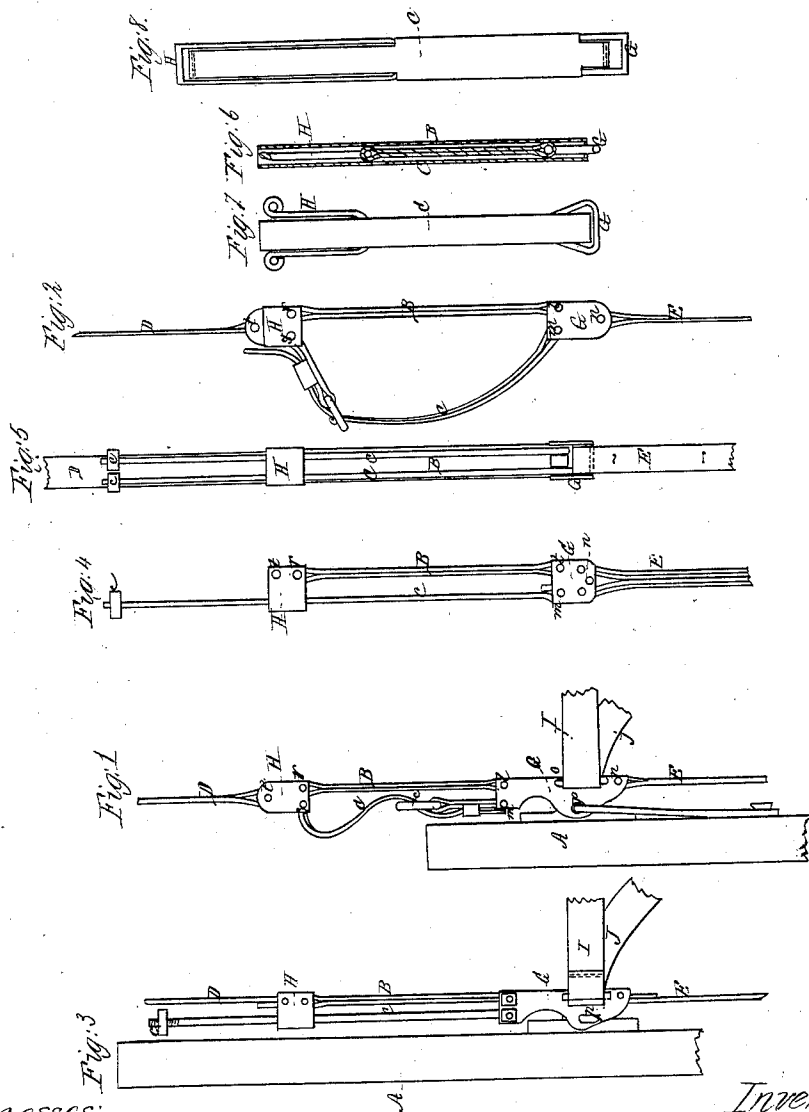


J. Barron,

Harness Attachment,

N^o 82,072,

Patented Sep. 15, 1868.



Witnesses:
R. D. Smith
R. S. Turner

Inventor:
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By his atty.
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United States Patent Office.

JOHN BARRON, OF CINCINNATI, OHIO.

Letters Patent No. 82,072, dated September 15, 1868.

IMPROVED ELASTIC DRAUGHT-ATTACHMENT FOR SINGLE AND DOUBLE HARNESS.

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 BARRON, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented an Improved Elastic Draught-Attachment for Single or Double Harness; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a top view of my invention, as arranged for single harness, showing its attachment to one of the shafts of the vehicle.

Figure 2, a top view of the invention, as arranged for double harness.

Figure 3, a top view, showing a modification of the construction for single harness, showing also its method of attachment to the shaft.

Figure 4, a corresponding modification for double harness, as in fig. 2.

Figure 5, a side view of the construction shown in fig. 4.

Figure 6, a top view, indicating another modification of the invention, and

Figure 7, a side view of the same.

Figure 8, a side view of another modification of the invention.

Like letters designate corresponding parts in all of the figures.

The main feature of my invention consists in an India-rubber draught-attachment, for either single or double harness, in connection with an adjustable check-strap or its equivalent, and a coupling to connect the parts together, and with the shafts of the vehicle.

I will proceed to describe the substantial feature of my invention, as represented in figs. 1 and 2, and then will indicate the nature of the modifications, as exhibited in the other figures.

Let A, in fig. 1, represent the front end of one of the shafts of a vehicle. My improved India-rubber draught-attachment, for giving elasticity to the draught, is represented at B as a double or looped strap, although the particular form or construction is not important, and C represents the adjustable check-strap. This strap is represented as of leather, with a buckle, *c*, and holes for adjusting the length of slack, and consequently the amount of stretch and force of elasticity which may be given to the draught-attachment B, before it is stopped by this check-strap, according to the load or resistance to which the carriage may be subjected.

In order to apply this attachment and check-strap, various methods may be adopted, but the one shown is convenient, strong, and effective.

A metallic frame or coupling, G, is employed, for connecting the attachment with the shaft A, so as to dispense with tugs in the single harness. This has several bolts, hooks, or loops through it, as a bolt, *l*, for attaching the elastic attachment B to the frame, preferably having a nut and screw, so as to be removable at pleasure; a bolt, *m*, for connecting the check-strap with the other parts; a bolt, *n*, for attaching the breech-band; loops *o*, for the back-band I and belly-band J; and a movable belt or hook, *p*, for securing the coupling to the shaft.

The last, of course, is to be detachable at pleasure.

At the forward end of the India-rubber draught-attachment is also a metallic stirrup, or coupling, H, with a bolt, *r*, for securing the India-rubber attachment thereto, a bolt, *s*, for attaching the check-strap C, and a bolt, *t*, for attaching the strap D, which is secured to the hames or breast-band of the harness. The forms of these metallic couplings G H may be as represented, or vary therefrom at pleasure.

In the application of the invention to double harness, the coupling G is connected directly with the trace L, as shown in fig. 2, the remaining construction being the same as for single harness.

The modification, fig. 3, only differs from the construction, fig. 1, in having metallic check-rods C C adjustable in length by screws and nuts *e e*, or their equivalent, in place of a flexible check-strap. The bolts slide in the forward coupling.

Figs. 4 and 5 show the same modification of check-rods, as applied to a double harness.

Figs. 6 and 7 show another modification of a metallic check-case, C, surrounding the India-rubber draught-attachment B. In this case, wire loops G H, substantially as shown, serve as the couplings with the other parts of the harness. The length of movement here may be adjusted by bolts or rivets, put through different holes in the case.

Fig. 8 differs from that just described in employing a leather or flexible check-case, C, surrounding the draught-attachment, instead of a metallic check-case.

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

The combination and arrangement of the India-rubber draught-attachment B, adjustable check-strap, rods, or case C, and coupling G, substantially as and for the purpose herein specified.

The above specification signed by me, this twelfth day of May, 1868.

JOHN BARRON.

Witnesses:

B. H. RUHLMAN,
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