

J. A. HECKENBACH & A. HAERTLE.

Last-Block Fastenings.

No. 140,038.

Patented June 17, 1873.

Fig. 1.

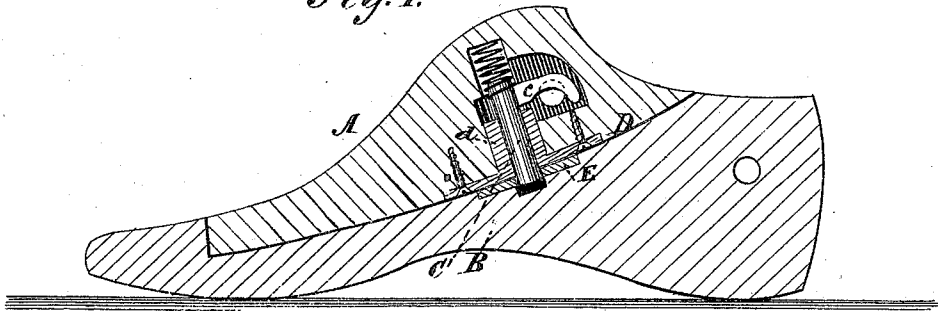
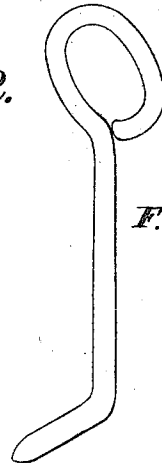


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN A. HECKENBACH AND ANTON HAERTLE, OF MAYVILLE, WISCONSIN.

IMPROVEMENT IN LAST-BLOCK FASTENINGS.

Specification forming part of Letters Patent No. **140,038**, dated June 17, 1873; application filed March 28, 1873.

To all whom it may concern:

Be it known that we, JOHN A. HECKENBACH and ANTON HAERTLE, of Mayville, in the county of Dodge and State of Wisconsin, have invented a new and useful Improvement in Shoe-Lasts; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a longitudinal central section, and Fig. 2 is a detail view, of hook.

The invention relates to the spring lock-bolt that fastens together two sections of a last; and consists, in the application thereto, of two plates and a hook, whereby it becomes unnecessary to cut so near to the upper surface of last, to make the bolt so long, and to use the ordinary transverse pin by which the last-hook is enabled to unlock the sections.

In the drawing, A represents the top, and B the bottom section, of a last made of any suitable relative shape. C is the usual spring-bolt, which has been usually lifted by the ordinary last-hook, applied to a transverse pin, as described in the patent granted February 8, 1859, to D. M. True. To this spring-bolt, C, I apply a hook or curved projection, *c*, and an inclosing-socket, *d*, arranged on a plate, D. E is a plate, let into the lower section B of last, and perforated to receive the end of bolt when the two sections are to be locked together. The bolt C, with its hook, is allowed to rest with its upper end against a loose spring, and

to slide up and down, while the socket and hook prevent its escape. By reason of these plates D E we can make the bolt C relatively much shorter, and project much less into the lower socket E, than in the case of True; and we can thereby also leave a much greater thickness of last above the top end of bolt. This gives to the bolt a very short throw, which enables us to dispense with True's transverse pin, and substitute the hook *c*, to raise which an end bent rod, F, placed in a transverse hole of last, has sufficient leverage.

One advantage of the socket *d* is to guide the pin C, and prevent it from varying in the least from its true line of direction. This bolt is thus made always, even after long use, to enter the aperture of plate E with precision and certainty. By providing the bolt C with a hook, *c*, we avoid the usual weakening of the bolt consequent upon cutting a notch or hole in it, and we thus not only lessen the liability of the bolt to fracture but also add to its durability.

We claim as our invention—

The plate D having socket *d*, the bolt C having hook *c*, and the loose spring combined and applied in the upper section of a last, as shown and described.

JOHN. A. HECKENBACH.
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Witnesses to both signatures:

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