J. J. Adair.

Whiffletree.

103118

PATENTED MAY 17 1870

Fig. 1.

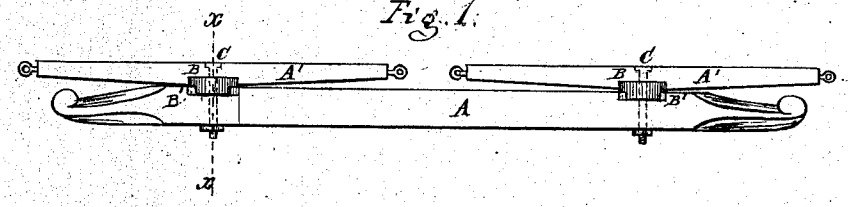
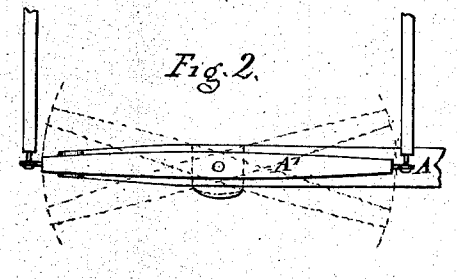


Fig. 2.



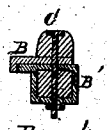


Fig. 4.

Fig. 3

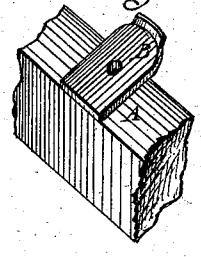


Fig. 6.

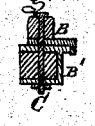


Fig. 5.

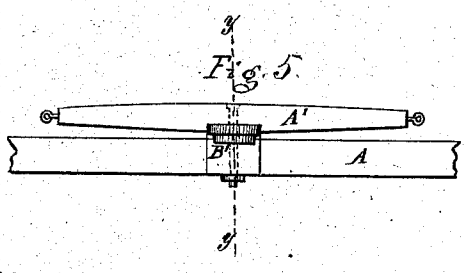


Fig. 7.

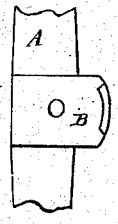
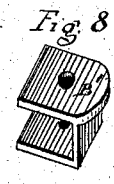


Fig. 8.



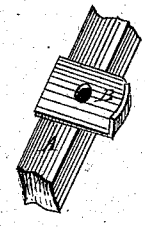


Fig. 9.

Attest

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JOHN J. ADAIR, OF PORTLAND, INDIANA.

Letters Patent No. 103,118, *dated May* 17, 1870.

IMPROVED WHIFFLETREE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN J. ADAIR, of Portland, in the county of Jay and State of Indiana, have invented certain Improvements in Whiffletrees; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings making part of this specification, in which—

Figure 1 is an elevation of two whiffletrees, having my improvement attached thereto, they being represented as attached to the cross-bar of a carriage-tongue or neap, or to a double-tree.

Figure 2 is a plan or top view of a single-tree with its attachment, the dotted lines showing the amount of vibration it is allowed to have.

Figure 3 is a perspective view of a portion of the whiffletree, having the upper portion of the clip attached thereto, and showing upon it the flange which regulates its movements.

Figure 4 is a vertical sectional elevation of both portions of the clip.

The above-referred-to figures refer to the clip when constructed with a view of being placed upon the end of a double-tree or bar of some kind, while those which follow refer to a clip arranged to be placed upon the center of a bar, which may extend across the shafts of a carriage,

Figure 5 being a rear view of a single-tree attached to a cross-bar, showing how the clip is constructed and arranged.

Figure 6 is a sectional elevation on line *y y* of fig. 5.

Figure 7 is a plan or top view of the lower portion of the clip.

Figure 8 is a perspective view of the lower portion of the same.

Figure 9 is a perspective view of the upper portion, as attached to the whiffletree.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to a clip or clips for whiffletrees; and

It consists in the construction, combination, and arrangement of the parts, as will be more fully described hereinafter.

A in the drawings refers to what may be a double-tree, or it may be the bar which is attached to the tongue or neap of a carriage.

A′ A′ refer to single-trees, to which the tugs are to be attached in any approved manner, it being of any approved construction.

B refers to a clip or a portion of a clip, which consists of a plate of metal which may be of malleable cast-iron or of any other suitable material, it consisting of a plate, the length of which is a little greater than the width of the whiffletree.

Upon the rear end of this plate there is to be formed a downwardly-projecting flange, which is to be in the form of a segment of a circle, as shown in the drawings, so that, when placed in its position upon the clip B′, or that part which is thus designated, its flange shall project down over the edge of such part, and thus receive a portion of the force exerted in drawing the carriage, which would otherwise be all expended upon the bolt, thus rendering it liable to be broken or rapidly worn away.

B′ refers to a clip or that portion of the clip which is to be attached to a double-tree or to a cross-beam or bar upon the neap of a carriage, which, in fig. 1, is shown as a socket having a recess in its inner end for the reception of a tenon on the end of the tree or bar, its outer end being finished or formed as shown, or in any other desired form.

Upon the upper rear edge of this clip there is to be formed a projection, the outer surface of which is to be in the form of a segment of a circle, which circle shall correspond with the one on the inside of the flange on B, so that, as it is placed upon B′, the effect above alluded to shall be produced, and also the further effect of preventing the whiffletree from turning beyond certain limits by the flange on B coming in contact with the sides of B′, as shown in fig. 2.

In fig. 8 this clip or this portion of it is shown as constructed for being placed upon the center of the cross-bar of a carriage, it having two plates, one to bear upon the top of such bar, and one upon its bottom, the two being joined together by a vertical plate, as shown in that figure.

This clip has the projecting flange to receive the other portion, as in the case above described, and for the same purpose.

C refers to bolts, which pass through the whiffletree and through the clip or clips, and confine the whole together, but not so as to prevent the whiffletree from turning on the double-tree or bar, as above described.

The operation and some of the advantages of my improved clip may be described as follows:

When placed upon the end of a double-tree or cross-bar it effectually prevents the splitting of the end of the same, as well as the wearing away of the wood at that point.

It also provides the means of relieving the bolt from a great portion of the strain and wear upon the bolt, by causing the strain or force to be applied to the whole bar instead of only that portion which is in front of the bolt.

Another advantage is found in the fact that the whiffletree is prevented from turning beyond a certain fixed distance upon the bar, and is thus prevented from the liability of being broken by turning so far as to be caught in the spring or other parts of the carriage.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

A whiffletree-coupling, consisting of the bolt C and parts B and B', the latter, B', being so constructed as to embrace the tree, and both parts B and B' being provided with the segmental flanges, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN J. ADAIR.

Witnesses:

J. A. WALL,

JOSEPH LAFOLLET.