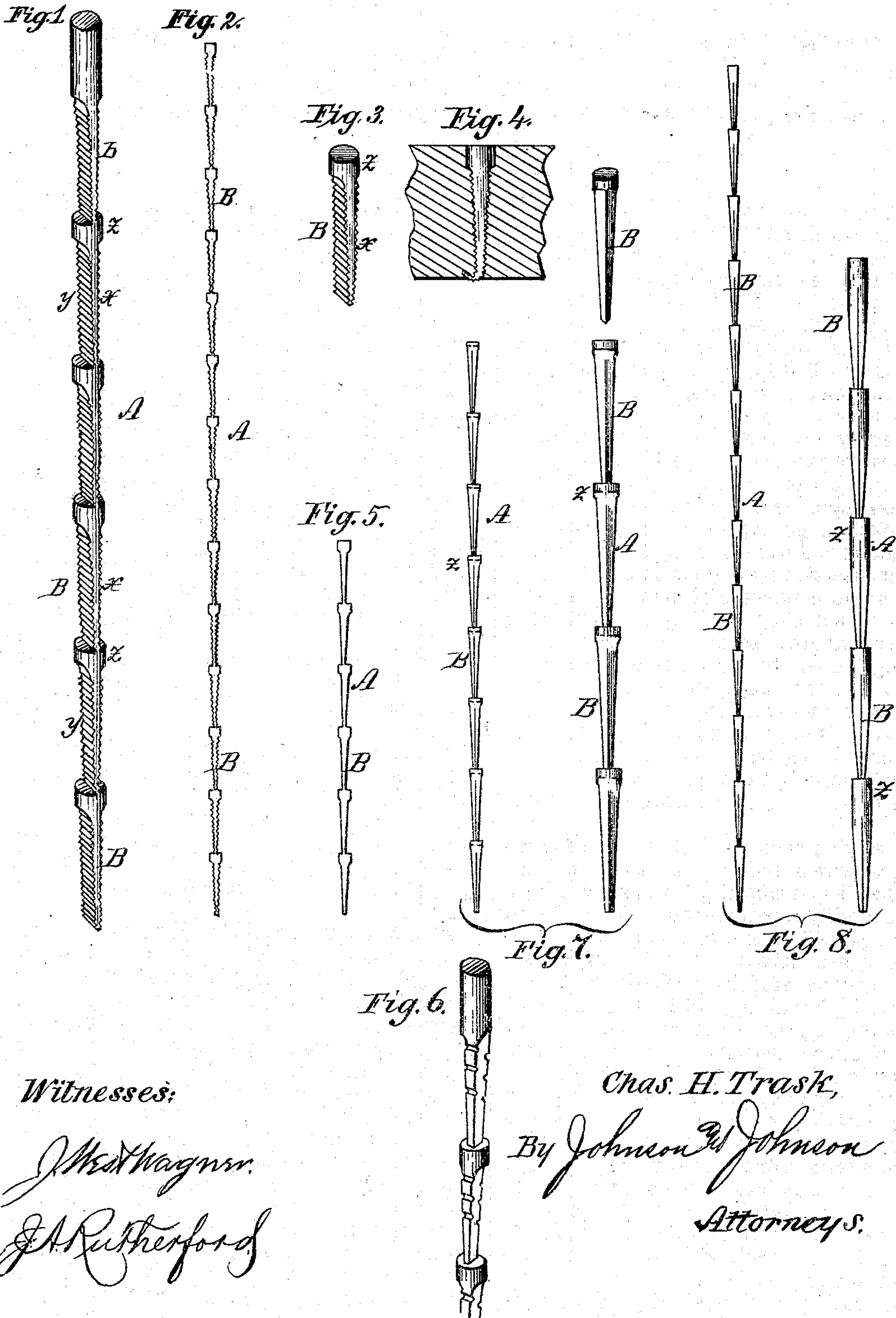


C. H. TRASK.

FASTENING FOR THE SOLES OF BOOTS AND SHOES.

No. 182,495.

Patented Sept. 19, 1876.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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AMERICAN CABLE SCREW WIRE COMPANY.

## IMPROVEMENT IN FASTENINGS FOR THE SOLES OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **182,495**, dated September 19, 1876; application filed  
July 13, 1876.

*To all whom it may concern:*

Be it known that I, CHARLES H. TRASK, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Sole-Fastenings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

For a number of years boot and shoe manufacturers have used wire of peculiar forms for sole-fastenings, the same being fed from the machine, and cut into nails or pegs before and after insertion by driving mechanism.

To combine cheapness of manufacture and proper and sufficient holding characteristics with the continuous feature and facility for determining the length of each nail by the wire itself, and for separating the nails or pegs, is the object of my invention, which relates, primarily, as an improvement to these peg-wires or continuous wire fastenings for the soles of boots and shoes, but is applicable for uniting parts or different layers of material for other uses.

My invention consists, first, in a continuous or integral wire or rod of distinct nails or pegs having heads and clinching-points, and adapted to be readily separated where the different nails are joined in the wire length before or after they are driven, while the wire, as a whole, possesses sufficient cohesion to facilitate packing, handling, and feeding the same in indefinite lengths in the machine.

