

(No Model.)

A. HARLEY.

Neck Yoke for Draft Animals.

No. 238,681.

Patented March 8, 1881.

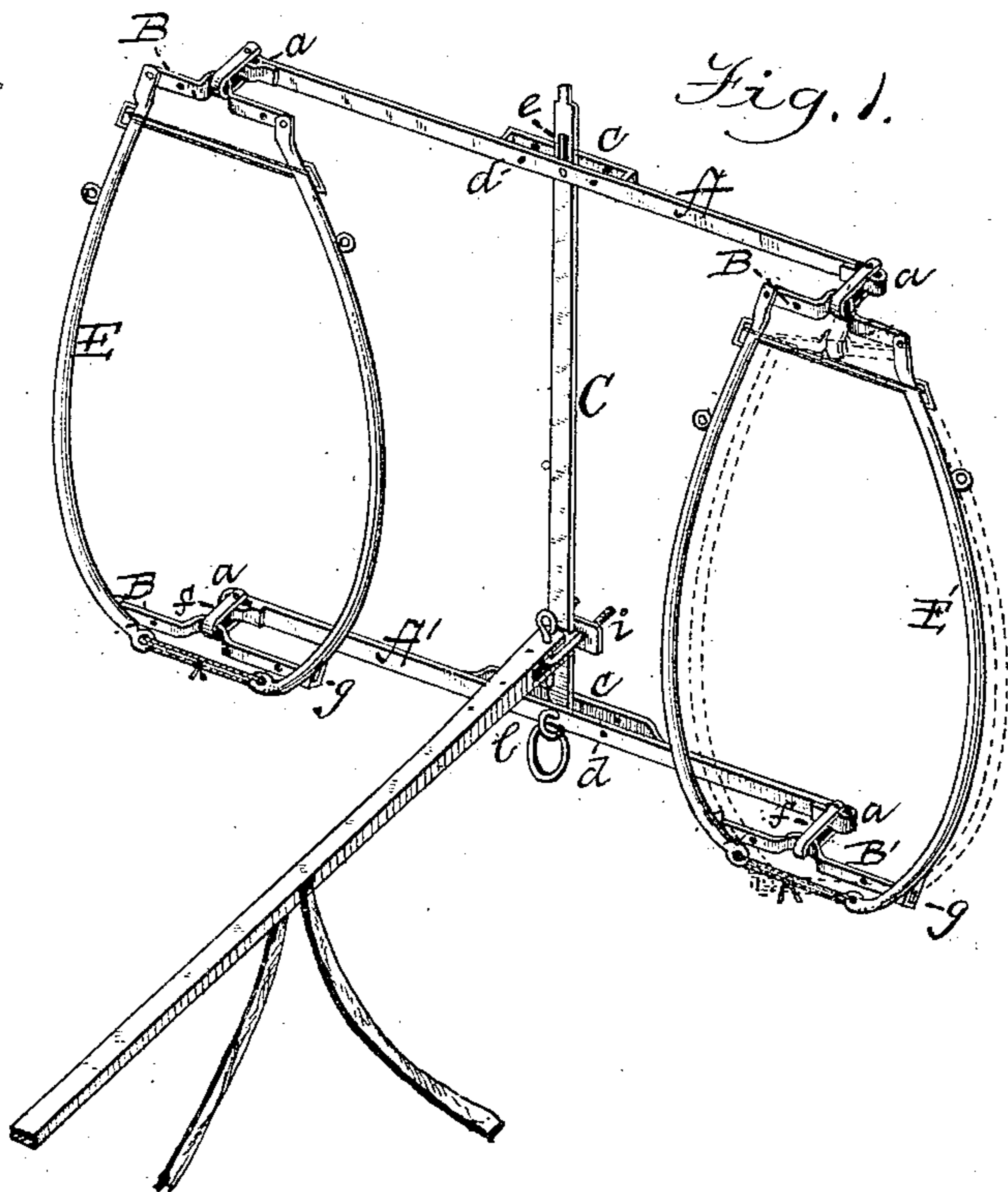


Fig. 2.



Fig. 3.

