(No Model.)

J. D. BLAKEMAN.

TRACE DETACHER FOR SINGLETREES.

No. 428,370. Patented May 20, 1890.

Fig. 1.

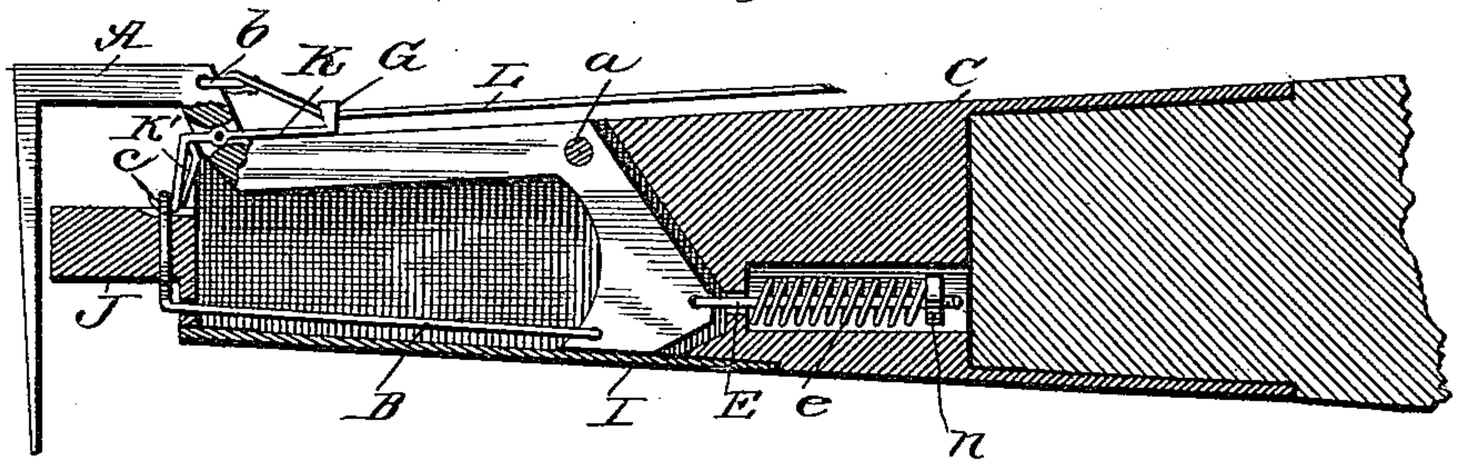
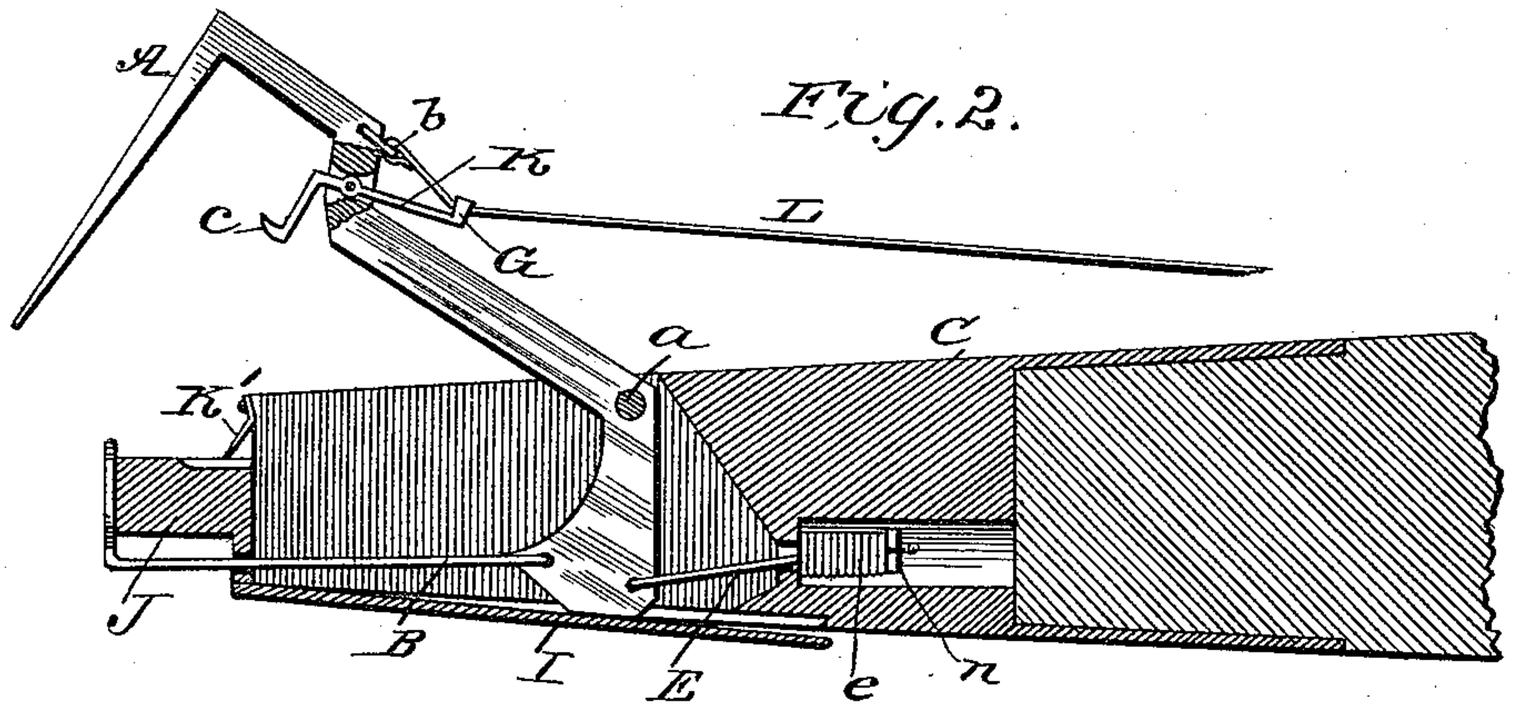


Fig. 2.



