2 Sheets--Sheet 1.

WILLIAM H. GRAY.

Improvement in Horse-Collars.

No. 114,131. Patented April 25, 1871.

Fig. 1

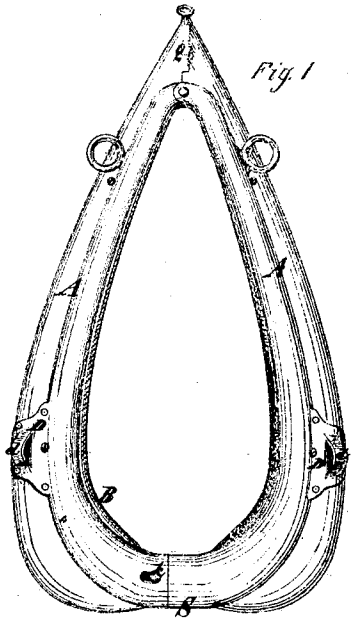


Fig. 2

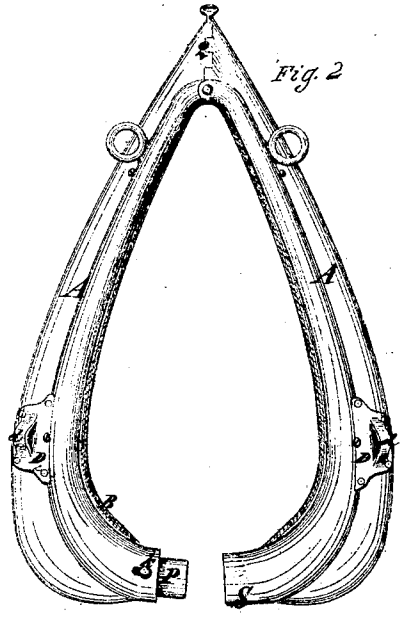


Fig. 7

Fig. 3

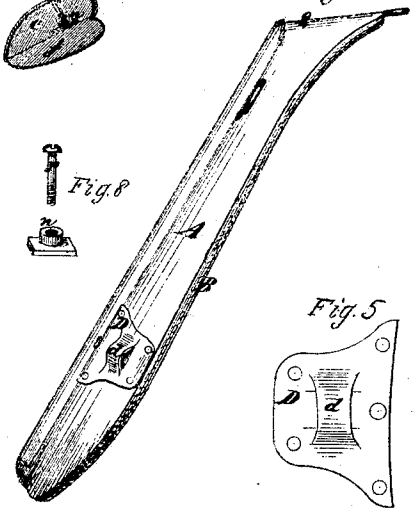


Fig. 8

Fig. 5

Fig. 4

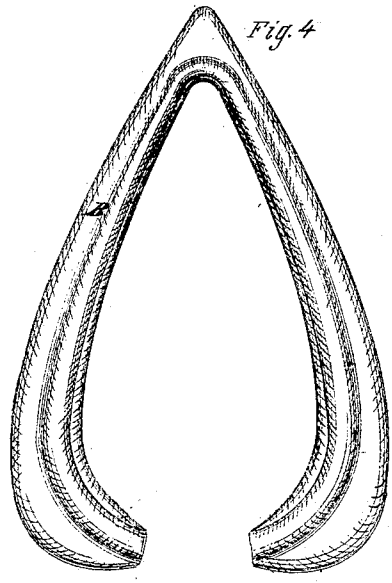
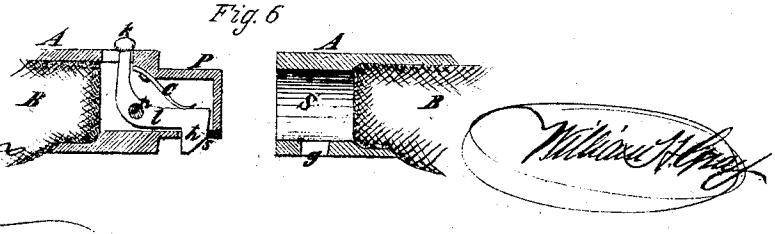


Fig. 6



WITNESSES

Henry T. Brown

Fred. Haynes

William H. Gray

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WILLIAM H. GRAY.

Improvement in Horse-Collars.

