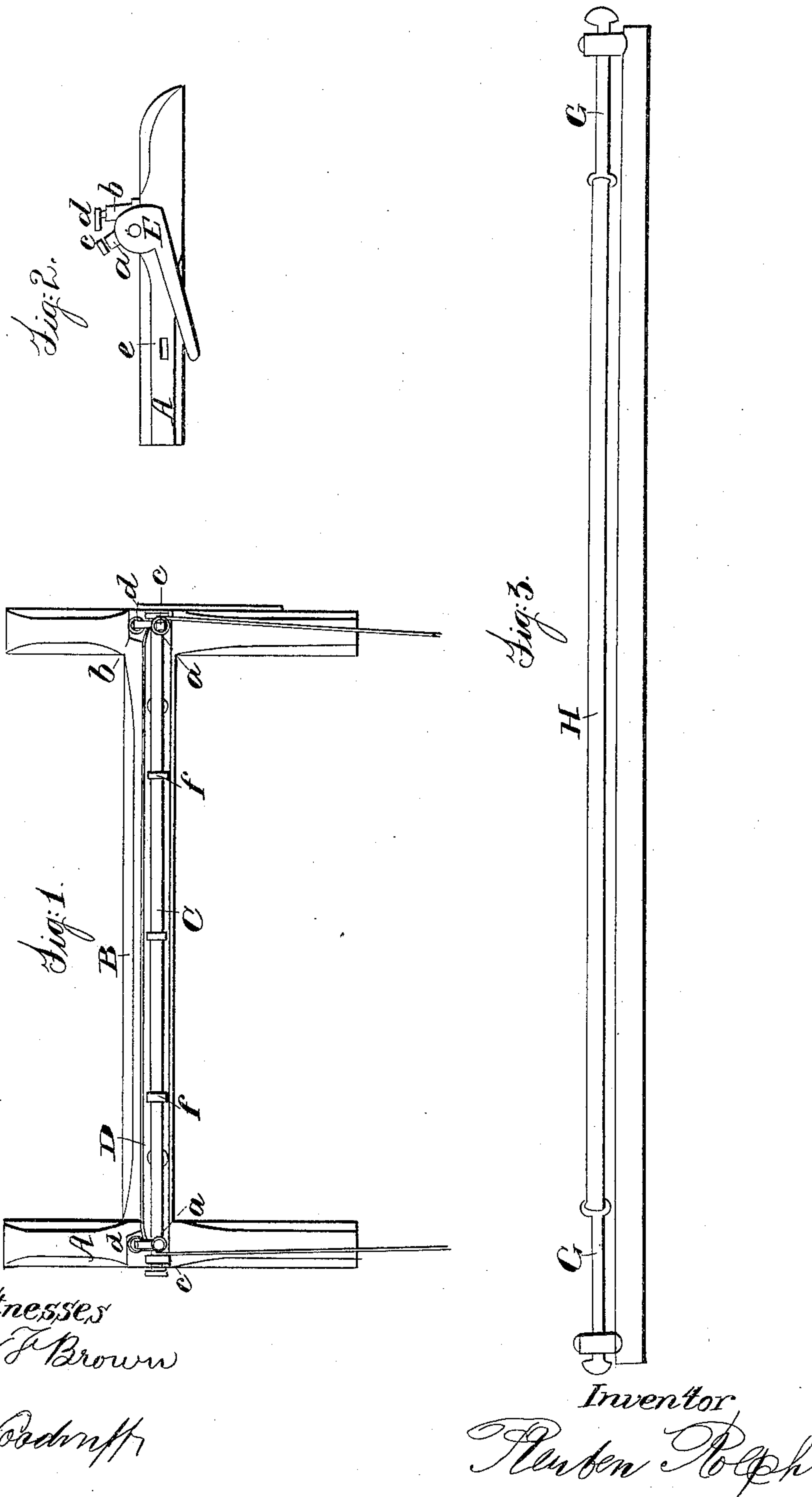


R. ROLPH.  
Whiffletree.

No. 27,566.

Patented Mar. 20. 1860.



# UNITED STATES PATENT OFFICE.

REUBEN ROLPH, OF COVENTRY, NEW YORK.

