

(No Model.)

W. E. BARBER.
TRACE FASTENING.

No. 347,149.

Patented Aug. 10, 1886.

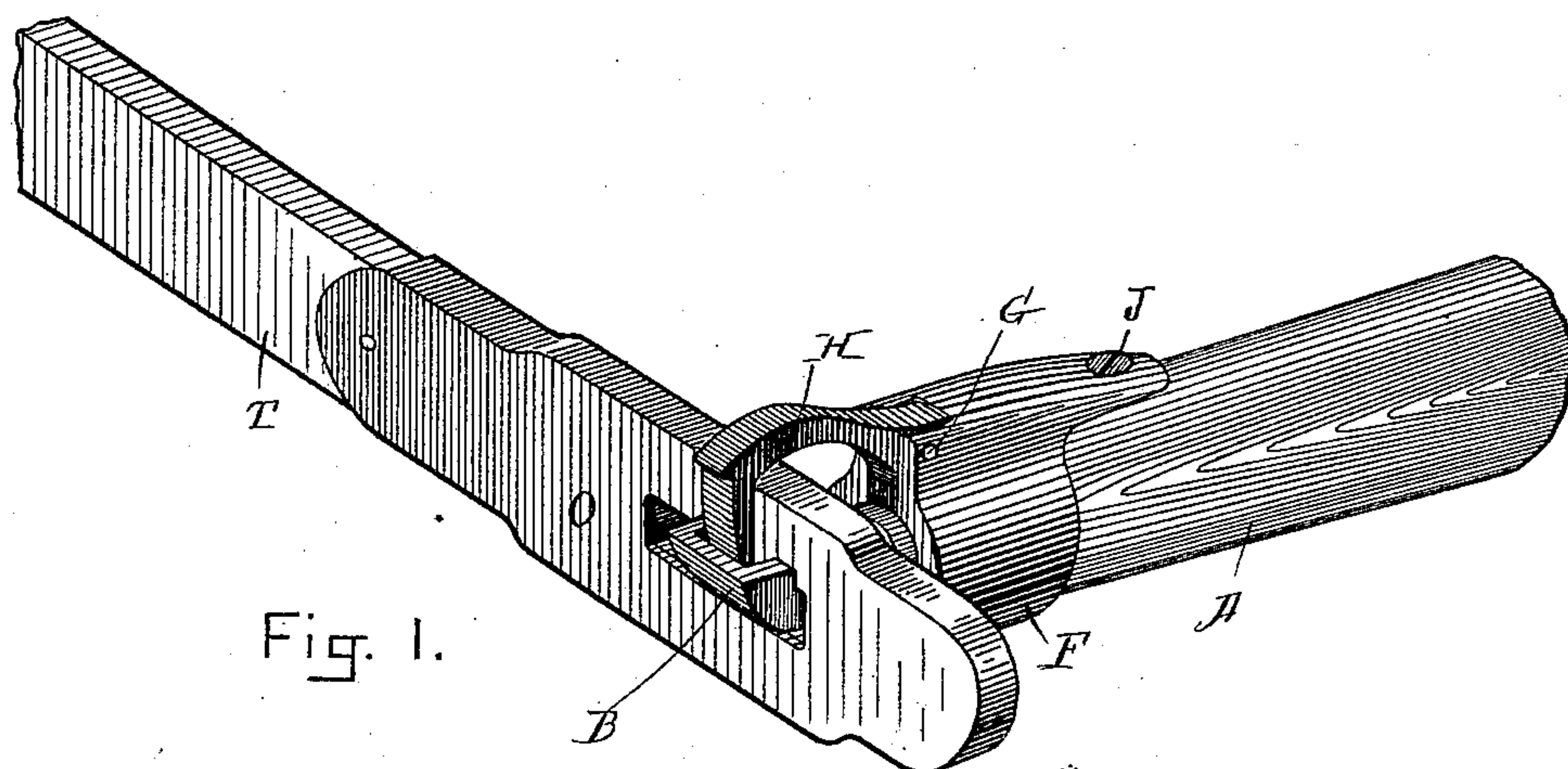


Fig. 1.

