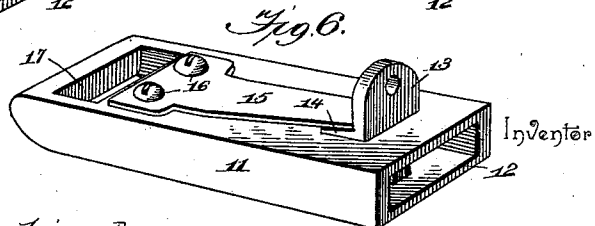
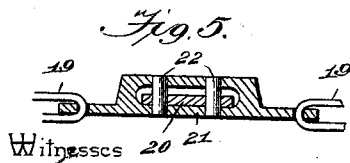
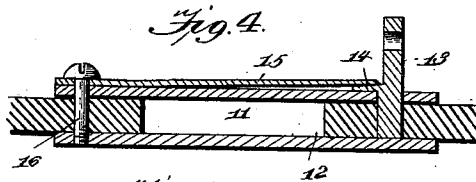
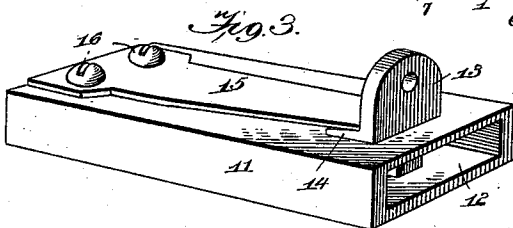
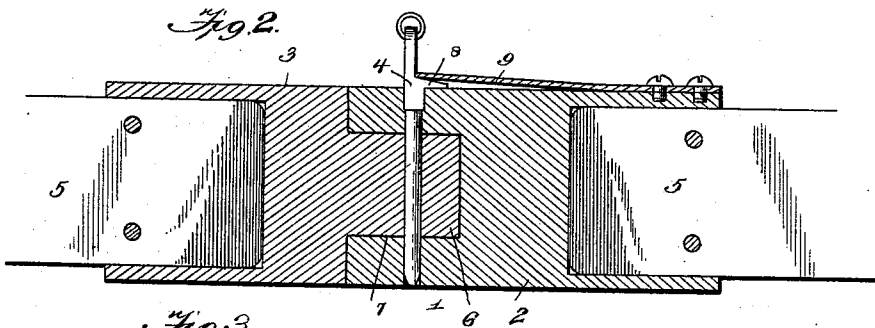
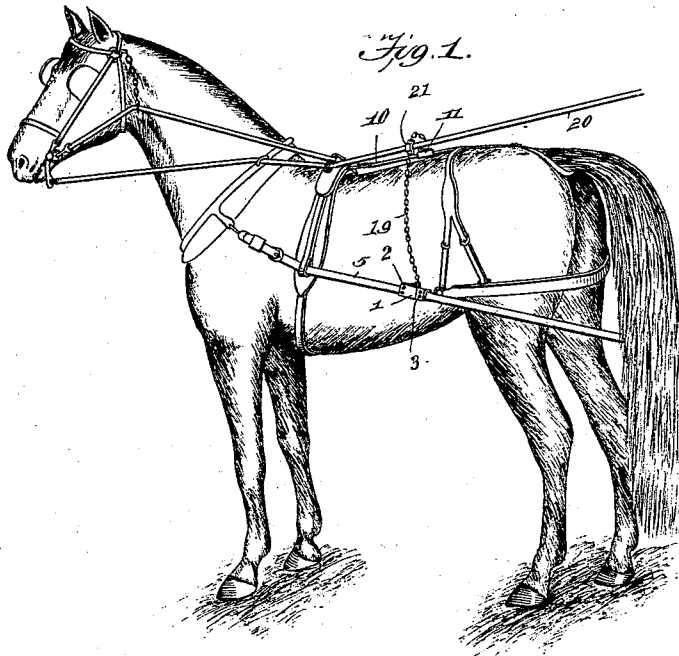


(No Model.)

W. A. ULRICH.
HORSE DETACHING HARNESS.

No. 540,885.

Patented June 11, 1895.



Witnesses
John C. Shaw.
J. H. Riley

By his Attorneys. William A. Ulrich,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

WILLIAM A. ULRICH, OF FREELAND, PENNSYLVANIA.

HORSE-DETACHING HARNESS.

SPECIFICATION forming part of Letters Patent No. 540,885, dated June 11, 1895.

Application filed February 11, 1895. Serial No. 537,972. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. ULRICH, a citizen of the United States, residing at Freeland, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Horse-Detacher, of which the following is a specification.

The invention relates to improvements in horse detachers.

10 The object of the present invention is to improve the construction of horse detachers, and to provide a simple and efficient device, adapted to disconnect a horse or team from a vehicle, to prevent injury to the latter and
15 its occupants, in event of a runaway, and capable of being operated entirely by the driving reins.

