

W. ACKERMAN.
 Boot-Heel Screws.

No. 141,908.

Patented August 19, 1873.

Fig. 1.

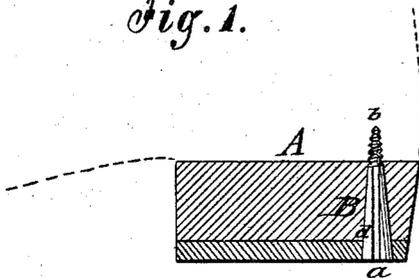


Fig. 2.

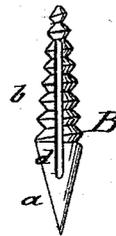


Fig. 3.

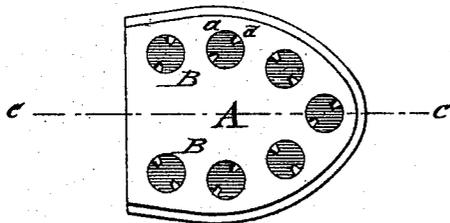
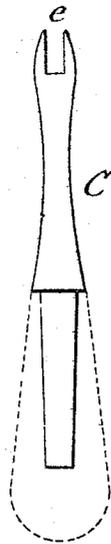


Fig. 4.



Witnesses:

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PER

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UNITED STATES PATENT OFFICE.

WILLIAM ACKERMAN, OF FLINT, MICHIGAN.

IMPROVEMENT IN BOOT-HEEL SCREWS.

Specification forming part of Letters Patent No. **141,908**, dated August 19, 1873; application filed February 1, 1873.

To all whom it may concern:

Be it known that I, WILLIAM ACKERMAN, of Flint, in the county of Genesee and State of Michigan, have invented a new and Improved Boot-Heel Screw, of which the following is a specification:

Figure 1 is a vertical section of a boot-heel on the line *c c*, Fig. 3, with a side view of my boot-heel screw. Fig. 2 is a side view of the same provided with pointed head. Fig. 3 is a bottom view of the heel, showing arrangement of screws; and Fig. 4 is a side view of the screw-driver.

Similar letters of reference indicate corresponding parts.

The object of my invention is to fasten boot-heels made partly of wood and leather to the upper part of the boot-heels by means of screw-bolts, so that by unscrewing them the heels may be easily taken off and put on again, or new ones substituted in their stead. Boot-heels fastened with these screws are not only more durable, but require less time and labor in putting them on. The screws may also be provided with sharp points, to be used in winter and by persons employed in occupations which require a firm hold of the feet, as raftsmen and others. The invention consists in an improved construction of boot-heel screws, as hereinafter described, and pointed out in the claim.

In the drawing, A represents the heel, which may be made entirely of leather, or preferably of wood and leather. The wooden part is turned, and perforated with conical holes,

ready for use. One or more thicknesses of leather may be glued to the lower part of the wooden heel, and corresponding holes drilled therein with a spoon-bit. The conical screws B, of suitable metal, are inserted into the holes of the heels, and are screwed, with their threaded ends *b*, into the leather of the body of the boot-heel. This is done by means of the screw-driver C, which is placed, with its two prongs, *e*, into the longitudinal side grooves *d* of the lower smooth ends or heads *a* of screws B.

The heels are thereby rigidly and firmly secured to the boots, and may easily be taken off again when necessary, and replaced by new ones, or the screws may be taken out and others supplied with a sharp conical head (Fig. 2) inserted therein.

The pointed screws B, Fig. 2, secure the heels just as rigidly as the former, and are intended for use on ice or on slippery ground, or for raftsmen, or others employed in similar occupations.

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

A heel-screw for boots and shoes, having the conical form, threaded point, and channeled sides, as shown in Fig. 1 of drawing, and for the purpose described.

WILLIAM ACKERMAN.

Witnesses:

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