

(No Model.)

A. W. BRICKEN
TRACE.

No. 409,166.

Patented Aug. 20, 1889.

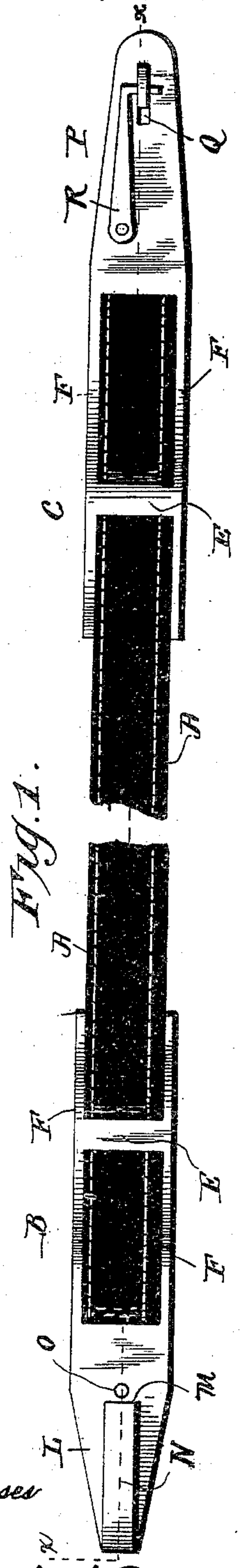


Fig. 1.

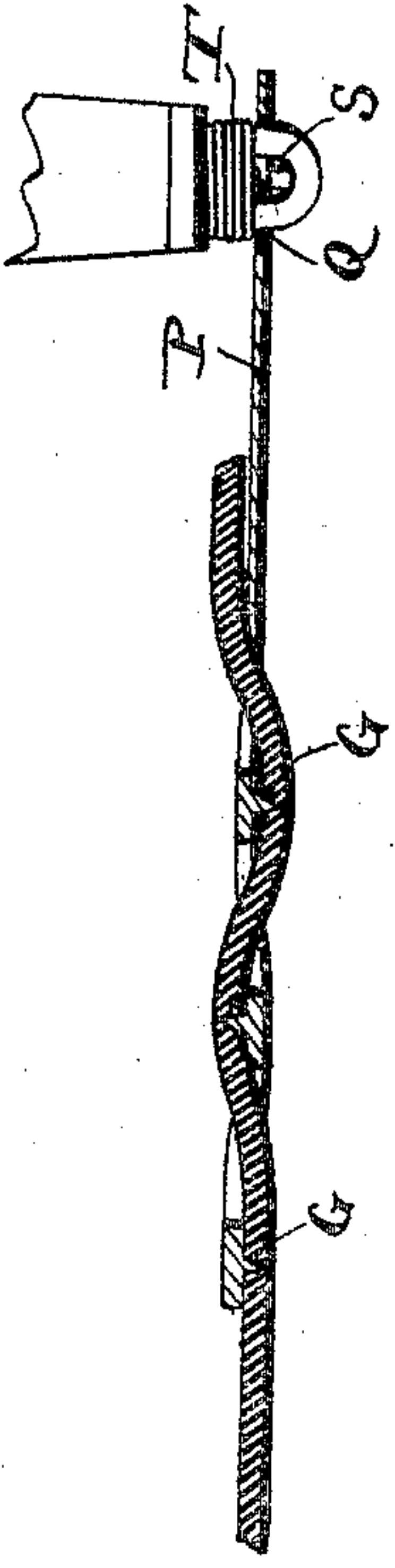


Fig. 2.

