

J. F. MORLEY.

Improvement in Trace-Fasteners for Whiffletrees.

No. 130,817.

Patented Aug. 27, 1872.

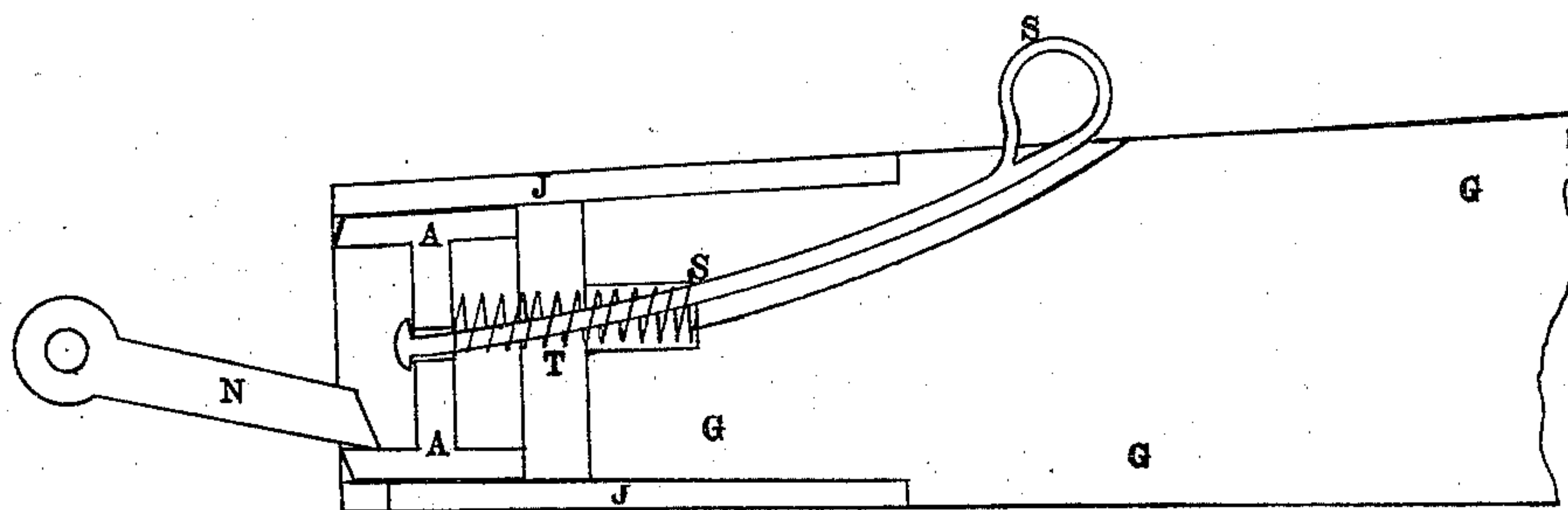