WITNESSES:
Fred G. Dieterich
Edw. C. Byrne.

INVENTOR:
John D. Blakeman.
BY Munn & Co
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN D. BLAKEMAN, OF SMITH'S GROVE, KENTUCKY.

TRACE-DETACHER FOR SINGLETREES.

SPECIFICATION forming part of Letters Patent No. 428,370, dated May 20, 1890.

Application filed November 4, 1889. Serial No. 329,239. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. BLAKEMAN, of Smith's Grove, in the county of Warren and State of Kentucky, have invented a new and useful Improvement in Trace-Detachers for Singletrees, of which the following is a specification.

My invention is in the nature of an improved trace-detacher for singletrees of the general construction patented by me October 16, 1883, No. 286,767; and it consists in the peculiar construction and arrangement of parts whereby a pull upon a strap is made to quickly disconnect the trace from the singletree, as hereinafter fully described.

Figure 1 is a vertical longitudinal section of the trace-detacher, showing it closed, and Fig. 2 is a similar view showing it open.

In the drawings, C represents the ferrule upon the end of the singletree, which ferrule is formed with a stud J, upon which the trace-eye is hooked. A is the guard which holds the trace upon the stud against slipping off. This guard is constructed in the form of a lever fulcrumed at *a* in a vertical slot of the ferrule, and is adapted to be thrown back about this center *a* when the trace is to be detached, as shown in Fig. 2. The same movement of this guard-lever which removes the hook-shaped guard from the end of the trace-stud also throws the trace off the trace-stud, and for this purpose an arm B is jointed to the right-angular end of the guard-lever and extends longitudinally out to the end of the singletree, where it terminates in a loop, ring, or yoke that embraces the trace-stud.

To withdraw the guard and push out the trace-detaching arm, a strap L is connected to a loop or ring *b* at the upper side of the hook-shaped guard. When this hook-shaped guard is in front of the end of the stud, as in Fig. 1, it is locked in this position by a locking-lever K. This lever has a loop G at its end, through which the strap L passes on its way to the guard, and the same pull on the strap that draws back the guard also releases this locking-lever by raising its loop G. This locking-lever is fulcrumed in a slot in the guard, and its inner end is bent or formed in a hook shape *c*, that catches under the ring of the detacher-arm. A spring K′ at the end of the ferrule serves to hold this locking-lever so engaged until it is withdrawn by a pull on the strap.

To restore the guard and the trace-detacher to its normal position, a rod E is fastened to the right-angular end of the guard in the ferrule, and a spiral spring *e* is wound about said rod and one end bears against the ferrule and the other end against an adjustable screw-head or nut *n* on the rod. This rod and spring are contained in an open cylindrical chamber in the ferrule, so that if this spring becomes weakened or broken from use the ferrule can be taken off the end of the singletree and the tension of the spring increased by tightening the nut, or a new spring substituted, as the case may require.

I is a flat locking-spring arranged longitudinally at the bottom edge of the ferrule to bear against the butt-end of the guard-lever and assist in holding it to its normal position. This spring also closes the lower side of the slot, so as to prevent the entrance of mud and dust.

When the trace-detacher is used on buggies or single-team vehicles, I may dispense with the locking-lever K.

Having thus described my invention, what I claim as new is—

1. The combination, with the ferrule C and the guard-lever A, fulcrumed in a slot of the ferrule and having a right-angular end within the ferrule, of a rod E, with spiral spring *e* and adjustable head or nut *n*, the said rod being attached to the end of the guard-lever and the spring being made adjustable as to tension by said nut or head, as described.

2. The combination, with the ferrule having a trace-stud at its end, of the guard-lever A, fulcrumed to the ferrule and provided with a locking lever or catch K with loop G, and a strap passing through said loop and connected to the guard for releasing the locking-catch and pulling back the guard in one and the same operation, as described.

3. The combination of the ferrule having a trace-stud at its end, a guard-lever A, fulcrumed in a slot of the ferrule, the detaching-arm B, connected to the guard-lever and embracing the stud, and the locking catch or lever K, fulcrumed in the guard and arranged

to catch beneath the ring of the trace-detacher and provided with a loop G for operation by a strap, as described.

4. The combination, with the ferrule having a longitudinal slot, of the guard-lever fulcrumed therein and formed with a right-angular end, and a spring I, arranged to bear against the end of the guard-lever and also to close the slot in the ferrule, as described.

JOHN D. BLAKEMAN.

Witnesses:
WM. HAZELIP,
L. A. BUTLER.