

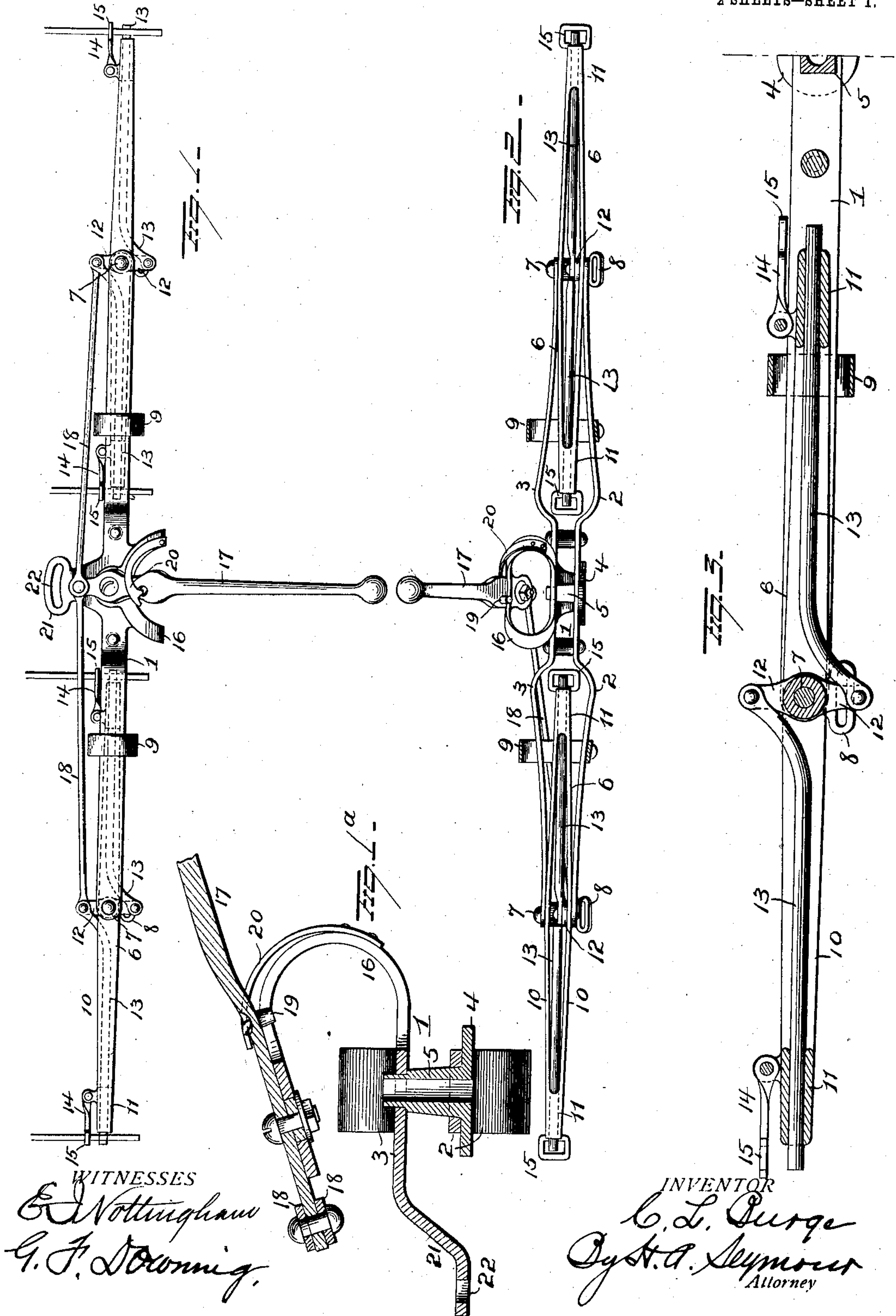
No. 896,618.

PATENTED AUG. 18, 1908.

C. L. BURGE.  
HORSE DETACHER.

APPLICATION FILED JULY 6, 1907.

