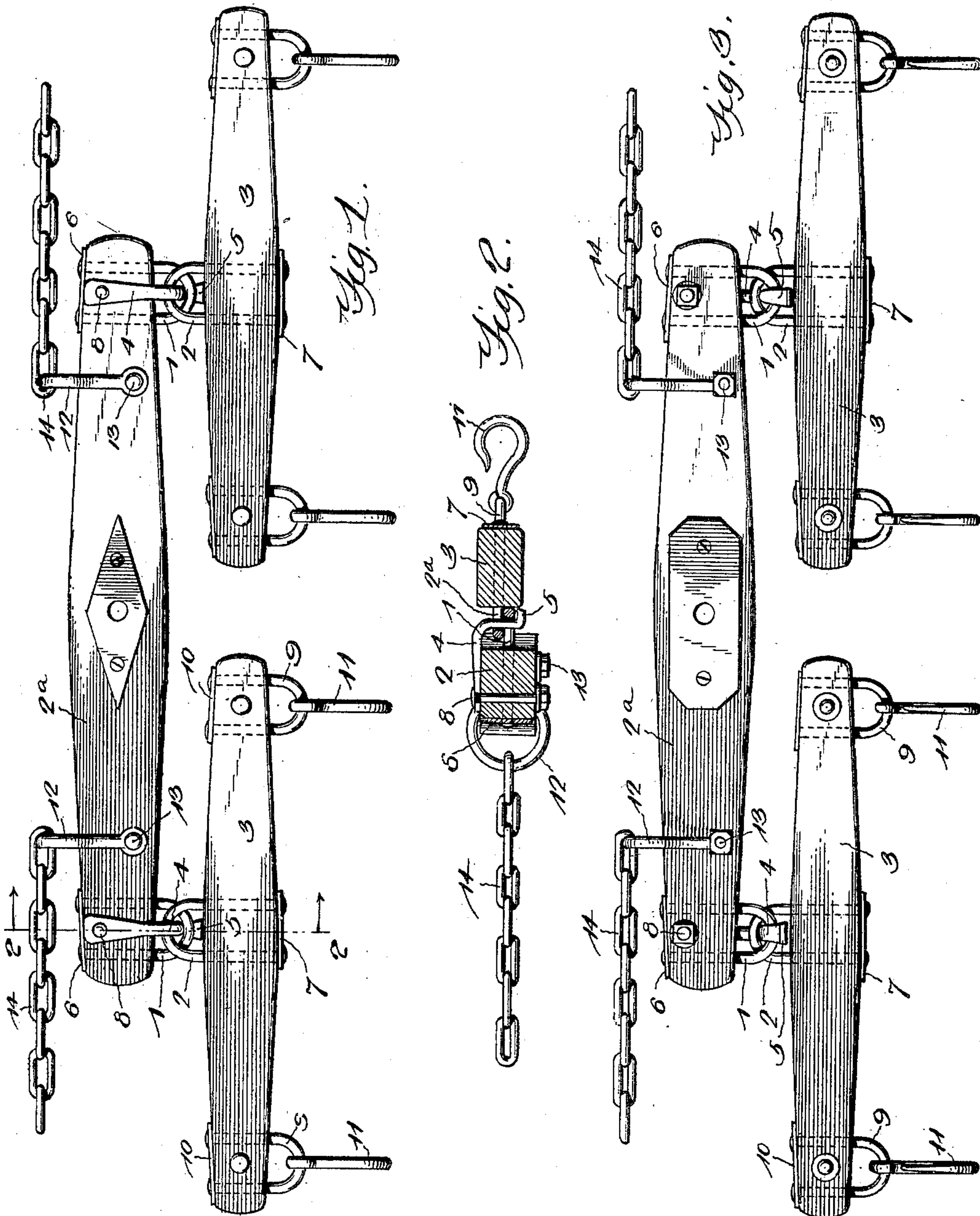


No. 622,705.

Patented Apr. 11, 1899.

J. W. NEAL.
WHIFFLETREE COUPLING.
(Application filed Apr. 18, 1898.)

(No Model.)



Witnesses

J. Grafflenverwill, By His Attorneys,

J. G. Riley

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UNITED STATES PATENT OFFICE.

JOHN W. NEAL, OF CIFAX, VIRGINIA.

WHIFFLETREE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 622,705, dated April 11, 1899.

