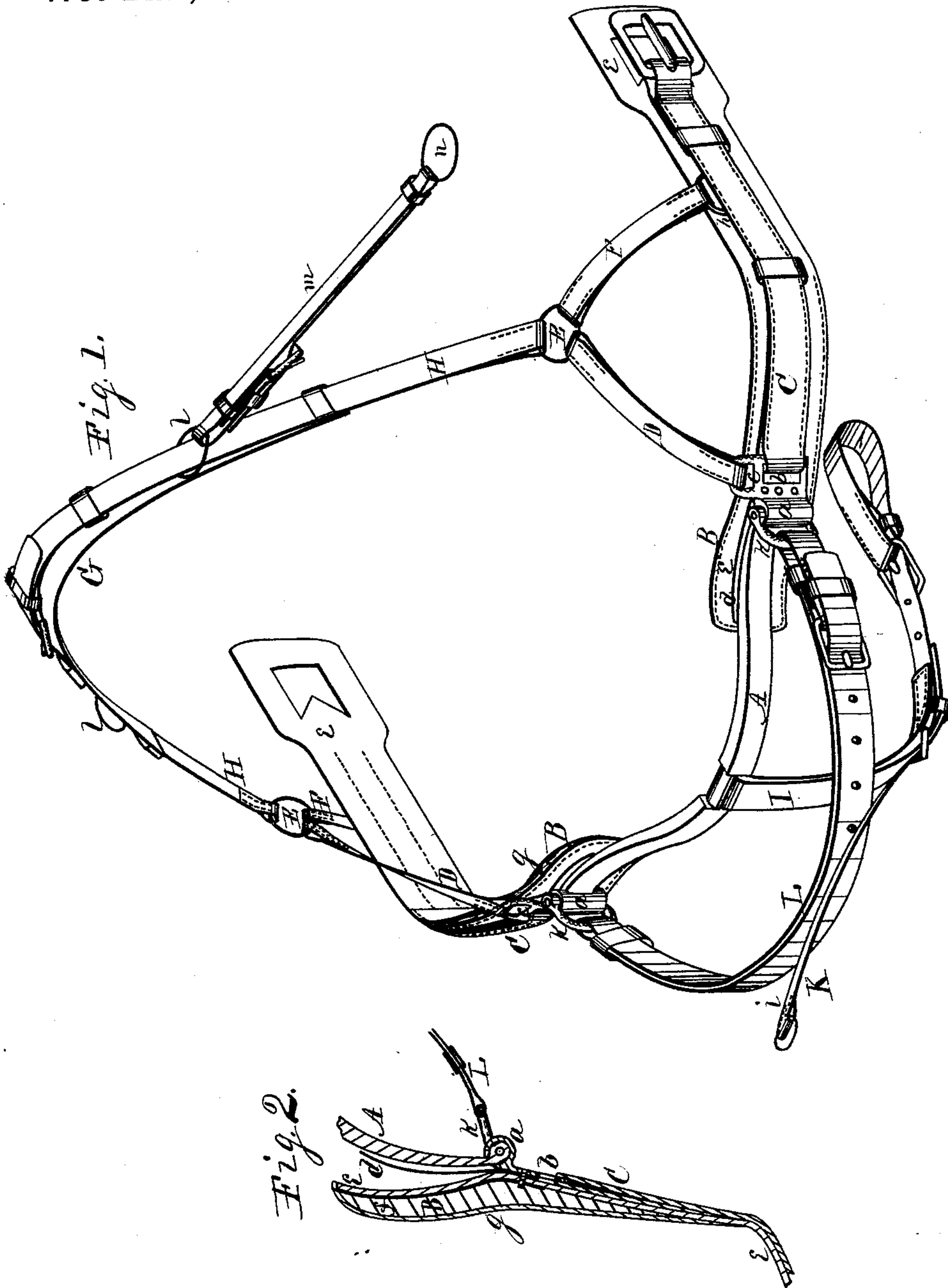


D. S. & F. B. SHEFFIELD & W. H. MARCELLUS.  
Harness.

No. 222,315.

Patented Dec. 2, 1879.



