

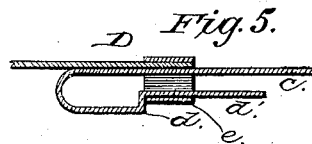
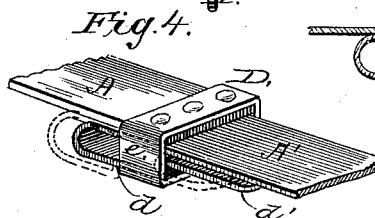
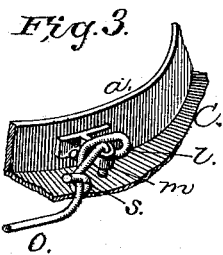
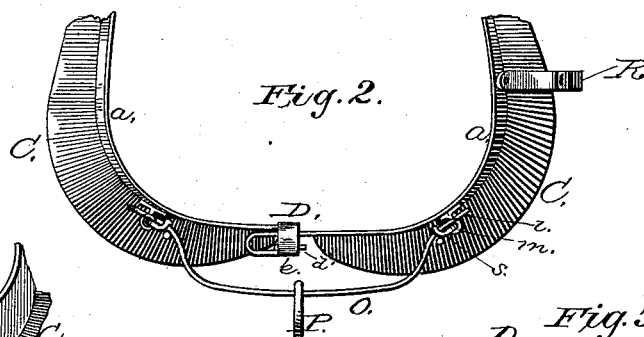
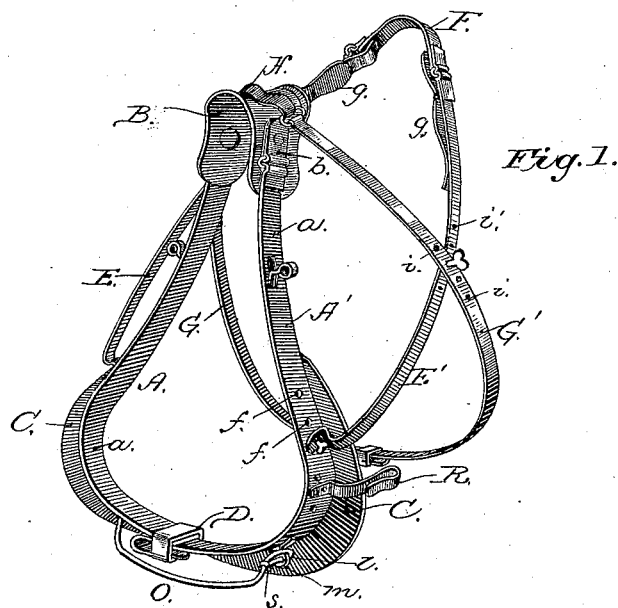
(No Model.)

A. W. TOURGEE.

## HARNESS.

No. 345,459.

Patented July 13, 1886.



WITNESSES:

Fred. G. Dieterich  
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# UNITED STATES PATENT OFFICE.

ALBION W. TOURGEE, OF MAYVILLE, NEW YORK, ASSIGNOR TO S. E.  
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## HARNESS.

SPECIFICATION forming part of Letters Patent No. 345,459, dated July 13, 1886.

Application filed November 23, 1885. Serial No. 183,669. (No model.)

*To all whom it may concern:*

Be it known that I, ALBION W. TOURGEE, a citizen of the United States, residing at Mayville, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Harness; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My present invention relates to improvements in harness, the object being to simplify and improve the methods of connecting the draft animal to the load, and applying and economizing the force, as also to reduce the cost of construction, to promote ease and readiness of application, adjustment, and removal of the harness; and my improvements consist, essentially, of the novel details of construction and general arrangement of parts, all as will be hereinafter fully described, and specifically designated in the claims.

In the accompanying drawings, Figure 1 represents a perspective view of my complete invention, and Figs. 2, 3, 4, and 5 enlarged detail views thereof.

Similar letters of reference occurring on the several figures indicate corresponding parts.

In carrying out my invention the combined collar and hames, forming a portion thereof, is composed of two parts or sections, A A', pivotally connected at their upper ends to the metallic cap or saddle B, and united together at their lower ends by means of a lock, D, of novel and peculiar construction, the said halves or sections A A' being formed of a heavy flat piece of metal, *a*, designed to fit snugly around the animal's neck in front of the shoulder, their outer and inner surfaces lying parallel with the external surface of the neck. To each of the flat pieces of metal *a*, which are of a rigid nature, is suitably attached the swell or puff C, which may be composed of one or more plates of any suitable smooth sheet metal of a springy character, preferably sheet-steel, and which extends outwardly and backward at such angle to the line of the metallic sections

