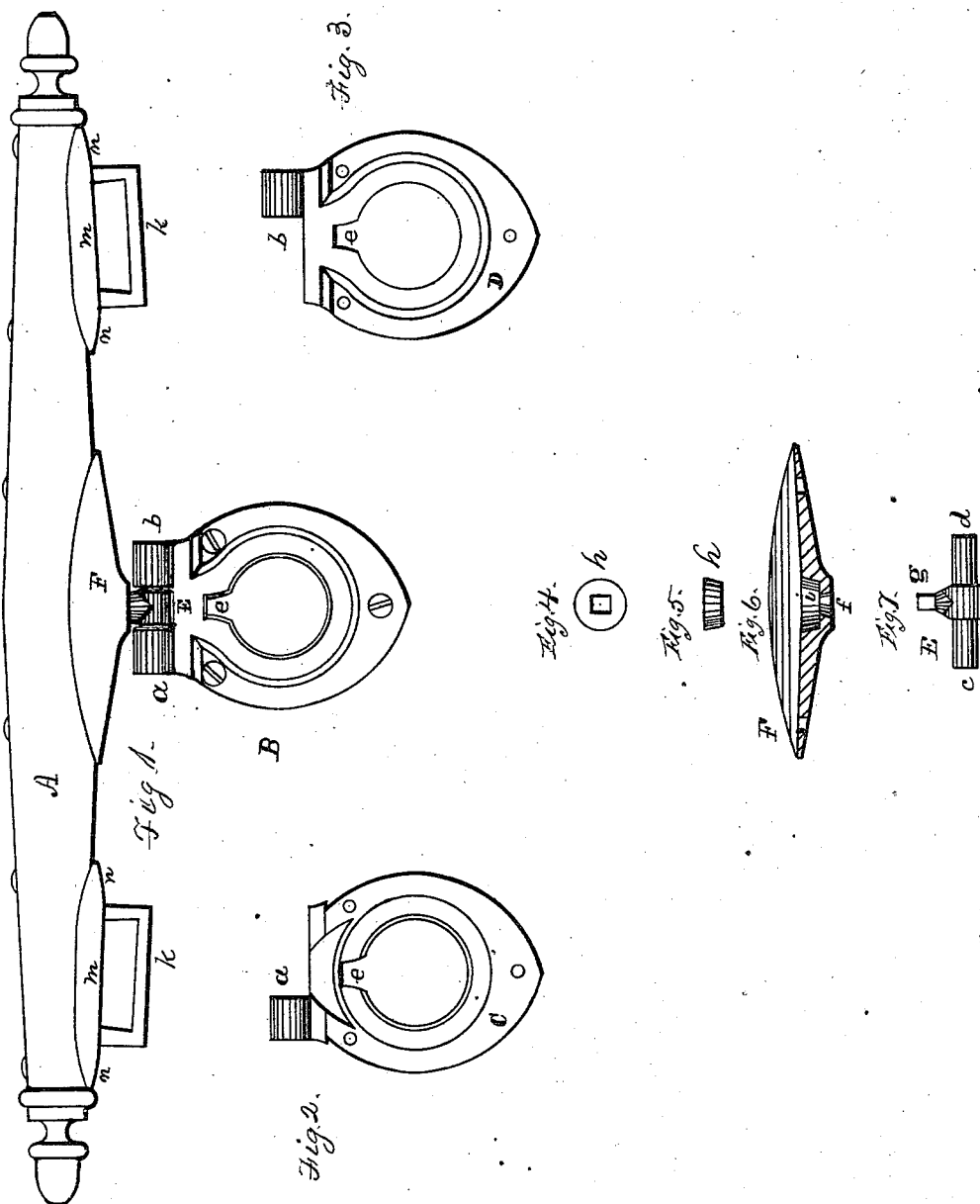


C. R. MOON.

Neck-Yoke.

No. 162,249.

Patented April 20, 1875.



