No. 819,981. PATENTED MAY 8, 1906.

W. N. CRISP.

TRACE FASTENER.

APPLICATION FILED OCT. 9, 1905.

Fig. 1.

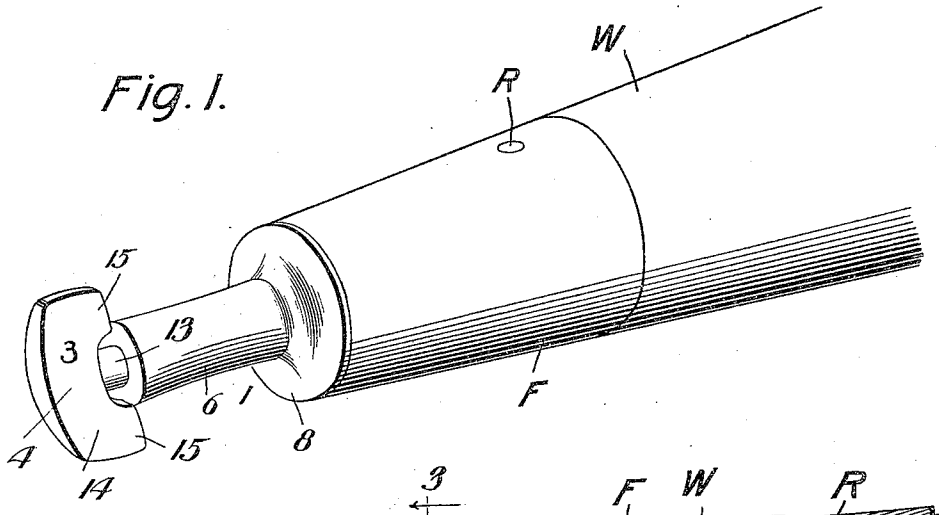


Fig. 2.

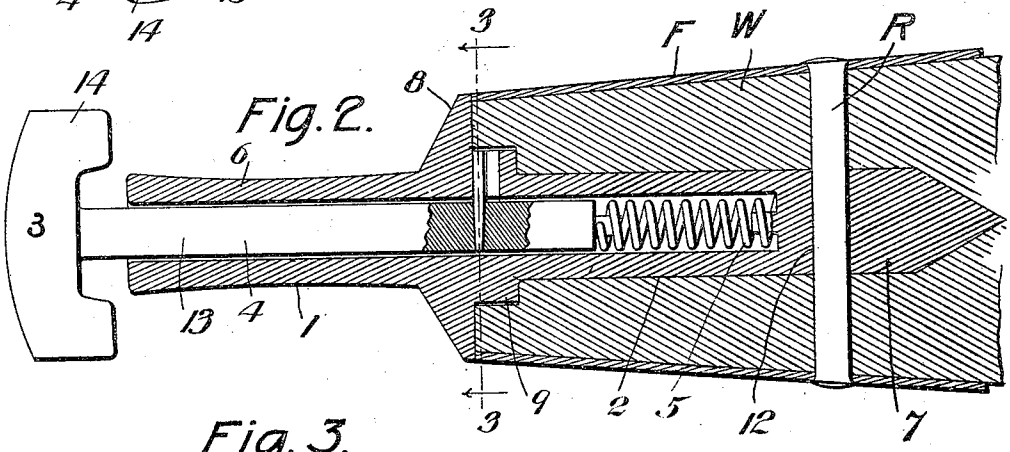
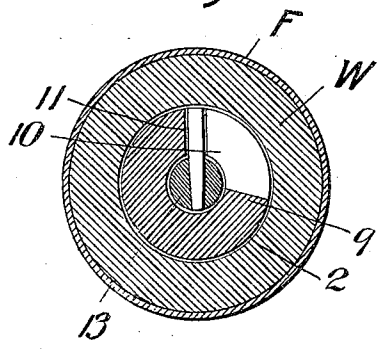


Fig. 3.



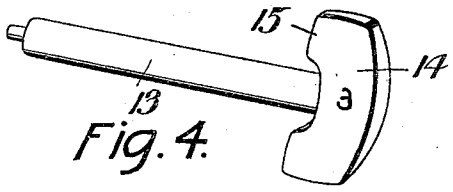


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

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TRACE-FASTENER.

No. 819,981. Specification of Letters Patent. Patented May 8, 1906.

Application filed October 9, 1905. Serial No. 282,031.

To all whom it may concern:

Be it known that I, WILLIAM N. CRISP, a citizen of the United States, residing at Brooklyn Station, Baltimore, in the State of Maryland, 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.