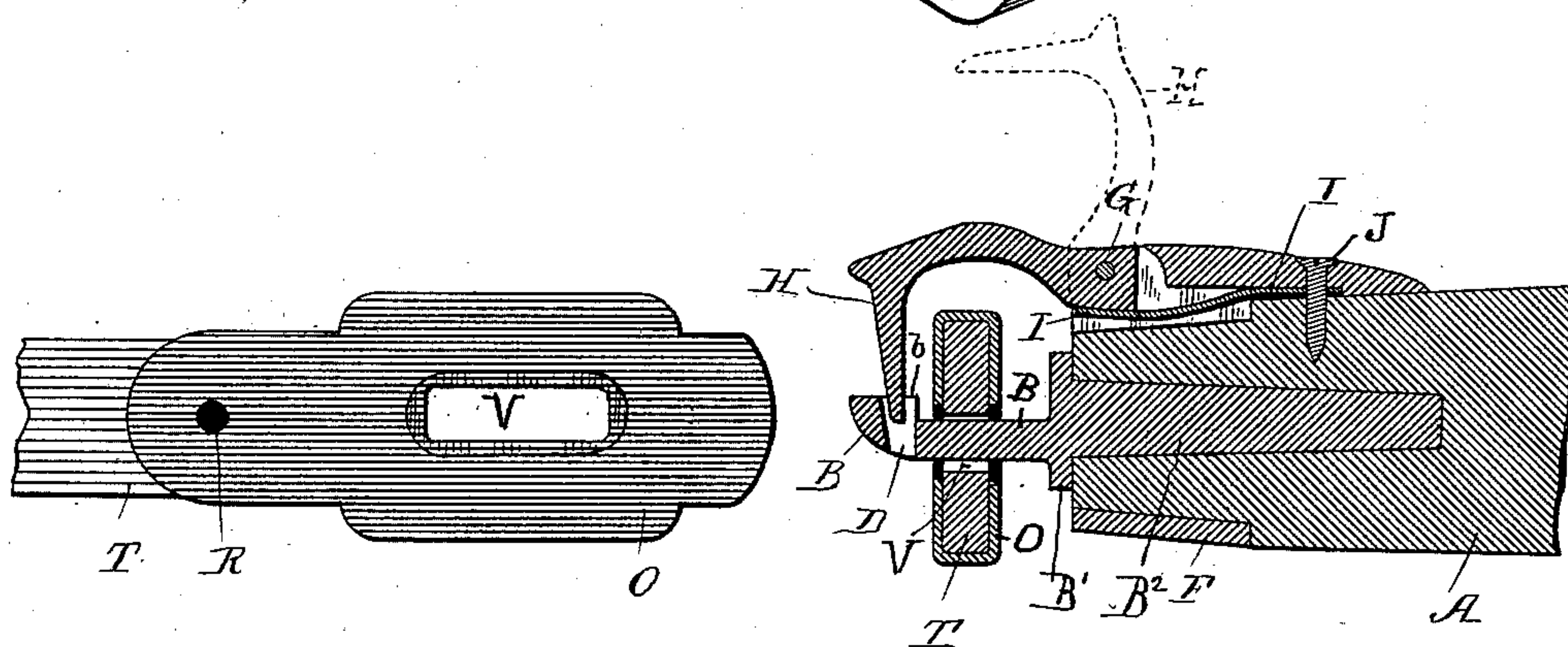


Fig. 2.

WITNESSES:

John G. Perry
Howard B. Perry

INVENTOR:

William E. Barber

UNITED STATES PATENT OFFICE.

WILLIAM E. BARBER, OF WYOMING, RHODE ISLAND.

TRACE-FASTENING.

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To all whom it may concern:

Be it known that I, WILLIAM E. BARBER, of Wyoming, Washington county, Rhode Island, have invented certain new and useful Improvements in Harness-Trace and Whiffletree Connections, of which the following is a specification.

