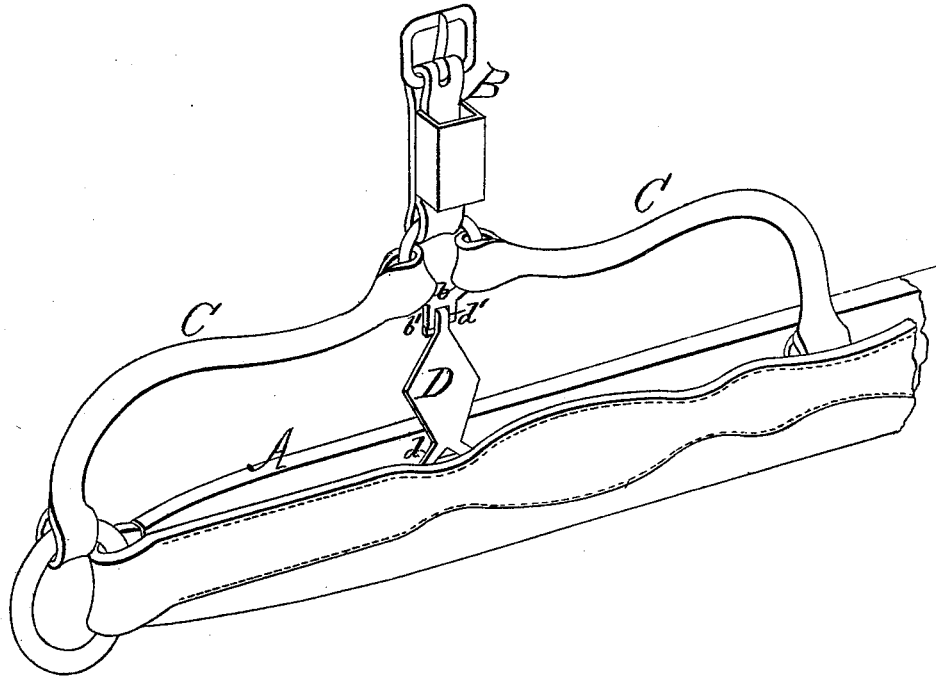


P. McFADDEN.  
SAFETY-TUG FOR HARNESS.

No. 183,187.

Patented Oct. 10, 1876.



Witnesses

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# UNITED STATES PATENT OFFICE.

PATRICK McFADDEN, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN SAFETY-TUGS FOR HARNESS.

Specification forming part of Letters Patent No. 183,187, dated October 10, 1876; application filed September 6, 1876.

*To all whom it may concern:*

Be it known that I, PATRICK McFADDEN, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Safety-Tug for Harness; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a perspective view of my invention.

The object of my invention is to provide a device for preventing the breakage of the tugs which connect the hip-strap with the breech-band, and which will relieve the usual strain by which the curvature of said tugs is destroyed, and their connection with the breech-band broken.

My invention consists, accordingly, of a supplemental tug located between the two tugs which connect the hip-strap and the breech-band.

Referring to the accompanying drawing, A designates an end section of an ordinary breech-band; B, a hip-strap, and C C the curved leather tugs usually employed for connecting said breech-band and hip-strap. These tugs, under the present mode of construction, are, at the time of manufacture, fashioned with the curve shown in the drawing. Ordinarily, however, they do not long retain this curvature, as a week's use is frequently sufficient to destroy the same, the natural tendency of the strain to which they are necessarily subjected in "backing" being to pull them into a straight line, thus annihilating the symmetry of their outline. A further and usual effect of this strain is to break

the connection of the hindmost tug with the breech-band, thus allowing the latter to fall down on the horse's legs, and inciting a runaway.

To avoid these calamitous consequences, I provide a supplemental tug, D, located between the two tugs C C, and adapted to receive a considerable amount of the strain which usually falls on the latter, thus permitting said tugs C C to preserve their original curvature and connection with the breech-band under the adverse influences of wear and use. This tug may be of any suitable material—as, for instance, leather or metal—may be either flexible, jointed, or rigid, and may be secured to the breech-band and hip-strap, respectively, in any appropriate manner.

In practice, I prefer said tug to be made of metal, and of the shape and construction shown in the drawing. When thus formed its lower end will be in the shape of a triangle, *d*, which is "plugged," (in the manner known to harness-makers,) and sewed into the breech-band, while its upper end terminates in a hook, *d'*, which engages with an eye or loop, *b'*, formed on the hip-strap ring *b*.

What I claim as my invention is—

1. In combination with the safety-tug D, the hip-strap ring *b*, having a loop or eye, *b'*, substantially as shown and described.

2. In combination with the breech-band A and tugs C C, the supplemental tug D, located between the latter, and operating substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 31st day of August, 1876.

PATRICK McFADDEN.

Witnesses:

GEO. C. SHELMERDINE,  
M. DANL. CONNOLLY.