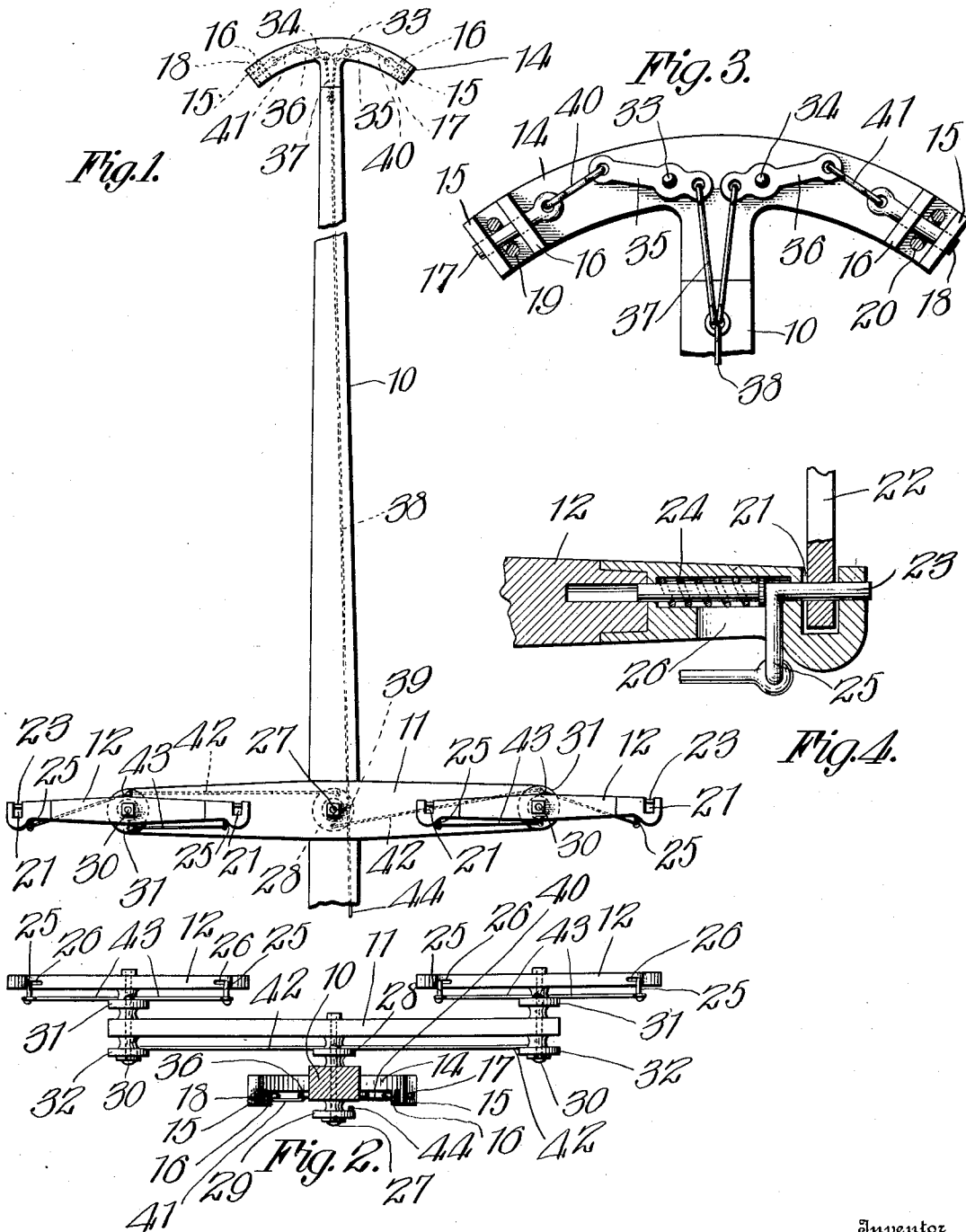


P. THIELEN.  
HORSE RELEASER.  
APPLICATION FILED AUG. 28, 1908.

934,476.

Patented Sept. 21, 1909.



Witnesses

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# UNITED STATES PATENT OFFICE.

PAUL THIELEN, OF KEWANEE, ILLINOIS.

## HORSE-RELEASER.

934,476.

Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed August 28, 1908. Serial No. 450,688.

*To all whom it may concern:*

Be it known that I, PAUL THIELEN, a citizen of the United States, residing at Kewanee, in the county of Henry, State of Illinois, have invented certain new and useful Improvements in Horse-Releasees; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to horse releasing devices whereby horses may be instantly released from the vehicle in event of becoming unruly or attempting to run away, and has for one of its objects to produce a simply constructed device of this character whereby the traces and the collar connections may be simultaneously disconnected by one action.

With these and other objects in view, the invention consists generally in a plurality of oscillating plates connected respectively to the double-tree and the swingle-trees, a trace engaging means at the terminal of each swingle-tree, a bolt slidably engaging each trace engaging means, a yoke member at the forward terminal of the draft tongue, collar engaging means at the terminals of the yoke member, a bolt slidably engaging each collar engaging means, connecting means between said yoke member bolts and the oscillating plate of the double-tree, connecting means between the bolts of the swingle-trees and the oscillating plates thereof, connecting means between the oscillating plates of the double-tree, and means operating from the vehicle for actuating the plates of the double-tree, whereby the various bolts are simultaneously withdrawn and the collar coupling means and the traces released by one operation.

The invention further consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claims, and in the drawings illustrating the preferred embodiment of the invention.

Figure 1 is a plan view of a draft tongue and the draft appliances with the improved devices applied. Fig. 2 is a rear elevation of the same. Fig. 3 is a plan view from beneath, enlarged, of the yoke portion of the device. Fig. 4 is a sectional detail, enlarged, of one of the whiffle-tree ends, illustrating

the construction of the trace-holding devices.

