(No Model.)

O. J. FISK.

WHIFFLETREE CONNECTION.

No. 421,880. Patented Feb. 18, 1890.

Fig. 1.

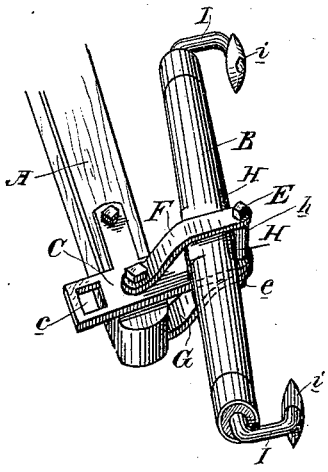


Fig. 2.

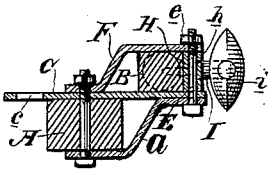
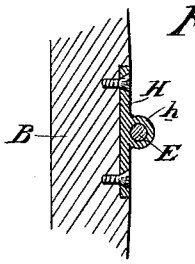


Fig. 3.



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UNITED STATES PATENT OFFICE.

OLIVER J. FISK, OF COULTERVILLE, CALIFORNIA.

WHIFFLETREE-CONNECTION.

SPECIFICATION forming part of Letters Patent No. 421,880, dated February 18, 1890.

Application filed August 12, 1889. Serial No. 320,520. (No model.)

To all whom it may concern:

Be it known that I, OLIVER J. FISK, of Coulterville, Mariposa county, State of California, have invented an Improvement in Whiffletrees and Connections; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the general class of whiffletrees, and especially to the connections therefor; and my invention consists in the hereinafter-described novel bracket for connecting the single with the double tree and the novel hooks on the ends of the singletree for receiving the tugs or traces, all of which I shall hereinafter fully describe, and specifically point out in the claims.

The object of my invention is to provide a simple and durable connection between the singletree and the doubletree which will enable the former to have a movement entirely free and independent of the latter without interference with it, so as to avoid chafing, and being held securely in place.

Another object is to provide simple and effective engaging-hooks at the end of the singletree for the traces.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of my whiffletree and connections. Fig. 2 is a section of same. Fig. 3 is a horizontal section of the whiffletree to show plate H and socket *h*.

A shows one end of a doubletree.

B is a singletree.

C is a plate, which is bolted or otherwise secured upon the top of the end of the doubletree, and projects forwardly and rearwardly therefrom, forming a loop *c* in the back portion for the back stay. The singletree rests upon the bearing-plate C, in front of the doubletree, and is secured thereto by a pivotal connection consisting of a pin or bolt E.

F is the top brace-arm, secured at its inner and lower end to the bearing-plate and passing over the top of the singletree.

G is the lower brace-arm, secured under the end of the doubletree and extending upwardly and under the bearing-plate.

H is a plate secured to the face of the singletree, and having a socket *h*. The pivot pin or bolt E passes down through the end of the top brace-arm F, through the socket *h* of the singletree-plate H, through the end of the bearing-plate C, and through the end of the lower brace-arm G, and is properly secured by a nut *e* or other means. This bolt therefore pivots the singletree to the bracket, and said singletree is held straight in place on the bearing-plate C, and is supported from above by the two brace-arms, so that the entire bracket is strong and durable, being capable of resisting the strain put upon the singletree. In this position the singletree does not interfere in its movement with the doubletree, being above it, so that it clears it readily and does not come in contact with it, as is usually the case, thereby avoiding the common chafing.

I are the hooks at the end of the singletree for receiving the traces or tugs. These consist of curved bars, one end of which is let into the end of the singletree, and the other end carries a button or head *i*. These bars are bent through substantially a half-circle, so that they project their free ends inwardly toward each other. The end of the trace or tug may be readily slipped over the hooks and is not liable to become accidentally loosened.

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

1. The doubletree and the singletree, in combination with the independent plate C, bolted to the top of the doubletree end and extending forwardly to support the singletree, and a pivot-connection between the singletree and said plate, substantially as described.

2. The doubletree and the singletree, in combination with the independent bearing-plate C on the top of the doubletree end, and having a forwardly-projecting end supporting the singletree, the independent upper brace-arm and the independent lower brace-arm, secured above and below the doubletree, respectively, and the pivot-bolt seated in the brace-arms and bearing-plate and pivoting the singletree between them, substantially as described.

3. The doubletree and the singletree, in com-

bination with the bearing-plate C, bolted to the top of the doubletree end, and having a forwardly-projecting end supporting the singletree, the top brace-arm bolted to the top of the doubletree, the bottom brace-arm bolted underneath the doubletree, the socket-plate on the face of the singletree, and the pivot bolt or pin passing through the brace-arms, the bearing-plate, and the socket-plate of the singletree, substantially as described.

In witness whereof I have hereunto set my hand.

OLIVER J. FISK.

Witnesses:
S. H. NOURSE,
H. C. LEE.