2 SHEETS—SHEET 1.



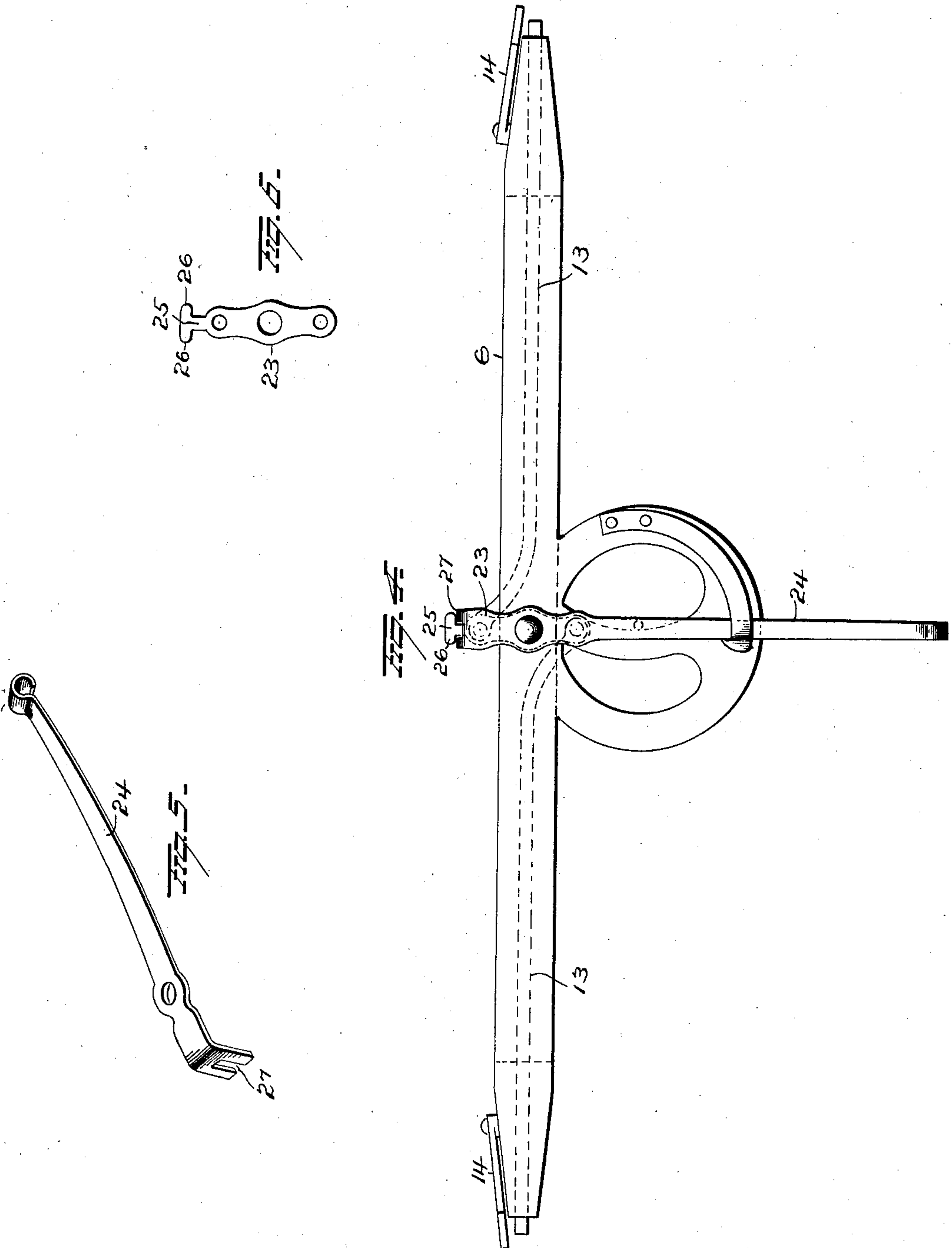
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# UNITED STATES PATENT OFFICE

CHARLES L. BURGE, OF HOFFMAN, MINNESOTA.

## HORSE-DETACHER.

No. 896,618.

Specification of Letters Patent.

Patented Aug. 18, 1908.

Application filed July 6, 1907. Serial No. 382,558.

*To all whom it may concern:*

Be it known that I, CHARLES L. BURGE, of Hoffman, in the county of Grant and State of Minnesota, have invented certain new and useful Improvements in Horse-Detachers; 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.

My invention relates to improvements in attaching and detaching devices for vehicles,—the object of the invention being to provide a double or swingle tree of substantial construction with simple and efficient means for permitting the ready detachment of the traces from the swingle-trees.

With this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view illustrating my improvements as applied to a double-tree. Fig. 1<sup>a</sup> is an enlarged cross section. Fig. 2 is a rear view of the same. Fig. 3 is a sectional view. Fig. 4 is a plan view illustrating a modification, and Figs. 5 and 6 are details of the construction shown in Fig. 4.

