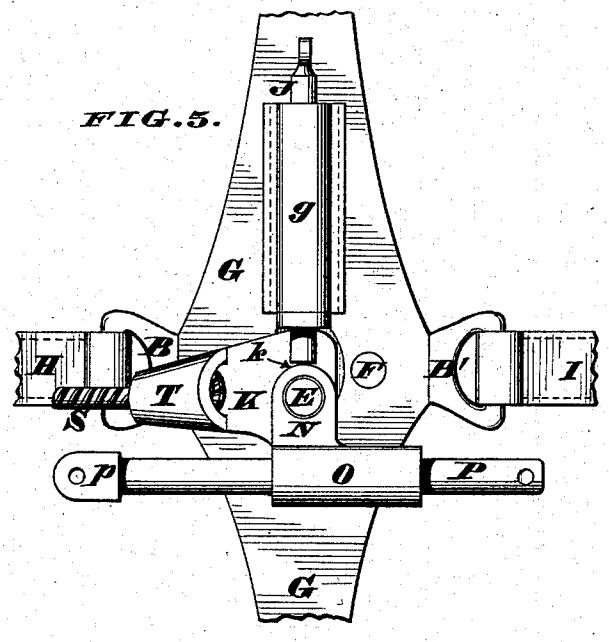


FIG. 6.

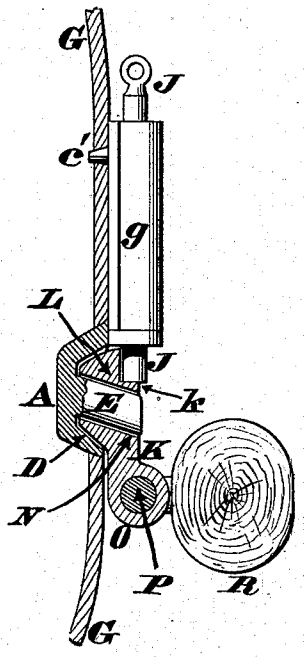
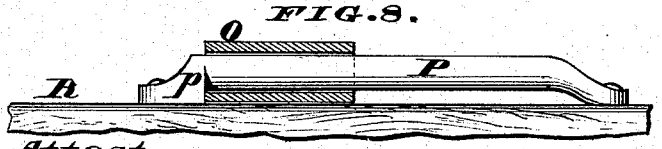


FIG. 8.



Attest.
Chas. Neverth
Jas. N. Layman.

Inventor.
Frank M. Boring
by James N. Layman
Atty.

UNITED STATES PATENT OFFICE.

FRANK M. BORING, OF JAMESTOWN, OHIO.

HARNESS ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 288,614, dated November 20, 1883.

Application filed September 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK M. BORING, a citizen of the United States, residing at Jamestown, in the county of Greene and State of Ohio, have invented certain new and useful Improvements in Harness Attachments, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention comprises a peculiar combination of devices that enables a horse to be hitched to a vehicle in a few moments. This combination includes a short rod attached to the inner side of the thill or shaft, a runner or slide adapted to play upon the rod, and having the tug or trace fastened thereto, and a plate secured to the harness, said plate being provided with an inclined lug that engages with the runner, and in addition thereto with a spring-bolt that automatically locks said runner or slide to the harness. These devices, being in duplicate with each set of single harness, concentrate the hitching appliances at two places on the opposite sides of the horse, and allow the animal to be instantly attached to the thills by the simple act of raising the latter to the proper level, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a front elevation of the hitching-plate detached from the harness. Fig. 2 is a vertical section of the runner or slide. Fig. 3 is an elevation of the rod that carries said slide. Fig. 4 is a vertical section of the hitching-plate, taken in the plane of its inclined lug. Fig. 5 is a front elevation, showing the complete "handy harness" coupled together. Fig. 6 is a vertical section of the handy harness, taken in the plane of the inclined lug. Fig. 7 is an enlarged section through the upper part of the spring-bolt housing. Fig. 8 is a sectionized plan, showing the runner or slide in contact with the shoulder at the rear end of the thill-rod.

Referring to Fig. 1, A represents a plate, of malleable iron or other suitable metal, said plate having at its opposite ends eyes or loops B B', and at its mid-length a tube, C. Furthermore, this plate has a pit or socket, D, in line with tube C, and an outwardly-inclined lug, E, proceeding from the center of said pit, as more clearly seen in Fig. 4.

The upper portion of tube C is slotted at *c*, and has a rearwardly-projecting stud, *c'*, which stud, in connection with rivets F, allows the harness-strap G to be fastened to the plate A, said rivets being passed through the holes *a a'* of said plate, and then headed. Attached to the outside of strap G is a pocket, *g*, that incloses the tube C, while the upper end of said strap is capable of being buckled to that part of the harness commonly known as the "shaft-bearer." The lower end of this strap G is buckled to the belly-band, in the usual manner.

