

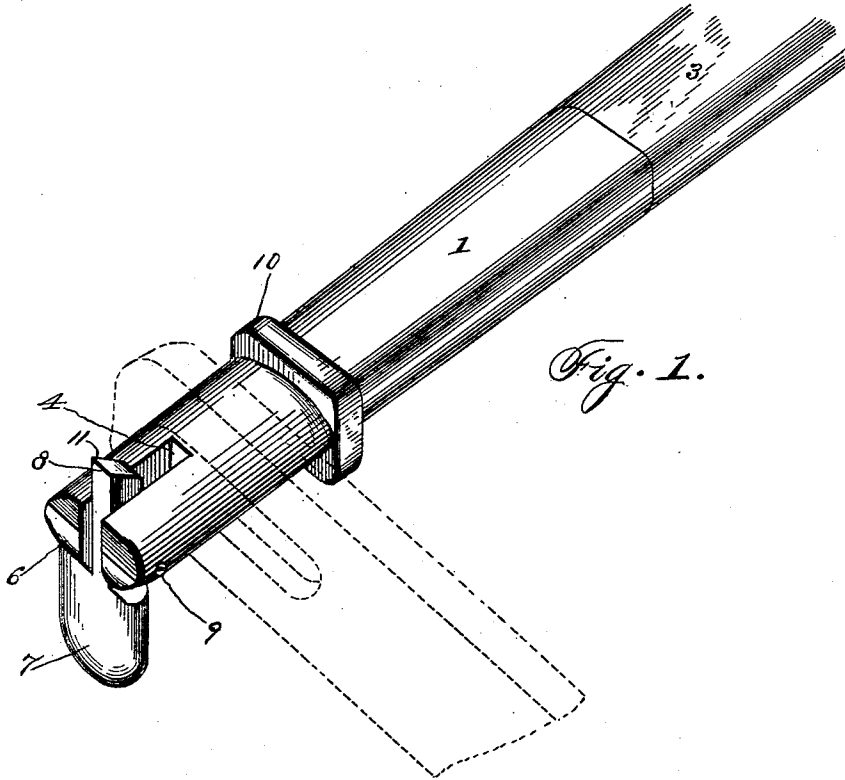
No. 677,345.

Patented July 2, 1901.

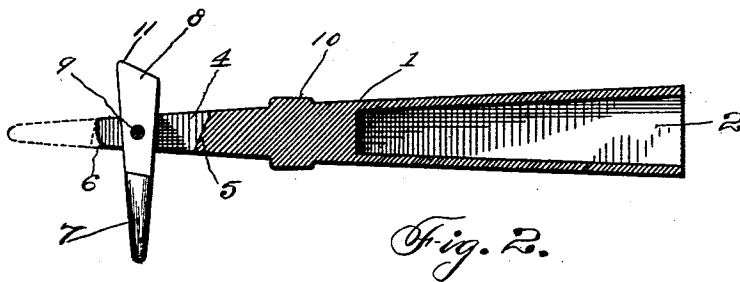
I. L. EDWARDS.  
TRACE FASTENER.

(Application filed Jan. 7, 1901.)

(No Model.)



*Fig. 1.*



*Fig. 2.*

Witnesses

*Frank Maynard.*  
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# UNITED STATES PATENT OFFICE.

ISAAC L. EDWARDS, OF AURORA, ILLINOIS.

## TRACE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 677,345, dated July 2, 1901.

Application filed January 7, 1901. Serial No. 42,426. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC L. EDWARDS, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented a new and useful Trace-Fastener, of which the following is a specification.

This invention relates to trace-fasteners, and has for its object to provide an improved device of this character which is complete in itself, so that it may be conveniently applied to the end of a whiffletree, and constructed so as to facilitate the application and removal of a trace to the end of the whiffletree, and at the same time arranged to prevent accidental displacement of the trace while in use.

With this and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of the improved trace-fastener. Fig. 2 is a longitudinal sectional view thereof.

Like characters of reference designate corresponding parts in both of the figures of the drawings.

Referring to the drawings, 1 designates the body of the fastener, which is formed of metal and gradually tapered from one end to the other, the larger end being socketed longitudinally, as at 2, for the reception of one end of a whiffletree 3. The smaller outer end of the body is solid and substantially elliptical in cross-sectional shape and also provided with a longitudinal bifurcation 4, the back end wall of which is beveled or inclined downwardly and outwardly, as shown at 5. The outer extremity of the body is also beveled or inclined downwardly and inwardly, as at 6.

A trace-fastening latch 7 is carried at the outer end of the body and comprises an enlarged head portion having a reduced intermediate longitudinal stem 8, received within the bifurcation of the body and supported therein upon a transverse pivot-pin 9, so that

the latch may normally hang with its weighted or heavy head portion at the under side of the whiffletree and the stem projecting above the whiffletree, whereby the latch projects at opposite sides of the whiffletree and forms a stop to prevent accidental outward displacement of a trace, which has been shown in dotted lines in Fig. 1 of the drawings. At a suitable distance inwardly from the inner end of the bifurcation 4 there is provided an annular shoulder 10, which is designed to form a stop to limit the inward play of the trace upon the body of the fastener.

In applying a trace to the fastener the head of the latch is swung upwardly upon its pivot, whereby the stem is received flush within the bifurcation and the head forms a continuation of the tapered outer end of the body, so that the eye of the trace may be conveniently slipped over the end of the body and against the annular shoulder 10. Just as soon as the trace clears the inner end of the latch or the free end of the stem the heavier or head end of the latch drops downwardly by gravity into its normal position at substantially right angles to the whiffletree and across the outer side of the trace, whereby a stop is formed to prevent outward displacement of the trace. To remove the trace, the latch is swung upwardly, as hereinbefore described, whereby the extremity of the body is free from stop projections and the trace may be readily slipped from the extremity of the whiffletree.

It will be observed that the free end of the stem or inner end of the latch is beveled, as at 11, to correspond to the beveled end wall of the bifurcation in the body and is also designed to prevent the stem from being caught in the edges of the eye of the trace when it is swung downwardly into the bifurcation in the body to permit of the trace being removed, or, in other words, the beveled end of the stem will ride over or against the adjacent side of the trace without hanging or binding thereon. Also the shoulders formed at opposite sides of the reduced stem and the corresponding end portions of the body 1 are correspondingly beveled, so that there may be no binding between the head of the latch and the end of the body when the latch is swung upwardly to permit of the application and removal of a trace.

From the foregoing description it will be apparent that the present device is complete in itself, so that it may be made independently of the whiffletree and afterward applied to the end of any ordinary whiffletree without altering or changing the same beyond slightly reducing the same to fit snugly the socketed portion of the body. Moreover, the device presents a practically integral fastener, as it has no applied springs or separate parts, whereby the device is rendered strong and durable.

What is claimed is—

A combined trace-fastener and whiffletree ferrule, consisting of a solid tapered body, having an intermediate integral annular enlargement forming a shoulder, the inner and larger end of the body being socketed longitudinally to form a ferrule for the reception of one end of a whiffletree, and the opposite smaller end being bifurcated longitudinally,

with the inner end wall of the bifurcation beveled or inclined, and an inverted substantially T-shaped latch, which has its stem portion intermediately pivoted between the sides of the bifurcation, with its outer end beveled or inclined to correspond with the inner end wall of the bifurcation, and the outer end or head portion of the latch being constructed to form a continuation of the tapered body when the latch is swung into longitudinal alinement therewith, the latch normally hanging in a substantially vertical position and projecting at opposite sides of the body.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ISAAC L. EDWARDS.

Witnesses:

E. A. SMITH,  
EDWIN LITSEY.