This invention is designed to improve the connection of harness-traces with whiffletrees; and in furtherance of this object my improvements relate both to the trace ends and the whiffletree ends. The whiffletree ends are provided with projecting metallic fingers to receive the trace ends, and with pivoted and spring-actuated hooks, the points of which drop into recesses in the outer ends of said fingers to retain the trace in place. These fingers are located slightly below the longitudinal axis of the whiffletree, to bring the draft-strain close down to the double-tree or evener, and consist of the structure composed of the projecting finger, the flange B', to which said finger is eccentrically attached or formed integral with, and the inner point centrally attached or formed therewith, and which is inserted longitudinally into the end of the whiffletree. The front end of fingers B has an upright projecting flange or portion, *b*, and has its lower front edge rounded off, so that it can be easily inserted through the trace-slot, and when inserted the flange *b* will prevent its accidental displacement until it can be secured by hook G. The trace ends are cased or sheathed with thin metal to re-enforce them, and prevent their being worn on or by the fingers or hooks.

My invention consists in the devices and combinations of devices set forth in the appended claims.

In the drawings, Figure 1 is a perspective view showing my improvements as in actual use. Fig. 2 is a longitudinal section through the whiffletree end, showing the relative arrangement of the connected parts. Fig. 3 is a side view of the trace end and casing.

A represents the whiffletree, and B the projecting finger at each end thereof, to receive the end of the trace T, which slips on over the enlarged end of the finger, as shown in Figs. 1 and 2. One feature peculiar to my invention is to locate this finger below the axis of the arms of the whiffletree, in order to bring the draft-strain low down next to the evener

on which the whiffletree is mounted, thus relieving the bolt which unites the two, and lessening its liability of breakage. The finger B may, however, be located centrally, if preferred. It is enlarged at its outer end, and recessed, as at D, to receive the fastening-hook. The ends of the whiffletree are furnished with suitable ferrules, F, to prevent splitting; and in order to retain the traces in position I provide each end of the whiffletree with a clasp or hook, H, pivoted at G to the ferrule, or otherwise. The inner end of the hook is squared off, and beneath it is a thin spring, I, preferably arranged about as in Fig. 2, so as to hold the hook up, as in dotted lines, or down to retain the trace, as in full lines.

The novel form of ferrule shown in Figs. 1 and 2 is preferable, being recessed to receive the hook, the pivot, and the spring, and may, with the spring, be held securely by a single screw, J. The metallic casing O is slipped on endwise over the end of the trace T, shaped to fit into it, particularly at the front and rear ends of the casing, which thus takes a part of the draft-strains, usually borne wholly by the eye of the trace, and applies them, through the stout rivet R, to the solid part of the trace. This rivet passes through the trace and through both sides of the casing O and unites them firmly. The central part of the casing may be made wider than its ends, as shown somewhat exaggerated in the drawings, so as to allow for spreading the leather trace after insertion therein, in opening the eye V to slip over the whiffletree-finger B; or it may be made of uniform size and open at the lowerside for the same purpose. The corresponding aperture in the casing is made of somewhat larger size, so as not to come in contact with the metallic finger to prevent rattle or noise and wear. Should the eye V through the trace become worn or torn out, the casing will hold, and should the rivet R be broken out or the trace broken at that place the rivet may be punched out, the casing O removed, the end of the trace cut off and replaced in the casing and again riveted fast, making the trace good again for use.

Having thus described this my invention in trace and whiffletree connections, I claim—

1. The whiffletree provided with the finger B, consisting of a circular flange for abutting

against the outer end thereof, and two projecting points, the inner one being centrally and the outer one eccentrically arranged with relation to said flange, for the purpose set forth.

5 2. The trace herein described, consisting of the slotted metal casing O, the slots therein coinciding with and being larger than the button-hole or slot in the body of the trace, as set forth.

10 3. The trace herein described, having a leather body, T, and a metallic casing, O, enlarged at the center, for the purpose set forth.

4. The trace herein described, consisting of the metal casing O, slotted and centrally enlarged, as set forth, and the leather body with- 15 in said casing provided with a slot to coincide with the slots in the casing, and being smaller than said slots, for the purpose set forth.

WILLIAM E. BARBER.

Witnesses:

JOHN G. PERRY,
H. B. PERRY.