

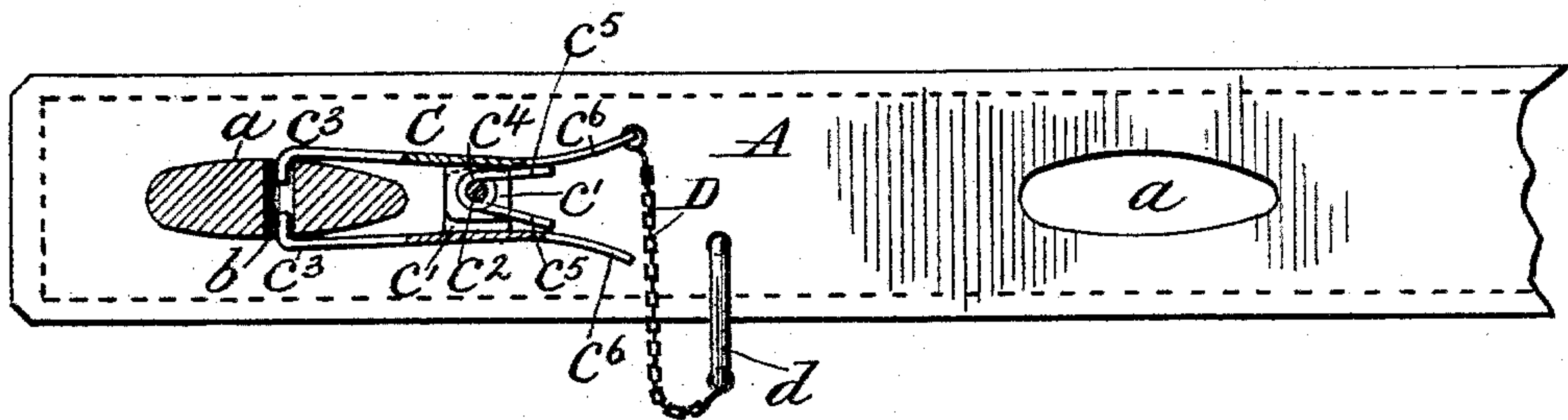
(No Model)

C. C. WALLACE.  
TRACE KEY.

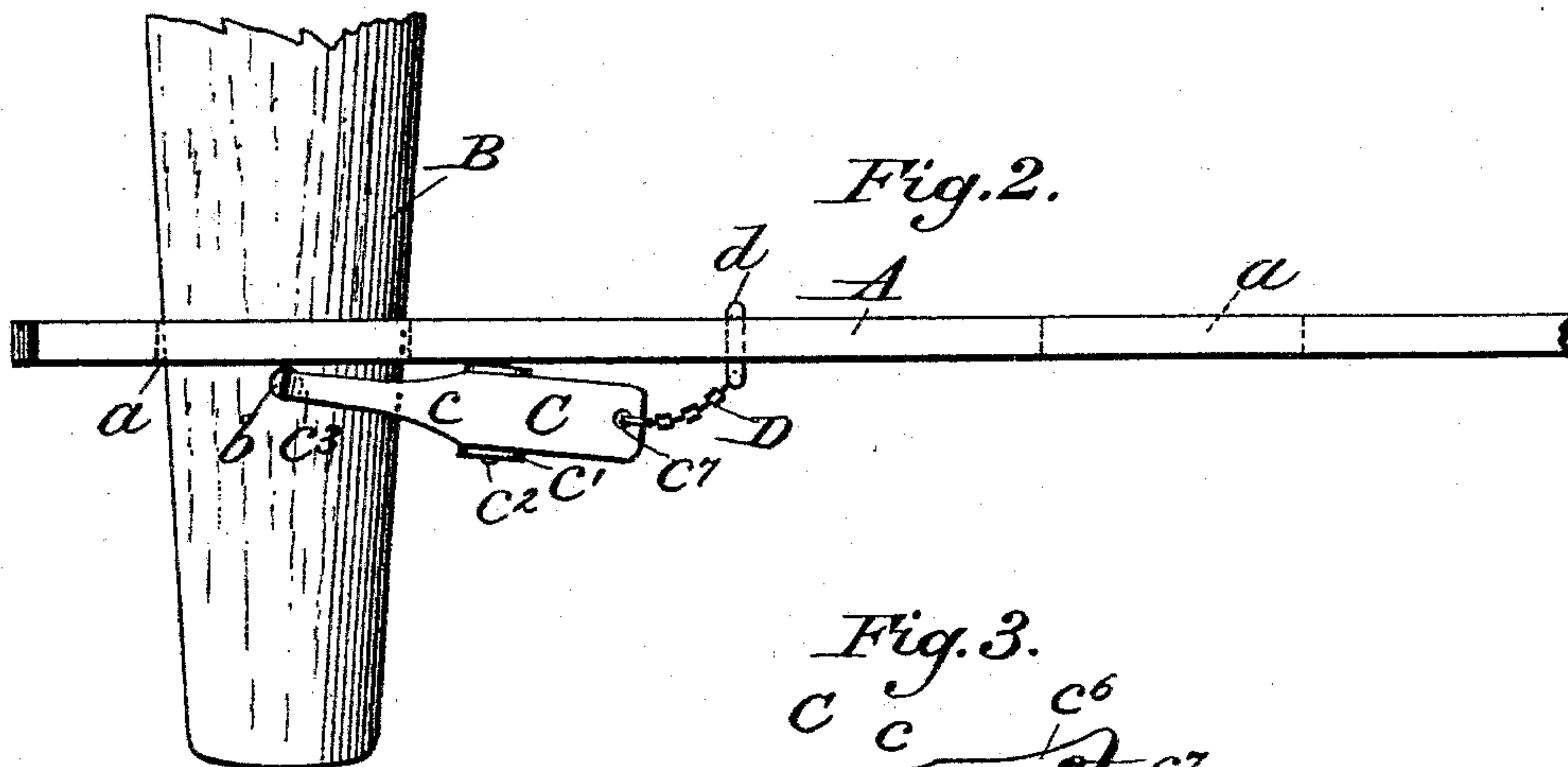
No. 584,024.

