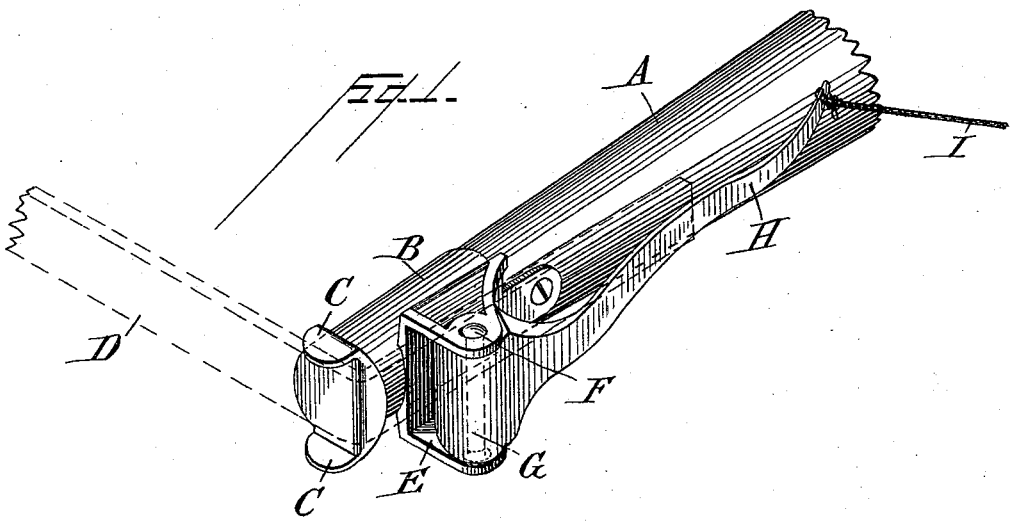
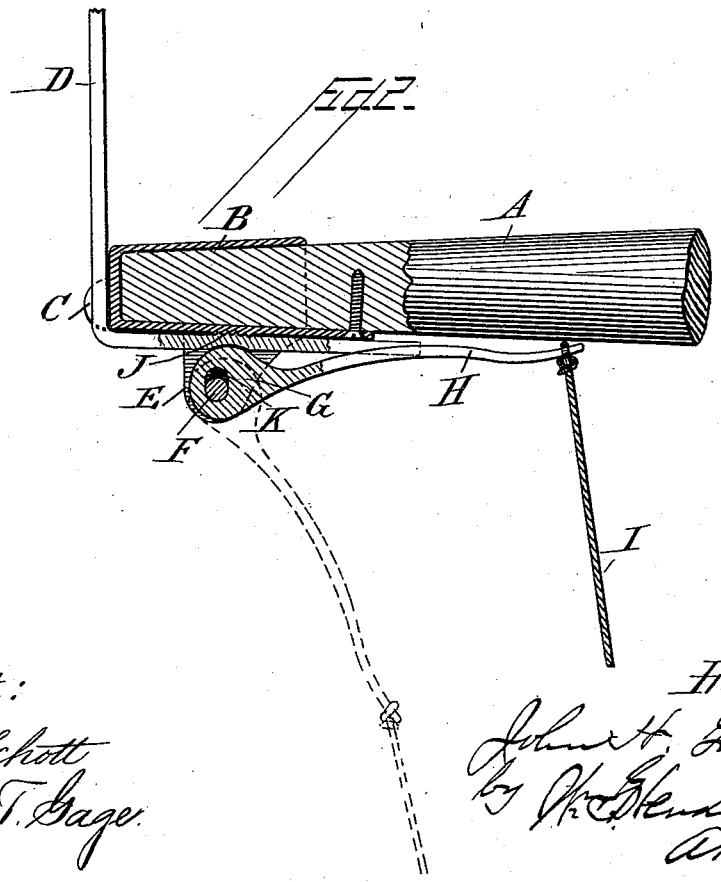
(No Model.)

J. H. GIBSON.

TRACE FASTENER.

No. 493,264. Patented Mar. 14, 1893.





