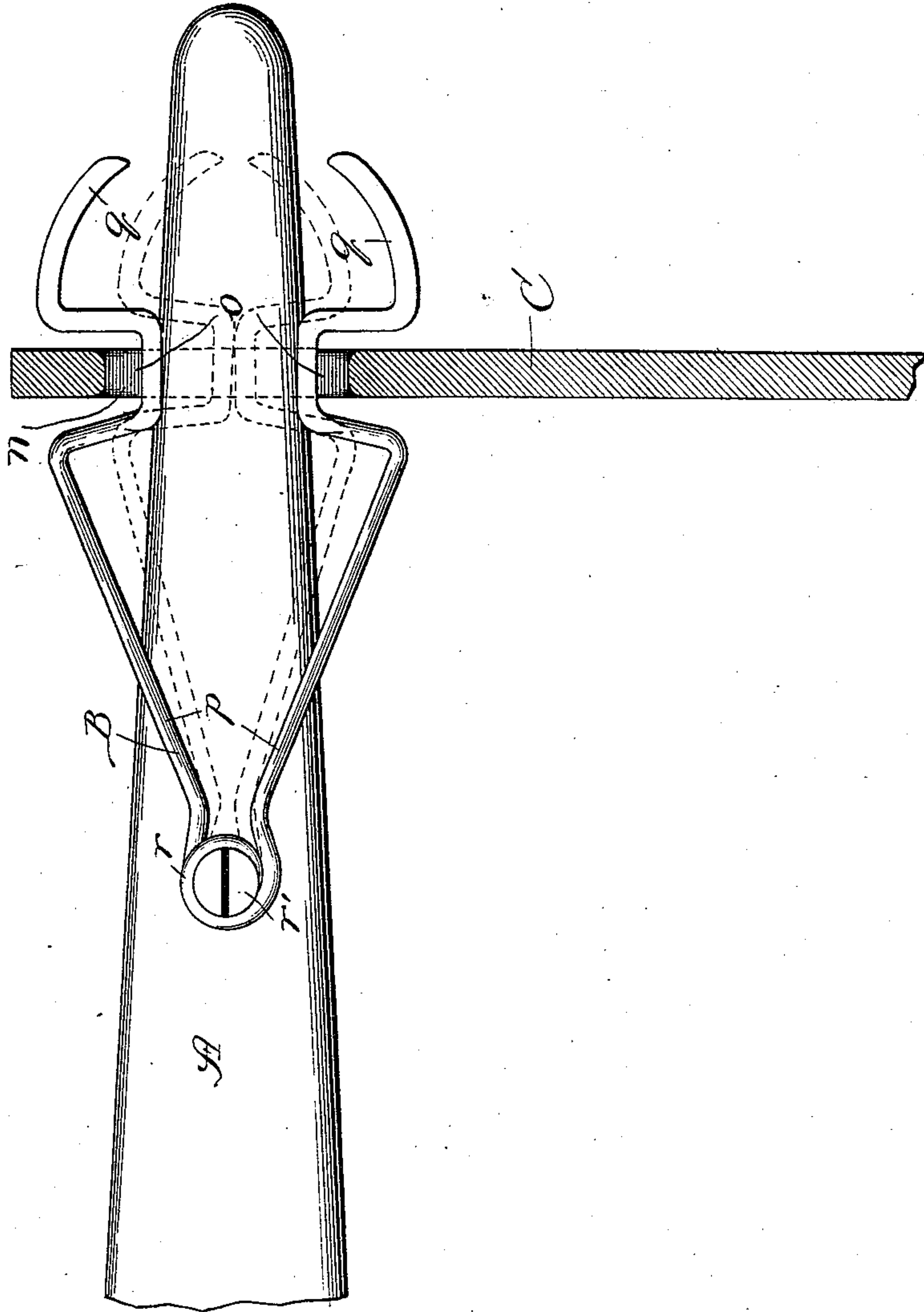


(No Model.)