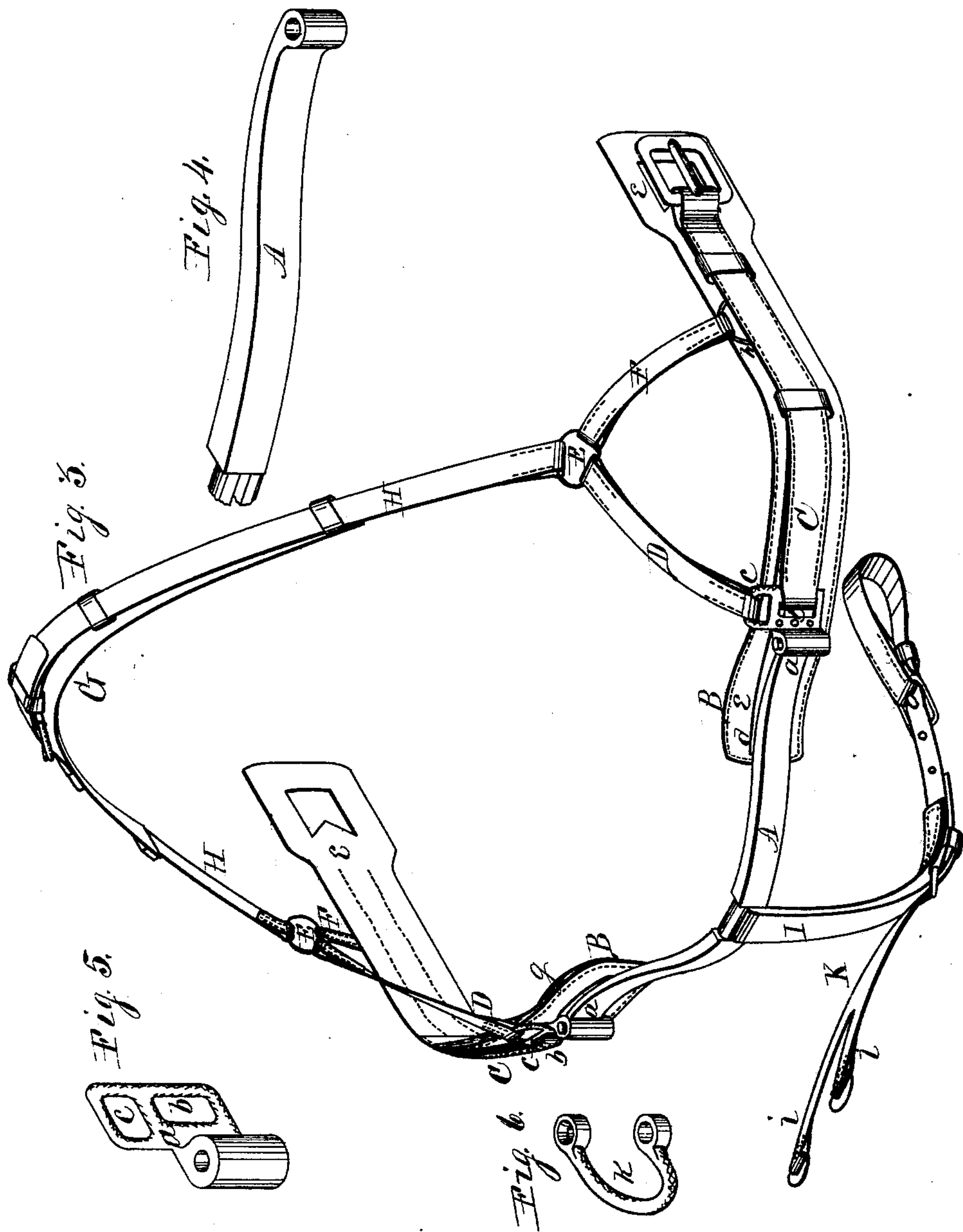
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# UNITED STATES PATENT OFFICE.

DAN S. SHEFFIELD, FRANK B. SHEFFIELD, AND WILLIAM H. MARCELLUS,  
OF ROCKFORD, ILLINOIS.

## IMPROVEMENT IN HARNESS.

Specification forming part of Letters Patent No. **222,315**, dated December 2, 1879; application filed August 22, 1879.

*To all whom it may concern:*

Be it known that we, DAN S. SHEFFIELD, FRANK B. SHEFFIELD, and WILLIAM H. MARCELLUS, all of the city of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Harness, of which the following is a specification.

This invention relates to that class known as the "breast-collar" harness.

The object of this invention is, mainly, to provide a breast-collar harness in which, when in use, the shoulder-pads will rest against the shoulder of the animal with the least possible chafing movement, and to adapt this class of harness to use in single or double harnesses, and to render them capable of use for light or heavy draft purposes.

To this end we have designed and constructed the harness represented in the accompanying drawings, in which—

Figure 1 is an isometrical representation of our improved harness when fitted for use as a double harness. Fig. 2 is a lengthwise horizontal central section through one side of the shoulder-pad and a portion of the breast-yoke. Fig. 3 is an isometrical representation of our improvement in a single harness. Fig. 4 is a like representation of one-half of the metallic breast-collar. Fig. 5 is the hinged looped clip which receives the shoulder-pad portion of the harness, and Fig. 6 is the hinged clip which receives the breast-strap.

