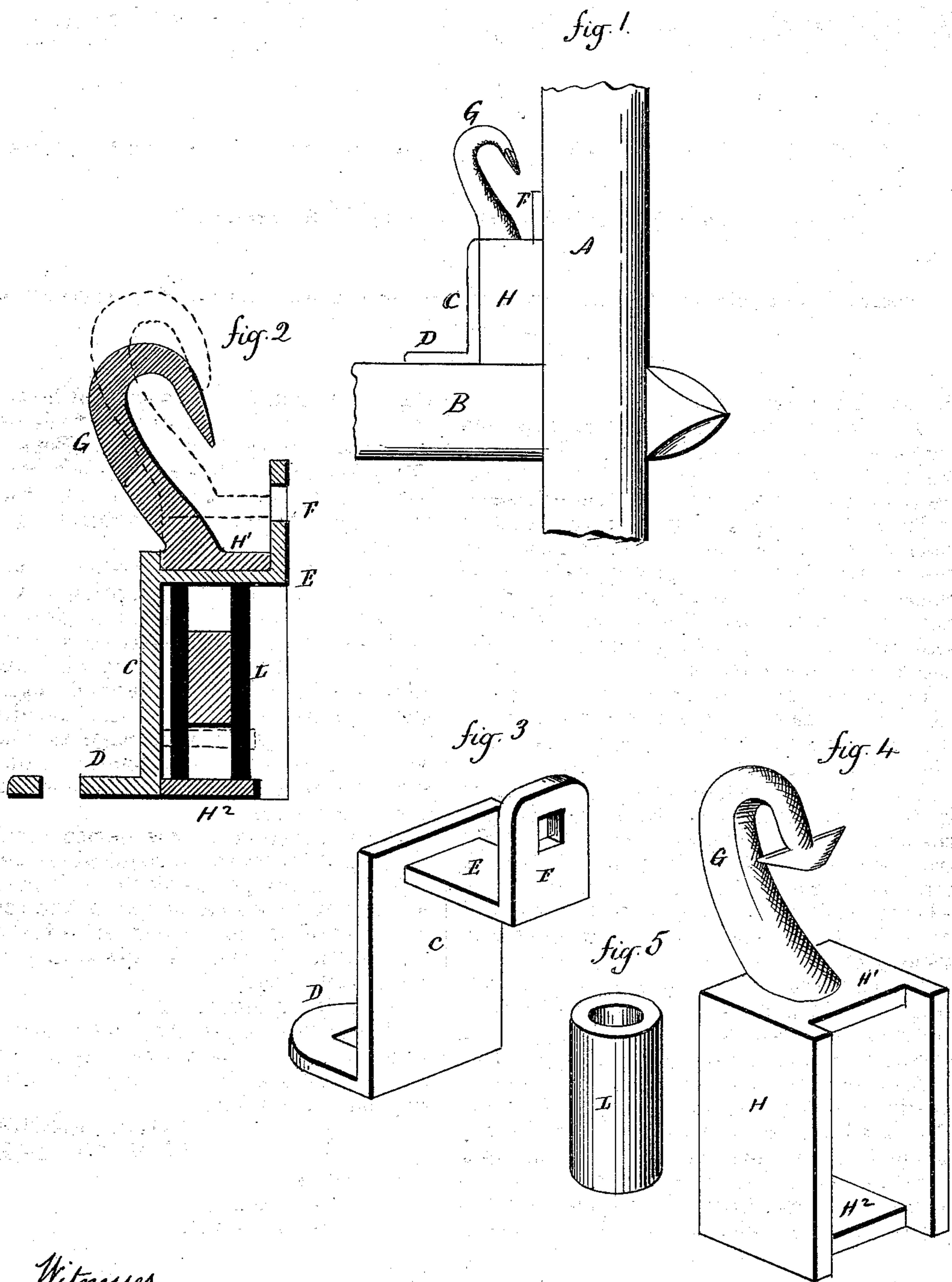


J. MAGEE & T. MULLIGAN.
Trace-Fastenings.

No. 154,059.

Patented Aug. 11, 1874.



Witnesses,
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UNITED STATES PATENT OFFICE.

JAMES MAGEE AND THOMAS MULLIGAN, OF NEW HAVEN, CONN.

IMPROVEMENT IN TRACE-FASTENINGS.

Specification forming part of Letters Patent No. **154,059**, dated August 11, 1874; application filed May 19, 1874.

To all whom it may concern:

Be it known that we, JAMES MAGEE and THOMAS MULLIGAN, both of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Trace-Fastening; and we do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a top view, showing the application of the fastener; Fig. 2, a section of the fastener; and in Figs. 3, 4, and 5, detached views in perspective.

This invention relates to an improvement in device for securing the traces to carriages, the object being to dispense with the whiffletree; and it consists in an elastic device set into the angle of the shaft and cross-bar, whereby it forms a brace for that angle, and provided with a hook or suitable device for attaching the trace thereto.

A is one shaft, and B the cross-bar, of a carriage. C is a plate, with an ear, D, extending out onto the cross-bar, and with an arm, E, extending from near the top in the opposite direction, and then turned up at right angles, or nearly so, to form an ear, F, against the shaft. The ears D and F serve as a means for bolting the plate to the cross-bar and shaft, and thus form a strong angle-brace. G is the hook or device for attachment of the trace, and is formed on a box-shaped base, H, as seen in

Fig. 4. The arm E is first passed through the box, as seen in Fig. 2, and so as to lie beneath the upper end, H¹, of the base. Between the stationary arm E and the lower end, H², of the base a spring, L, of any suitable character, here represented as india-rubber, is set. This completes the device.

The trace is attached directly to the hook G, or its equivalent. The spring is sufficient to resist the ordinary strain of drawing the carriage; but when any extra resistance meets one or both wheels the spring will yield and allow the hook to move forward slightly, as seen in broken lines, Fig. 2, thus avoiding the sudden "jerking" of the carriage, as is the case with the ordinary rigid fastening. The hooks will also alternately yield to accommodate the step of the horse.

The application of this device avoids the piercing of the cross-bar required for the whiffletree, and brings the strain of drawing the carriage at the strongest part of the running-gear instead of the weakest, as in the whiffletree, the device being a substitution for the usual whiffletree.

We claim as our invention—

The combination of the plate C and its angular ears D F, the hollow base H, with its hook G, and the spring L, all constructed substantially as set forth.

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