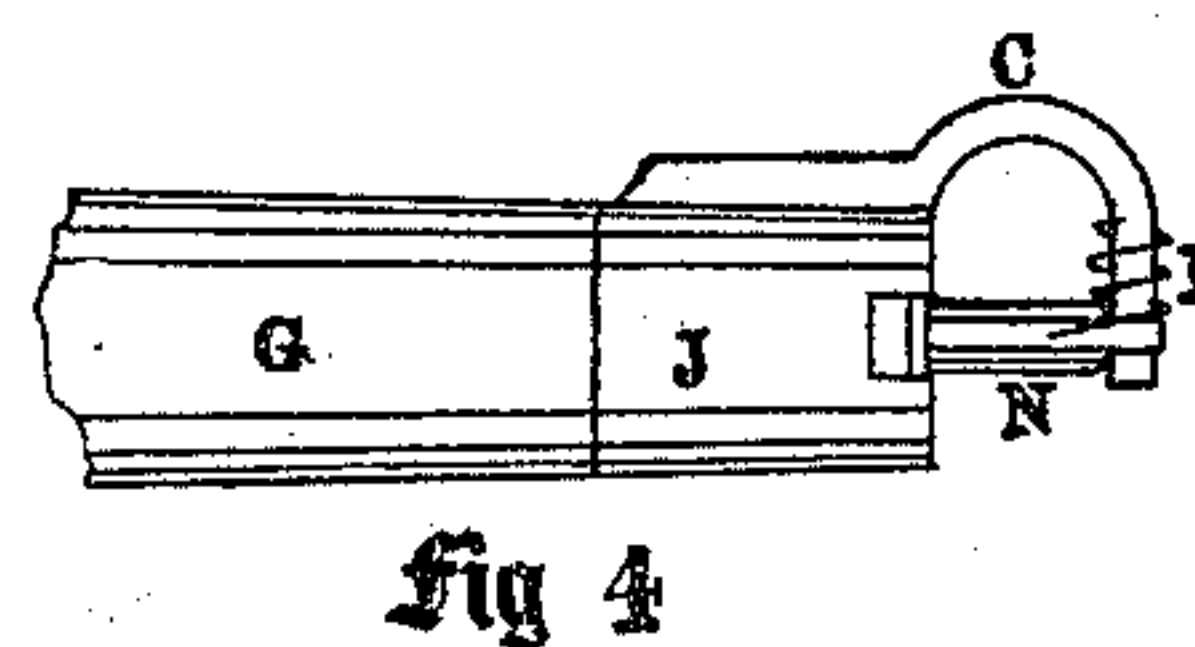
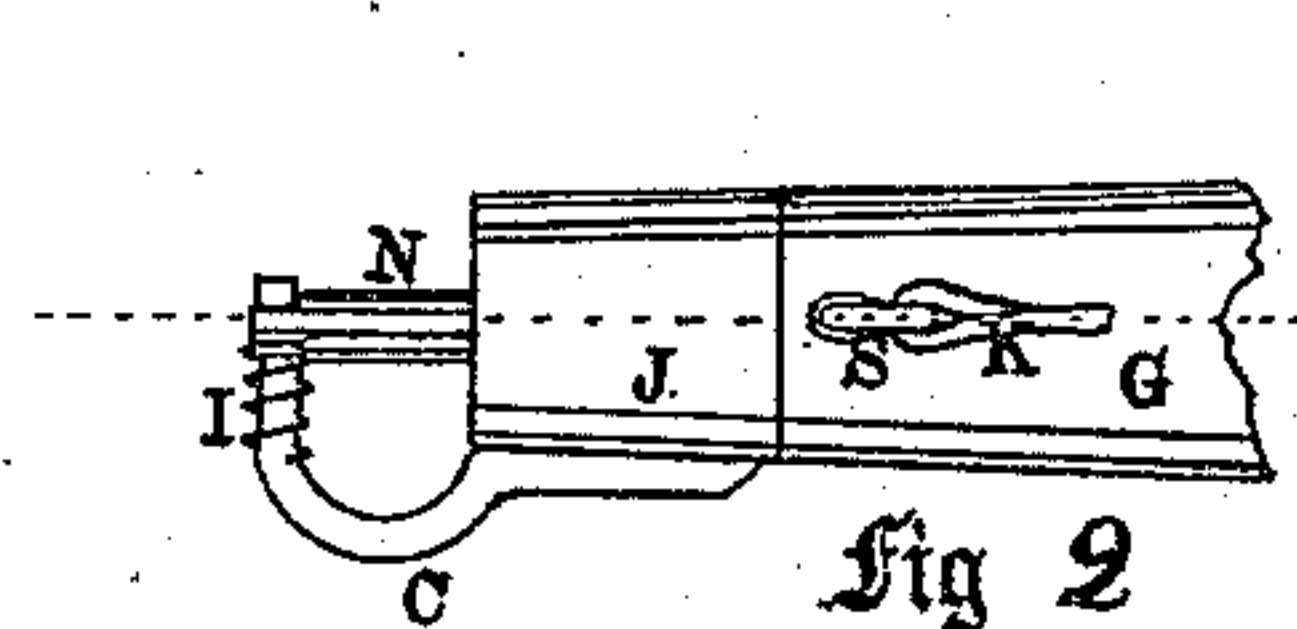
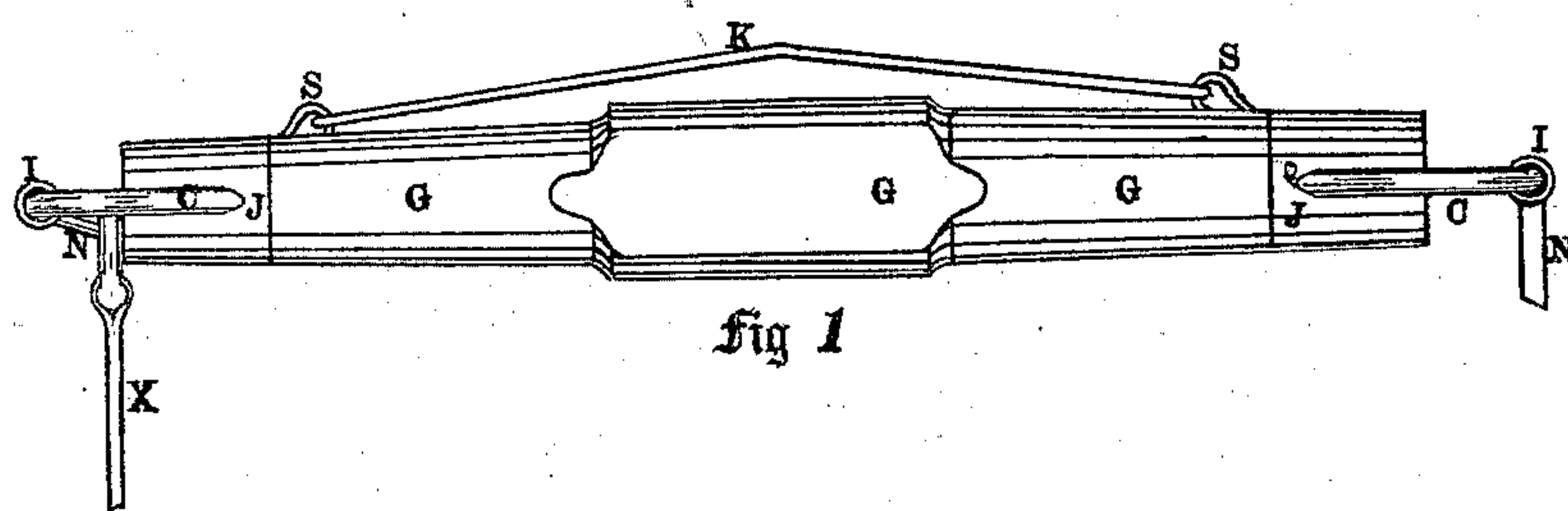