The improved device comprises a draft tongue 10 having a double-tree 11 and swingle-trees 12 and with a yoke member 14 arranged transversely at the forward end.

The yoke member is provided with spaced ears 15—16 at the ends to receive bolts 17—18 to receive the chains 19—20 extending from the collars of the horses and through which the bolts extend, to couple the collar to the yoke member, as shown. The collars are not shown as they form no part of the present invention.

The swingle-trees 12 are each provided at each end with a socket 21 to receive the apertured rear ends of traces represented at 22, and each socket is also provided with a bolt 23 to secure the trace in the socket.

Each bolt is provided with a spring 24 to maintain it yieldably in projected position, and each bolt is likewise provided with a lateral arm 25 operating in a slot 26 in the socket.

The double-tree 11 is pivotally connected to the tongue by a bolt 27, and connected to this bolt and swinging therewith is a disk 28, the disk located between the double-tree and the tongue, while another similar disk 29 is connected to the bolt 27 beneath the tongue 10, as shown in Fig. 2.

The swingle-trees 12 are swingingly coupled to the double-tree 11 at its ends by bolts 30, and connected to each bolt 30 between the swingle-trees and the double-tree is a disk 31, and likewise connected to each bolt 30 beneath the double-tree at each end is a disk 32.

The disks 28 and 31 are provided with bearing hubs upon opposite sides, the hubs of the disk 28 bearing above the tongue and beneath the double-tree, while the hubs of the disks 31 bear against the adjacent surfaces of the double-tree and the swingle tree. The disks 29 and 32 are each provided with a bearing hub operating against the under surface respectively of the tongue and the double-tree, as shown. By this means the various parts are retained in their proper relative positions.

Pivoted at 33—34 beneath the yoke member 14 are two short lever arms 35—36, the inner ends of the lever arms connected by a rod or link 37 to a rod 38, the latter in turn leading rearwardly beneath the tongue

and connected at 39 to the disk 29. The outer ends of the lever arms 35—36 are coupled by links 40—41 respectively to the bolts 17—18. By this means it will be obvious that when the disk 29 is oscillated the member 38 will be correspondingly operated and thus withdraw the bolt 17—18 from the ears 15—16 of the yoke and release the collar connections, as hereafter explained.

10 Coupled to opposite sides of the disk 28 are pull rods 42, the latter connected at their ends respectively to the disks 32, while pull rods 43 are similarly coupled between the offsets 25 of the bolts 23 and the disks 31, 15 as shown.

Leading rearwardly from the disk 29 is a pull rod 44, the latter leading in any suitable manner to a point convenient to the seat of the driver upon the vehicle.

20 By this arrangement it will be obvious that the springs 24 of the bolts 23 will hold the various bolts yieldably in coupled relation to the collars and to the traces. The springs 24 by bearing against the arms 25 retain the various disks yieldably in one position. The central lower disk 29 being coupled by the rod 38, links 37 and 40, and levers 35—36 to the bolts 17—18, the latter are likewise retained in locked position by 30 the operation of the springs. By this arrangement as long as the draft animal is acting normally the draft appliances will remain intact but in event of any attempt of the animal or animals to run away or in 35 event of their becoming unruly, the driver by simply actuating the pull rod 44 will cause the oscillation of the disks 29 and the latter being coupled to the bolts 17—18 causes the release of the same and the uncoupling of the collar, while at the same time 40 the disk 29 being connected to the bolt 27 causes the corresponding oscillation of the disks 28 and 32, and the latter being coupled to the bolts 30 causes the corresponding oscillation of the disks 31 and the operation 45 of the bolts 23 and the release of the traces, the traces and the collar connections being simultaneously released. The draft animals are thus instantly and entirely released 50 from the vehicle and from the tongue.

The improved device is simple in construction, can be applied without material structural changes to vehicles of various sizes and employed for various purposes.

55 While the details of construction shown illustrate the preferred embodiment of the

invention it will be obvious that changes may be made in the construction within the scope of the appended claims without departing from the principle of the invention 60 or sacrificing any of its advantages.

What is claimed, is:—

1. In a device of the class described, the combination of a draft tongue, a double-tree, and swingle-trees, a pin rotative 65 through the tongue and doubletree, pins rotative through the doubletree and swingle-trees, a disk having a bearing hub bearing beneath the tongue and rigidly connected to the pin thereof, a disk rigidly connected 70 to the pin of the tongue above the tongue and provided with bearing hubs above and below the same and bearing respectively above and below the tongue and doubletree, disks located beneath the doubletree at the 75 ends thereof and rigidly connected to the pins of the doubletree and with hubs bearing beneath the doubletree, disks located above the doubletree and rigidly connected to the pins thereof and with hubs bearing 80 respectively above and below the doubletree and swingle-trees, trace securing means carried by said swingletrees, coupling means between the trace securing means and the disks above the doubletree, coupling means 85 between the disks below the doubletree and the disk above the tongue, and operating means applied to the disk below the tongue.

2. In a device of the class described, the combination of a draft appliance, a swingle-tree, a pin rotative through the draft appliance and the swingle-tree, a disk located 90 between the draft appliance and the swingle-tree and rigidly connected to said pin, said disk provided with hubs bearing above the 95 draft appliance and beneath the swingle-tree, a disk located beneath the draft appliance and connected rigidly to said pin and provided with a hub bearing beneath the draft appliance, trace securing means carried by 100 said swingle-tree, coupling means between the trace securing means and the disk above the draft appliance, and operating means connected to the disk below the draft appliance. 105

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

PAUL THIELEN.

Witnesses:

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