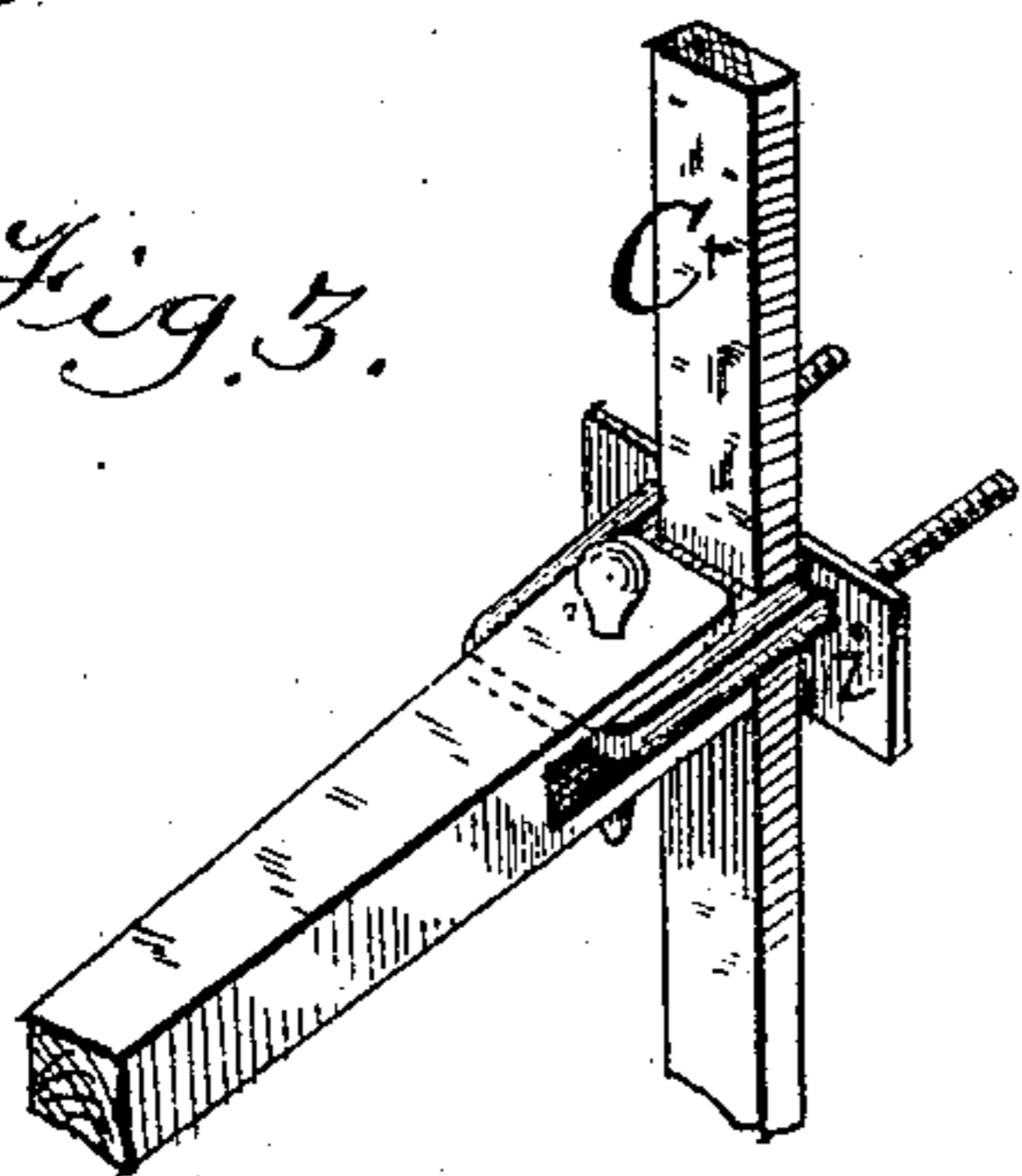
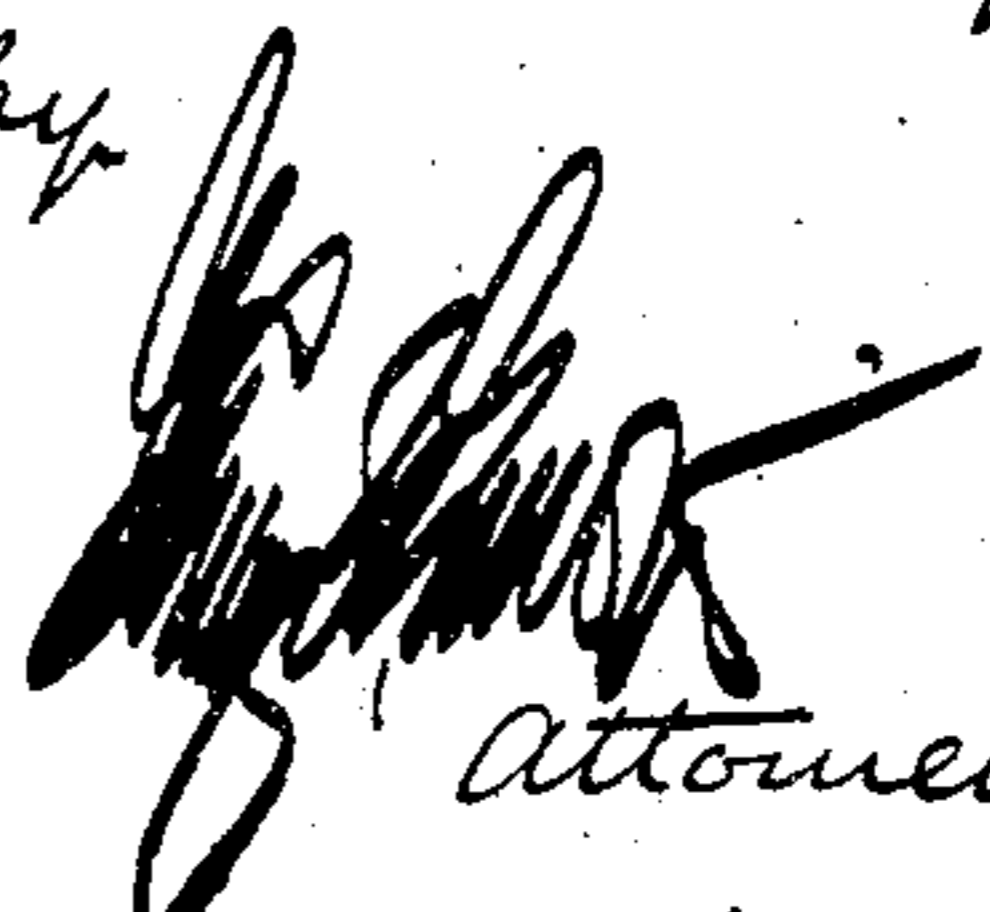


