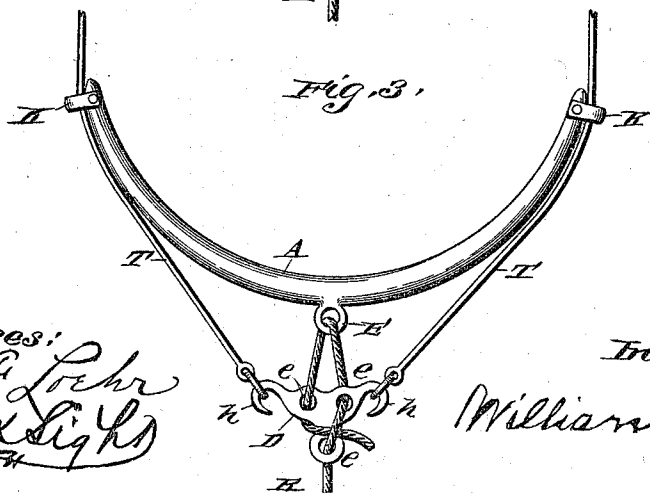
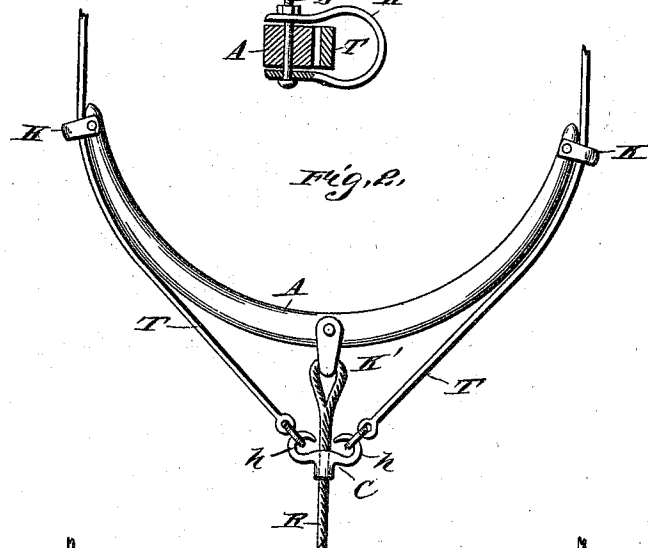
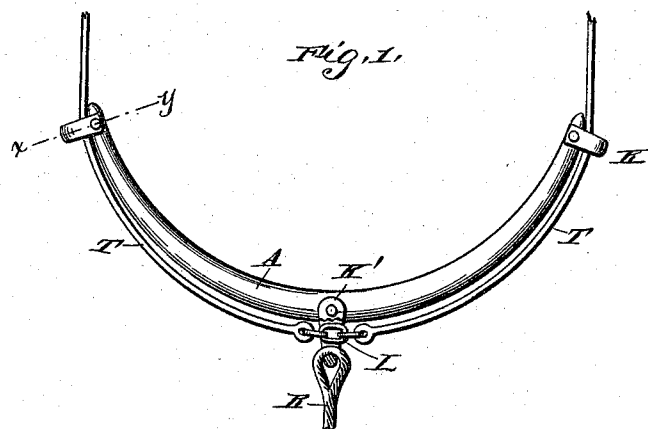


(No Model.)

W. LOUDEN.
SINGLETREE.

No. 562,547.

Patented June 23, 1896.



Witnesses:
John F. Loch
Frank Light

Inventor:
William Louden

UNITED STATES PATENT OFFICE.

WILLIAM LOUDEN, OF FAIRFIELD, IOWA.

SINGLETREE.

SPECIFICATION forming part of Letters Patent No. 562,547, dated June 23, 1896.

Application filed March 18, 1893. Serial No. 466,748. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LOUDEN, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Singletrees, of which the following is a specification.

The invention relates to singletrees wherein the harness-traces are brought around the ends of the singletree and secured near the center for the purpose of taking up the traces and bringing the singletree close against the horse without shortening the traces; and it consists in connecting together the traces thus carried around the singletree, so as to form practically a continuous trace and without attaching the trace directly to the singletree.

It also consists in other details of construction hereinafter set forth.

In the accompanying drawings, forming a part of this specification, Figure 1 is a top or plan view of the invention, showing the upper part of the central eye broken away to show the connection of the traces. Fig. 2 is the same, showing the trace-connecting device secured to the draft-rope. Fig. 3 is the same, showing the trace-connecting device adjustably secured to the draft-rope. Fig. 4 is a cross-section drawn on the line $x y$ in Fig. 1.

The singletree A is preferably curved to more perfectly fit the buttock of the horse, and is fitted at each end with keepers K K (as more particularly shown in Fig. 4) to hold the traces T from slipping off the singletree. It is also fitted with an eye K' at or near its center to connect the draft-rope R.

In the simplest form of the invention the traces T T, after being passed through the keepers K K, are joined together in any suitable manner, as by the link L, for instance, and passed through the eye K', so as to practically form one continuous trace surrounding the rear side of the singletree. By this means the traces will have a shiftable connection with the singletree and will be taken up or shortened the full length of the singletree, so that it will be held that much closer against the horse, and will be less liable to drop down and strike the horse's heels.

In case the traces should still be too long and not hold the singletree closely enough

against the horse, the trace-connecting device may be set back on the draft-rope R, so as to take up more of the traces and hold the singletree more closely against the horse, as shown in Fig. 2. In this case a casting C is secured to the rope R and is provided with hooks $h h$, by means of which the traces T T are connected together. By setting the casting C farther back or forward on the rope R the traces will be taken up or let out to regulate their length and make them fit any sized horse.

A preferable form of an adjustable trace-connecting device is shown in Fig. 3. A plate D, having hooks $h h$ to connect the traces together, is fitted with a series of eyes $e e e$, through which the draft-rope R is passed, so as to bind the casting firmly on the rope and hold the singletree at any desired distance from the casting. The rope R is first passed through two eyes of the casting D, then through an eye E on the singletree, then back through an eye in the casting D, and then under itself between the two eyes through which it was first passed, thus firmly holding the trace-connecting device upon whatever part of the rope it is placed and making it easily adjusted thereon.

I do not wish to confine myself to the exact construction herein shown, as a number of modifications may be made without departing from the spirit and scope of my invention.

What I claim is—

1. The combination of a singletree having keepers at its ends, and an eye at its center for the attachment of a draft-rope, harness-traces passed through said keepers and along the rear of the singletree, and a separate connecting device adapted to join the ends of the traces together independently of the singletree, substantially as described.

2. The combination of a singletree having keepers at its ends, and an eye at its center, a draft-rope secured to said eye, harness-traces passed through the keepers, and a connecting device secured to the draft-rope and connecting the traces together, substantially as set forth.

3. The combination of a singletree having keepers at its ends, and an eye at its center, a draft-rope secured to said eye, harness-traces passed through the keepers, and a con-

necting device adjustably secured to the draft-rope and connecting the traces together, substantially as set forth.

5 4. The combination of a singletree having keepers at its ends and an eye at its center, harness-traces passed through said keepers, a plate having a series of eyes and provided with hooks for connecting the traces together, and a draft-rope passed through the eyes in

said plate, and connected to the eye of the 10 singletree, substantially as set forth.

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

WILLIAM LOUDEN.

Witnesses:

W. H. BLOSS,

A. M. LOUDEN.