

(No Model.)

J. H. HIGDON.

TRACE FASTENER.

No. 362,080.

Patented May 3, 1887.

Fig. 1.

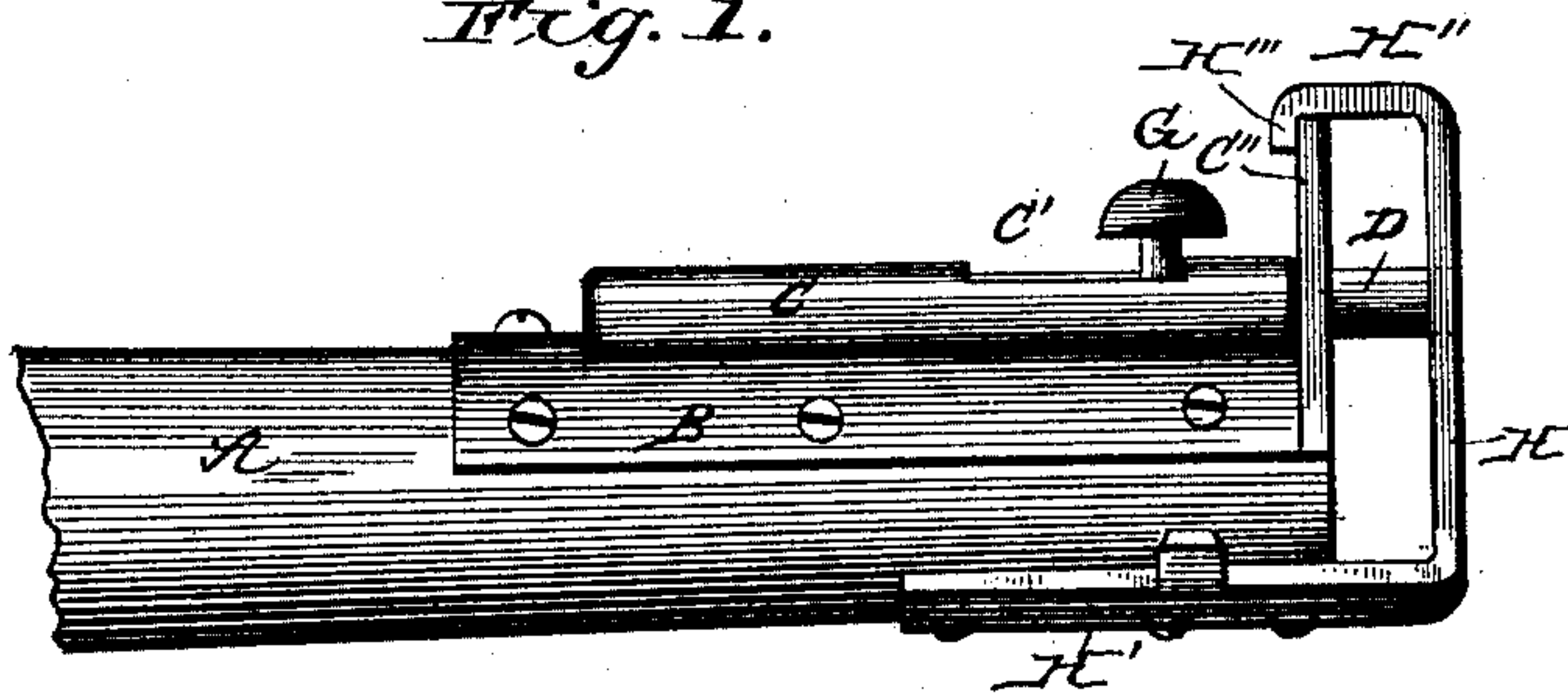


Fig. 2.

