(No Model.)

F. M. PIERCE.

CLEVIS FOR WHIFFLETREES.

No. 433,091. Patented July 29, 1890.

Fig. 1.

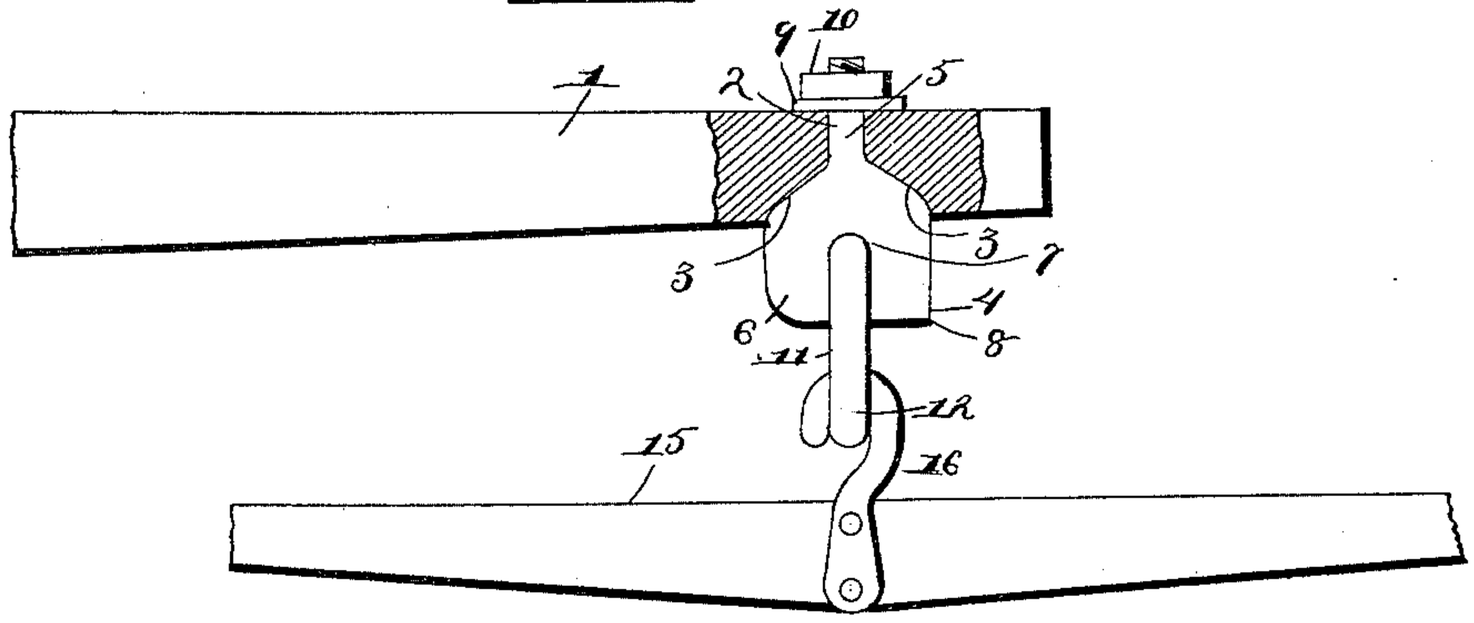

Fig. 2.

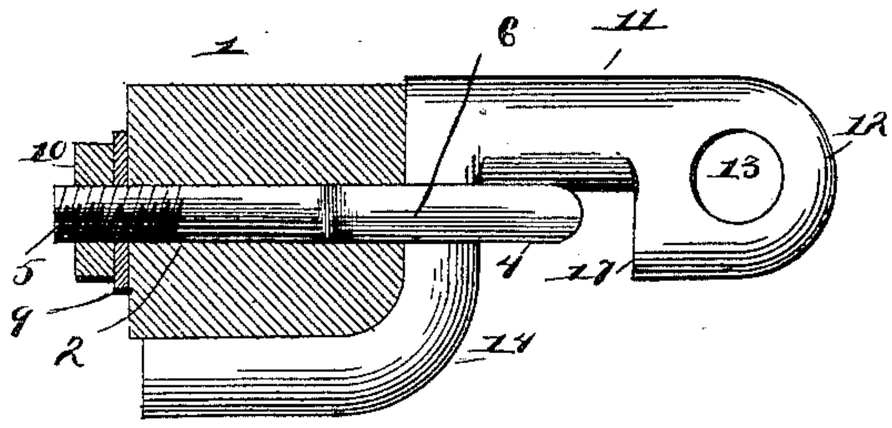

Fig. 3.