My invention relates to improvements in devices for fastening traces to whiffletrees; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

The object of the invention is to improve and simplify the construction and operation of devices of this character, and thereby render the same more durable, less expensive, and at the same time more convenient and reliable.

The above and other objects, which will appear as the nature of the invention is better understood, are accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved trace-fastener. Fig. 2 is a longitudinal sectional view through the same, showing it mounted in the end of a whiffletree. Fig. 3 is a transverse sectional view taken on the line 3 3 in Fig. 2, and Fig. 4 is a perspective view of the locking-button.

Referring to the drawings by numerals and letters, 1 denotes my improved trace-fastener, which consists of a main piece or body 2, a locking-button 4, a pin 3, and a coiled spring 5. The body 2 is tubular in form and has at one end a head 6, adapted to enter the opening or eye of a trace, and at its opposite end a reduced shank 7, adapted to be secured in the end of a whiffletree. The head 2 and shank 7 are separated by an anular flange 8, upon the inner face of which and around the same is formed an annular boss or enlargement 9. The bore in the tubular body 2 extends through the head 2 and partially through the shank 7, as clearly shown in Fig. 2 of the drawings. In the boss 9 is formed a transverse slot 10, which extends through approximately one-fourth of the same and has at one of its ends a recess or socket 11, as clearly shown in Fig. 3.

The shank 7 may be secured in the end of the whiffletree W in any desired manner; but I preferably secure it by a rivet or cross-pin R, which is passed through an opening 12 formed in the shank and alining openings formed in the end of the whiffletree and in its usual metal ferrule or cap F, as shown in Fig. 2.

The locking-button 4 consists of a cylindrical stem 13 of slightly less diameter than that of the bore in the body 2, in which it is adapted to slide, and a transverse head or button proper, 14, which has its ends formed with inwardly-projecting portions 15, adapted to guard the outer end of the head 2 and prevent the trace from getting between the latter and the transverse head 14. The projections 15 are of slightly greater depth than the length of the recess or socket 11. The pin 3 has a slightly-tapered inner end, which is driven into a transverse opening formed in the stem 13, so that the locking-button will be retained in the body 2. In assembling the parts the spring 5 is first inserted in the bore of the body 1, and the stem 13 is then placed in said bore. The pin 3 is then driven through the slot 11 and into the opening in the stem 13.

The construction, operation, and advantages of the invention will be readily understood. It will be seen that when the device is mounted in the end of a whiffletree, so that the recess or socket 11 is uppermost and vertically disposed, the transverse head or button 14 will be disposed vertically when said pin 3 is seated in the socket or recess 11, as shown in Fig. 2. When the parts are in this position, it will be impossible to turn the button 14 without first pushing it inwardly to disengage the pin 3 from the recess 11. When this is done, the button may be given a quarter-turn to place it in a horizontal position, so that a trace may be readily applied to or removed from the head 2 of the body portion 1. The pin 3 turning in the slot 10 will limit the movement of the locking-button, as will be readily understood. As soon as the button is again turned to its vertical position the coiled spring 5 will force it outwardly and cause the pin 3 to seat in the recess or socket 11, and thereby lock the button against being casually or accidentally turned. When the button is in its vertical position, it will be impossible for the trace to turn the button to a horizontal position, since the button must be first moved inwardly to disengage the pin 3 from the recess or socket 11. The trace being engaged with the head 2 of the body, which latter is securely fastened in the end of

the whiffletree, there will be no strain whatever upon the locking-button, and hence no danger of the device breaking.

The parts may be made and finished in any desired manner, and owing to their simplicity they may be quickly assembled at a comparatively small cost. Owing to the fact that the spring, the pin, and the slot are entirely inclosed, they are well guarded and are not liable to become broken or to get out of working order.

Various changes in the form, proportion, and the 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 my invention, what I claim as new, and desire to secure by Letters Patent, is—

A trace-fastener for whiffletrees comprising a tubular body having at one end a trace-receiving head and at its opposite end a fastening-shank, an annular flange at the inner end of said trace-receiving head, a boss upon the inner face of said flange and formed with a transverse slot having a recess or socket at one end, a locking-button consisting of a stem slidable in the bore of said body, and a transverse head upon the outer end of said stem, means for preventing the trace from entering between said transverse head and the end of said trace-receiving head, a spring in the bore of said body for projecting said stem, and a pin carried by said stem and coacting with the slot and recess in said boss, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM N. CRISP.

Witnesses:
J. B. M. ROBINSON,
C. J. ACTON.