Application filed April 18, 1898. Serial No. 678,057. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. NEAL, a citizen of the United States, residing at Cifax, in the county of Bedford and State of Virginia, have invented a new and useful Whiffletree-Coupling, of which the following is a specification.

The invention relates to improvements in whiffletree-couplings.

10 The object of the present invention is to improve the construction of whiffletree-couplings and to provide a strong and durable one adapted to prevent the singletrees from dropping upon the heels of horses and frightening them and capable of swinging upward
15 above a horizontal position to afford a straight draft when the horses of a vehicle start uphill after crossing a gully or other depression.

20 A further object of the invention is to provide a simple and inexpensive coupling adapted to sustain the weight of a person on the singletrees and to withstand all the strain incident to drawing a vehicle.

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

30 In the drawings, Figure 1 is a plan view of a doubletree and singletrees provided with whiffletree-couplings constructed in accordance with this invention. Fig. 2 is a sectional view on line 2 2 of Fig. 1. Fig. 3 is a reverse plan view.

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

1 and 2 designate staples extending forward from a doubletree 2^a and rearward from a
40 singletree 3 and arranged in horizontal planes, the staple of the singletree being arranged above that of the doubletree, as illustrated in Fig. 2 of the accompanying drawings. Each end of the doubletree is provided with a coupling, and the staples of each coupling are connected by a half-staple 4, arranged on the
45 upper face of the doubletree and extending downward through the overlapping portions of the staples 1 and 2 and provided at the lower end of the depending portion with a forwardly-extending arm 5, arranged beneath
50 the front end of the staple 1, whereby the lat-

ter and the half-staple are firmly interlocked to prevent any strain exerted on the singletree from pulling the half-staple out of the staple
55 1 and disconnecting the whiffletrees.

The shanks of the staples 1 and 2 are passed through perforations of the doubletree and the singletree and are connected by plates 6 and 7, arranged, respectively, on the rear edge
60 of the doubletree and the front edge of the singletree and effectually preventing the sides or shanks of the staples from pulling out. The half-staple has its side or shank arranged on the upper face of the doubletree, and it is
65 secured to the same by a bolt 8 or other suitable fastening device, which passes through the doubletree at a point between the sides of the horizontal staple 1.

The eye formed by the projecting portion
70 of the staple 2 engages the half-staple, and the lower portion of the rear edge of the singletree abuts against the projecting portion or eye formed by the staple 1, whereby the singletree is supported in a horizontal position and is prevented from dropping upon
75 the heels of horses and frightening the latter. By extending the arm 5 of the half-staple beneath the front of the eye of the staple 1 the singletree is adapted to sustain the
80 weight of a person without liability of bending the half-staple upward out of engagement with the horizontal staple 1.

The singletrees are provided at their ends with staples 9, having plates 10, similar to
85 the plates 6 and 7 of the staples 1 and 2, and the staples 9 are linked into eyes of whiffletree-hooks 11; but any other suitable fastening device may be employed for connecting the traces with the singletrees.
90

The doubletree is provided near its ends with shackles 12, pivoted by bolts 13 and connected with stay-chains 14, which limit the swing of the doubletree.

The invention has the following advantages: The whiffletree-coupling, which is simple and comparatively inexpensive in construction, possesses great strength and durability and is adapted to support the singletrees and prevent them from dropping below
95 a horizontal position, and thereby keep them off the heels of the horses to avoid frightening the latter or otherwise annoying them. The singletrees are permitted to swing up-
100

ward above a horizontal position to afford a straight draft when the horses are pulling upward, and they are adapted to sustain the weight of a person. The half-staples are
5 firmly interlocked with the staples of the doubletree, so that they cannot become disengaged from the same by any strain exerted on the singletrees.

What I claim is—

10 In a device of the class described, the combination with a doubletree, and a singletree, of eyes projecting respectively from the front edge of the doubletree and the rear edge of the singletree and overlapping, the
15 eye of the singletree being located above that of the doubletree, and the half-staple secured

to the upper face of the doubletree and extending downward through the overlapped portions of the eyes and provided at its lower end with a forwardly-extending arm engaging the front of the eye of the doubletree at the bottom thereof to prevent the half-staple from being pulled out of such eye and also to support the singletree, substantially as described.

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

JOHN W. NEAL.

Witnesses:

HENRY THOMSON,
C. W. COCKE.