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UNITED STATES PATENT OFFICE.

JOHN HARVEY GIBSON, OF BRUIN, PENNSYLVANIA.

TRACE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 493,264, dated March 14, 1893.

Application filed May 14, 1892. Serial No. 433,049. (No model.)

To all whom it may concern:

Be it known that I, JOHN HARVEY GIBSON, a citizen of the United States, residing at Bruin, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Trace-Fasteners; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in devices for securing traces to whiffle-trees, and has for its object to provide means which will permit of the easy and quick attachment and detachment of the trace to or from the whiffle-tree, and which will admit of the traces being detached by the occupant of the vehicle from his place in the vehicle when the same shall be necessary or desirable.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the construction and the combination of parts hereinafter particularly described and then claimed, reference being had to the accompanying drawings forming a part hereof and in which

Figure 1 is a perspective of a portion of the whiffle-tree having my device applied thereto and showing in dotted lines one of the traces secured in place, and Fig. 2 a is a plan view of part of a whiffle-tree with my device applied thereto, portions of the same being in section and two positions of the cam lever represented, one being in dotted lines.

In the drawings the letter A designates a portion of a whiffle-tree provided with a metal cap B which I preferably form with ears C to prevent the trace D when inserted between them from rising or falling out of place. To the rear side of the whiffle-tree near each end I attach a bearing or bracket E in which is pivoted, by a pin F, a cam G designed when turned in one direction to press against the portion of the trace which is passed between said cam and the whiffle tree as illustrated in Figs. 1 and 2 of the drawings so as to firmly and securely clamp the trace to the whiffle-tree and thus hold it in place. I prefer to provide this cam with an extended arm H which makes a cam lever that renders it easy to manipulate the cam. From the end of this lever I prefer to extend a cord I or its equivalent which will reach to a point within easy access of the occupant of the vehicle so that by pulling on said cord the cam will be turned so as to release the trace and permit the horse to leave the shafts in the event of a runaway, or under other conditions making it desirable to release the horse from the shafts by the driver when seated in the vehicle.

I prefer to roughen or serrate the surface of the cam or the face of the bracket next to the under side of the trace as indicated by the letter J in Fig. 2 of the drawings so as to insure a more secure holding or clamping of the trace to the whiffle-tree. I also prefer to enlarge the eye in the cam D through which the holding pin F passes so that the cam may be shifted on said pin to increase or lessen the eccentricity of the cam for the purpose of obtaining a greater or less pressure of the cam upon the trace, or to accommodate different thicknesses of trace, there being provided for said eye a hard rubber packing indicated by the letter K, or other means, for filling up the surplus space in said eye after the cam has been adjusted to the extent desired thus holding the cam to its adjustment as will be obvious to the skilled in the art.

I prefer to form the end cap D and the bracket E in one piece as illustrated but the same is not absolutely necessary.

Under the construction described the traces can be adjusted to the length desired by simply passing more or less of it under the cam as illustrated in Figs. 1 and 2 and thus obtain the length desired without the necessity of buckling and unbuckling the traces at the shoulders of the horse as is usual under other constructions, or the buckles may be omitted entirely. It also allows of a quicker adjustment of the traces, and a quicker attachment and detachment of the same to and from the whiffle-tree besides enabling the traces to be released from the whiffle-tree by the driver in the vehicle when necessary or desirable.

Having described my invention and set forth its merits, what I claim is—

1. In a trace fastener, the combination with a whiffle tree, of a bracket secured to the end

thereof and having a fulcrum pin, a cam lever fitted in said bracket and having an enlarged eye to receive said fulcrum-pin and permit adjustment of the cam, and means for holding said cam to its adjustment, substantially as described.

2. In a trace fastener, the combination with the whiffle tree of the end cap therefor provided with ears to hold the trace in place and with a bracket, in combination with a cam lever pivoted in said bracket to clamp the trace between the tree and the cam, substantially as and for the purposes described.

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

JOHN HARVEY GIBSON.

Witnesses:
R. P. DANBENSPECK,
LEONIE WILLMINE KELLY.