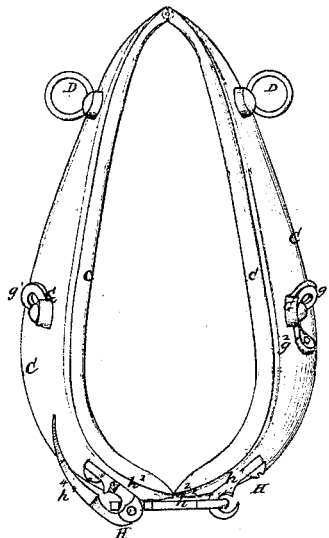


*J. W. Schwann,*  
*Horse Collar.*

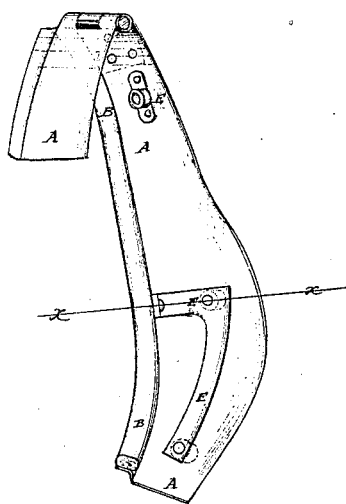
*No. 113,802.*

*Patented Apr. 18. 1871.*

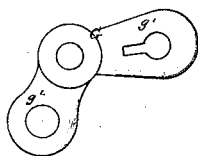
*Fig. 1*



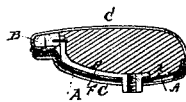
*Fig. 2*



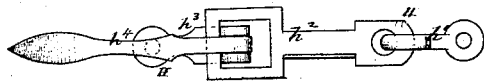
*Fig. 4*



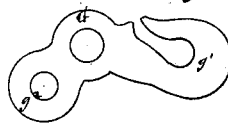
*Fig. 3*



*Fig. 5*



*Fig. 6*



**Witnesses:**  
*A. W. Almqvist*  
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*J. W. Schwann*  
**PER** *Munn & Co*  
**Attorneys.**

# United States Patent Office.

JOHN W. SCHWANER, OF EGG HARBOR CITY, NEW JERSEY.

Letters Patent No. 113,802, dated April 18, 1871.

## IMPROVEMENT IN HORSE-COLLARS.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that I, JOHN W. SCHWANER, of Egg Harbor City, in the county of Atlantic and State of New Jersey, have invented a new and useful Improvement in Horse-Collars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a front view of my improved collar.

Figure 2 is a perspective view of a part of the shell or frame of the same, the cover and stuffing being removed.

Figure 3 is a detail cross-section of the same taken through the line *z z*, fig. 2.

Figure 4 is a detail view of the device by which the tug and neck-yoke strap are connected with the collar.

Figure 5 is a detail view of the collar-fastener.

Figure 6 shows a modification of the device shown in fig. 4.

Similar letters of reference indicate corresponding parts.

My invention has for its object to improve the construction of horse-collars so that they may fit more closely to the horse's neck, be more easy upon the horse, retain their form better, be stronger, more durable, and be more easily made and more readily put on and taken off the horse than collars constructed in the ordinary manner; and

It consists in the construction and combination of the various parts of the collar, as hereinafter more fully described.

*A* are the shells or foundation-plates of the collar, which are made of two pieces of sheet-iron struck up into the proper form and hinged to each other at their upper ends, as shown in fig. 2.

Upon the inner edge of the plates or shells *A* is formed a shoulder, to which is secured, by nails, screws, or rivets, a wooden rib, *B*, between which and the said shoulder is clamped the edge of the cover *C* of the collar.

The wooden rib *B* not only forms a firm forward edge to the collar, but also and especially serves as a stop to the stuffing, and prevents it from being crowded out of place when the collar is in use.

The cover *C* is formed in two pieces to give it the proper form.

The forward edge of the inner part or piece of the cover *C* is clamped between the shoulder of the shell or plate *A* and the wooden rib *B*, and to its rear edge is sewed the rear edge of the outer part or piece of said cover.

The forward edge of the outer piece of the cover is turned in, is fastened by sewing or other convenient means to the forward part of the inner piece of the cover, and is pressed down into the angle of the shoulder of the plate or shell *A*.

The cover is further secured in place by the turrets and other attachments of the collar. The collar may be stuffed by a machine.

*D* are the turrets, which screw into a screw-socket or nut, *E*, attached to the shells or plates *A*.

*F* is a metallic bar, which is made angular, as shown in fig. 2.

The end of the short arm of the bar *F* rests against the wooden rib *B*, and is secured to it by a screw, nail, or rivet.

The long arm of the bar *F* extends longitudinally along the lower part of the shell or plate *A*, and has screw-holes or sockets formed in or attached to it to receive the screws by which the pieces *G* and fastenings *H* are secured to the collar.

The pieces *G* upon the collars of single harnesses are made wide, with a single arm, *g*<sup>1</sup>, to receive the eye of the hame-tug.

In the case of the collars of double harnesses the pieces *G* are made with two arms, one, *g*<sup>1</sup>, to receive the eye of the hame-tug, and the other, *g*<sup>2</sup>, to receive the neck-yoke strap or bail.

The end of the arm *g*<sup>1</sup> may have a hook formed in it, as shown in fig. 6, to receive the link of a chain-trace.

If desired, the piece *G* may be omitted and the tug secured to the collar by the screw that fastens the piece *G* in place, said screw passing through a hole in the tug and screwing into its socket in the bar *F*.

The lower ends of the collar are fastened in place by the fastening *H*, which is made in four or more pieces.

The part or piece *h*<sup>1</sup> is secured to the lower part of one part of the collar by a screw, which passes through the shell or plate *A* and screws into the screw-hole in the lower end of the bar *F*.

To the free end of the piece *h*<sup>1</sup> is pivoted or hinged the end of the piece *h*<sup>2</sup>, in the other end of which is formed an eye or loop to receive the hook of the piece *h*<sup>2</sup>, the other end of which is secured to the bar *F* by a screw in the same manner as the piece *h*<sup>1</sup>.

The piece *h*<sup>2</sup> may be made in one piece, as shown in figs. 1 and 5, or in two or more pieces hinged or pivoted to each other.

The piece or lever *h*<sup>3</sup> is pivoted to the end of the piece *h*<sup>2</sup>, and is so formed that it may be readily passed through the eye or loop of the piece *h*<sup>2</sup>.

Upon the piece *h*<sup>4</sup>, near its pivoted end, is formed

a notch or recess to receive the end of the piece  $h^2$  and lift it over the hook of the piece  $h^3$  in closing or locking the fastening.

The inner end of the piece  $h^4$  should project so much that when the outer or free end of said piece is moved away from the collar in unlocking the fastening the said projecting end may raise the end of the piece  $h^2$  over the hook of the piece  $h^3$ , and thus unfasten the collar.

When in use, the draft-strain will hold the various parts of the fastening securely in place.

Having thus described my invention,  
I claim as new and desire to secure by Letters Patent—

The bars F, in combination with the plates or shells A and wooden ribs B, substantially as herein shown and described, and for the purposes set forth.

JOHN W. SCHWANER.

Witnesses:

HERNRICH PRANGE,  
AUGUST STEPHANY.