V. J. HEAD.
TRACE FASTENER.

No. 563,485.

Patented July 7, 1896.



Witnesses:
E. C. Chas. & Co.
Lute J. H. H. & Co.

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UNITED STATES PATENT OFFICE.

VOLNEY J. HEAD, OF OAK PARK, ILLINOIS, ASSIGNOR OF ONE-HALF TO
CHARLES S. WOODARD, OF SAME PLACE.

TRACE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 563,485, dated July 7, 1896.

Application filed March 3, 1896. Serial No. 581,680. (No model.)

To all whom it may concern:

Be it known that I, VOLNEY J. HEAD, a citizen of the United States, residing at Oak Park, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Trace-Fasteners, of which the following is a specification.

My invention relates to an improvement in the class of trace-fasteners in which the whiffletree is provided at each end with a spring-stop normally extending beyond the sides of the whiffletree and compressible to permit the trace to be slipped readily over its end into position upon it, and to recoil into its normal position, when released, to afford a stop against the trace slipping off the whiffletree at its end.

My object is to provide a novel construction of trace-fastener in the class referred to which shall involve a spring-stop device adapted to be fastened to the under or upper side of the whiffletree without requiring that the latter be especially constructed or in any way altered or prepared to permit the application of the stop to it or to adapt the stop to perform its function in connection therewith.

The accompanying drawing shows, by a broken sectional view, my improved trace-fastener applied to a whiffletree and fastening a trace in its adjusted position.

A is a whiffletree of any suitable construction and material.

B is my improved fastener, comprising a strip of springy metal, or adequately stiff wire, bent upon itself, or coiled at or near its center, to form an eye *r*, from which diverge the spring-arms *p p*, each having formed in it, near its outer end, a depression affording a stop-seat *o*, from which the end of the arm describes an inward curve to its extremity, as shown at *q*.

The fastener B is readily applicable to the whiffletree, either upon its under side, as shown, or upon its upper side, by fastening it thereto through its eye *r*, as by means of the screw *r'*, to cause the diverging arms *p* to extend at their seat portions *o* normally beyond the sides of the whiffletree and the ends *q* to be accordingly separated at their extremities, as shown. With the fastener in place, to ad-

just a trace C on the whiffletree it is slipped at its hole *n* over the end of the latter while the operator compresses the arms *p* in the grasp of one hand to bring the projecting portions to the relative positions in which they are represented by dotted lines in the drawing, whereby the trace may be adjusted into coincidence with the depressions *o*, so that when the fastener is released the arms *p* will spring outward, with their seat portions projecting beyond the edges of the whiffletree far enough to embrace the trace in the hole *n* at its opposite ends and thus stop the trace against slipping in either direction. To release the trace preparatory to slipping it off the whiffletree, it is only necessary to compress the spring-arms *o* until the bases of the depressions *o* meet, as they are arranged to do, whereby the projecting portions of the arms are brought within a compass which prevents them from obstructing the withdrawal of the trace.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a whiffletree, a trace-fastener comprising a length of spring metal bent upon itself to form an eye *r*, at which the fastener is secured upon a side of the whiffletree, and arms *p* diverging from said eye toward an end of the whiffletree and projecting near their outer ends, normally, beyond its sides, the projecting portions of said arms containing stop-seats *o* for a trace C, substantially as and for the purpose set forth.

2. In combination with a whiffletree, a trace-fastener A comprising a length of spring metal bent upon itself to form an eye *r*, at which the fastener is secured upon a side of the whiffletree, and arms *p* diverging from said eye toward an end of the whiffletree and projecting near their outer ends, normally, beyond its sides, the projecting portions of said arms containing depressions affording trace-seats *o*, and the arms having the converging extremities *q*, substantially as and for the purpose set forth.

VOLNEY J. HEAD.

In presence of—

J. H. LEE,
RICHARD SPENCER.