Patented June 8, 1897.

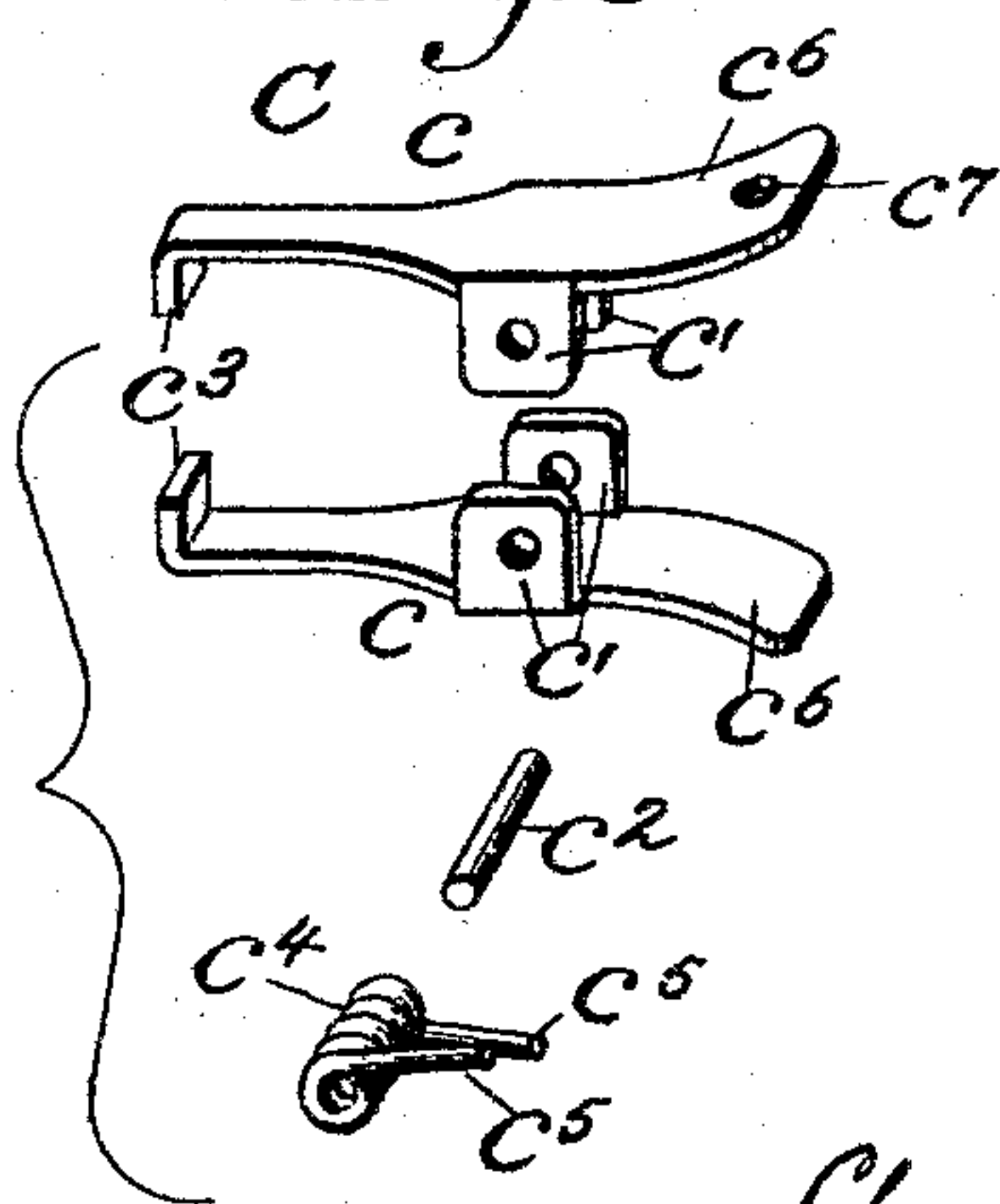
*Fig. 1*



*Fig. 2.*



*Fig. 3.*



*Attest:*

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*att'y.*



# UNITED STATES PATENT OFFICE.

CHARLES C. WALLACE, OF ONEONTA, NEW YORK.

