

UNITED STATES PATENT OFFICE.

AUSTIN S. JOHNSTON, OF ENGLEWOOD, ILLINOIS; MARIETTA R. JOHNSTON
ADMINISTRATRIX OF SAID AUSTIN S. JOHNSTON, DECEASED.

WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 423,519, dated March 18, 1890.

Application filed July 5, 1889. Serial No. 316,538. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN S. JOHNSTON, residing at Englewood, in the county of Cook and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Whiffletrees, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation. Fig. 2 is an under side view of the whiffletree detached from the cross-bar. Fig. 3 is an enlarged detail showing the plate attached to the whiffletree. Fig. 4 is an enlarged detail showing the plate attached to the cross-bar. Fig. 5 is an enlarged detail showing the cam-bar which engages with the rod that holds the trace-eye. Fig. 6 is an enlarged central longitudinal section, broken away at one end.

My invention relates to whiffletrees, and its object is to provide means whereby the traces can be readily unhitched or detached from the whiffletree, which I accomplish as illustrated in the drawings and as hereinafter described.

That which I claim as new will be pointed out in the claims.

In the drawings, A represents the whiffletree, which at its center is attached to the cross-bar B of the thills by a bolt *a*. The whiffletree A has a groove *b* in its under side extending its entire length.

C C are two ferrules, one on each end of the whiffletree A. Each ferrule C has a clip *c*, which projects downward at a short distance from the end of the whiffletree, as shown in Fig. 1.

D D are two rods located in direct line with each other in the groove *b* in the whiffletree A, one on each side of the bolt *a*. Each rod D has a knob *d* near its outer end, which projects upward through a slot in the ferrule C. E is a spring interposed between the inner adjacent ends of the slide-rods D and operating to press both the latter outward, so that their ends will project beyond the ends of the whiffletree, as shown in Figs. 1 and 2.

F is a plate secured to the whiffletree A at its center, as shown in Figs. 1, 3, and 6. This plate F has a depending annular flange *f*, as shown in Fig. 3.

G is a plate secured to the cross-bar of the

thills. This plate G has an annular flange *g*, as shown in Fig. 4, within which the flange *f* of the plate F fits, as shown in Fig. 6.

H is a lever. This lever H has a circular opening *h* in one end, which fits around the annular flange *g* of the plate G, as shown in Fig. 6. The lever H has a cam-groove *i* on each side of the opening *h*, into which project the laterally-extending lugs I on the inner ends of the rods D, as shown in Fig. 2.

J is a strap attached to the outer end of the lever H, as shown in Fig. 1.

The spring or springs E force the rods D outward, as shown in Fig. 6. The trace is secured to the whiffletree by pressing the rod D backward by means of the knob *d* and inserting the trace-eye between the clip *c* and the end of the whiffletree, and then releasing the knob, when the rod D will enter the trace-eye. The clip *c* will prevent the trace-eye from unhitching while the vehicle is moving.

The traces may be unhitched or detached by pulling on the strap J until the lever H is brought into the position shown in dotted lines in Fig. 2, which, by means of the cam grooves or slots *i* and turned-up ends I, will draw the rods D inward, allowing the trace-eye to drop from between the clip *c* and the end of the whiffletree.

The strap J may be arranged in any convenient position; but I prefer to pass it between the dash-board and the body of the vehicle and attach its end to the top of the dash-board within easy reach of the driver, so that in case of accident the horse may be unhitched from the vehicle instantly by simply pulling on it. The holdback-straps should be attached to the thills by means of hooks or other suitable means, that they will be released when the horse pulls out from between the thills; but I have not shown any such arrangement, as it forms no part of my invention.

This whiffletree will be found very convenient and useful in unhitching the horse at all times, as the traces are both released at the same time by simply pulling on the strap J, and the traces are as readily hitched as by those devices heretofore in use for securing the traces to the whiffletree.

The nut on the bolt *a* may be turned up as

tight as may be desired without binding the lever H, as it fits around the flange *g*.

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

- 5 1. The combination, with a cross-bar B and a whiffletree A, journaled thereupon and having lengthwise-sliding rods D arranged in the line with each other and provided at their inner ends with laterally-extending lugs I, of a
 10 spring E, interposed between the inner ends of the sliding rods, and a lever H, having the opposite cam-grooves *i*, into which respectively project the lugs on the rods, substantially as described.
- 15 2. The combination, with the cross-bar B and the whiffletree A, one of which is provided with a plate having a vertical annular flange, a pivot-bolt *a*, passing centrally through the flanged plate, and the spring-
 20 pressed sliding rods D on the whiffletree, having their inner ends provided with lateral

lugs I, of a lever H, having opposite cam-grooves *i*, engaging the lugs, and provided with a circular orifice *h*, receiving the annular flange of said plate and journaling the lever on the latter, substantially as described. 25

3. The combination of a cross-bar B, having a plate G, provided with an annular flange *g*, the whiffletree A, having a plate F, provided with opposite slots, and spring-pressed rods 30 D, having the lugs I at their inner ends extending down through the slots in the plate on the whiffletree, and the lever H, having the opposite cam-grooves *i*, receiving the lugs, and provided with the circular orifice *h*, receiving the annular flange of the plate on the cross-bar, substantially as described. 35

AUSTIN S. JOHNSTON.

Witnesses:

ALBERT H. ADAMS,
 HARRY T. JONES.