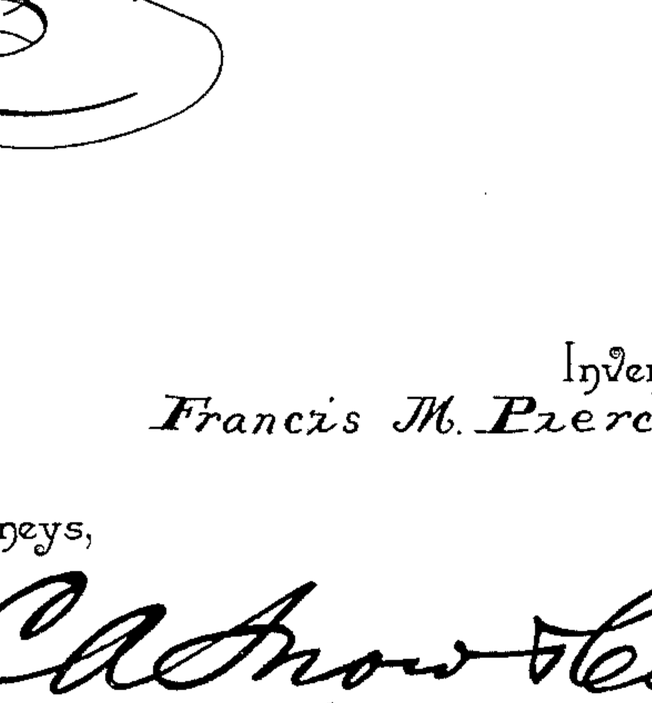

Fig. 4.

Witnesses
Geo. E. Frech.
W. S. Duval.

Inventor
Francis M. Pierce
By his Attorneys,
A. Snow & Co.

UNITED STATES PATENT OFFICE.

FRANCIS MOSSMAN PIERCE, OF OMAHA, NEBRASKA, ASSIGNOR OF ONE-THIRD TO PAUL PIERCE, OF SAME PLACE.

CLEVIS FOR WHIFFLETREES.

SPECIFICATION forming part of Letters Patent No. 433,091, dated July 29, 1890.

Application filed April 28, 1890. Serial No. 349,708. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS MOSSMAN PIERCE, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented a new and useful Clevis, of which the following is a specification.

This invention has relation to a draft-connection, and is especially designed for use in connecting double and single trees.

The objects of the invention are to provide an exceedingly cheap and simple device, affording a safe and strong connection between double and single trees, said connection being so constructed as to obviate loose parts, to take all wear from the doubletree, and permit of a ready disconnection of the two trees, and yet avoid any accidental disconnection of the two.

With the above general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a plan of a double and single tree connected in accordance with my invention. Fig. 2 is a transverse section taken to one side of the connection. Fig. 3 is a detail in perspective of the eye or connecting bolt. Fig. 4 is a similar view of the locking-bolt.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates an ordinary doubletree attached to any vehicle, farm implement, or other object to which draft is to be applied, and near the ends of said doubletree the same is provided with transverse perforations 2, the front ends of which are flared, as at 3.

4 designates the eyebolt, and the same comprises a threaded shank portion 5 and a head 6, the latter being provided with a circular opening 7, and at one side of the same and at that side next to the end of the doubletree provided with a square shoulder 8. The shank 5 is passed through the opening 2, after which there is mounted upon the opposite end of the shank a washer 9 and binding-nut 10, which secure the eyebolt in position, the head 6 of said bolt resting within the flared end or mouth of the opening 2 and being thereby prevented from turning. Other means may be employed for connecting the eyebolt to the doubletree—as, for instance, a loop for encircling the end of the tree may be formed in lieu of the threaded shank, as will be obvious.

