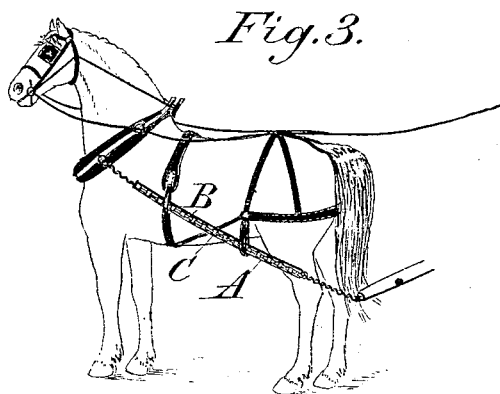
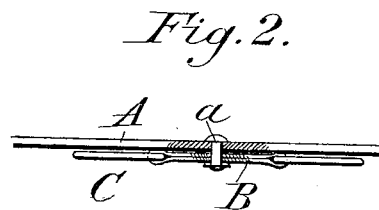
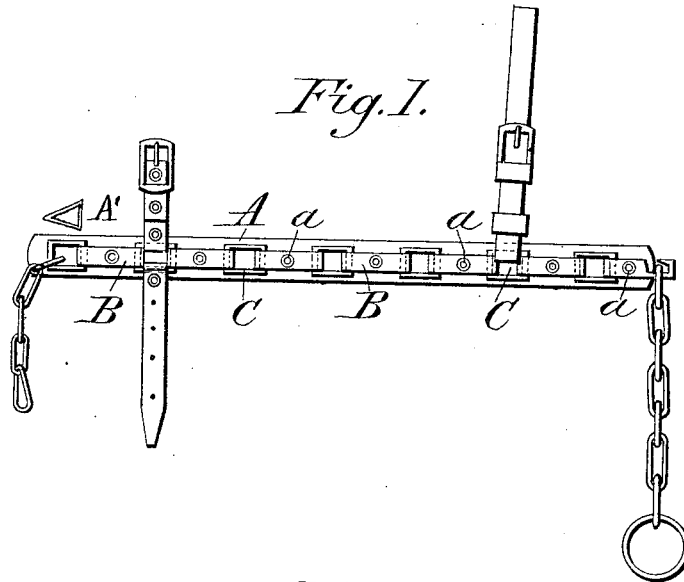


(No Model.)

E. Q. DARR.  
HARNESS TRACE.

No. 346,535.

Patented Aug. 3, 1886.



*Attest:*  
*H. H. Schott*  
*Fred E. Tasker.*

*Inventor*  
*Emory Q. Darr.*  
*By John C. Tasker atty.*

# UNITED STATES PATENT OFFICE.

EMORY Q. DARR, OF SHELBYVILLE, INDIANA.

## HARNESS-TRACE.

SPECIFICATION forming part of Letters Patent No. 346,535, dated August 3, 1886.

Application filed April 16, 1886. Serial No. 199,089. (No model.)

*To all whom it may concern:*

Be it known that I, EMORY Q. DARR, a citizen of the United States, residing at Shelbyville, in the county of Shelby and State of Indiana, have invented certain new and useful Improvements in Harness-Traces; 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.

This invention relates to that class of devices known as "harness-traces," the object thereof being to improve the construction of such traces by securing a series of links to a flexible backing; and the invention consists in the construction, arrangement, and combination of parts, as will be hereinafter fully set forth.

In the annexed drawings, illustrating my invention, Figure 1 is a view of a short trace constructed after my improved form. Fig. 2 is a cross-section of two or more links and the leather strap to which they are attached. Fig. 3 is a perspective of a harnessed animal, the harness being provided with my improved trace.

Like letters of reference designate like parts in the several views.

A represents a flexible strap, made preferably of leather, and of a length equal to that of the trace, of which it forms a part. This strap constitutes a backing or safe, upon which a series of metallic links are mounted. B and C represent the two forms of links which I generally find it most convenient to use in making the chain. The links C are open squares, and they are connected together by means of the coupling links or plates B. Each of the couplings B being made flat, so as to rest close to the leather strap, is riveted firmly to the latter by means of a rivet, *a*. We have

thus a leather strap, and a chain secured lengthwise to one of the faces of said strap, by riveting or otherwise, tightly fastening each alternate part of the chain to the strap. This construction provides a flexible trace of a strength equal to the ordinary chain-trace, and yet one which will not wear or chafe the animal, and one which will conform to his shape. At convenient points in the length of this trace the breeching, back and hip straps may be attached by securing the same to the open links, as shown in the drawings, and the ends of the trace may be provided with hooks for the attachment of the necessary chains. Such a trace has no parts that will rattle and make a noise, thus making it additionally valuable to those who use horses. The trace is fastened to the hame in the usual way.

Although the links are, in general, made square, yet, if so desired, the one next the hame, as A', may be triangular in form, so that the chain or other fastening will not catch in the link.

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

1. In a harness-trace, the combination, with a flexible backing or safe, of a longitudinal series of connected links, each alternate one being firmly secured to the said backing, substantially as shown and described.

2. The combination of the strap A and the chain consisting of the links B and C, the links C being open links, and the links B serving as couplings for the latter, and firmly riveted to the said strap, substantially as and for the purpose set forth.

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

EMORY Q. DARR.

Witnesses:

J. D. WALKER,

G. W. CLENDENING.