Fig. 4.

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UNITED STATES PATENT OFFICE.

ALBERT HARLEY, OF LAKEVIEW, ASSIGNOR OF ONE-HALF TO JAMES E. STARK, OF CORAL, MICHIGAN.

NECK-YOKE FOR DRAFT-ANIMALS.

SPECIFICATION forming part of Letters Patent No. 238,681, dated March 8, 1881.

Application filed November 9, 1880. (No model.)

To all whom it may concern:

Be it known that I, ALBERT HARLEY, a citizen of the United States, residing at Lakeview, in the county of Montcalm and State of Michigan, have invented certain new and useful Improvements in Neck-Yokes for Draft-Animals; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a new and useful neck-yoke for animals of draft, whereby the resistance is thrown on the center of the yoke, and which dispenses with the use of the usual harness-tugs and of the single and double trees now in use.

My invention consists in a neck-yoke for draft-animals, provided with upper and lower horizontal bars, connected by suitable fastening to a vertical bar or post, and adjustable thereon laterally or vertically.

It also consists in the attachment of the tongue of a vehicle to the upright bar or post of the yoke; and it further consists in the novel arrangement of the parts in combination, as will be more fully hereinafter set forth and claimed.

In the annexed drawings, making a part of this specification, Figure 1 is a perspective view of my invention, showing its attachment to the tongue of a vehicle. Fig. 2 is a representation of one of the cross-bars of the yoke. Fig. 3 is a representation of the attachment devices of the tongue and upright bar; and Fig. 4 shows the hames of the yoke applied to an ordinary horse-collar.

The cross-bars A and A' are of similar construction and dimensions, and are provided at the ends with lateral slots or loops *a*, intended for the reception of the bolts or pins of the clevises of the breast and neck bars B and B'. In the middle of these cross-bars is a long loop, *c*, and in the bars and loops are the bolt or pin holes *d*, so that the upright bar C may be adjusted to the right or left and the draft equalized.