## TRACE-KEY.

SPECIFICATION forming part of Letters Patent No. 584,024, dated June 8, 1897.

Application filed February 12, 1897. Serial No. 623,075. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES C. WALLACE, a citizen of the United States, residing at Oneonta, in the county of Otsego and State of New York, have invented certain new and useful Improvements in Whiffletree-Hooks, of which the following is a full, clear, and exact description, such as will enable those skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to improvements in devices for securing traces on the ends of whiffletree-hooks.

It has for its object the provision of such a device, which is of a cheap and simple construction, efficient in its purpose, and which can be easily applied to the whiffletrees and traces in common use without necessitating any changes or alterations in the latter and without the aid of a person skilled in the use of tools.

It has also for its object the construction of such a device, numbers of which can be put up in packages and sold separate from the harness or whiffletree.

The invention consists in the novel construction, combination, and arrangement of parts, such as will be hereinafter fully described, pointed out in the appended claim, and illustrated in the accompanying drawings.

In the accompanying drawings, in which similar letters of reference designate corresponding parts, Figure 1 is an elevation showing the end of the trace, the end of a whiffletree on which the trace is mounted, and the mechanism for securing the trace in place. Fig. 2 is a detail view showing the clip, the several parts of which are separated to better show their construction. Fig. 3 is a detail perspective view showing the several parts forming the clip disconnected.

Referring to the drawings by letter, A designates the trace, and B the whiffletree, both of which may be of any construction suitable in the premises. In the trace A openings *a a* are formed and are adapted to receive the end of the whiffletree. The end of the latter is so shaped as to allow the trace to be forced on the same to a considerable distance. An open-

ing *b* is formed in the whiffletree at a point which will be immediately outside of the trace when the latter is in position. With this opening the mechanism whereby the trace is secured in place engages.

The mechanism whereby the trace is secured in place consists of the clip C. The latter is formed of two arms *c c*, hinged together at points intermediate of their ends. Each arm has two lugs *c' c'* projecting from the same intermediate of its ends and at right angles to the main plate. The arms are pivoted together by the pin *c<sup>2</sup>*, passing through the lugs *c' c'*. The ends *c<sup>3</sup> c<sup>3</sup>* of the arms are bent to form hooks adapted to enter the aperture *b*, formed in the whiffletree. The hooked ends of the arms are normally held together by the coiled spring *c<sup>4</sup>*, mounted on the pin *c<sup>2</sup>*. The arms *c<sup>5</sup> c<sup>5</sup>* of the latter press outwardly on the ends *c<sup>6</sup> c<sup>6</sup>* of the arms *c c*, and thereby force the hooked ends together. The ends *c<sup>6</sup> c<sup>6</sup>* form finger-pieces, by means of which the hooked ends can be opened when it is desired to place the clip in engagement with the whiffletree.

In the end *c<sup>6</sup>* of one of the arms an aperture *c<sup>7</sup>* is formed, in which a link of the chain D is hooked. The other end of this chain is connected with the link *d*, fastened to the trace A intermediate of the holes *a a*.

The operation of the device is as follows: The end of the whiffletree is placed in engagement with one of the openings *a a* of the trace, and the latter is forced upon the whiffletree until the aperture *b* in the latter is outside of the trace. The ends *c<sup>6</sup> c<sup>6</sup>* of the clip are forced together, and the latter is placed so that the hooked ends *c<sup>3</sup> c<sup>3</sup>* register with the aperture *b* in the whiffletree. The ends *c<sup>6</sup> c<sup>6</sup>* are then released, and the spring *c<sup>4</sup>* causes the hooked ends to enter and engage with the aperture *b*. The clip by the pressure of the spring is securely held against accidental displacement, and it prevents an outward movement of the trace on the whiffletree. The chain D, connecting the clip with the trace, prevents the loss of the clip. By attaching the link *d* to the trace intermediate of the openings *a a* a comparatively short length of chain can be used and at the same time allow the clip to be applied when either of said openings in the trace is used.

Having thus described my invention, what



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

The combination of a whiffletree having an aperture formed in the end thereof, a trace  
5 having openings adapted to receive the end  
of said whiffletree, a clip having spring-pressed  
arms hooked at their ends to engage with said  
aperture, a link attached to said trace inter-  
mediate of the openings therein, and a chain  
10 connecting said clip with said link and of such

length as to allow the clip to engage with the aperture in said whiffletree when the latter is in engagement with either of the openings in said trace.

In testimony whereof I hereunto affix my :5  
signature in the presence of two witnesses.

CHARLES C. WALLACE.

Witnesses:

ALBERT HERBERT,

JANIE M. SCOTT.