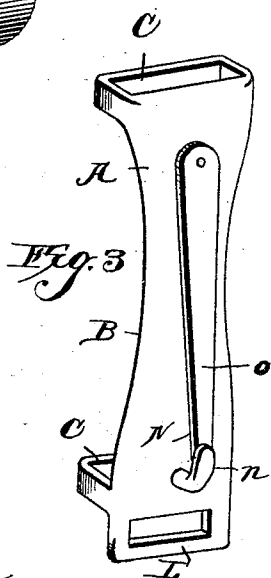
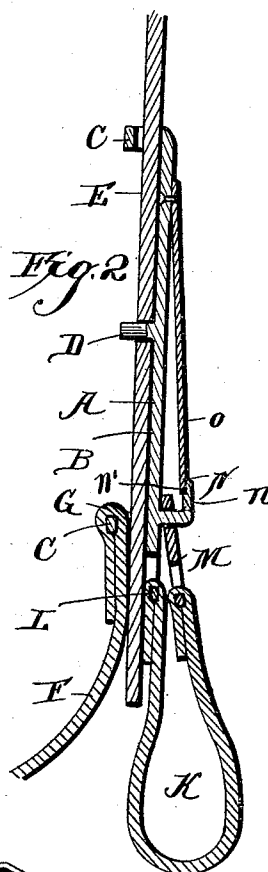
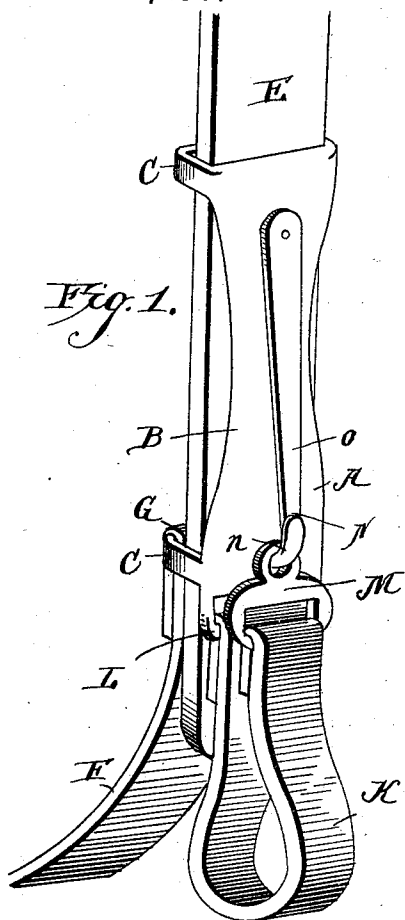


(No Model.)

O. F. LEE.
THILL TUG.

No. 416,296.

Patented Dec. 3, 1889.



Witnesses
Henry J. Dietrich
C. C. Dwyer

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UNITED STATES PATENT OFFICE.

OSSIAN FAYETTE LEE, OF WONEWOC, WISCONSIN.

THILL-TUG.

SPECIFICATION forming part of Letters Patent No. 416,296, dated December 3, 1889.

Application filed March 15, 1889. Serial No. 303,454. (No model.)

To all whom it may concern:

Be it known that I, OSSIAN FAYETTE LEE, a citizen of the United States, residing at Wonewoc, in the county of Juneau and State of Wisconsin, have invented new and useful Improvements in Harness, of which the following is a specification.

The invention relates to improvements in thill-tugs, having for its object to provide a simple, cheap, effective, and easily-operated connection for the back-band, belly-band, and shaft-loop; and it consists in a certain novel construction and combination of devices, fully described hereinafter in connection with the accompanying drawings and specifically pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a portion of the harness, showing the improvements in the operative position. Fig. 2 is a vertical central sectional view of the same. Fig. 3 is a detail perspective view of the buckle detached.

Referring by letter to the drawings, A designates the buckle, which consists of the plate B, provided on its inner side, near its ends, with the similar integral loops C C, and also provided midway between the said loops with the stationary stud or pin D, which is designed to engage one of the perforations in the back-band E, which passes through loops.

The belly-band F (a portion of which is shown in the drawings) is provided at its ends with a loop or billet G, which is engaged with the lower loop C, thereby connecting the belly-band to the end of the back-band.

K designates the shaft-loop, one end of which is affixed to an integral loop L on the lower end of the buckle, and the free end of the said shaft-loop is provided with an eye M, which is adapted to be engaged with a snap-hook N on the outer side of the buckle. This snap-hook consists of a rigid hook n, having a notch n' in the inner side of its free end, and the spring-tongue O, which is affixed rigidly to the buckle and fits at its free end in the notch n', whereby it is protected from the eye on the end of the shaft-loop.

The advantages of the improvement will be obvious. The adjacent ends of the back-band and belly-band are readily connected by engaging the end of the former in the buckle A, and after the horse has been placed between the thills the shaft-loop is carried around the latter and its free end engaged with the snap-hook, as described. Thus much time and labor are saved in attaching the horse to a vehicle, the greatest difficulty with the old forms of harness being in directing the thills through the shaft-loops.

Having thus described the invention, I claim—

1. The combination of the plate B, designed to be attached to the back and belly bands and provided on its inner side, near its ends, with similar loops C C and the stud intermediate of its ends, and on its outer side, between its ends and the loops C C, with the rigid hook N and the spring having the free end thereof engaging the hook, said plate B being provided at its lower end, below the loop C and the hook N, with the integral loop L, and the shaft-loop attached to the plate B, substantially as described.

2. The combination, with the plate B, provided on one side with the similar loops C, of the stud designed to receive the back and belly bands and having its other side provided with the hook N, and the spring arranged between said loops C C, said plate having an integral loop L arranged below the loop C, and the hook of the shaft-loop K, having one end secured to the loop L and its other end being free and provided with an eye to engage the hook, substantially as described.

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

OSSIAN FAYETTE LEE.

Witnesses:

C. E. WOLFENDEN,
J. H. WOLFENDEN.