Fig 3

Witnesses  
O. V. Fuller  
A. E. Ketchum

Inventor  
John F. Morley

# UNITED STATES PATENT OFFICE.

JOHN F. MORLEY, OF LANSING, MICHIGAN.

## IMPROVEMENT IN TRACE-FASTENERS FOR WHIFFLETREES.

Specification forming part of Letters Patent No. 130,817, dated August 27, 1872.

*To all whom it may concern:*

Be it known that I, JOHN F. MORLEY, of Lansing, in the county of Ingham and State of Michigan, have invented a new and valuable Improvement in Safety Trace-Fasteners for Whiffletrees; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 is a perspective view of a whiffletree with the device attached at either end, one of which is open and the other locked, with trace properly fastened in its place. Fig. 2 represents the back side of the invention locked and upon the end of a whiffletree. Fig. 4 represents the front view of the same. Fig. 3 is a sectional view of the device except the bent bar C and spiral spring I, and of the end of the whiffletree to which it is attached. G is a common whiffletree prepared for a ferrule, J, to be passed over its end, and with a groove sawed into it on its back side for the admission of the wire S, and also with a round hole bored into its end for the admission of the spiral spring T. J is a ferrule to be placed or fitted onto the end of the whiffletree, with a notch cut in it on its front side to allow the end of bolt N to pass inside of it, and also with its outer end closed except a sufficient space just back of the aforesaid notch in the ferrule to admit the fly-bolt N. A is a ferrule inside of the ferrule J, with a partition passing across it about its center, the partition having a hole in it to allow the end of wire S to pass through it in its center. T is a spiral spring fitting into the hole in the whiffletree, with one end against the whiffletree and the other against the partition in the inside ferrule A. S is a wire with a loop at one end for the purpose of attaching the cord K, the other end passing under or inside of the ferrule J, through the

groove in the whiffletree, through the spiral spring T, and through the hole in the partition in the ferrule A, when a nut is screwed onto it, or it is headed down or bent up for the purpose of clinching it on the outer side of the partition in the ferrule A. C is a bent bar, one end of which is attached to the upper side of the ferrule J, and the other end of which is opposite the center of the outer end of the ferrule, for the purpose of supporting the outer end of the fly-bar N. N is a fly-bar, with its outer end supported, as aforesaid, by the bent bar C, so as to allow its other end to work back and forth through the notch in the ferrule J, and, being beveled at that end, to press back the inside ferrule A and pass inside of it, when the spring T forces said ferrule A again to its place, locking the fly-bar N and fastening the trace X to the whiffletree. I is a spiral spring, one end of which is fastened to the bent bar C and the other end of which is fastened to the fly-bar N, for the purpose of throwing out the fly-bar when it is released from the ferrule A by pulling the cord or strap K. K is a cord or strap attached to the loop of the wire S, and passing up to the dash-board of the carriage, to which the whiffletree is attached, by pulling which the inside ferrule A is pressed back until it releases the fly-bar N, which is thrown out by the spiral spring I or pulled out by the trace, which then slips off from the fly-bar.

I claim as my invention, and on which I desire Letters Patent—

The inside ferrule A, with its partition, in combination with the ferrule J, the wire S, the spiral spring T, the bent bar C, spiral spring I, the fly-bar N, and the cord or strap K, substantially as and for the purposes hereinbefore set forth.

JOHN F. MORLEY.

Witnesses:

O. V. FULLER,  
A. J. KETCHUM.