

(No Model.)

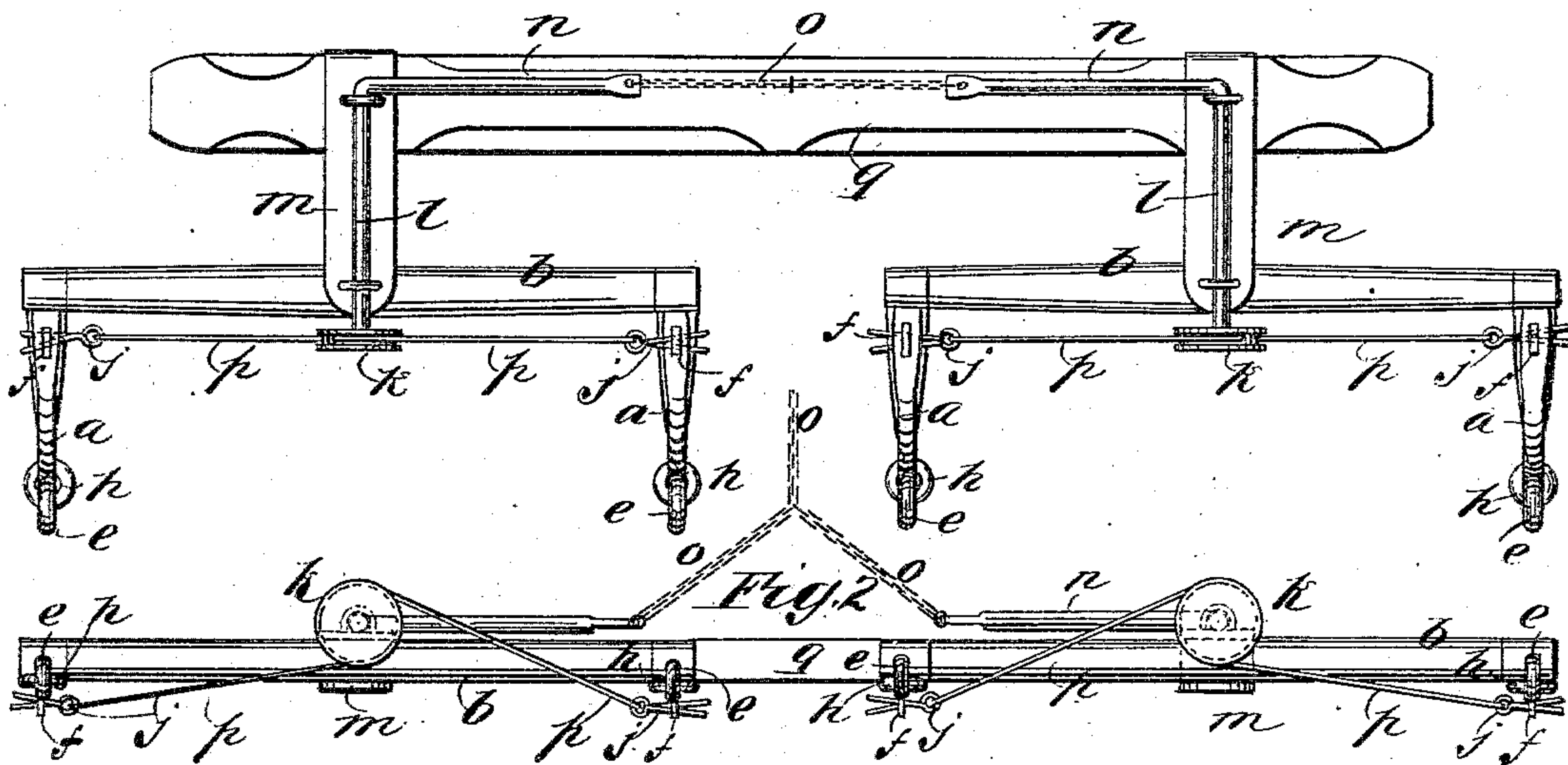
J. E. STEVENSON & J. FORSYTH.

HORSE DETACHER.