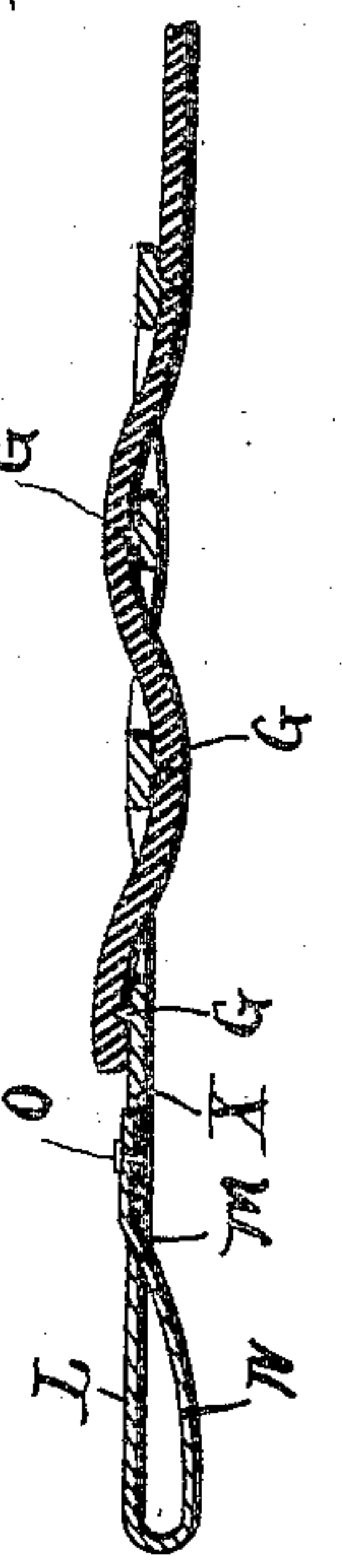


Fig. 3.

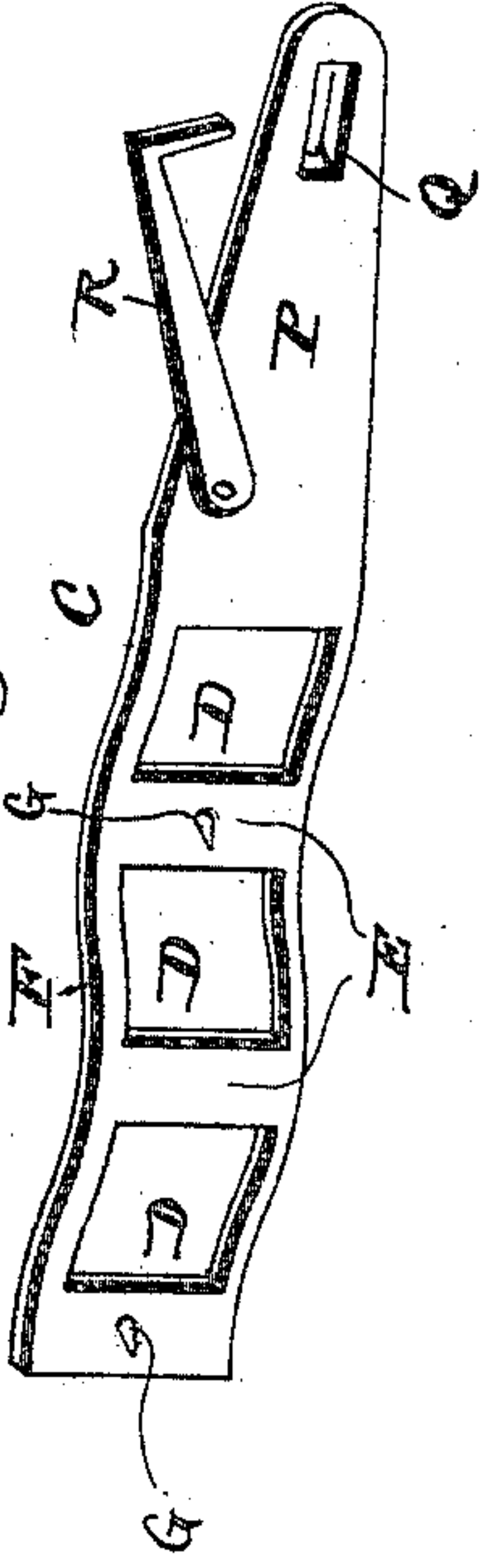


Fig. 4.