11 represents the connecting-bolt, which at its front end depends slightly, forming a head 12, having a transverse circular opening 13. At its opposite end the bolt 11 is provided with an elbow-shaped lug 14, of cylindrical shape in cross-section, the elbow being slightly curved, whereby by holding the bolt in a vertical position the end of the lug may be passed into the opening 7 of the eyebolt, after which the bolt 11 may be turned so that the lower L portion of the bolt takes under the doubletree, as shown, such construction doubling the strength of the ordinary straight lug.

15 represents an ordinary singletree connected at its center by the usual shackle 16 to the eye 13 of the connecting-bolt. The lower rear portion of the depending head 12 of the bolt 11 is squared, forming a shoulder 17, which shoulder is adapted to abut against the squared shoulder 8 of the eyebolt 4, and thus prevent the connecting-bolt 11 from turning outwardly beyond said shoulder 8. The object of these shoulders and consequent limitation of the outward swing of the connecting-bolt is to prevent any accidental disconnection of the connecting-bolt from the eyebolt, should the singletree and doubletrees drag upon the ground, as is sometimes the case, and the only possible way in which the disconnection can be successfully accomplished is by turning the connecting-bolt 11 inwardly against and parallel with the doubletree and raising said bolt to a vertical position and withdrawing in the same manner, but reversely to the operation described, whereby the bolt 11 may be inserted.

By the connection herein described it will be observed that loose parts are obviated and all wear and chafing of the parts upon the doubletree are carefully avoided and a most efficient and durable connection is provided. It will be observed that the line of draft is direct from the eye 13 to the eye 7, but must be effected through the neck of the connecting-bolt, which I therefore slightly thicken, in order that it may withstand the strain.

By the peculiar form or shape of the elbow-lug it will be apparent that its strength far

surpasses an ordinary draft-hook. In the ordinary hook when a certain amount of power has been applied, said hook will straighten and pull out; but in my peculiarly-shaped lug it would have to bend at the opposite elbows; hence I secure double the strength over the ordinary hook.

Having thus described my invention, what I claim is—

1. The herein-described draft-connection, consisting of the bolt 4, having the threaded body at one end and the opposite end provided with a head 6, having the transverse opening 7, and the bolt 11, terminating at its front end in a head having an eye and at its opposite or rear end in an elbow-shaped depending and rearwardly-extending locking-lug adapted to enter the eye of the bolt 4, substantially as specified.

2. The combination, with the doubletree having the transverse opening, of the eye-bolt, the shank of which is passed through the opening, said bolt terminating at its front end in a head having a circular opening, the connecting-bolt provided at its front end with a head having an opening, and in rear of the same with a depending and rearwardly-extending elbow-lug adapted to enter and interlock with the eye of the first-mentioned bolt and the singletree, the shackle of which is connected to the eye of the connecting-bolt, substantially as specified.

3. The combination, with the doubletree having the transverse opening, of the eye-bolt mounted in the opening and terminating at its front end in a flared head having a circular opening, the outer front portion of the head being flared to form a shoulder, the connecting-bolt terminating at its front end in a head having an opening, the lower rear corner of the head being squared to form a shoulder and abut against the shoulder of the eyebolt, and the rear end of said bolt being provided with a depending and rearwardly-extending L-shaped lug interlocking with the eye of the eyebolt, and the singletree, the shackle of which is connected to the eye of the connecting-bolt, substantially as specified.

4. The combination, with the eyebolt terminating at its front end in a perforated head, of the connecting-bolt terminating at its front end in a perforated head and at its rear end in an L-shaped lug for interlocking with the perforation of the eyebolt, and means for preventing the said connecting-bolt being swung to the outer side of the eyebolt to such a degree as to withdraw its elbow from under the doubletree, substantially as specified.

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

FRANCIS MOSSMAN PIERCE.

Witnesses:
J. PHIPPS ROE,
J. W. CULVER.