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Fig. 9

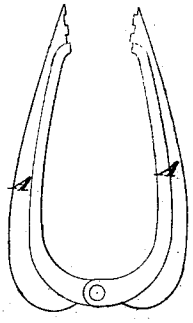
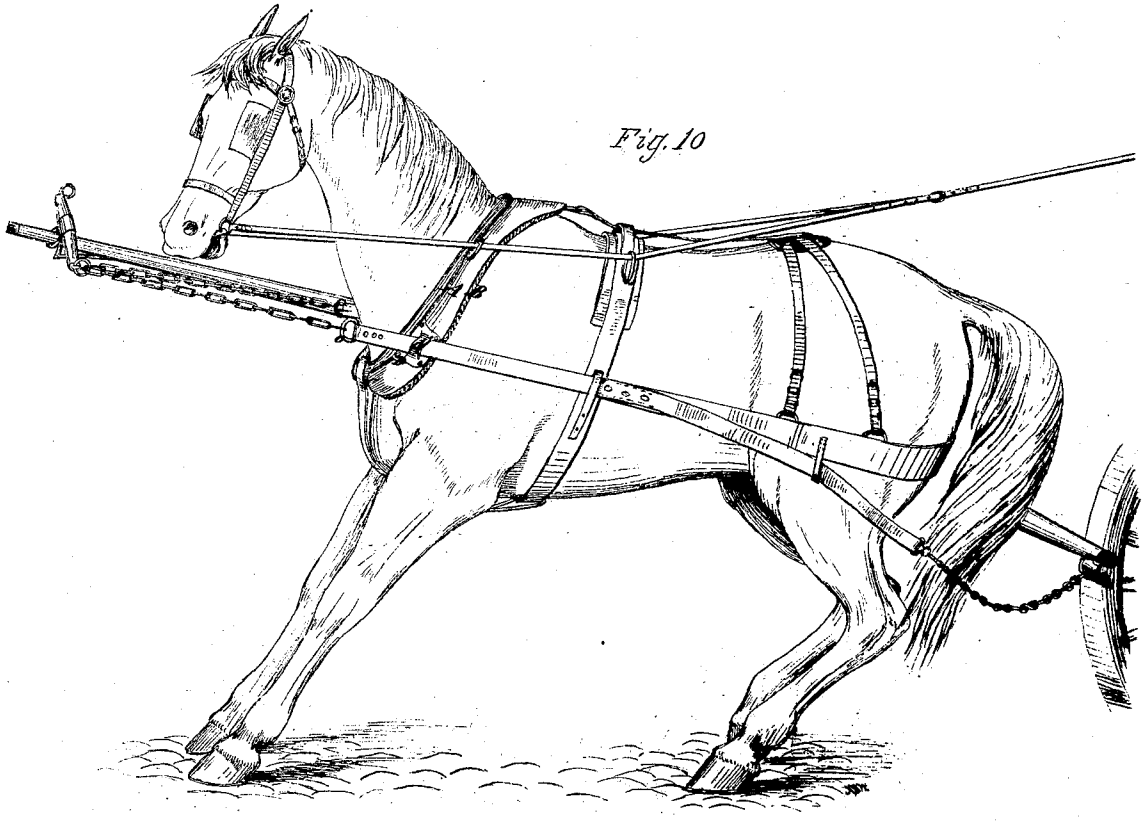


Fig. 10



WITNESSES

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

United States Patent Office.

WILLIAM H. GRAY, OF NEW YORK, N. Y.

Letters Patent No. 114,131. dated April 25, 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, WILLIAM H. GRAY, of the city, county, and State of New York, have invented a new and improved Horse-Collar; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing forming a part of this specification.

This invention consists in novel means of attaching the traces to the collar for the purpose hereinafter set forth.

In the accompanying drawing—

Figure 1 represents a front view of a collar constructed according to my invention, showing it closed;

Figure 2 is a similar view, showing it open;

Figure 3 is a side view;

Figure 4 is a back view of the pad;

Figure 5 is a detail view of the trace-stay;

Figure 6 is a similar view of the spring bolt, by which the free ends of the collar are secured together;

Figures 7 and 8 are detail views, showing how the pad is secured to the shell;

Figure 9 is a front view of the collar in a modified form; and

Figure 10 is a view showing its application.

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

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation with reference to the drawing.

The shell of the collar is made of sheet-iron or any other suitable material, and consists of two pieces, A A, each of the form of half an ordinary collar.

These pieces are hinged together at their upper ends by a hinge, *q*, and one has a socket, S, formed on its lower end, and the other has a hollow plunger, P, formed on it, in which a lever, *l*, bent at right angles, or nearly so, is pivoted by a pin, *p*, and having a latch-head, *h*, formed on one end, which protrudes through a slot, *s*, in the plunger, and formed on the other end of this lever is a knob, *k*, which projects the plunger, and by means of which the catch is operated.

C is a spring, which is secured to the interior of the socket, and bears against the head *h* of the lever and forces it out.

In the socket S there is a square hole, *g*, in such position that when the plunger is inserted into the socket the spring C will force the head *h* through it and securely lock it.

This shell has the ordinary terret-rings attached to its upper portion, and has secured to the lower portion of each side a shield-like piece of metal, D, which is provided with a loop, and forms a trace-stay to which the trace is attached.

The detachable pad or lining B of the collar is preferably made of two pieces, a piece of felt, *f*, and a piece of cork, *c*, or narrow strips of each covered with leather, and is secured to the shell A by screws *r* inserted through the shell and screwed into nuts *n*, in the pad between the felt and cork.

This collar is opened and placed on the horse's neck, and, instead of being hinged and clasped, as above described, may be hinged at the bottom and clasped at the top, as shown in fig. 9, and padded the same as the other collar.

The traces are slipped through the loop on the collar, and have a ring, *o*, attached to their forward end *e*, which is too large to slip through the loop, and when the horse is pulling bears the strain.

To this ring the pole-chain is attached, and when the horse backs, instead of pulling the collar up on his neck till the breeching is taut, as is usual with ordinary harness, the traces slip forward through the loops, as shown in fig. 10, and do not displace the collar at all.

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

The trace-stay D, constructed with a loop, through which the trace may slide freely, in connection with the ring or hook on the end of said trace, for operation as herein described.

WILLIAM H. GRAY.

Witnesses:

HENRY T. BROWN,

FRED. HAYNES.