In the figures, A represents the metallic breast-yoke, made from any suitable material, and for ordinary purposes preferably made of malleable iron, in the form substantially as represented, having its center portion curving forward to relieve the throat from pressure, and is provided with a center loop adapted to receive the choke-strap. The ends of this yoke are fitted to receive a tug-clip hinged thereto.

*a a* represent tug-clips fitted to receive the outer ends of the breast-yoke, to which they are hinged by pivot-bolts, which pass vertically through the parts. These clips are fitted with a loop, *b*, to receive the forward end of the tugs usually known as the "hame-tugs."

They are also fitted with a loop, *c*, employed to receive the lower end of the forward braces to the neck-strap.

*d* are plate-springs, having their rear ends placed inside of the plate portion of the clips. These parts are then placed on the outside strap *e* of the shoulder-pads B in proper position. The plate-springs *f* are then placed on the inside of these parts, with their rear ends over the rear ends of the outer springs, in which position these parts are firmly fixed to each other by sufficient rivets passing through the parts.

C C are the forward portions of the tugs usually known as the hame-tugs. Their forward portions are placed in the loops *b* of the tug-clips, and their rear ends receive tug-buckles. These parts, provided with suitable keepers, are placed in proper position lengthwise on the lengthwise center of the outside straps, *e*, of the shoulder-pads, to which they are secured by stitching, in the usual manner.

*g* are inside linings of the shoulder-pads stitched to the forward portions of the outside straps, *e*, and are stuffed in the usual manner, to produce suitable shoulder-pads.

From the foregoing it will be seen that by the use of the incased plate-springs *f*, we produce shoulder-pads that will set to the shoulder of the animal, and its hinged connection with the metallic yoke permits it to adapt itself to the movements of the shoulder, which relieves the chafing action common in this class of harnesses; and the employment of the plate-spring *d*, interposed between the shoulder-pad and the metallic yoke, prevents the chafing action of the pad on the yoke.

The loops *c* of the tug-clips receive the lower end of the forward braces D, the upper ends of which receive the rings E, into which are fixed the upper ends of the rear braces F, the lower ends of which receive the rings *h*, that connect them with the tugs toward their rear ends.

G represents the neck-pad designed to support the harness on the neck of the animal; it is fitted with keepers to receive the neck-straps of the harness.

H are the neck-straps, having their lower



ends fixed in the rings E, at the junction of the braces fixed in the same ring. These neck-straps are passed through the keepers on the neck-pad to its center, where they are fitted with a buckle-connection, by which they can be lengthened or shortened to adapt the harness to animals differing in size.

I represents a choke-strap fitted into a loop formed in or on the center of the metallic yoke, from which it descends to connect with the girths of the harness in the usual manner.

K represents a martingale with the branching straps *i*, having their outer ends fitted with rings in the usual manner adapted to receive the lines. This martingale is joined to the choke-strap by buckle-connection, by which its length may be changed to adapt the harness to animals differing in size.

These parts, constructed substantially as described, constitute the breast-collar portion of a single harness.

To provide for the employment of our improvements in a double harness, we have employed the breast-strap clips *k*, which are connected with the tug-loops and the metallic breast-yoke by means of the same pivot-bolts. These clips receive the breast-strap L, which is of the usual form, and may be employed directly in connection with the neck-yoke, or it may receive the pole-strap, in the usual manner of employing such parts, when in the martingale one of the branches *i* is omitted.

*l* represents rings fixed to the neck-pad, one of which is designed to receive the outer branch of the check-lines, and the other receives a carrying-strap, *m*, fitted with a ring,

*n*, to receive the inner branch of the check-lines.

In this arrangement of the line-carrying rings on the neck-collar, their position will not be changed in adjusting the harness to large or small animals. With these improvements we construct a breast-collar harness capable of use as a single or double harness, and adapted to light or heavy draft purposes.

We claim as our invention—

1. The combination, with the metallic yoke of a breast-collar and the breast-strap, of breast-strap clips pivoted to the opposite ends of the metallic yoke, and adapted to receive the opposite ends of the breast-strap, substantially as set forth.

2. The combination, with a tug-clip pivoted to the metallic yoke of a breast-collar harness, and a shoulder-pad fixed to the clip, of an interposed plate-spring, as and for the purpose hereinbefore set forth.

3. The combination, with a tug-clip pivoted to a metallic breast-yoke of a breast-collar harness, of a shoulder-pad constructed with an incased spring, substantially as and for the purpose hereinbefore set forth.

4. In a breast-collar harness, a neck-pad fitted with check-line supports, in combination with neck-straps, substantially as and for the purpose hereinbefore set forth.

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