## TRACE SAFETY-BAR FOR VEHICLES.

Specification of Letters Patent No. 27,566, dated March 20, 1860.

*To all whom it may concern:*

Be it known that I, REUBEN ROLPH, of Coventry, in the county of Chenango, State of New York, have invented a new and useful Improvement in Self-Detaching Circuit or Single-Trace Safety Bars; and I do hereby declare that the following is a clear and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

Figure 1, represents a top view. Fig. 2, shows an end elevation, Fig. 3 shows detached vibrators.

To enable others skilled in the art to make and use my invention, I will describe it in detail—like letters indicate the same parts in the several figures.

The nature of my invention consists in securing upon the cross bar of thills for a one horse vehicle, or the pole for two horses, a plate of metal, having rings or staples, into which a round rod or shaft is fitted, it having two or more upright posts on which are rollers of metal, or gutta-percha, for the traces or draw-straps to be hitched, they being connected, or coupled at the cockeyes, pass around so as to move laterally on the rollers, and will easily become detached when the rod is unlocked. Also: as a modification of the same invention, to use traces in the common way, I substitute in the place of the rollers, two levers, with hooks on the outer ends they being connected together by a link or strap, longitudinal with the rod and placed upon the upright posts as shown in (Fig. 3,) and hereafter described.

(A,) as seen in Fig. 1, is the crossbar and section of a pair of thills, on which is firmly secured a plate of metal (B,) which answers the twofold purpose of bracing the thills and holding the apparatus for hitching the traces to.

(C,) is a rod of sound iron running longitudinal over the plate (B,) the width of the thills, or can be placed on a pole the proper length for two horses. On the rod (C,) are two posts (*c, c,*) near each end for a single harness, and two additional for double, on which are metal or gutta-percha rollers (*a, a,*) which the trace straps (D,) pass around so as to render freely on the

rollers, they being connected or coupled together at the cockeyes.

On the plate (B,) in the rear of the rollers (*c, c,*) are perpendicular post and similar rollers (*b, b,*) the top of the posts have a head (*d, d,*) which extend over sufficient to bear on the posts (*c, c,*), leaving a space between the two rollers for the traces (D,) which are secured in that position by fastening the rod (C,) which is effected by the lever (E,) on the side of the thill, by the sliding bolt (*e*). The rod (C,) is secured to the plate (B,) by staples (*f, f,*) through which it passes, and is allowed to turn sufficient to liberate instantly the traces (D,) when the lever (E) is released by drawing the sliding bolt (*e*).

In Fig. 3 the vibrators (G, G,) are made of metal, with hooks (*g, g,*) on the outer end to hitch traces to in the usual manner. They are made to slip on to the posts (*c, c,*) on the rod (*c,*) the long part extending toward the center and are connected together by a joint link, or strap (H,) in such manner as to allow them to vibrate sufficiently to correspond with the motion of the animal. In the case of a fright, or any accident, the horse can be liberated instantly from the vehicle, the same as the other mode of connecting the traces, the vibrators slipping off the posts (*c, c,*).

It will readily be seen, that my improved mode of attaching traces to vehicles, entirely dispenses with whiffletrees, and in either construction allows of sufficient vibration, while the metal plate strengthens the frame of the thills, no rattling or wearing of bolts, is much easier hitched up; and can be detached instantly at any time by a strap or string attached to the sliding bolt, following the line of the thill, a shaft, to the vehicle, and being within reach of the driver and also affords that very desirable condition of no half attachment or detachment from which cause alone, half of the accidents occur.

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

1. The construction and arrangement of the metallic plate, and longitudinal rod

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across the thills, the upright posts, and  
rollers, between which continuous or con-  
nected traces are hitched so as to render  
laterally, the arrangement of the lever, and  
5 sliding bolt, to hold the traces in position  
for draft, and admit of their being detached  
instantly, all in combination, as specified,  
for the purposes set forth.

2. I claim as a modification of the above,  
the double connected vibrators, for hitching 10  
traces to vehicles as described for the pur-  
poses set forth and herein specified.

REUBEN ROLPH.

Witnesses:

EDW. F. BROWN,

J. B. WOODRUFF.