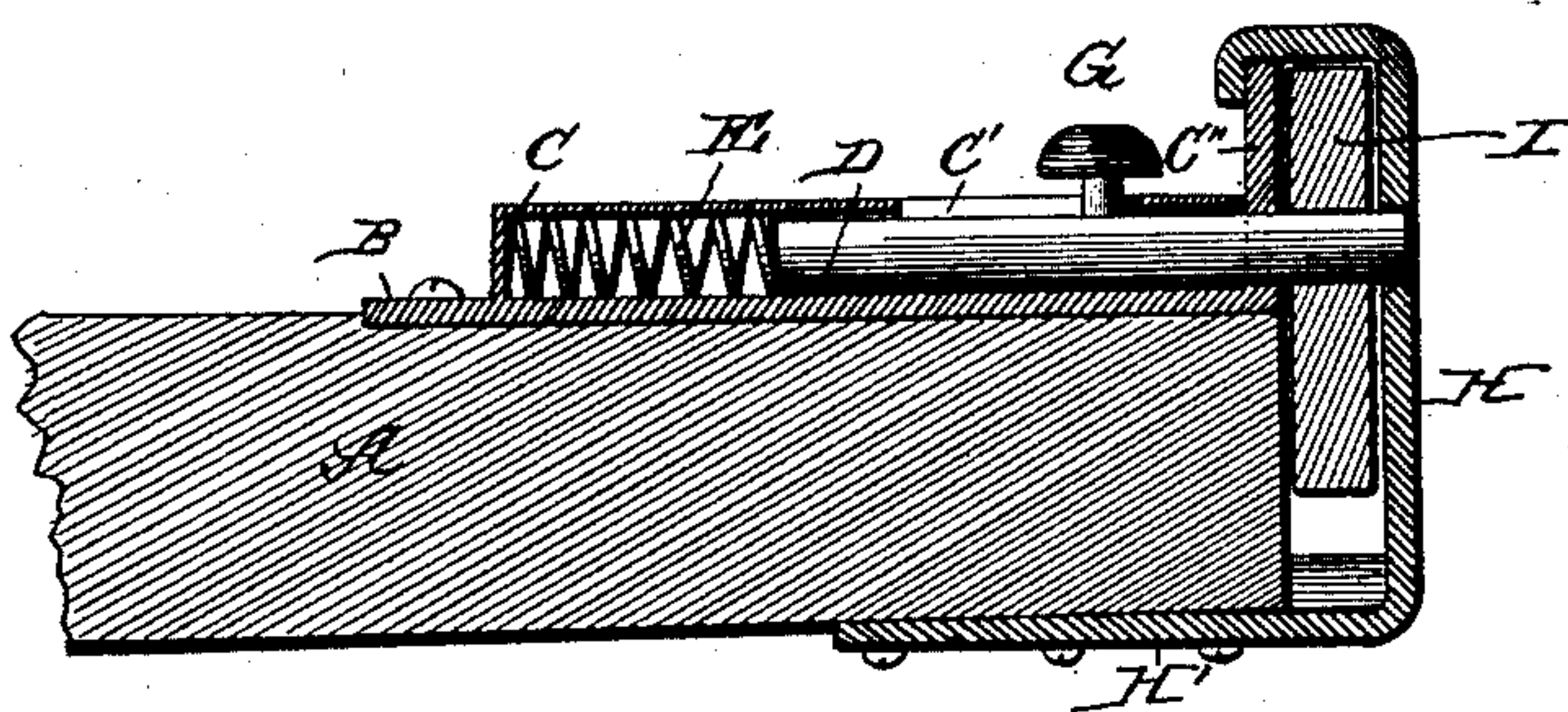
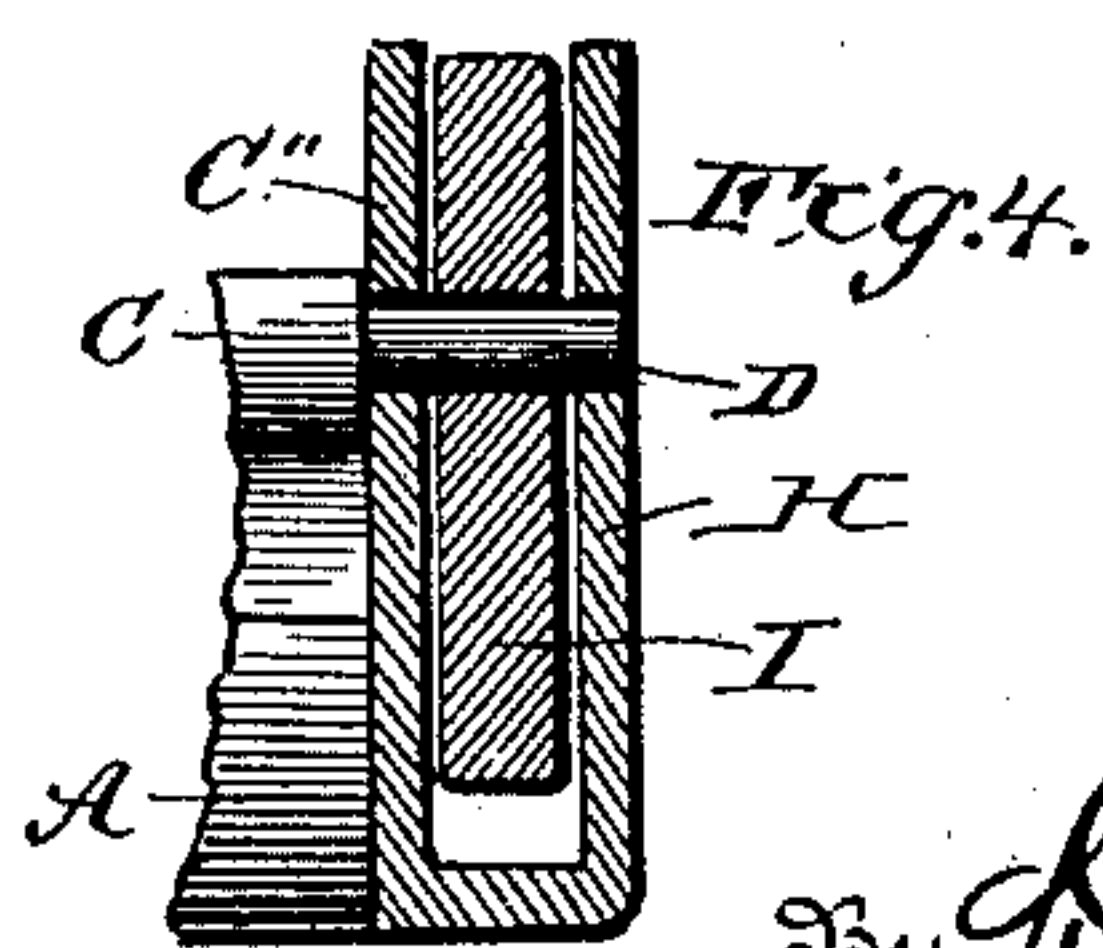
