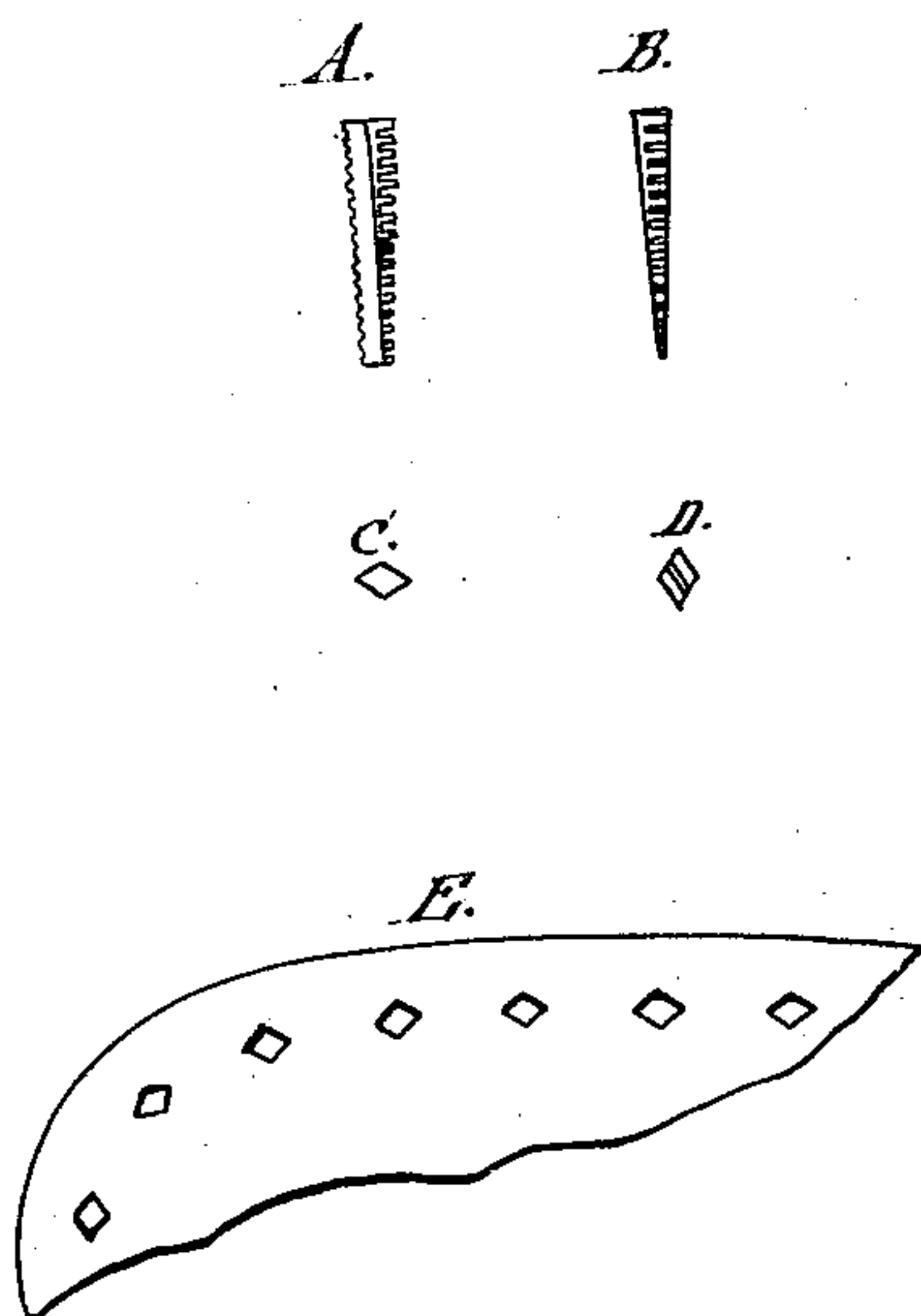


A. Waldron,

Shoe Nail.

No. 89451.

Patented Apr. 27. 1869.



Witnesses:

M. W. Frothingham
S. B. Hilder.

Inventor:
A. Waldron
by his Attys
Crosby, Hattis & Gould

UNITED STATES PATENT OFFICE.

AARON WALDRON, OF MILFORD, MASSACHUSETTS.

IMPROVED SHOE-NAIL.

Specification forming part of Letters Patent No. **89,451**, dated April 27, 1869.

To all whom it may concern:

Be it known that I, AARON WALDRON, of Milford, in the county of Worcester and State of Massachusetts, have invented an Improved Shoe-Nail; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates particularly to the construction of fastenings for hand-nailing boots and shoes—that is to say, for uniting the soles and uppers of boots and shoes by nails driven by hand.

Previous to my invention common nails, sprigs, and brads have generally been used as shoe-nails, and to some extent screws, some made with quick-threads, that cause them to turn as they are blow-driven, and some with common screw-threads, (being rotated into place as are common wood-screws,) while some are made with heads and some without, and some with clinching-points and some without. A nail has also been made with serrated surfaces to cause it to hold in the leather.

My improved shoe-nail differs from all of these fastenings. It is made tapering from its head to its point, (preferably of a quadrangular lozenge shape in cross-section,) and with its corners, or part of its corners, toothed or serrated, its tapering form causing it to hold in one direction of its length, and its serrations causing it to cling in the opposite direction of such length. Such is the construction constituting my improvement.

The drawings represent a shoe-nail embodying the invention.

A and B show side views of the nail; C and D, opposite end views of it.

The nails are cut from a strip of plate metal, having a width corresponding to the length of each nail, and a thickness corresponding to the length of the point of the nail, the plate being cut “heads and points,” so as to utilize the whole strip, as in the well-known processes of nail and brad making.

Each operation of the cutter not only severs a nail from the plate, but nicks the edge of the plate, so that each nail when cut has one or more of its edges serrated, as seen at A and B, and the plate is preferably so cut as to leave each head of diamond or lozenge form, as seen at C, while the point is long and thin, as seen at D, the nail being thus wedge-shaped, as seen at B. The shape of the point of the nail allows it to enter freely without bending, and the head sinks in flush with the surface of the sole, and thereby leaves the sole with a smooth and finished surface.

When the sole and vamp of a boot or shoe, or the parts of other leather-work, are fastened together by these nails, it will be obvious that the wedging or tapering form of the nail-shank will prevent the leather from moving toward the head of the nail, and that the serrations will prevent the leather slipping in the opposite direction, or toward the point, the point also clinching when driven against a metal surface, as an iron-bottomed last.

The nails may be made rectangular in section; but for finish I prefer the diamond shape, as the nails are easily driven to bring the acute angles of the adjacent nails into line, as seen at E. The nails may also be made with laterally-projecting heads; but for most purposes they are preferably left free from such heads.

These nails are very cheap, and afford a ready means of fastening together the parts of leather-work in such manner that such parts are inseparable by the ordinary strain brought upon them by wear.

I claim—

As a new article of manufacture, shoe-nails each made tapering or wedge shape, and with the serrated edges, substantially as shown and described.

AARON WALDRON.

Witnesses:

HENRY E. FALES,
B. D. GODFREY.