

(No Model.)

F. F. RAYMOND. 2d.
SOLE OR HEEL FASTENING.

No. 329,952.

Patented Nov. 10, 1885.



Fig. 1-



Fig. 2-



Fig. 3-



Fig. 4-



Fig. 5-



Fig. 6-



Fig. 7-



Fig. 8-



Fig. 9-

WITNESSES

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SOLE OR HEEL FASTENING.

SPECIFICATION forming part of Letters Patent No. 329,952, dated November 10, 1885.

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To all whom it may concern:

Be it known that I, FREEBORN F. RAYMOND, 2d, of Newton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Sole and Heel Fastenings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention consists in a fastening for securing the soles and heels to the insoles of boots and shoes, having a screw-threaded shank and a tapering point, made, preferably, from wire, as hereinafter described.

Referring to the drawings, Figure 1 represents in elevation wire square in cross-section, which I subsequently provide with screw-threads by twisting. Fig. 2 represents in elevation the wire after it has been twisted to form threads. Fig. 3 shows in elevation a modified form of the wire before twisting or turning, and Fig. 4 shows the same twisted. Fig. 5 shows a nail-blank cut from the wire shown in Fig. 2. Fig. 6 shows it provided with a point formed by two bevels. Fig. 7 represents a nail with the point eccentrically arranged. Fig. 8 shows a nail with screw-threads of a quicker pitch than those of Fig. 6. Fig. 9 is a view of a nail having a round point.

In making the fastening I prefer to use square-sectioned wire, or wire having the section represented in Fig. 1, and to submit this wire to a turning action, whereby the corners are made to form screw-threads, as represented in Fig. 2. These threads are of a comparatively slow pitch. The nail is completed by being severed from the screw-threaded wire, and having a clinching-point formed thereon, preferably shaped as represented in Fig. 6, which preferably is provided by cutting away the lower corners and sections of the blank to form the two beveled surfaces *a a'*; but of course I do not confine myself to this shape

or point, but may use a point of any other character or form.

In operation, to use the fastening, I may or may not form a hole by an awl for its reception; but if used as a heel-fastening it will be desirable to first form a hole for it. The fastening, upon being driven, will revolve or turn as it is forced through the stock, and its point, coming in contact with an iron or metal surface, will be turned back and clinched in the stock.

This form of heel and sole fastening is very desirable for many reasons, and especially because it has all the advantages of a screw-fastening, and yet may be driven into place instead of screwed. It may also, because of its peculiar shape, be driven straighter, and from having a clinching-point it is securely held or fastened in place after it has been driven.

Of course, it is obvious that the pitch of the thread of the fastening must not be so inclined or quick that the fastening will not turn upon being driven, and it is of course obvious that the fastening can be used without a point, although for general use it will be found desirable to provide it with one.

It will be seen that a nail of this character is especially desirable as a sole-fastening, because, while having all the advantages of a screw for holding the outsole, it does not require to be screwed into the insole, as it has a clinching-point which holds it firmly therein whatever the thickness of the sole.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

A shoe-nail formed from square or substantially square rod or blank, twisted to provide threads of comparatively slow pitch, and provided with a clinching-point, substantially as described.

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