

No. 726,159.

PATENTED APR. 21, 1903.

H. L. HALL.  
TRACE FASTENER.

APPLICATION FILED OCT. 24, 1902.

NO MODEL.

FIG. 1.

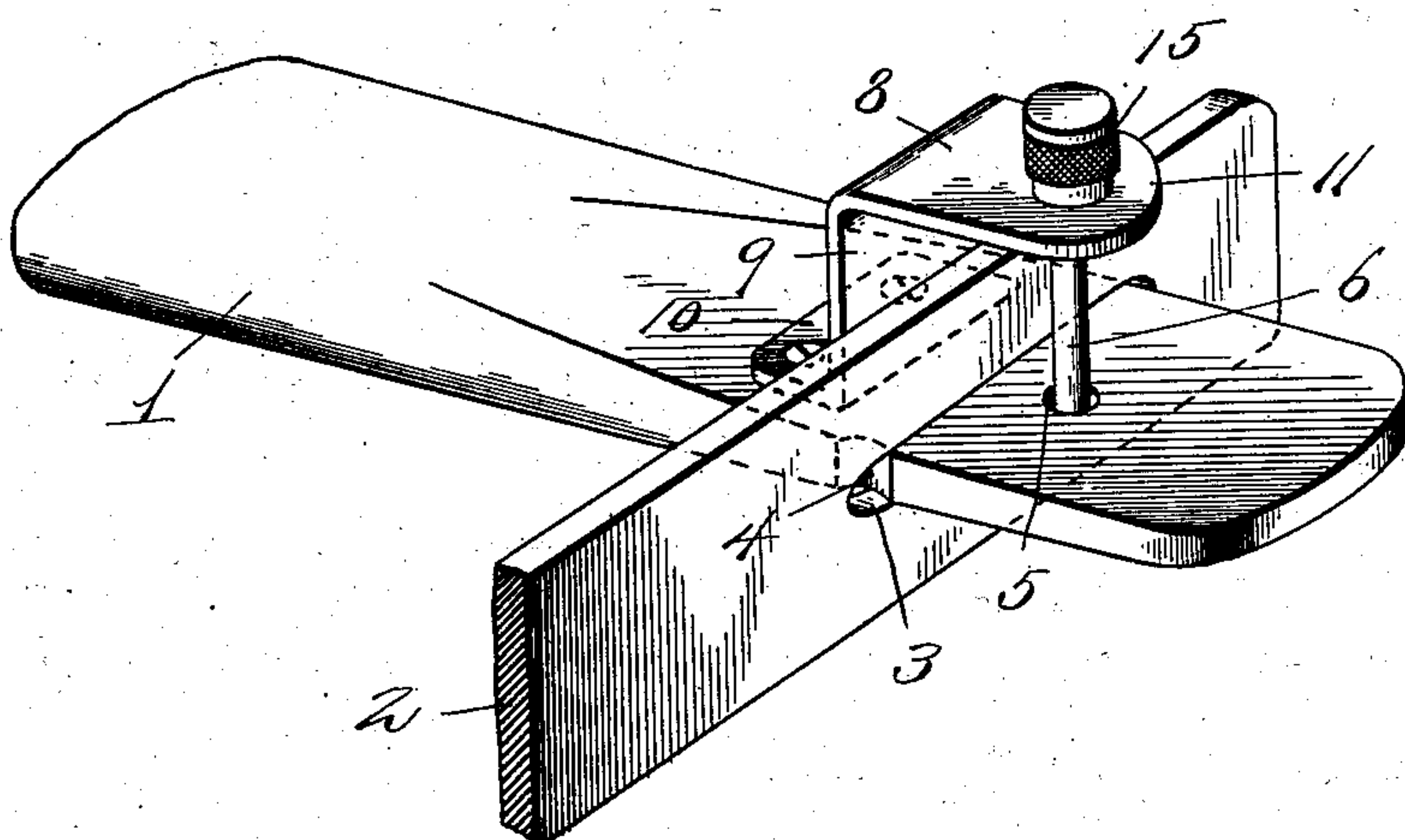
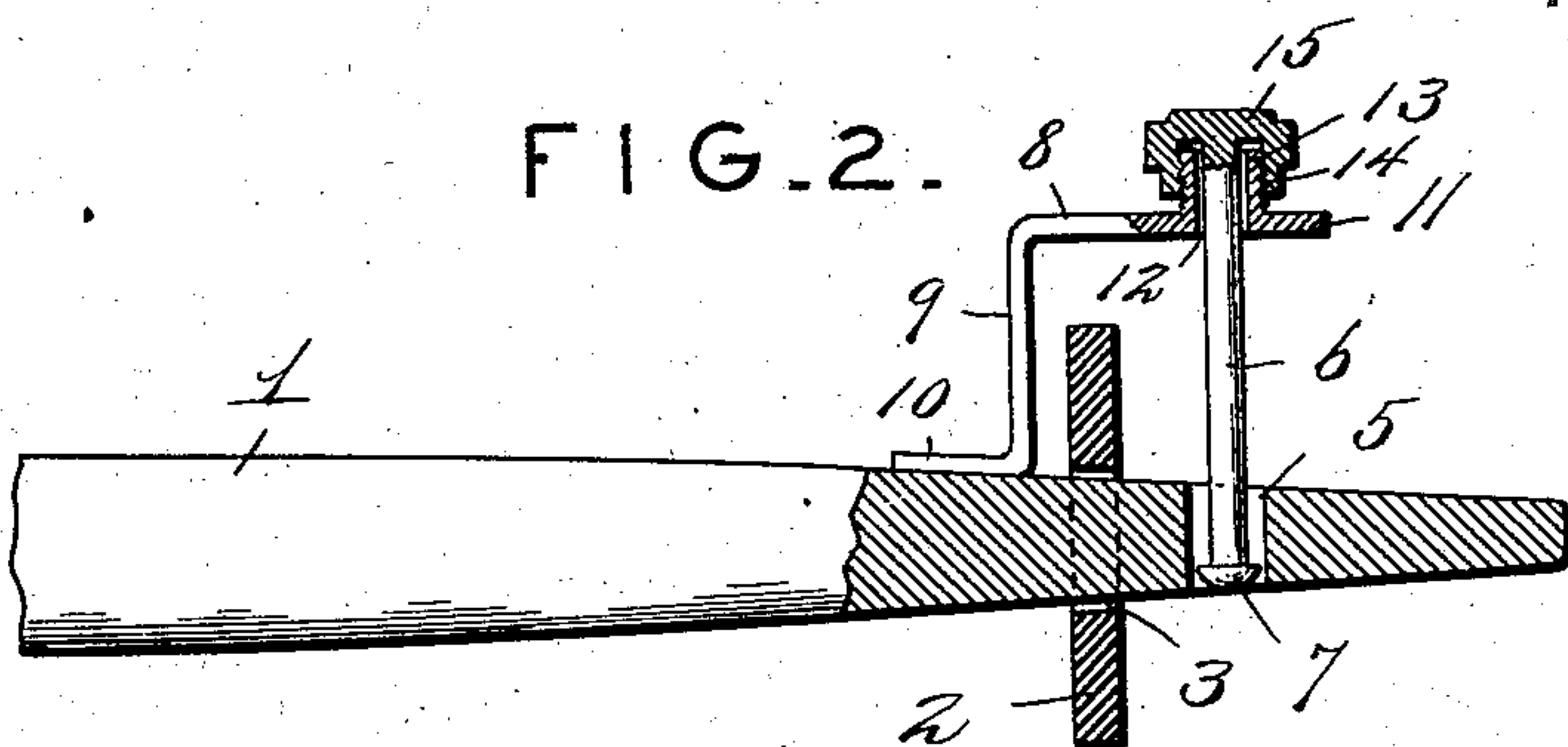


