

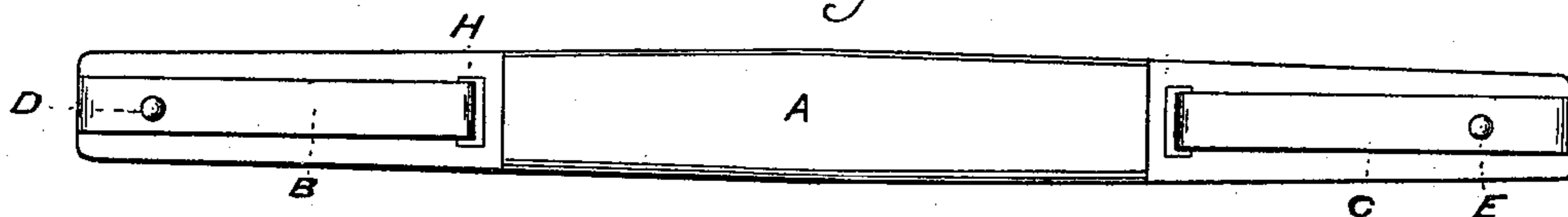
(No Model.)

G. W. ROBERTS.  
Trace Fastener.

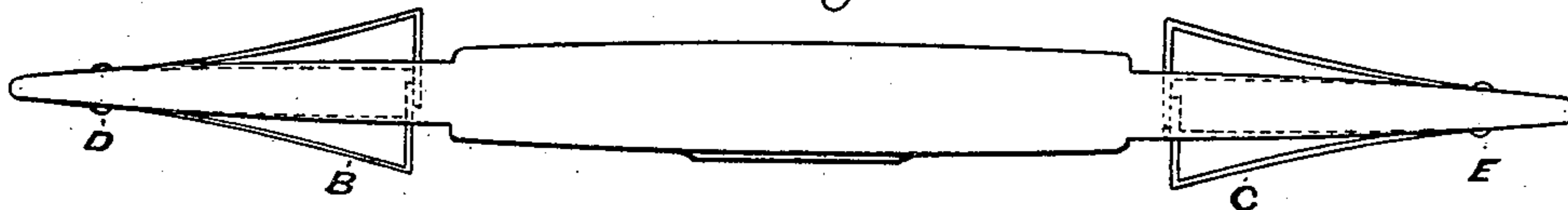
No. 230,150.

Patented July 20, 1880.

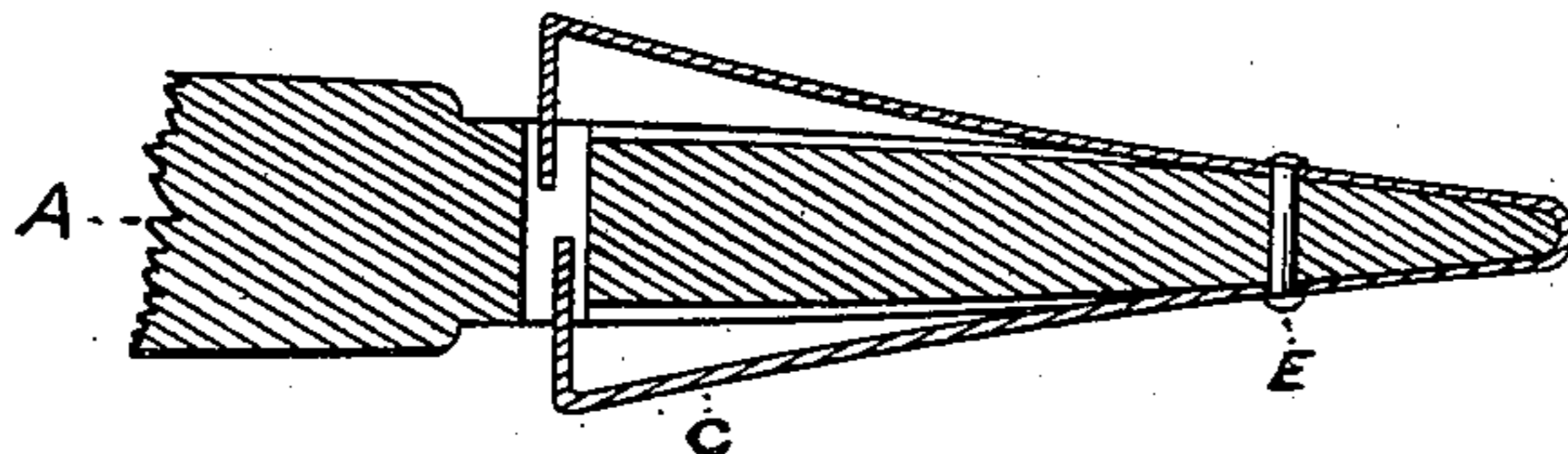
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses.  
H. N. Gale.  
Frank C. Holmes.

Inventor.  
Geo. W. Roberts  
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Att'y.

# UNITED STATES PATENT OFFICE.

GEORGE W. ROBERTS, OF WATERBURY, CONNECTICUT.

## TRACE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 230,150, dated July 20, 1880.

Application filed June 11, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. ROBERTS, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Trace-Holders, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top view of a whiffletree with my trace-holder attached. Fig. 2 is a side view of the same. Fig. 3 is a vertical section of one end of a whiffletree with my trace-holder attached.

The object of my invention is to furnish a device attached to a whiffletree, over which the ends of the traces of a harness may be easily slipped and by which the traces may be held in their places in the whiffletree.

In the drawings, A is a whiffletree, with slots H and I cut through it for the reception of the ends of the trace-holders, one on each end of the whiffletree.

B is a trace-holder, attached to the whiffletree A by the bolt D.

C is a trace-holder, attached to the other end of the whiffletree by the bolt E. This trace-holder is a thin flat piece of metal, so bent as to form a V-shaped spring, with its ends so bent as to slide over one another in the slot in the whiffletree when the spring is compressed. This trace-holder may be made either of brass or steel. Of course there should be one of them on each end of the whiffletree.

When the end of the trace, by means of the

slot in it, is slipped onto the end of the whiffletree it will pass over my trace-holder, which will be compressed, and after the whole of the trace-holder has passed through the slot in the trace, the trace-holder will spring back and hold the end of the trace in its place, thus preventing it from slipping off from the whiffletree.

When it is desired to detach the trace from the whiffletree the trace-holder is compressed by the fingers and the trace slipped off over the end of the whiffletree.

Instead of the double spring, which is made by the V-shaped spring in the drawings, one end may be shortened, so as to leave only one spring either in the upper or the under side of the whiffletree. The spring will then be partly V-shaped; but one end will be longer than the other.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The V-shaped spring B, attached to a whiffletree having a slot in it, substantially as shown and described.

2. The combination of whiffletree A, having slots H and I in it, V-shaped springs B and C, and bolts D and E, all substantially as shown and described.

GEORGE W. ROBERTS.

Witnesses:

I. L. UPSON,

FRANK C. HOLMES.