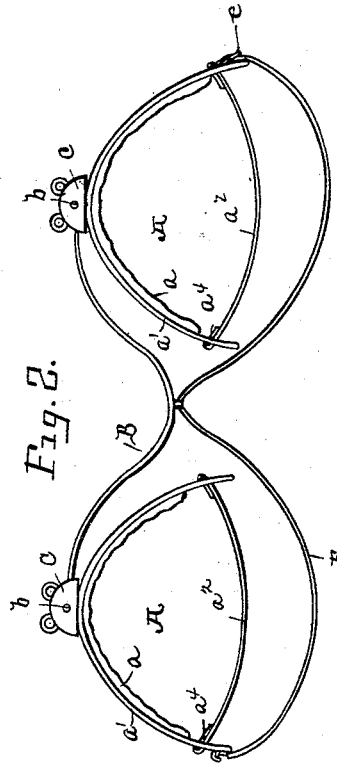
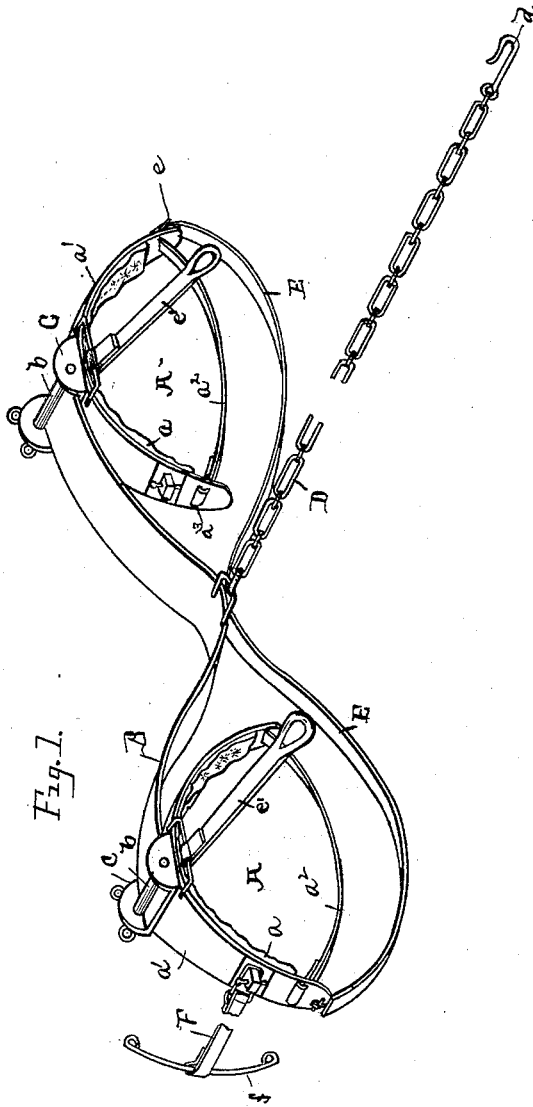


(No Model.)

F. T. LIVINGSTON.
HARNESS.

No. 418,036.

Patented Dec. 24, 1889.



Witnesses
Am. S. Hodges
John Lusk.

Inventor
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By his Attorney
Patrick O'Farrell.

UNITED STATES PATENT OFFICE.

FRED. T. LIVINGSTON, OF SNOHOMISH, WASHINGTON.

HARNESS.

SPECIFICATION forming part of Letters Patent No. 418,036, dated December 24, 1889.

Application filed May 31, 1889. Serial No. 312,738. (No model.)

To all whom it may concern:

Be it known that I, FRED. T. LIVINGSTON, a citizen of the United States of America, residing at Snohomish, in the county of Snohomish, Washington Territory, have invented certain new and useful Improvements in Harness, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention pertains to certain new and useful improvements in harness, having reference more particularly to that class used on horses in drawing logs of wood, sleds, &c.

The invention has for its object the provision of simple and highly-efficient means for forming a secure connection between horses, and preventing them from moving too far apart, whereby they are always held in their proper relative position; and the invention comprises the details of construction, combination, and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

15 In the accompanying drawings, Figure 1 is a view in perspective of my improved harness. Fig. 2 is a front view thereof.

Referring to the drawings, A A designate the saddles, having an inner covering *a* of leather and an outer metallic covering *a'*. These saddles are each secured upon a horse by a belly-band *a²*, united thereto at one end and held by a buckle *a³* to the other end of the saddle, said belly-band *a²* being passed through a slotted portion of the split end *a⁴* of covering *a'*.

20 B is a bridge, preferably of the formation shown and pivotally secured at its ends to cross-pins *b b*, held by U-shaped plates C C, secured to saddles A. This connection permits the saddles to move and yet be securely held in position, so as to prevent the spreading apart of the horses. To the upper central portion of this bridge B is secured one end of a chain D, having a hook *d* at its other end, so as to be secured to a log, sled, or other article to be drawn.

25 E is a second double belly-band, designed to be passed beneath both horses and serve

in connection with bridge B to hold the same in their proper relative positions. This double belly-band is secured at its ends to the outer split end of the saddles, and at one end is capable of adjustment by a buckle *e*, as shown. The crupper-strap *e'* is secured at one end to the center of each saddle, and to the sides of each of said saddles are attached tugs F, secured at their forward ends to hames *f f*, as shown.

The advantages of my invention will be apparent to those skilled in the art to which it appertains, and it will be particularly observed that by means thereof a pair of horses are securely united and held as against moving away from each other, and thus kept in their proper relative positions.

I claim as my invention—

1. As an improvement in harness, the combination, with the saddles, of the bridge pivotally secured at its ends to the upper portions of said saddles, substantially as set forth.

2. As an improvement in harness, the combination, with the saddles, of the bridge curved downwardly at its center, the U-shaped plates secured to the upper central portions of said saddles, and the pivotal pins to which the ends of said bridge are connected, substantially as set forth.

3. The combination, with the saddles and the bridge pivotally secured to the upper portion thereof at its ends, of the double belly-band attached at its ends to the outer ends of said saddles, substantially as set forth.

4. The combination of the saddles, the bridge curved downwardly at its center and pivotally secured at its ends to the upper central portions of said saddles, and the double belly-band secured at its ends to the outer ends of said saddles and to the under side of said bridge at the lower central portion, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRED. T. LIVINGSTON.

Witnesses:

F. S. ANDERSON,
J. C. DENNEY.