*a* as to embrace and fit the shoulders of the horse, the edges of the said swells or puffs C being slightly turned up at the edges, as shown in the drawings. The upper ends of the metallic sections *a* are hinged to the lower ends of the supporting-plates *b*, one on each side, which in their turn are adjustably pivoted to the metallic cap or saddle B, while the lower ends of the said sections are united together by means of the spring-lock D, which is formed of a bent spring, *c*, having one end rigidly secured to the lower part of one of the sections *a*, and its other or free end provided with a notch or projection, *d*, and a thumb-piece, *d'*, the device thus formed being adapted to project through and catch upon the one side of an open band or loop, *e*, secured to the lower part of the opposite section of the collar, to secure the two sections together, as fully shown in Fig. 2. The metallic cap or saddle B, to which the said sections are adjustably connected, is formed of sheet metal, and of a shape to adjust itself to the horse's neck, as fully set forth and described in a separate application for Letters Patent already made by me.

E E' represent narrow bands of spring-steel, about one inch wide and as thick as may be necessary. They are adjustably attached at their lower ends to the flat pieces of metal *a*, forming a part of the sections A A', one on 80 each side, by means of a nut and bolt engaging with a hole in the same, and with one of a series of similar holes, *f*, in the sides of the parts *a*, as shown, while their upper ends are hinged to the connecting-arch F, one on each 85 side. The bands E E' are widened by attaching thereto a flat sheet of steel, *g*, slightly turned up at the edges, near the arch F, and extending forward as far as may be necessary to protect the shoulders of the animal from 90 abrasion or chafing in backing. The upper ends of these bands extend beyond the hinge which attaches them to the arch F, and they are turned up, so as to press against said hinge when the collar is locked, to constitute an outwardly-acting spring. The attachments G G' 95 are also composed of narrow bands of spring-steel, corresponding in size and shape to the bands E E'. They are hinged at their upper ends, one on each side, to the metallic strap 100

H, which in its turn is centrally pivoted to the top of the cap or saddle B, said attachments extending from thence rearwardly and downwardly until they meet under the horse's belly, somewhat back of the position of the ordinary girth. The lower ends of the said attachments G G' may be connected together by any suitable automatic clasp, while near their upper ends they are adjustably connected to the straps E E' by means of suitable bolts and nuts engaging with one of the series of holes *i i'* in said bands, as shown.

The traction force is applied through the breast-yoke O, which is composed of a round rigid bar of metal having a flattened loop, *l*, at each end, which is adapted to fit over the loops or staples *m* upon the lower part of the collar—one on each side or section—and to be secured in place by the hasps *s*, projecting through said staples, the said hasps being preferably composed of a coiled wire spring twisted around the yoke near each end, as fully shown in Fig. 3.

P represents a sliding ring working freely upon the breast-yoke O, to which the neck-yoke is adapted to be attached, the object of the same being to permit proper play to the vehicle-pole.

When used with shafts, the traces are to be attached to the hooks R, upon the sides of the collar, and the shaft-supports to a ring suitably suspended in a metallic strap at the points of connection of the attachments E E' and G G'.

In the operation of my invention the action of opening the spring lock or clasp D permits the outward action of the hinges on the arch F and the connecting-strap H on the cap B, thereby throwing out the lower ends of the attachments G G' and enabling the harness to be readily lifted off. Reversing this operation secures the harness in position upon the animal. Bearing backward upon the rigid metallic yoke O presses the swells C C against the shoulders of the horse. This represents the action of pulling or drawing the load. Pressing forward on the yoke O makes the

attachments E E' and G G', acting pivotally at their junction together, clasp the body of the horse firmly between them, and prevents the collar from pushing forward on the neck or swinging up against it. This represents the action of holding back.

The advantages of my invention will be readily apparent without a more minute description, inasmuch as it combines in its construction and operation a high degree of simplicity, efficiency, and durability with a ready adaptation for the purpose intended.

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

1. The herein-described harness, consisting of the combined collar and hames, the attachments E E', connecting the arch F and the two sections of said collar and hames, the attachments G G', hinged to the pivoted strap H upon the cap B and adjustably connected to the attachments E E', and the breast-yoke O, all substantially as and for the purpose specified.

2. In a harness, the combined collar and hames, consisting of the two parts or sections A A', formed of the rigid metallic pieces *a* and flexible swells or puffs C, and provided with the cap or pad B, spring-lock D, and breast-yoke O, substantially as set forth.

3. In a harness, the breast-yoke O, formed with the end loops, *l*, and provided with the sliding ring P and hasps *s*, in combination with the sections A A' of the collar, substantially as and for the purpose specified.

4. In a harness, the attachments E E' and G G', adjustably connected together, in combination with the arch F and sections A A' of the collar, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALBION W. TOURGEE.

Witnesses:

S. E. KILBOURNE,  
E. K. TOURGEE.