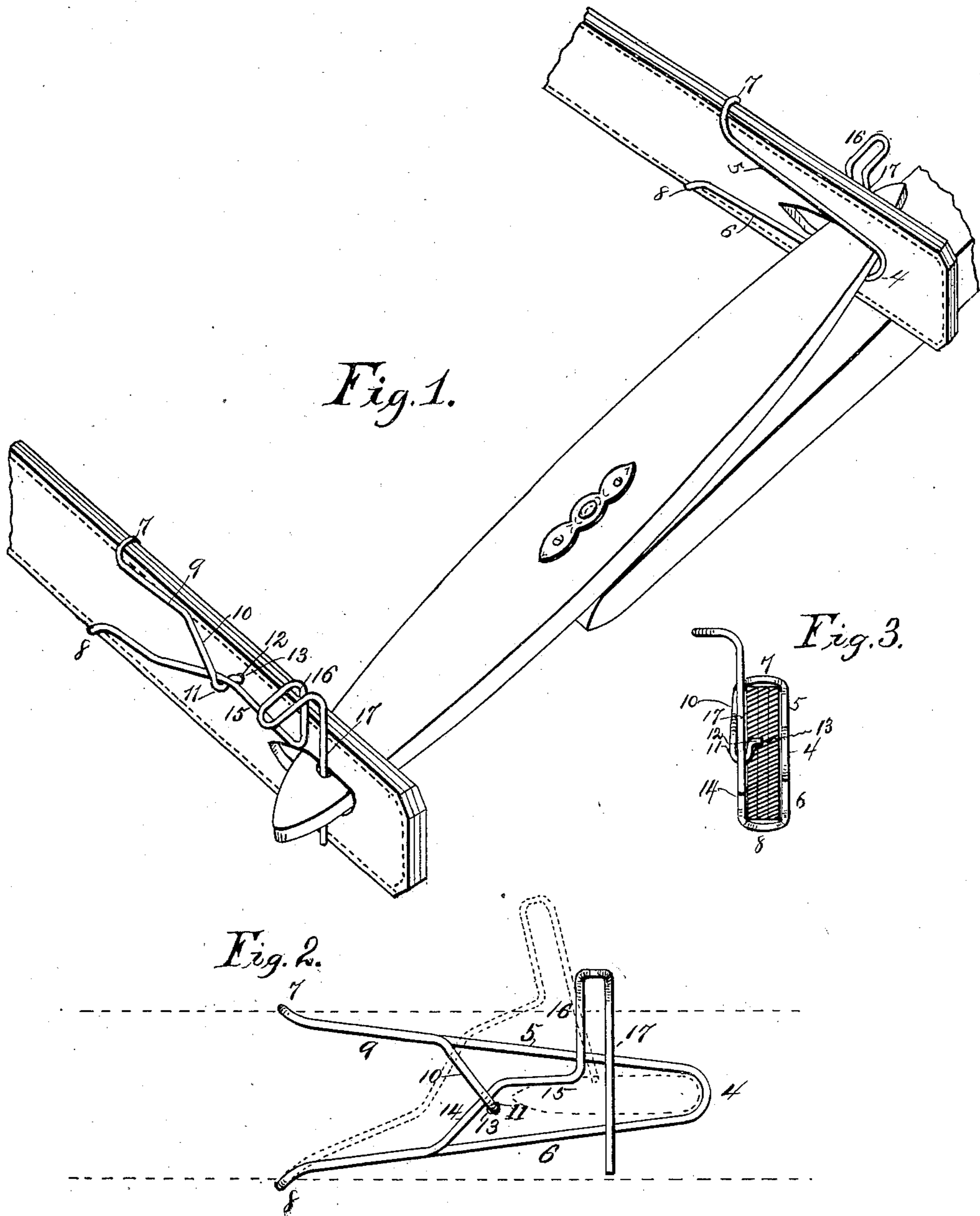


No. 826,947.

PATENTED JULY 24, 1906..

R. J. LAY.  
TRACE CONNECTOR.  
APPLICATION FILED DEC. 6, 1905.



Witnesses  
Theodore C. Johnson  
C. E. Webb

Inventor  
Robert James Lay.  
By Eugene W. Johnson.  
Attorney

# UNITED STATES PATENT OFFICE.

ROBERT JAMES LAY, OF CAIRO, WEST VIRGINIA, ASSIGNOR OF ONE-HALF  
TO BENJAMIN E. SUMMERS, OF CAIRO, WEST VIRGINIA.