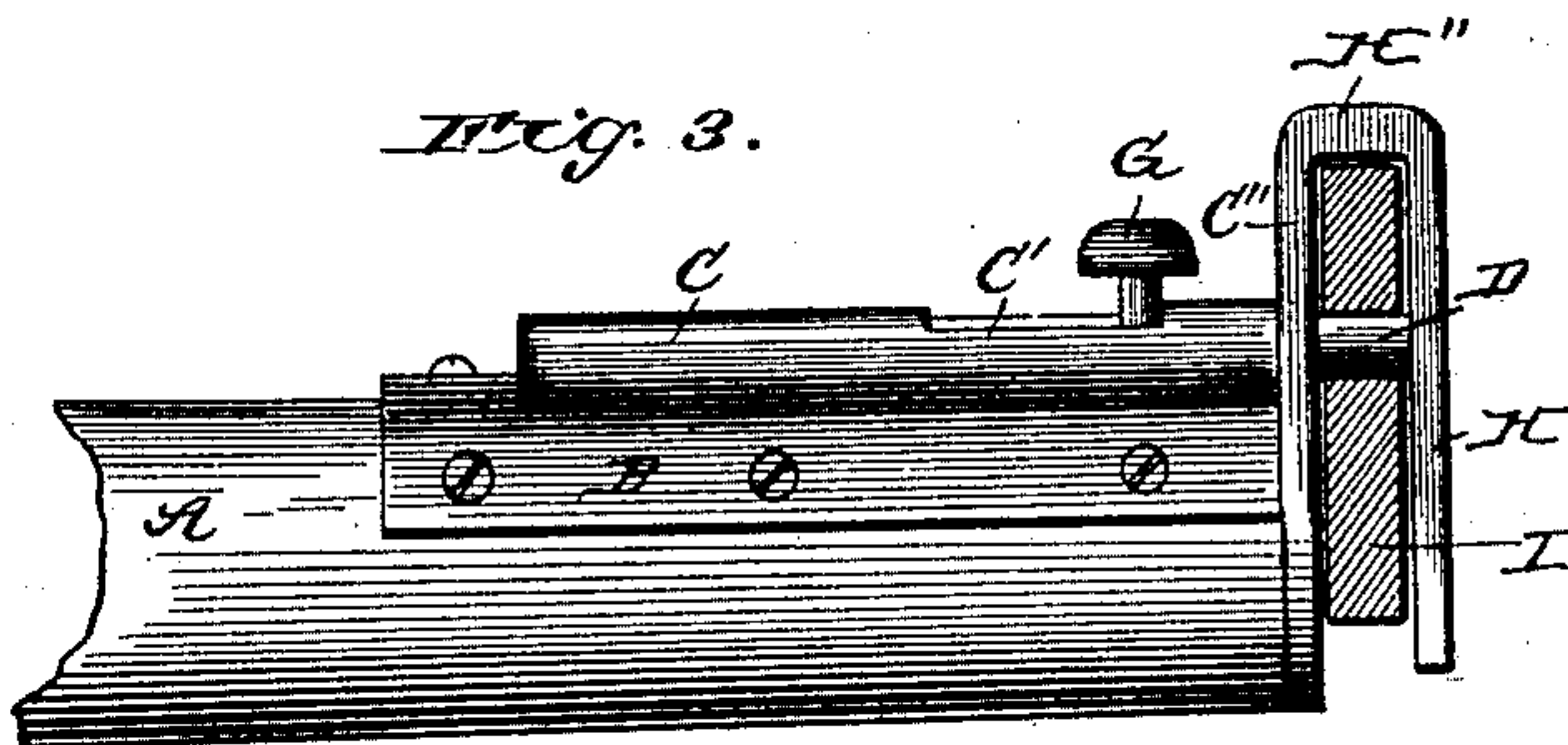