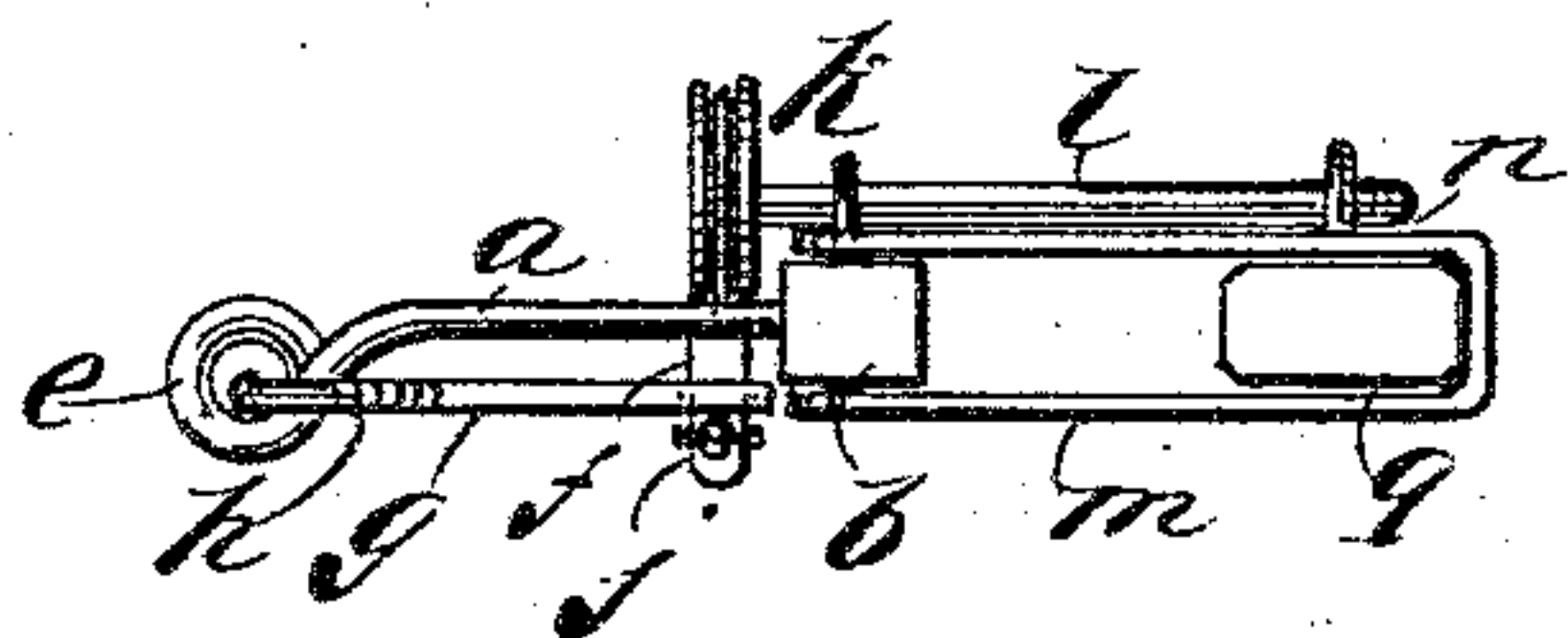
No. 305,858.

Patented Sept. 30, 1884.