FIG. 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## TRACE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 726,159, dated April 21, 1903.

Application filed October 24, 1902. Serial No. 128,638. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY LYONS HALL, a citizen of the United States, residing at Mexia, in the county of Limestone and State of Texas, have invented a certain new and useful Trace-Fastener, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to trace-fasteners, the object in view being to provide a simple, cheap, and effective device for holding the ends of traces upon the extremities of a whiffletree and preventing the possibility of the accidental escape of the traces from the whiffletree.

In carrying out the present invention I make use of a pin which engages the whiffletree outside of the trace; and it is the object of this invention to so support and mount this retaining-pin that it may be securely locked in operative position and also prevented from accidental displacement and loss when lifted for the purpose of allowing the trace to be engaged with and disengaged from the whiffletree.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view showing the end portion of a whiffletree with the improved trace-fastener applied thereto, said view also illustrating one end of a trace in engagement with the whiffletree. Fig. 2 is a vertical longitudinal section through the same.

Similar numerals of reference designate corresponding parts in both figures of the drawings.

Referring to the drawings, 1 designates a whiffletree, and 2 a trace, both of the usual construction, the trace being provided with a slot or aperture 3, adapting the same to fit over the extremity of the whiffletree, as shown. 4 designates a notch formed in the whiffletree in line with the trace when in position. This notch may be used or omitted, according to preference.

In carrying out the present invention the

extremity of the whiffletree is provided with a hole or socket 5, which is adapted to receive the lower end of the trace-retaining pin 6, provided at its lower extremity with a head or stop-shoulder 7, the hole 5 being sufficiently large to admit of the vertical movement of said head or stop shoulder. The pin is supported by means of a bracket 8, which is preferably L-shaped and consists of a vertical or upright portion 9, a base-flange 10, by means of which the bracket is secured to the whiffletree, and an overhanging and outwardly-projecting portion 11, which is provided with a vertical opening 12 to receive and admit of the vertical movement of the pin 5.

The overhanging portion 8 of the bracket is provided with an upstanding sleeve 13, which surrounds the opening 12 and is exteriorly screw-threaded for engagement with an interiorly-screw-threaded cap 14, mounted fast upon or formed integrally with the upper end of the pin 6. The cap 14 surrounds the sleeve 13, covering the same and fitting down close to or against the upper side of the outwardly-projecting portion 8 of the bracket. The cap is also milled, as at 15, to facilitate the screwing and unscrewing of the cap.

From the foregoing description it will be understood that the upper end of the pin is braced and supported by the bracket, while the lower end is braced by the whiffletree itself, both ends of the pin 6 being thus firmly held. The downward movement of the retaining-pin is limited by the cap 15, while the upward movement of the pin is limited by the head or stop-shoulder 7, so that when the pin is lifted it cannot become accidentally displaced or lost. When the pin is in its lower position, it is securely locked by reason of the engagement between the threads of the cap and sleeve on the bracket. The trace 2 is held between the upright portion 9 of the bracket and the retaining-pin 6, and is thus prevented from slipping off the end of the whiffletree. To place the trace upon the whiffletree or remove the same therefrom, it is only necessary to unscrew and lift the pin 6. In an emergency the pin 6 may be simply dropped by its own weight after placing the trace on the end of the whiffletree and will



remain in position without screwing down the cap 14. Neither can said pin escape through the jolting of the vehicle even when the cap is not screwed down. However, by  
5 screwing the cap down firmly the pin is held tightly and prevented from rattling.

The pin 6 may be of any desired shape and length and either round, square, or of other form in cross-section. These and other  
10 changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

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

1. The combination with a whiffletree, of a bracket secured thereto, and a trace-retaining pin passing through said bracket and having  
20 a screw-threaded connection with the bracket, substantially as described.

2. The combination with a whiffletree having a hole or socket therein, of a bracket secured thereto and provided with a threaded  
25 sleeve, and a retaining-pin passing through said sleeve and entering the hole or socket of the whiffletree, said pin having a threaded

cap adapted to interlock with the sleeve of the bracket.

3. The combination with a whiffletree provided with a hole or socket, of a bracket secured thereto and provided with an opening and a threaded sleeve, and a trace-retaining pin provided at one end with a threaded cap to engage said sleeve and at its opposite end  
35 with a stop-shoulder, substantially as and for the purpose described.

4. The combination with a whiffletree having a hole or socket, of an L-shaped bracket secured thereto and provided with an over-  
40 hanging portion with an opening in line with the hole in the whiffletree, an upstanding threaded sleeve on the bracket, a trace-retaining pin entering the openings in the bracket and whiffletree, an internally-threaded cap on  
45 the pin adapted to fit over the threaded sleeve of the bracket, and a head or stop-shoulder at the lower end of said pin.

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

HENRY LYONS HALL.

Witnesses:

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JAMES M. WILLIAMS.