1 represents a rectangular-frame or double-tree comprising two bars 2, 3, spaced apart and rigidly secured together at points centrally between their ends. The lower bar or member 2 of the double-tree is provided with a circular enlargement 4 to be seated upon the forward portion of the running-gear of a vehicle, and this enlargement 4 as well as the post 5 which connects the two members of the double-tree at the center, is provided with a hole for the reception of a suitable pin or bolt for connecting the device with the running-gear of a vehicle. At respective sides of the center, the two members of the double-tree are bowed slightly and between the outer ends of the respective members 2, 3, swingle-trees 6 are pivotally supported, by means of pins 7, and to these pins loops 8 may be attached for the reception of straps or other flexible devices to be connected with the running-gear and limit the swinging movement of the device. The swinging movement of the swingle-trees will be limited by loops 9 encircling the members of the double-tree and secured to one of said members.

Each swingle-tree 6 comprises two bars 10 united at their respective ends by tubular portions 11 which may be made integral with said bars or rigidly secured thereto by brazing or in any other suitable manner. A rocking-lever 12 is pivotally mounted on each pin 7 between the respective members of each swingle-tree and to the respective ends of each rocking-lever, the inner ends of rods 13 are pivotally attached. These rods project outwardly between the members of the swingle-tree and pass through and beyond the tubular end portions thereof for the reception of the traces. An arm 14 is pivotally connected with the forward side of the swingle tree, near each end thereof, and each of these arms is provided with a loop 15 through which the trace is passed and affords means for preventing the accidental displacement of the trace from the projecting end of the rod 13.

The upper member 3 of the frame or double-tree 1 is provided centrally between its ends with a bracket 16 to which a lever 17 is pivotally attached. Two rods 18 are pivotally connected at their inner ends to the forward end of the lever 17 and at their outer ends these rods are pivoted to the rocking levers 12 in the respective swingle-trees. From this construction and arrangement of parts, it will be seen that when the lever 17 is moved in one direction, motion will be transmitted to the rocking-levers 12 and the rods 13 will be moved inwardly so as to release the traces. In order to prevent the lever 17 from being moved too far when it is operated to release the traces, a lug 19 on the lever engages the bracket 16. A spring locking arm 20 holds the lever 17 in its normal position.

The upper member 3 of the double-tree is provided with a forwardly projecting arm 21 having a curved slot 22 for the passage of a suitable bolt secured to the tongue of the vehicle.

With the construction above described the detaching devices of both swingle-trees are operated by means of a single lever mounted on the double-tree. When only one swingle-tree is employed (as in the case of a one horse vehicle), operating devices for the detaching means may be mounted upon said swingle tree. Such a construction is illustrated in Fig. 4. In the form of invention shown in Figs. 4, 5 and 6, a rocking-lever 23 is pivotally supported between its ends upon



the central portion of the swingle-tree and to this rocking-lever the rods 13 are attached. An operating lever 24 is disposed over the rock-lever 23 and is pivotally supported by  
5 the same pin which connects the rock-lever with the swingle-tree. One end of the rock-lever is provided with an extension 25 having laterally projecting lugs 26. The operating lever 24 is provided with a bifurcated end 27  
10 which engages the extension 25 of the rock-lever and said operating lever and rock-lever are thus connected to move together.

Slight changes might be made in the details of construction of my invention without  
15 departing from the spirit thereof or limiting its scope and hence I do not wish to restrict myself to the precise details herein set forth.

Having fully described my invention what I claim as new and desire to secure by Letters Patent, is,—  
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1. The combination with a double-tree comprising two members, and swingle-trees each comprising two members and pivotally supported between the outer ends of the  
25 respective members of the double-tree, rock-levers mounted between the members of the swingle-trees, longitudinally movable rods disposed between the members of the swingle-trees and projecting beyond the respective  
30 ends thereof, said rods connected at their inner ends to the rock levers, a bracket on the double-tree, an operating lever pivotally mounted on said bracket, and rods connecting said operating lever with the rock-  
35 levers of the swingle-trees.

2. The combination with a double tree comprising two members, and swingle-trees each comprising two members and pivotally connected with the respective ends of the  
40 double tree between the members of the latter, of rock-levers mounted between the members of the swingle-trees, rods between the members of the swingle-trees and attached to respective ends of each rock-lever  
45 and adapted to project beyond respective ends of the swingle-trees for the attachment of traces, a bracket on the double-tree, between the swingle-trees, an operating lever  
50 mounted on said bracket, rods connecting said operating lever with the respective rock-levers and a stop to limit the movement of the operating lever.

3. The combination with a swingle-tree, a rock-lever mounted therein, rods connected to said rock-lever at respective sides of its  
55 pivotal support and adapted to project beyond respective ends of the swingle-tree for attachment of traces, an operating lever connected with said rock-lever, a bracket, a stop on the lever to cooperate with the bracket to  
60 limit the movement of said lever, and a spring locking-device to hold the operating lever in normal position.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.  
65

CHARLES L. BURGE.

Witnesses:

M. BOYER,  
WM. A. HASSE.