

C. METZGER.
Horse-Detachers.

No. 150,968.

Patented May 19, 1874.

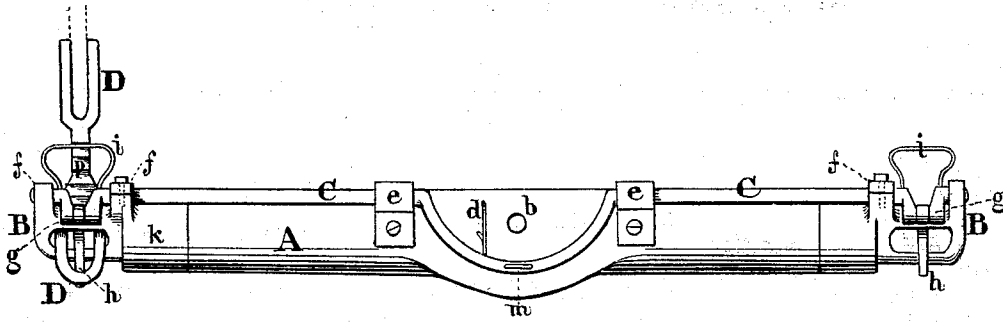


Fig. 1.

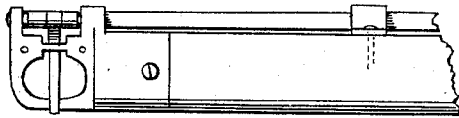


Fig. 2.

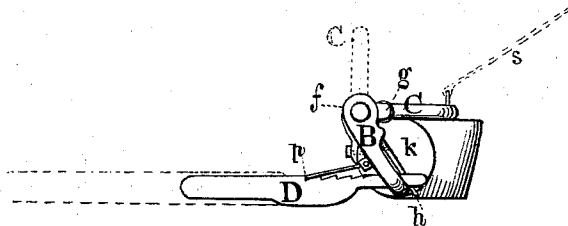


Fig. 3.

Scale of 1 foot

Witnesses
James Thurston
Clarence Thurston

Conrad Metzger
(by C. Thurston, Atty.)

UNITED STATES PATENT OFFICE.

CONRAD METZGER, OF CRUGER, ASSIGNOR OF ONE-HALF HIS RIGHT TO
ALT GERDES, OF PEORIA, ILLINOIS.

IMPROVEMENT IN HORSE-DETACHERS.

Specification forming part of Letters Patent No. **150,968**, dated May 19, 1874; application filed
April 9, 1874.

To all whom it may concern:

Be it known that I, CONRAD METZGER, of Cruger, in the county of Woodford and in the State of Illinois, have invented an Improvement in Single-Trees and mode of detachment of the attached double-trees or harness-traces; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which like letters of reference refer to like parts, and in which—

Figure 1 represents a plan view; Fig. 2, an elevation of end one of the same, seen from the rear; Fig. 3, end view of the latter.

This invention has for its object to provide a device for detaching instantaneously the harness-traces or the double-trees from the single-tree in case of necessity or danger; and consists of a rod attached or hinged upon the single-tree, and running from end to end of same, provided with a lever or crank at its middle part, from which a line or strap leads to the driver's seat. Each end of the rod is bent into a small crank, to each of which is attached a tongue or vertical pin, the lower end of which passes through an eye or opening in the metal eye-piece or terminal mounting of the single-tree, and rests behind and against the lower part of the substance around the opening, in such a manner as to retain the eye or link of the double-tree or trace. By lifting the lever or crank in the middle of the rod the tongues or pins are simultaneously withdrawn from the eyes of the double-trees or traces, and the horse or horses, or other animal, is immediately disconnected from the vehicle.

The following description applies to one of the forms in which I construct my invention:

In the drawings, A represents the single-tree, with a flat horizontal extension at the part *b*, at which the bolt passes through it, provided at each end with an eye-piece, B, which is attached to the end of the single-tree by a thimble, *k k*. Upon the upper part of the eye proper of the single-tree are bearings

f f for the reception of the end of the rod C, between which bearings the rod is bent into a small crank, *g*, whose normal position is horizontal. From the crank depends a tongue or pin, *h*, which passes in front of the opening in the eye-piece B, down through the eye or link D of the trace or single-tree, which is introduced through this opening, below which the tongue or pin *h* passes behind and rests against the back part of the metal frame which borders the opening in the eye-piece B. D represents the link or eye of the single-tree, or of a trace, provided with notches *p* on its upper surface, by which it is prevented from passing backward through the eye B by a pawl, *i*, hinged to the front of the same. The crank at the middle of the rod is kept down by a spring, *d*, until it is required to be used.

The operation of this device is as follows: On raising the crank in the center of the rod C, the end cranks *g g* lift their attached tongues *h h*, which retain the links D in the eye-piece B, and the double-trees or traces are immediately freed from the vehicle.

What I claim as my invention is—

1. The single-tree A, having the eye-pieces B B, crank-rod C, and cranks *g g* over each eye of the eye-pieces, and the tongues *h h*, substantially as and for the purposes described.

2. In combination with a single-tree, the eye-pieces B B, crank-rod C, provided with cranks *g g*, and the retaining-spring *d*, substantially as described.

3. In combination with the eye-piece B, the pawl *i* and the link D, provided with the notches *p*, substantially as and for the purposes described.

In testimony that I claim the foregoing single-tree, I have hereunto set my hand this 2d day of April, 1874.

CONRAD METZGER.

Witnesses:

JO. METZGER,
C. DENAHY.