M. D. MURRAY & S. G. HUTCHINSON.

BREAST AND NECK STRAP FOR HARNESS.

No. 172,045. Patented Jan. 11, 1876.

Fig. 1

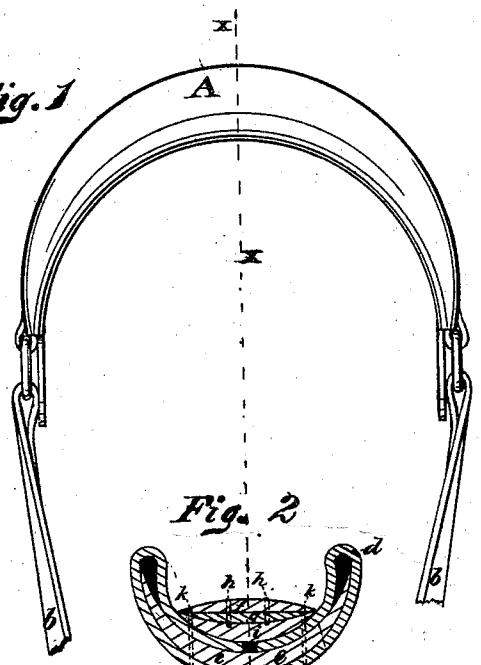

Fig. 2

Fig. 3

Witnesses:

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UNITED STATES PATENT OFFICE.

MICHAEL D. MURRAY AND STEPHEN G. HUTCHINSON, OF JOHNSTOWN, NEW YORK, ASSIGNORS OF ONE-THIRD THEIR RIGHT TO JOHN C. HUTCHINSON, OF SAME PLACE.

IMPROVEMENT IN BREAST AND NECK STRAPS FOR HARNESS.

Specification forming part of Letters Patent No. **172,045**, dated January 11, 1876; application filed April 6, 1875.

To all whom it may concern:

Be it known that we, MICHAEL D. MURRAY and STEPHEN G. HUTCHINSON, residents of Johnstown, in the county of Fulton and State of New York, have invented a Double Breast-Collar for Harness, of which the following is a specification:

The object of our invention is to prevent the choking or compressing tendency of the forward suspending-straps, when the same are subjected to tensional strain, by having the connecting-bow, usually employed, stiffened by a suitable steel-spring core, which keeps the suspending-straps on each side of the throat of the horse, at the proper distance apart.

In connection with the above bow, stiffened as described, we also use an extra-stiffened neck-strap, having its under side, or the surface, in contact with the neck, convex, and yet transversely conformable to the neck, by having its interior construction of such a form as to admit of holding the suspending-straps out from the neck.

To enable those skilled in the art to fully understand and construct the same, we will proceed to describe it, as follows:

Similar letters of reference indicate corresponding parts in all the figures.

A, Figure 1, is a front elevation of the neck-strap, and portions of the forward suspending-straps *b b*. Fig. 2 is a section of the neck-strap A taken in the line *x x*, Fig. 1, showing the various layers of stiff sole-leather, each of which is thick longitudinally through the middle, and tapered down thin at each edge. Fig. 3 is a front elevation of the connecting-bow C, which is connected to the straps *b b*. Said bow supports the neck-yoke in the usual manner.

The neck-strap A is composed, first, of a soft and very flexible piece of leather, *d*, which serves as a wrapper, the side edges of which are brought together over the stiff piece *e*, inclosing the same, as shown in Fig. 2. The top stiff pieces *f* and *g*, are also thick in the middle, and are also tapered at the side edges very thin, in order to be sewed together by the stitching *h h*, after which it is stitched over the piece *i* and to the parts *d e*, above described, by means of the stitching *k k*, which incloses the piece *i* from view.

It will be seen by this form of construction of the neck-strap, greater elasticity and ease are secured than have heretofore been accomplished, as well as tending to hold the forward suspending-straps, to a certain degree, away from the neck.

The stiffened bow C is attached to the lower ends of the forward suspending-straps *b b* by means of buckles *l*, as shown in Fig. 3. Said buckles are attached, by means of clasps *n n*, to the flattened ends M of the steel bow C. This bow is incased in a leather covering, *o*, said covering *o* being provided with loops *p* to receive the straps *b b* secured to the neck-strap A. The clasps *n n* serve the double purpose of securing additional strength to the bow C, and, at the same time, prevent the buckle from wearing the leather, were the same not metal-lined. The clasps *n n* are passed over the tongue and hinge of the buckle *l*, and then riveted to the steel core C, as will be understood by reference to Fig. 3. The steel core C at all times firmly holds the forward suspending-straps *b b* clear from the throat of the horse, thereby preventing the tendency to choke when descending a downgrade, which could not be accomplished without a stiff metallic core in said bow C. The neck-strap A is, as will be observed, convex on its under side, or that surface which touches the neck, which prevents the galling or chafing tendency of a more flat surface. The steel bow C may be formed of wire, flattening at each end, as shown at M, Fig. 3, to receive the clasps *n n*, or it may be made oval or even flat throughout its entire length, having its ends inclined obliquely to the plane of the bend or curve of the bow C, in order to keep the suspending-straps *b b* in a position to nicely fit the shoulders and neck of the horse, as will be observed by reference to Fig. 3.

Having thus described our invention, what

we claim as new, and desire to secure by Letters Patent, is—

1. The neck-piece A formed of the soft piece of leather *d*, stiff and convex-shaped pieces *e f g i*, in combination with the suspending-straps *b b*, as set forth.

2. In combination with the neck-piece A, as described, the metallic bow C, provided with the suspending-straps *b b*, clasps *n n*, and buckles *l l*, for the purposes set forth.

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Witnesses:
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