The invention consists in the construction and novel combination and arrangement of
20 parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view showing a horse-detacher constructed in
25 accordance with this invention and applied to a horse. Fig. 2 is a longitudinal sectional view of one of the trace-couplings. Fig. 3 is a detail perspective view of one of the back-strap couplings. Fig. 4 is a longitudinal sectional view of the same. Fig. 5 is a detail
30 sectional view illustrating the construction of one of the rein-engaging loops. Fig. 6 is a detail view of a back-strap coupling provided with a loop at one end for the attachment of
35 one section of the back-strap.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1—1 designate similar trace couplings, composed of sections 2 and 3, detachably connected by means of a removable pin 4, and adapted when such pin is withdrawn to separate the traces, and free a horse or other animal. The outer end of the section 3 is provided with a socket, for the reception of one
45 section or portion of a trace 5, and its inner end is provided with a tongue 6, which fits in a corresponding socket 7 of the inner end of the section 2, and is engaged by the pin 4,
50 which fits in perforations of the section 2, and passes through a corresponding perfora-

tion of the tongue. The rear end, or rather the outer end of the section 2, is provided with a socket for the reception of the adjacent portion of the trace, but instead of the sockets
55 at the outer terminals of the sections 2 and 3, other attaching devices may be employed, to secure the sections to the trace.

The pin 4 is provided with a perforated head, and has a flange 8 forming a shoulder, which is engaged by a flat spring 9 secured to the upper edge of the section 2, and having its free end engaging said flange.

The back strap 10, is constructed in two portions, and is connected by a coupling 11, consisting of a sleeve or casing, having one end permanently secured to one portion of the back strap, and provided at its other end with a socket 12, receiving the other portion of the back strap. This latter portion of the back
65 strap is removably secured in the socket by a pin 13, having its shank arranged in perforations of the sleeve or casing, and provided with a perforated head and a flange 14, similar to the flange of the pin of the trace coupling.
70 The flange 14 is engaged by the free end of a spring 15, which is secured at its other end to the sleeve or casing, and the fastening devices 16 for attaching the spring to the sleeve or casing may also serve as the
75 means for securing the adjacent section of the back strap to the sleeve or casing; but, as illustrated in Fig. 6 of the accompanying drawings, this coupling may be provided with a loop or opening 17, to receive a corresponding
80 ing loop of a back strap.

The pins of the couplings are connected by a chain 19, with the driving reins 20 of the harness, but any other flexible connection, such as a strap or the like, may be employed,
90 as desired. The chain 19 is designed to extend across the back of a horse, as illustrated in Fig. 1 of the accompanying drawings, and to have its terminals linked into the perforations of the heads of the pins 4, and it is connected at its center with the pin 13 of the
95 back strap coupling.

The chain or other flexible coupling is provided at points on opposite sides of the back strap coupling, with metal loops 21, provided
100 with ears for the reception of the adjacent links of the chain, and having rectangular

openings for the reception of the driving reins. These loops 21 are permanently or fixedly connected with the driving reins by pins or fastening devices 22, which may be removable if desired, and the chain or other flexible connection employed is sufficiently long to allow the necessary movements of the reins, incident to controlling an animal, without operating or withdrawing the pins of the coupling; but, in event of a runaway, the reins may be lifted sufficiently to draw the chain or other flexible connection taut, and to withdraw the removable pins of the couplings. This will have the effect of breaking or separating the parts of the traces, and also the back strap, and will entirely free the animal, and prevent it from damaging a vehicle, or injuring the occupants thereof.

It will be seen that the detaching device is simple and inexpensive in construction, that it is positive and reliable in operation, and that it is strong and durable. It will also be apparent that it is adapted to be applied to any ordinary harness, and that it is capable of being operated entire by the reins, and it is always ready for instant use.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a horse detacher, the combination of traces composed of two portions and provided with trace couplings, consisting of two sections, and a removable pin connecting the same, a back strap consisting of two portions and provided with a back strap coupling connecting the portions and provided with a removable pin connecting the portions, the transversely disposed flexible connections arranged at opposite sides of the harness and extending from the traces to the back strap and secured to the removable pins thereof, and reins attached to the flexible connections

and adapted to withdraw the pins, substantially as described.

2. In a horse detacher, the combination of the traces having front and rear portions, and provided with connecting couplings composed of two sections, one of the sections being provided with a socket, and the other having a tongue fitting in the socket, pins mounted on the sections and engaging detachably the tongues, and springs for holding the pins normally in engagement with the tongues, a back strap having front and rear portions and provided with a coupling receiving the adjacent ends of the portions of the back strap, and permanently secured to one end and provided with a spring actuated pin for detachably engaging the other end, flexible connections disposed transversely of the harness and extending from the back-strap to the traces and secured to the pins thereof, and reins attached to the flexible connections and adapted to withdraw the pins, substantially as described.

3. In a horse detacher, the combination of traces having front and rear portions and provided with couplings composed of two sections and provided with pins detachably connecting the sections, a back strap composed of front and rear portions and provided with a coupling secured to one portion and having a pin detachably engaged in the other portion, the flexible connections disposed transversely of the harness and extending from the back strap to the traces and secured to the pins thereof, and provided at opposite sides with loops, and reins passing through the loops and secured therein, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM A. ULRICH.

Witnesses:

GEO. NAGLE,

H. W. FACKLER.