The invention consists, secondly, in a continuous wire of distinct nails or pegs, having heads and clinching-points formed by coincident indentations or tapers in the sides of a wire or rod of round or other cross-section, such indentations or tapers corresponding to the heads and points of nails or pegs, and making the angles of taper on two or more sides, and the projections of the heads of such shape as shall best suit the use to which such nails are to be applied.

The invention consists, thirdly, of a continuous length of integral wire, on which coinci-

dent indentations or tapers are formed, of lengths equal to that of the nail-tang, in a manner to leave unreduced sections, whereby to serve as the means of feeding by proper devices, and determining the proper lengths of the pegs and no more; and, finally, of a continuous length or integral wire of distinct nails or pegs, having transverse roughened corrugations, curves, or threads applied to the blades or tangs of the nails or pegs, to render the united length of pegs effective for use in their holding quality when cut and driven.

In the accompanying drawings, Figure 1 represents a view, in perspective, of a short wire of nails or pegs illustrating my invention, the same being shown as magnified; Fig. 2, an edge view of a wire, on a reduced scale, representing more nearly a natural size of the article as used in boot and shoe pegging machines; Fig. 3, a perspective view of a single nail or peg of the preferred form as separated from the wire, the same being represented as magnified; Fig. 4, a section on the same scale, representing a nail or peg of the integral wire as driven and clinched; Fig. 5, an edge view of another short wire of nails or pegs without the roughened corrugations; Fig. 6, a perspective view of a short wire of nails or pegs having both a face and edge taper to the point and edge corrugations; and Figs. 7 and 8, equivalent forms of wire pegs on different scales.

A continuous wire, A, for division into fastening nails or pegs B, Figs. 3 and 4, is constructed, according to this invention, with unreduced sections or enlargements *z* at proper intervals, to form heads on the individual nails or pegs, and with flat portions *y*, of greater or less thinness, Fig. 1, and preferably tapering, as represented, to give a clinching-point to each nail formed at its junction with the head. The wire may be of any suitable metal, and of any required or preferred length. The individual nails or pegs may also be of different sizes, and in details of shape may vary from those represented. A continuous or integral wire of distinct nails, having retaining-heads with shoulders as prominent as may be desired, and their points adapted to be driven readily and clinched, so as to lock each nail in



place, is adapted to be readily and cheaply manufactured, and to be packed and handled. By this construction the wire is fed into the machine by using the projections or heads to feed the proper lengths, and no more, and also for separating the nails or pegs, and driving them successively by machinery.

To adapt the nails or pegs to afford a more secure hold, they are preferably constructed with transverse corrugations, grooves, or threads  $x$ , and the same are, by preference, arranged obliquely, so as to lessen the obstruction which they offer to driving home the nails or pegs.

In the illustration the improved nail-blank is formed from a round or cylindrical wire or rod by a series of coincident depressions or tapers in the opposite sides of the same. The roughened or holding corrugations, grooves, or threads  $x$  are, in this case, preferably formed within the depressions on the new flat surfaces, which become the sides of the nails or pegs. In rolling, this can be very readily accomplished by means of projections or grooves in the dies.

The roughened or holding corrugations are not considered essential in carrying out my invention. (See Figs. 7 and 8.)

The coincident indentations in the continuous length form the face tapers to the peg, (see Fig. 1,) and with this construction may be combined edge tapers, as shown in Fig. 6, and the tapered edges may be corrugated instead of the face of the wire-peg divisions. The side and edge tapers give a better driving and clinching point, and effect a great saving in the continuous length of the wire when rolled.

The severance of the nail or peg from the wire being made at its point of greatest indentation, and immediately next the point of greatest diameter, is therefore more easily and readily effected by the cutting device, as it does not require much force to make the cut, and the thin point is thereby left with a clean cut, while the head or greatest integral projection of the wire, in affording the proper means for feeding the nail by the feeding devices, its

length, and no more, serves as a brace to the thin tang, and thereby strengthens the continuous wire and each peg under the action of the inserting mechanism. Each nail or peg has its integral points of attachment throughout the wire at the head and point, making a new article of manufacture of headed and pointed fastenings never before obtained from wire nails from a continuous length.

The sides may be partially or wholly corrugated, and at right angles to the length of the wire. The indentations may be regular on four sides, forming distinct heads, as in Fig. 7, or terminating at the surface, as in Fig. 8, to leave a cylindrical head end not shouldered.

The following is claimed as new, namely:

1. As a new article of manufacture, a continuous length of integral wire or rod of distinct nails or pegs, having heads and points, substantially as and for the purpose herein set forth.

2. A continuous wire of distinct nails or pegs, having heads and clinching points formed by coincident indentations in the sides of a wire or rod, and with angles of taper on two or more sides, leaving the heads of equal diameter with the rod, for the purpose stated.

3. A continuous length of integral wire or rod of nails, the heads of which are unreduced sections  $z$ , which sections or shoulders are adapted to serve as a means of feeding the continuous rod, and determining the extent of the feed, which must be the length of the nail, and no more.

4. A continuous length or integral wire of distinct nails or pegs, having transverse roughened corrugations, curves, or threads  $x$ , applied to the coincident indentations or tapers of the wire which forms the tangs or blades of each nail, as herein set forth.

In testimony that I claim the foregoing as my own I have affixed my signature in presence of two witnesses.

CHARLES H. TRASK.

Witnesses:

JAS. B. BELL,

N. S. HOTCHKISS.