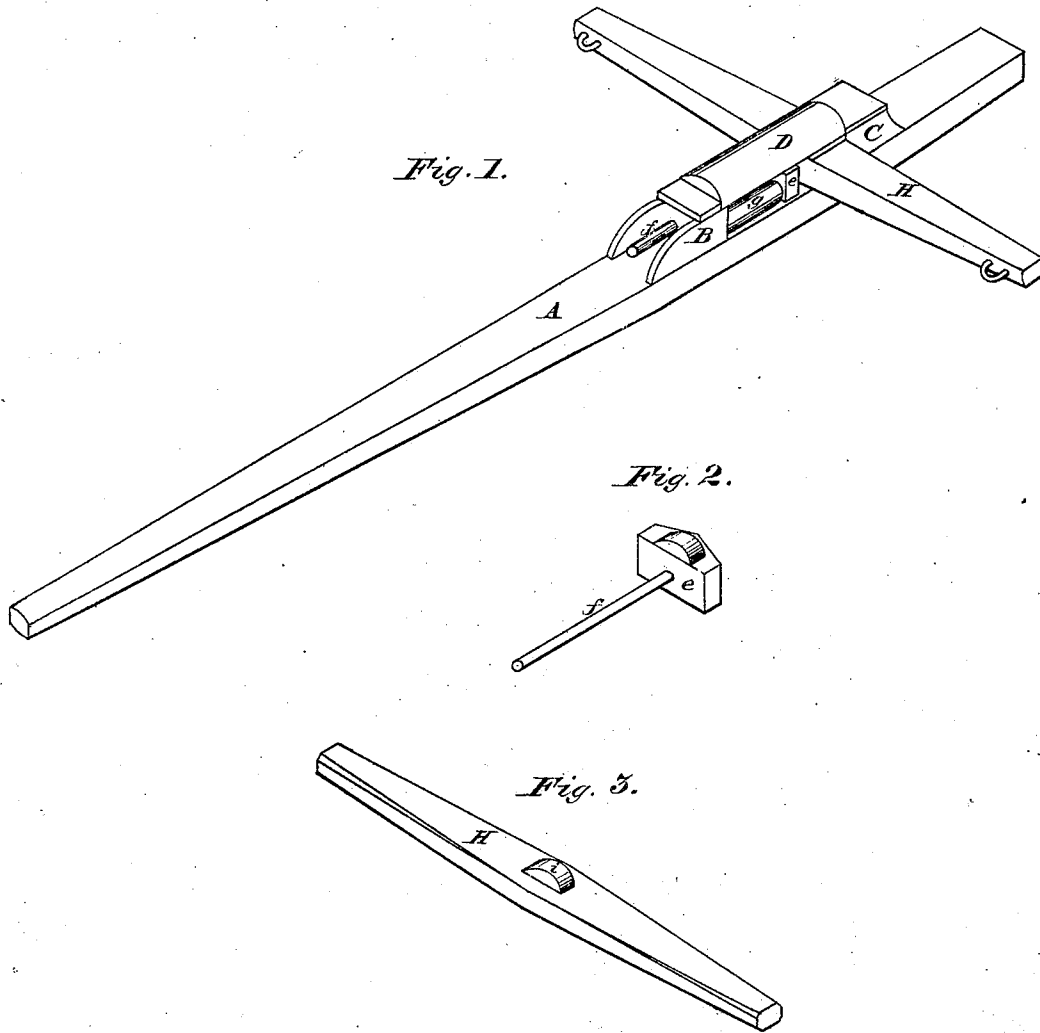


JAMES T. WILLIAMS.

Improvement in Attachment for Whiffletree.

No. 127,725.

Patented June 11, 1872.



Witnesses:

J. C. Brecht.
D. T. Cowh

Inventor:

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by his attys.
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UNITED STATES PATENT OFFICE.

JAMES T. WILLIAMS, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN ATTACHMENTS FOR WHIFFLETREES.

Specification forming part of Letters Patent No. 127,725, dated June 11, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, JAMES T. WILLIAMS, of the city and county of San Francisco, State of California, have invented an Improved Attachment for Whiffletrees; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My invention relates to improvements in securing whiffletrees to wagon-poles, in order that the first strain upon them will be received by an elastic cushion, and thus ease the draft upon the horses in starting the load. It also serves as an evener, to prevent one horse from lagging while the other does all the work.

In order to explain my invention that others will understand its construction and operation, reference is had to the accompanying drawing forming a part of this specification, in which—

A represents the pole of any vehicle or car which is drawn by animal power. A metal casting, B, is secured upon the upper side of this pole, at a point in front of where the whiffletrees are to be attached, and a short distance behind it is another casting, C. A cap-plate, D, the under side of which is concave, extends from one of the castings to the other, its ends being secured one upon each of the castings, as shown; or, if desired, the pieces B, C, and D can all be cast in one piece. In the recess between the cap-plate D and the upper side of the pole is fitted a sliding-head or follower, *e*, which has a stem, *f*, projecting forward through a block of India rubber, *g*, or other elastic spring or cushion, and also through a hole in the front casting B, against which the rubber is pressed by the follower. The upper end of the follower *e* is rounded, so as to fit the concave of the under side of the cap-plate D, and is thus kept in position between the cap-plate and pole, while the side of the follower opposite the rubber block *g* is made V-shaped, as shown. The double-trees H are held between the follower *e* and rear

casting C, bearing against the V-side of the follower, which allows the double-trees to turn to an angle in either direction, as required. A convex plate, *i*, is bolted or riveted to the upper side of the double-tree at its middle, which fits the concave of the cap-plate, and which serves to prevent the double-tree from shifting from its proper position to either side. By this means the first pull upon the double-trees will be received by the elastic block *g*, thus relieving the strain consequent on starting a dead weight without the intervention of some relieving device. It also serves to more equally distribute the pulling force between the two horses, as the compression of the block *g* will give a backward draft upon the whiffletrees, which will tend to keep the tugs taut upon both sides. Should four horses be employed the leaders can be hitched to the forward projecting end of the guiding-stem *f*, and thus give them, also, the benefit of the elastic pull.

This device will be found especially useful when employed on street-cars, where frequent stopping and starting of the car are necessary, and will greatly lighten the labor of starting the car upon the horses.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The castings B C D, either separately or in one piece, when secured upon the pole A, as and for the purpose above described.

2. The follower *e*, with its curved top and V-shaped side secured between the cap-plate D and pole A, and having a guiding-stem, *f*, passing through the casting B, substantially as and for the purpose above described.

3. In combination with the castings B C D, the follower *e* with its stem *f* and elastic block *g*, substantially as and for the purpose above described.

In witness whereof I have hereunto set my hand and seal.

JAMES T. WILLIAMS. [L. S.]

Witnesses:

W. F. BINGHAM,
J. L. BOONE.