Fig. 3.



Witnesses

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TRACE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 362,080, dated May 3, 1887.

Application filed July 15, 1886. Serial No. 208,087. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. HIGDON, a citizen of the United States, residing at Evergreen, in the county Conecuh and State of Alabama, have invented certain new and useful Improvements in Trace-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in trace-fasteners, and is fully described and explained in this specification, and shown in the accompanying drawings, in which—

Figure 1 is a side elevation of a whiffletree provided with my improved trace-fastener. Fig. 2 is a longitudinal vertical section of the same, showing a trace in working position; Fig. 3, a side elevation of a modified form of my invention, a trace in working position being shown in section; and Fig. 4 a similar view of a second modification.

In Figs. 1, 2, A is a whiffletree. B is a metal plate fastened to the upper face of the whiffletree at one end thereof, and C is a preferably cylindrical bolt-case formed integrally with the plate. A bolt, D, slides freely in the bolt-case, and is provided with a button or stud, G, whose shank passes through a slot, C', in the case, the ends of the slot being the stops which limit the motion of the shank, and, consequently, of the bolt. In the rear end of the case C lies a suitable spring, E, which presses the bolt forward and keeps it at its limit of forward motion, except when it is retracted by means of the stud G. The front end of the case C is provided with an integrally-formed face-plate, C'', against which the trace rests when in working position, the face-plate being formed with an opening for the passage of the bolt. H is a metal guard parallel with the face-plate, and H' a plate integral with the guard and serving to secure the guard to the whiffletree. The space between the face-plate and guard receives an ordinary trace, I, the bolt D passing through the trace when in working position and into a corresponding opening in the guard. The guard thus holds the trace in place and at the same time braces the bolt. The space between the face-plate and guard

may be open at the top, if desired; but I prefer to form the guard with a cap, H'', extending over said space and having an overhanging lip, H''', engaging the edge of the face-plate.

Fig. 3 shows a modification in which the plate B, bolt-case C, spring E, bolt D, and stud G are the same as in the form shown in Figs. 1, 2. In this modification, however, the cap H'' and guard H are formed integrally with the face-plate C'', and the face-plate is so extended as to cover and protect the entire end surface of the whiffletree A. The operation of this device is precisely the same as that of the form shown in Figs. 1, 2, and it has the advantage of being somewhat cheaper than the form in which the face-plate and guard are in separate pieces.

Fig. 4 illustrates a second slight modification, in which the guard H and face-plate C'' are joined at the bottom instead of at the top, the face-plate being extended and integral with the guard, as in Fig. 3. The extended face-plate of Figs 3, 4 may be employed in the construction shown in Figs. 1, 2, if desired; and, in fact, it is well to use it in either case, as it forms a perfect protection of the whiffletree against both wear and weather.

I am aware that it is not broadly new to attach to the end of the whiffletree a longitudinally-reciprocating spring-bolt adapted, when projected from its case, to extend through and secure the end of a trace. In all prior constructions of that class the bolt has, however, either been seated in a cap inclosing the end of the whiffletree or has been mortised into the wood of the whiffletree itself; and I know of no trace-fastener prior to the one shown and described herein in which the bolt, when in operative position, is wholly outside of the periphery of the whiffletree. This difference is not merely one of position, but is important not only in facilitating the attachment of the device to the whiffletree, but also in preserving the entire body of the end of the whiffletree and avoiding the loss of strength consequent on cutting away the wood.

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

The combination, with the plate B, bolt-case

C, face-plate C'', bolt D, spring E, and stud G, of the plate H', the guard H, formed thereon, and the cap H'', formed on the upper margin of the guard, and having the lip H''' formed
5 on its edge and overhanging the edge of the face-plate, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. HIGDON.

Witnesses:

C. S. RABB,
BEN. PAGE.