## TRACE-CONNECTOR.

No. 826,947.

Specification of Letters Patent.

Patented July 24, 1906.

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*To all whom it may concern:*

Be it known that I, ROBERT JAMES LAY, a citizen of the United States, residing at Cairo, in the county of Ritchie and State of West Virginia, have invented new and useful Improvements in Trace-Connectors, of which the following is a specification.

My invention relates to trace-connectors, and provides an attachment that is adapted to be applied to a trace for the purpose of connecting the same to the end of a swingle-tree or draft-bar, the device in which my invention is embodied being made from a continuous piece of resilient wire that is shaped to provide connected diverging bars which overlie one side of the trace and extend forward of the eye through the trace, thence across the upper and lower edges of the trace, and rearward parallel with the forward portions of the diverging bars and then at angles beyond the longitudinal center of the trace, the shorter terminal member having a loop or return bend and an end that projects to enter a perforation in the outer face of the trace, the other member extending beyond the loop and then parallel with the longitudinal center of the trace and upward to provide an outward extending loop and a pin which can be sprung upward to engage the opening through the swingle-tree to hold the trace thereon, such pin being susceptible of movement with the swingle-tree to prevent undue strain thereon.

In the accompanying drawings, by which I have illustrated a preferred form of my invention, Figure 1 is a perspective view showing trace-connectors as in use. Fig. 2 is a side elevation, one of the outer members of the trace-connector being shown as raised by the dotted lines; and Fig. 3 is an end view, the trace to which the attachment is applied being in section.

This improvement or trace connector is made from a single continuous piece of resilient wire of proper gage which is bent upon itself to form a curved part 4 and diverging bars 5 and 6 or an open-ended loop through which the swingle-tree is passed, such loop partially surrounding the eye of the trace. The forward ends of the bars 5 and 6 are curved outward and are bent to provide cross portions 7 and 8, that embrace the edges of a trace. When the attachment is applied, the spring-pressure of the cross portions as-

sists in holding the device in place upon the trace, so that a slight variation in the width of the trace will be immaterial. On the front or outer side of the trace the upper member 9 extends parallel with the forward part of the bar 5 and is bent at an obtuse angle, and this part 10 adjacent to its end is shaped to form a loop 11, the inward extending end 12 entering an opening or perforation made in the face of the trace, the engagement of the end with the perforation 13 preventing the attachment sliding upon the trace when in use. The movable pin-carrying member of the attachment extends from the cross part 8 parallel with the bar 6 and is bent to extend upward at an obtuse angle, such part 14 underlying the part 10 and when unrestrained bears against the loop 11 and beyond the loop so as to extend rearward in a substantially horizontal portion 15, from which extends, at substantially right angles, a part 16, beyond which the wire is bent outward and upon itself and again inward to provide a part that may be readily grasped to raise the pin-carrying member, the pin 17 thereof extending below the normally horizontal part 15 to engage the opening through the swingle-tree.

In use the end of the horizontal part 15 will rest or bear upon the swingle-tree and the pin will be capable of movement with the swingle-tree as the same turns on its pivot. To detach the swingle-tree or draft-bar from the trace, the outward projecting part of the attachment adjacent to the pin is grasped and the pin 17 is raised, as shown in dotted lines, (see Fig. 2,) and when raised the trace can be detached from the swingle-tree.

I claim—

1. A trace attachment made up from a single piece of resilient wire that is shaped to provide diverging members that overlie one side of a trace, parts that span the edges of the trace, and terminal portions that overlie the face of the trace, one of the terminal parts having a loop and beyond the loop an inward-projecting end for positive engagement with the trace, the other terminal being overlaid by a part of the terminal having the loop, the loop restraining downward movement of such part and a pin formed upon the movable member of the attachment, substantially as shown.

2. A trace-connector comprising an open-ended loop, and continuations thereof that

engage the edges of the trace when applied thereto, a face member that extends rearward and downward and terminates with a loop and an inward-extending end, the other  
5 continuation of the open-ended loop extending rearward and upward for engagement with the terminal loop beyond which is a

rearward-extending part and a vertical terminal or pin, substantially as shown.

ROBERT JAMES LAY.

Witnesses:

G. M. CAIN,

W. HALL