Witnesses.
 C. R. Moon
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Chas. R. Moon
 Inventor.

UNITED STATES PATENT OFFICE.

CHARLES R. MOON, OF WOLCOTTVILLE, INDIANA.

IMPROVEMENT IN NECK-YOKES.

Specification forming part of Letters Patent No. **162,249**, dated April 20, 1875; application filed September 28, 1874.

To all whom it may concern :

Be it known that I, CHARLES R. MOON, of Wolcottville, Lagrange county, and State of Indiana, have invented new and useful Improvements in Neck-Yokes, of which the following is a full description, reference being had to the accompanying drawings.

Figure 1 is an elevation; Fig. 2, an elevation of one of the plates of the lower part of the holdback, showing the inside; Fig. 3, an elevation of the other corresponding plate, showing the outside; Figs. 4 and 5, details of the washers; Fig. 6, a vertical section of the part F; Fig. 7, a detail.

This invention, as to the holdback, is an improvement on a patent granted to me January 27, 1874.

It consists in connecting the holdback proper with the wood portion of the neck-yoke by means of a swivel-joint; in providing each of the principal metal plates of the holdback with an eye, as and for the purpose hereinafter specified; in providing the ends of the yoke with irons of peculiar construction to receive the breast-straps; and in the combinations hereinafter claimed.

In the drawings, A represents the wooden piece to which the irons are attached. B is the main part of the holdback. It consists of two metal plates, C D. Each is recessed on the inside to receive a piece of leather to prevent noise. C has an eye, *a*, at the upper end, at one side, and D has a similar eye, *b*, at the other side. These eyes must be opposite each other, when the plates are together, to receive the ends *c d* of the part E, forming a hinge. Each plate has a slot, *e*. These slots are opposite each other when the plates are together, and serve the purpose described in my former patent. The two plates C D are secured together by means of screws, which allow them to be easily separated for the purpose of replacing the leather when necessary. F is a metal plate or clip, having a hole, *f*, to receive the upper end *g* of the part E. These two parts are to be so secured together that *g* can turn freely in the hole *f*. The best way to do this is to place a washer, *h*, upon *g*, this washer fitting loosely in a countersink, *i*, on the inside of F, and riveting *g* in its place. I make the end of *g* square, so that when riveted to the washer the latter will turn, in use, in the countersink, and the wear of the parts will be slight.

I do not limit myself to this specific way of connecting these two parts.

After E has been secured to F, the latter must be fastened to the yoke A, which can be done by means of rivets. The holdback shown in my said patent was connected to the yoke by means of a leather strap, to which there is this one objection, that, after long use, the strap breaks and must be replaced. By this invention I so connect the two that the holdback can turn in F with the unequal movements of the horses without producing strain on the connecting parts. To prevent noise, I place a piece of rubber or other suitable material between the plates C D, so that that part of E between *a* and *b* will come in contact with it. This holdback when used with suitable devices on the pole, described in my said patent, will be a safety holdback. The plates C D, and the other parts E F, as well as the washer *h*, can be made of malleable cast-iron. It will be well to make the washer slightly tapering both inside and outside. It is customary to place over the ends of the yoke irons, having loops upon them to secure the breast-straps. In consequence of the shrinking of the wood, and the great strain on the loops, these irons frequently become loose. To obviate this difficulty I use independent loops *k*, cast upon and with an iron plate, *m*, fitting the yoke, the ends *n* of this plate extending beyond the loops to receive bolts, by means of which to fasten the plate *m* to the yoke. This can be done by riveting. The plate and loops can be cast together.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. A holdback consisting of the plates C and D, and the part E, adapted to be so connected with the yoke A that the holdback can move freely to the right or left, as may be required, substantially as specified.

2. A holdback consisting of the plates C and D, each having an eye, *a b*, the part E, and plate or clip F, combined to operate as and for the purposes set forth.

CHARLES R. MOON.

Witnesses:

A. A. SNYDER,
M. M. BROWN.