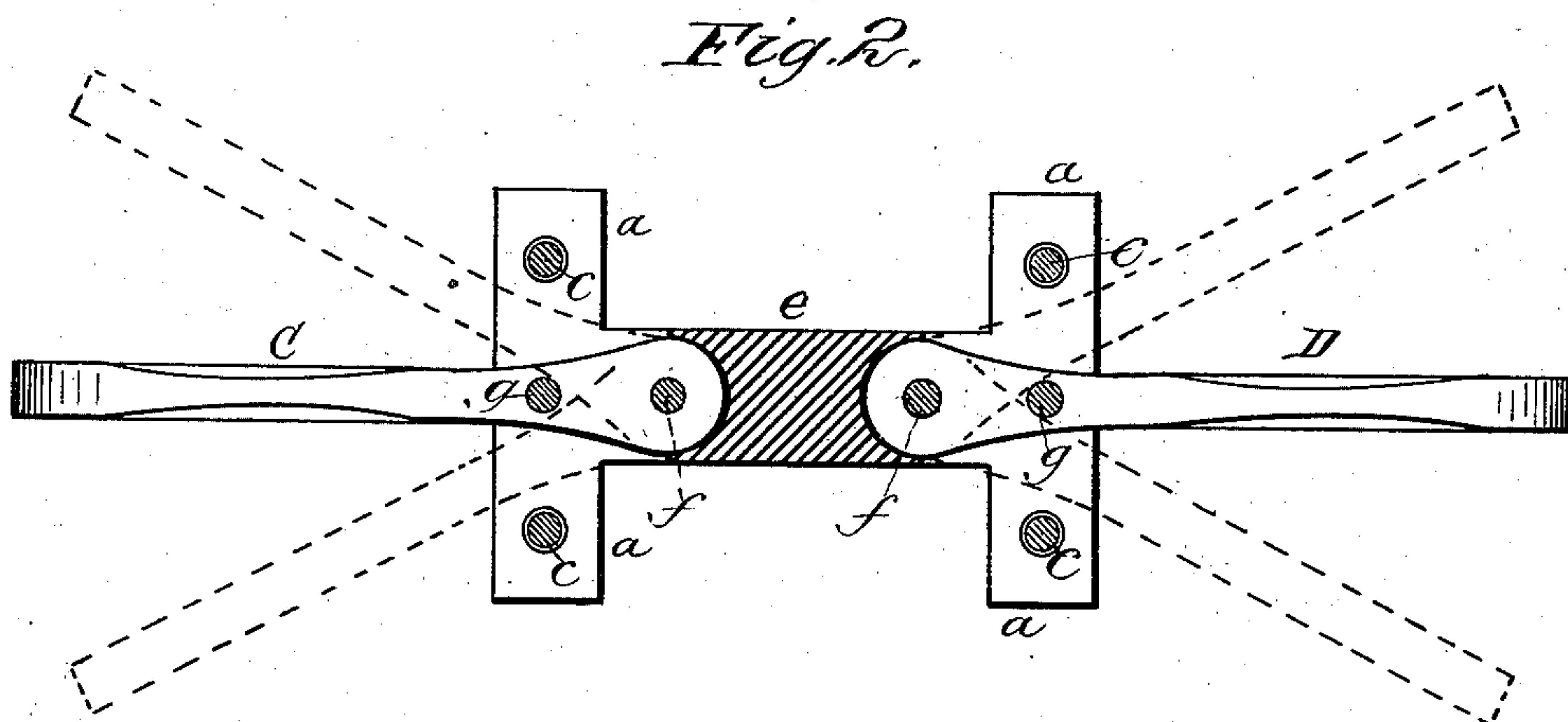
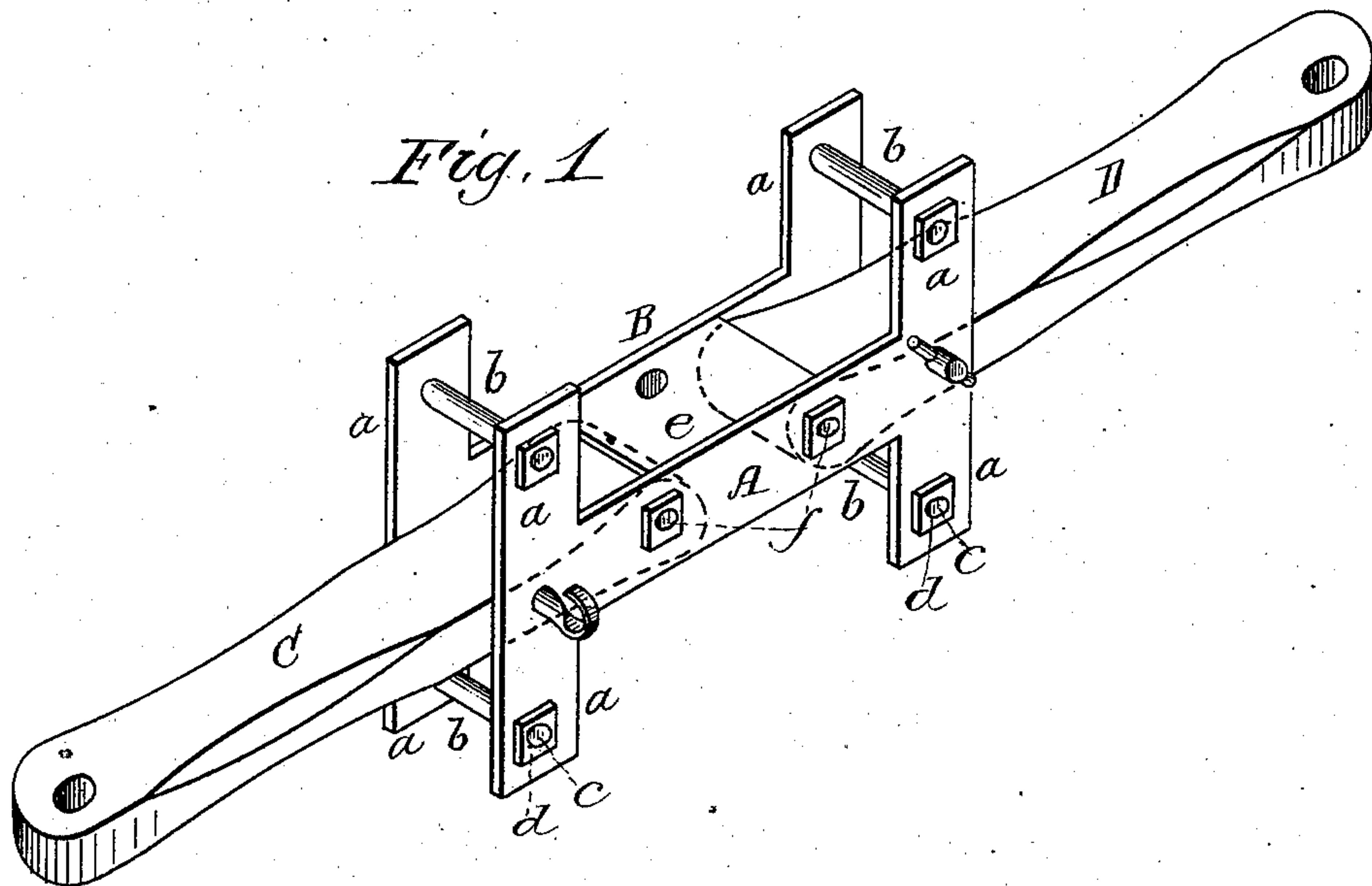