Attached to the rear eye, B, of plate A is the breeching-strap H. The front eye, B', has fastened to it the hame-tug or breast-strap, or a special strap, I, buckled to the latter. Tube C is traversed with a bolt, J, which is forced down by a spiral spring, *j*, as seen in Fig. 7, this spring being retained in place by bending in the upper or slotted end *c* of said tube.

Adapted to fit snugly against the exterior of strap G is a plate, K, having at its rear a boss, L, suitably shaped to enter the socket D, while the front of said plate has a shoulder, *k*, for the bolt J to rest upon. (See Fig. 6.) A hole, N, is made in this plate and boss to receive the inclined lug E, the lower portion of said plate forming a runner or slide, O, adapted to play freely on a short rod, P, which latter is attached to the inner side of thill or shaft R, as seen in Figs. 6 and 8.

S represents a wire tug, the rear end of which is permanently secured to the single-tree, while its front end is fastened with a suitable knot in the conical or tapering keeper T of plate K; but, if preferred, an ordinary trace may be used instead of the wire tug, in which event the front end of said trace would be riveted directly to the plate N.

In fitting up my harness attachment the runner O is first slipped onto the rod P, and the latter is then attached to the inner side of thill R, after which act the front end of tug S is secured in the keeper T, the rear end of said tug being fastened to the single-tree. Consequently the bar P, runner O, plate K, and tug S are fixtures with reference to the thill R. Furthermore, said tug S should be of such a length as to allow the slide O when in its normal position to be located near the mid-length of rod

P, as seen in Fig. 5, thereby allowing said slide to travel back and forth in accordance with the movements of the horse. The harness, with the strap G and its attachments A H I, being now placed on the horse, and the animal backed in between the thills, the latter are raised, and as soon as the upper chamfered edge of boss L comes in contact with the lower end of bolt J it forces the latter up within the tube C. Simultaneously with this elevation of the bolt the inclined lug E enters the sloping hole N, and when the boss L has become seated in the socket D said bolt J flies down in front of the plate K and rests on its shoulder *k*, thereby locking said plate securely on the lug E, and instantly hitching the horse to the vehicle.

As previously stated, the slide O is allowed to run on the rod P, and when it is desired to back the vehicle said slide bears against the shoulder *p* at the rear end of said rod, as seen in Fig. 8. Evidently the horse cannot now be detached from the vehicle until the bolt J is intentionally raised to unlock the plate K and allow it to slide freely off of the inclined lug E, which disengagement of said plate is automatically accomplished by the weight of the thills. To facilitate this automatic release of the harness attachment, the upper ends of the bolts for the pair of thills may be connected with a cord, strap, or light chain, a slight pull upon which will be sufficient to unhitch the horse. This cord or chain may be operated by a small hook on the whip, so as to allow the driver to detach the horse in an instant if it attempts to run away with the vehicle. Finally, the runner O, instead of sliding on the rod P, may be so enlarged in diameter as to surround the thill and play thereon; but in this event a holdback or stop-pin should be fastened onto said thill, to let the runner back against.

I claim as my invention—

1. In combination with a harness attachment, the perforated plate K, having suitable provision for attaching a tug or trace thereto, and a runner adapted to slide either on the thill or on a rod, P, fastened to the same, the plate A, secured to the harness, and having a lug, E, that enters the perforation N, and a spring-bolt, J, for locking said plates A and K, as herein described.

2. The combination, with a harness attachment, of plate A, having eyes B B′, tube C, spring-bolt J, socket D, and lug E, and the plate K, having a boss, L, hole N, and runner O, which latter is adapted to slide either on the thill or on a rod, P, fastened thereto, said plate K N O having suitable provision for attaching a tug or trace, substantially as herein described.

3. An improved harness attachment consisting of the plate A B B′ C D E, strap G, spring-bolt J, plate K *k* L N, runner O, and rod P, as and for the purpose herein described.

4. The combination, in a harness attachment, of plate A, having an outwardly-inclined lug, E, and a tube, C, which latter is bent inwardly at top and retains the coiled spring *j* of a bolt, J, that engages with the perforated plate K N of runner O, as herein described, and for the purpose set forth.

5. In combination with a harness attachment consisting of the plates A C D and K N O, the outwardly-inclined lug E of plate A C D engaging with the hole N of plate K O, for the purpose described.

6. The perforated and shouldered plate K *k* N, having a runner, O, and tapering keeper T, for the purpose herein described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK M. BORING.

Witnesses:

W. A. PAXSON,

FRANK BREACH.