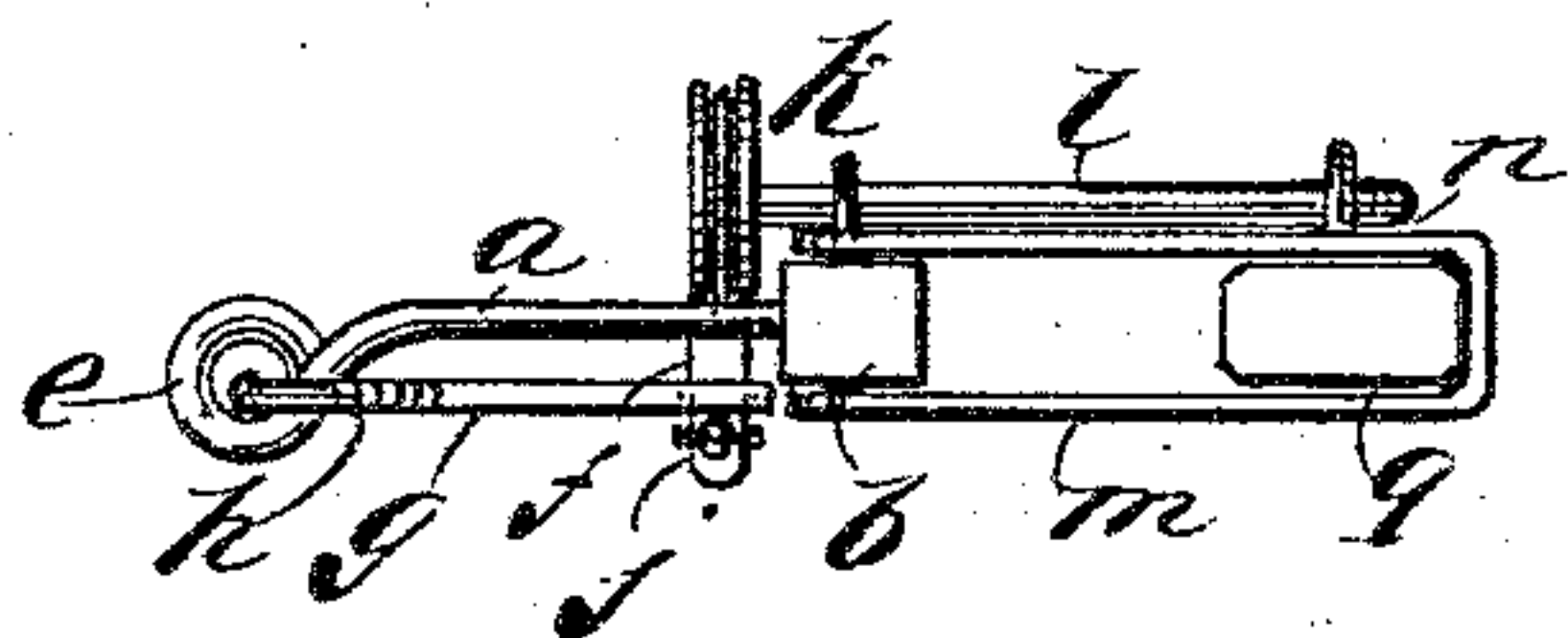
*Fig. 1*



*Fig. 2*



*Fig. 3*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN EDWARD STEVENSON AND JOSEPH FORSYTH, OF BRIGHTON, TENN.

## HORSE-DETACHER.

SPECIFICATION forming part of Letters Patent No. 305,858, dated September 30, 1884.

Application filed April 25, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN E. STEVENSON and JOSEPH FORSYTH, both of Brighton, in the county of Tipton and State of Tennessee, have invented a new and Improved Horse-Detacher, of which the following is a full, clear, and exact description.

Our invention consists of an improved contrivance of trace-hooks and means for unhooking the traces therefrom when it becomes necessary to detach the horses, the object of which is to provide simple, efficient, and reliable means of escape from the horses when they become uncontrollable, as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of an evener and whiffletrees provided with our improved detaching apparatus. Fig. 2 is a front elevation of the same, and Fig. 3 is a side elevation.

We make the trace-hooks to consist of a shank, *a*, rigidly attached to the whiffletree *b* at one end, so as to project directly forward, and having an eye, *e*, at the front end, and a hasp-stud, *f*, near the whiffletree, and projecting downward, together with a hasp, *g*, also having an eye, *h*, by which it is jointed with eye *e*, and also having a slot for engaging with the stud *f*, to which it is secured by a split key, *j*, inserted through the stud below the hasp, so that when the key is pulled out of the stud the hasp will drop down and release the trace. For pulling out the keys we connect the keys of each whiffletree to a roller, *k*, or it may be a rock-lever located at the center of the whiffletree, and connected to the end of a rocker-shaft, *l*, fitted in suitable bearings on the clevis *m*, extending back to the evener *q*, and having a lever-arm, *n*, reaching toward the center of the evener, and connected with a chain, *o*, extending up to a position where the driver can reach it conveniently for pulling up the levers to draw out the keys

when desired. The weight of the lever-arms keeps them down, so that there is no tendency to pull out the keys by any action of the parts in the ordinary working of the vehicle; but the pulling of the levers up by the chain will not fail of pulling out the keys, which frees the hasps *g*, so that they will open at once by the influence of their weight, the shocks of the gear in motion, and also by some tendency of the pull of the traces, which are thrust downward to some extent by the curves of the shank *a* back of the eye *e*.

The keys *j* are connected, by cords, wires, or chains *p*, as preferred, with the upper and lower sides of the pulleys *k*, respectively, according as the directions in which they pull when turned.

It is not essential to employ pulleys for detaching the keys, as lever-arms extending up and down from rockers *l* will serve the same purpose.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The improved safety trace-hooks for detaching apparatus, consisting of shank *a*, attached at one end to the whiffletree, and having an eye, *e*, in the other end, connecting with a hasp, *g*, and also having a stud, *f*, extending downward near the whiffletree, with which the hasp connects, and to which it is secured by a split key, *j*, substantially as described.

2. The combination of a lever-arm, *n*, rocker *l*, and pulley *k*, or equivalent device, with trace-hooks consisting of shank *a*, hasp *g*, and hasp-stud *f*, said hasps being secured to the hasp-studs by split keys, and the keys being connected to the pulleys or equivalent devices, and the levers and rockers being arranged with relation to the evener and whiffletrees, substantially as described.

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Witnesses:

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