

Whiffletree.

Patented Sept 1, 1863.

A technical drawing of a mechanical assembly. It shows a cross-section of a component with a central rectangular block labeled 'A'. To the left of 'A' is a section labeled 'B'. To the right of 'A' is a section labeled 'D'. Above 'A' is a section labeled 'C'. To the right of 'C' is a section labeled 'E'. To the right of 'E' is a section labeled 'F'. To the right of 'F' is a section labeled 'G'. To the right of 'G' is a section labeled 'H'. The diagram shows various mechanical parts, including a bolt and nut assembly, and a spring-like component.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WHIFFLETREES.

Specification forming part of Letters Patent No. **39,753**, dated September 1, 1863; antedated October 26, 1861.

To all whom it may concern:

Be it known that I, REUBEN ROLPH, of Coventry, in the county of Chenango and State of New York, have invented a new and useful Improvement in Whiffletrees; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an end view of my invention; Fig. 2, a transverse section of the same, taken in the line *x x*, Fig. 3; Fig. 3, a back view of the same; Fig. 4, a plan or top sectional view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a novel and improved means employed for detaching simultaneously the two traces from the whiffletree, so as to readily detach the horse from the vehicle in case of the animal running away, or when restive or unmanageable, as well as to expedite the detaching of the horse from the vehicle in ordinary cases of unharnessing.

The invention consists in having a pivoted bar or rod fitted in each end of the whiffletree, and having the same secured in proper position by cams attached to a rod or shaft fitted in proper bearings at the back of the whiffletree and operated by straps or chains, as hereinafter described, whereby the desired result is attained.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A A represent the thills of a vehicle, and B a whiffletree, attached by a central bolt, C, to their cross-bar D, as usual. To each end of the whiffletree B there is permanently attached a metal box, *a*, in each of which a bar or rod, E, is fitted and secured by a pin, *b*. The bars or rods E are allowed to turn freely on their pins *b*, and the inner ends of the rods E, when said rods have the traces attached, are within recesses *c* in the boxes *a*. (See Fig. 4.) Each bar or rod E has a semi-circular portion, *d*, and these portions *d* are concentric with the pins *b*, as shown in Fig. 4. Each portion *d* has a shoulder, *e*, the use of which will be presently shown. The outer end of each bar or rod E is provided with the usual button or spear-head *f*. At the back

part of the whiffletree B there is secured a shaft, F, which shaft is fitted in suitable bearings *g g*, at the back of the boxes *a a*. The shaft F extends the whole length of the whiffletree, and at each end of said shaft there is attached a cam, *h*, said cams being directly behind the shoulders *e* of the parts *d* of the bars or rods E. The shaft F has a crank, *i*, on it, around which and the whiffletree an india-rubber band or spring, *j*, passes. Similar springs, *k k*, also pass around the bars or rods E and the boxes *a*, said springs having a tendency to keep the inner parts of the bars or rods E in the recesses *c* in the boxes *a*.

To the whiffletree B there are attached two straps, G H, one of which, G, passes over the crank *i*, and the other, H, underneath it, as shown clearly in Fig. 2. By means of these straps and the crank, the shaft F is turned, and consequently the cams *h h*. The cams *h h* are simply circles, with a segment removed or cut off, and when the crank *i* is turned down, as shown in Figs. 2 and 3, the prominent parts of the cams will be against the bars or rods E, at the inner sides of the shoulders *e*, as shown clearly in Fig. 4, and the cams will retain the bars or rods E in a longitudinal position with the whiffletree. The traces I I are fitted on the bars or rods E, as shown clearly in Figs. 4, and at any time when it is desired to detach the horse from the whiffletree, the strap H is pulled and the crank *i* thrown upward, so as to turn the shaft F and throw the prominent parts of the cams from the bars or rods E, and the latter will be thereby released and drawn outward under the pull, so that the traces will slip off the bars or rods E. Thus, by pulling strap H, the two traces I I will be simultaneously detached, and when the traces are fastened or placed on the rods or bars E the strap G is pulled to throw the crank *i* downward and bring the prominent parts of the cams in contact with the bars or rods E. The straps H may extend up within the vehicle and within reach of the driver, so that the horse may be detached at any time in case of running away or becoming restive or unmanageable, and when desired the traces may be attached to the outer parts of the bars or rods E, just within the buttons or spear-heads *f*. In this case the whiffletree will be used as an ordinary one.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The pivoted bars or rods E E, in connection with the shaft F, provided with the cams *h h*, the above parts being applied to the whiffletree B, and arranged with suitable springs, substantially as shown, for the purpose set forth.

2. The employment or use of the straps G H, when attached to the whiffletree B, and arranged relatively with the crank *i* of the shaft F, as shown, for the purpose specified.

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Witnesses:

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