Witnesses

Wm. Bagger

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UNITED STATES PATENT OFFICE.

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TRACE.

SPECIFICATION forming part of Letters Patent No. 409,166, dated August 20, 1889.

Application filed March 26, 1889. Serial No. 304,793. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER W. BRICKEN, a citizen of the United States, residing at Mackville, in the county of Washington and State of Kentucky, have invented a new and useful Trace, of which the following is a specification.

This invention relates to traces; and it consists in certain improved means for attaching the ends of a trace, respectively, to the hame and to the whiffletree, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the drawings, Figure 1 is a side view showing the ends of a trace equipped with my improved attachment. Fig. 2 is a longitudinal sectional view taken on the line $x x$ of Fig. 1. Figs. 3 and 4 are perspective views showing the attachments removed from the trace.

The same letters refer to the same parts in all the figures.

A designates the trace, which consists of a plain leather strap, which, when desired, may be made of several thicknesses of leather connected by stitching in the usual manner.

B and C designate a pair of plates, which may be made either of wrought or malleable metal, and each of which is provided with a series of transverse slots D D. The cross-bars E E, which connect the sides F F of the said trace, are provided on their inner sides with studs, ribs, or projections G G. The sides F F of the plates may be slightly corrugated, so that the alternate cross-bars E E shall be arranged in two series the inner sides of which are a short distance apart. This, however, is not essential to the successful operation of the invention, but merely serves to facilitate the adjustment of the plates upon the ends of the trace-straps.

The plates B and C are adjusted, respectively, upon the front and rear ends of the trace-strap by threading the latter zigzagwise through the slots D D, of which there may be any desired number. When strain is applied to the plates and straps in the direction of the draft, the ends of the strap will engage the studs, ribs, or projections G G upon the cross-bars E, thereby creating sufficient friction

to absolutely prevent the withdrawal of the ends of the trace from the said plates.

The plate B, at the front end of the trace, is provided with a forwardly-extending lip or tongue L, at the base of the shank of which is formed a transverse slot M. The lip L is turned rearwardly, so as to form a loop N, and its end or point is passed through the slot N, and secured in a recess X on the under side of the plate by means of a rivet O, or in any other suitable manner. In this manner the loop N for the attachment of the plate B of the hame is formed in a very strong and durable manner.

The plate C, at the rear end of the trace, is provided at its rear end with an extension P, having an eye or opening Q, by means of which it may be adjusted upon the end of the whiffletree. Pivoted to the side of the plate C, adjoining the perforation Q, is a hook R, adapted to pass through the perforation S in the end of the whiffletree, and thus secure the plate B in position thereon. A coiled spring T may be adjusted upon the end of the whiffletree to bear against the inner side of the plate C, and thus prevent the hook R from working loose.

The operation of this invention and its advantages will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. By the use of my improved attachments buckles are wholly dispensed with, and I therefore avoid the necessity for weakening the traces by perforations for the tongues of such buckles. The result is that I am enabled to make traces of equal strength much lighter and less expensive than has heretofore been the case where buckles have been employed. My improved attachments may be easily attached in a moment's time, and they may be neatly finished, so as to present an ornamental appearance. By the construction of the cross-bars, as herein described, with ribs, studs, or projections, the ends of the trace are held securely against slipping, and the heavier the strain that is applied the more firm the connection will be.

My invention, in addition to its application to traces, as herein described, may be advanced

tageously employed for various other parts of a harness; and I do not wish to limit myself to the construction of the plates with the loop N and with the hook R, as herein described.

5 Having thus described my invention, I claim—

10 The combination, with a trace, of the transversely-slotted plates, through which the ends of said trace are threaded, one of said plates being provided with a projecting lip turned back through a transverse slot at the base of the shank of said lip and secured by means

of a rivet, and the other plate being provided with a perforated extension having a pivoted hook, substantially as and for the purpose set 15 forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ALEXANDER W. BRICKEN.

Witnesses:

CALVIN SHEUMAKER,
FRANCIS M. CAMPBELL.