W. W. WINEGAR.
Doubletree.

No. 231,946.

Patented Sept. 7, 1880.



WITNESSES

Nat. E. Oliphant,
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UNITED STATES PATENT OFFICE.

WILLIAM W. WINEGAR, OF CHAMBERSBURG, ILLINOIS.

DOUBLE-TREE.

SPECIFICATION forming part of Letters Patent No. 231,946, dated September 7, 1880.

Application filed February 25, 1880.

To all whom it may concern :

Be it known that I, WILLIAM W. WINEGAR, a citizen of the United States, residing at Chambersburg, in the county of Pike and State of Illinois, have invented certain new and useful Improvements in Double-Trees; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a perspective view of my invention, and Fig. 2 is a front elevation of the same, partly in section, showing in broken lines the different positions of the pivoted arms composing the double-tree.

This invention relates to new and valuable improvements in double-trees used upon vehicles; and the object thereof is to construct the double-tree in a manner whereby the same is rendered convenient to the teamster in changing the direction of the traces from a horizontal position to any angle desired.

The invention consists in providing the double-tree with pivoted arms, to which the clevis of the ordinary whiffletrees or single-trees are connected, and means for holding said arms in a horizontal position, or at any desired angle therefrom, as will be hereinafter more fully described.

In the accompanying drawings, A B represent two vertical plates having vertical branches *a* at the ends thereof, said plates being held a suitable distance apart by ferrules or sleeves *b*, disposed between the branches *a* and held by screw-bolts *c*, passing through the ferrules or sleeves and ends of said branches, the bolts being confined by nuts *d*. Any other suitable means, however, may be employed for holding the plates apart, as found most convenient.

Between the plates A B is fitted a block, *e*, its ends being cut away, or having a semicircular recess to receive the rounded ends of arms C D, which are pivoted between the plates A B by pins *f*, passing through them and the plates. These arms, when in a hori-

zontal position, as illustrated in Fig. 1, which is the same as the ordinary double-tree, are firmly held in that position by a gage-pin, *g*, passing through the branches *a* and through the arms.

To the outer ends of the pivoted arms C D are connected, in any well-known manner, the clevis of the ordinary whiffletrees or single-trees, to which the traces are attached.

When it is desired to change the direction of the traces the gage-pin *g* is withdrawn and the arms C D brought to the desired angle above or below a horizontal line, as illustrated in Fig. 2, and held there by the pin *g*. Any other suitable means may be used for holding the arms at the positions required, as I have simply shown one of many devices which may be adapted to the purpose.

It should be understood that the pivoted arms are adjustable independent of each other, and therefore one pair of traces may be raised or lowered without disturbing the other pair, so that the traces of one horse may run horizontal while the other is inclined downward to suit the relative capabilities of an ill-matched team, as it is generally understood that the higher the traces are attached to the load the less strength the animal can exert, and, vice versa, the lower the point of attachment the more strength the animal is capable of exerting.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A double-tree for vehicles, consisting of the pivoted arms C D, with means for holding said arms at a horizontal position, or at any desired angle, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM W. WINEGAR.

Witnesses:

JAS. C. NEWTON,
W. A. HUME.