C is an upright bar, perforated at its lower end for the purpose of inserting a bolt or pin through the loop and cross-bar, and at its upper end having the slot *e* for the purpose of receiving a bolt or pin passing through the loop and cross-bar, the elongated slot serving to permit up-and-down play of the upper cross-bar.

At the upper end, and near the lower end, of the hames are the neck plates or bars and the breast plates or bars B and B', of the shape substantially as shown in the drawings. These bars or plates have perforations in both ends graduated for the purpose of making wider or narrower the clasp of the hames; and fixed to these bars or plates, or forming an integral part thereof, are the clevises *f*, which play loosely in the slot *a* of the cross-bars laterally, vertically, and sidewise, and are secured therein by any suitable means. The upper or neck bar fits into slots cut into the hames, or sets on shoulders formed in the upper ends, and is secured in place by bolts, screws, or pins. The lower or breast bar, B', passes into staples or loops in the hames, as shown at *g*, and is secured in place by bolts, screws, or pins.

The hames E and E' are of ordinary shape, and have, in addition to the improvements and attachment of my neck and breast bars, as hereinbefore described, the upper and lower hame-straps to adjust and fasten them to the collar of the harness.

The tongue of the vehicle is attached, or whatever means of fastening to the load or drag used is attached, to an upright bar, by means of mortise and pin let into the solid head staple or clevis F, (see Fig. 3,) which is made adjustable on the upright bar, and is secured in place by screw-bolts against the plate or washer *i*. In the tongue of the vehicle are fixed straps or chains, which fasten to the belly-bands of the harness, in order that the animals may be kept from swinging apart too far.

It will be observed that the hames may be made to fit broad or narrow collars by adjusting them on the neck and breast bars by means of the pins and holes in the respective bars; also, that the draft may be equalized by fixing the upright post or bar to the right or left of the

center of the cross-bars by means of the pins through the long loops; also, that the rigidity of the yoke on the necks of the animals is relieved by the play allowed in the loops and staples in the ends of the upper and lower cross-bars.

In Fig. 1, at *l*, is represented a ring and staple, the object of which is to provide means for attaching the end of a common wagon-tongue when it has not been made with the special attachments shown in Fig. 3 of the drawings. By passing a chain or strap through the tongue-strap and then through the ring *l* and around the upright post the tongue may be secured and the yoke used.

To use my improved yoke after adjustment of the parts in place, as described, the lower hame-straps are left unclasped and the hames spread so as to go over the heads or necks of the animals, and the yoke lifted into place. The lower breast-bars are slipped into the loops or sleeves *m*, and the hame-straps buckled, thus securing the hames to the collars.

When it is desired to relieve the team from the yoke the lower hame-straps are unbuckled, the hames spread, and the team backed from the yoke, or it is lifted from their necks. The tongue-straps are fastened or unloosed as the team is hitched or unhitched.

A stiff tongue is not an essential of draft in the invention. A rope or chain with the device, as shown in Fig. 3, may be attached and the drag proceeded with.

The advantages of my new yoke will be apparent. It dispenses with tugs or traces and with double and single trees. By means of the adjustability of the tongue or drag rope or chain on the upright post a proper line of

draft in connection with the plane of the animal's shoulders is obtained, and the resistance is distributed over the face of the collar. In plowing among stumps, or working the team in other uneven and rough places, the team is saved from injury to their legs; and in plowing where there are young trees they are not liable to be barked or broken, and there is no double or single tree or trace to catch in fence rows or corners.

With the exception of dispensing with the tugs or traces the ordinary harness for double teams is used.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the hames of a neck-yoke, upper and lower horizontal bars attached to an intermediate vertical bar, having vertical and lateral adjustments, substantially as described.

2. In combination with the hames of a neck-yoke, upper and lower horizontal bars having a central and end slots, and adjustably attached to a vertical bar, whereby vertical and lateral adjustments of the neck-yoke are secured, substantially as described.

3. The combination, with the hames of the neck-yoke and the adjustable upper and lower horizontal bars, of the adjustable vertical bar *C* and the tongue of a vehicle or implement, substantially as and for the purposes set forth.

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

ALBERT HARLEY.

Witnesses:

GEORGE T. NEWELL,
EDWIN MEDES.