L. GODDU.

Sole-Fastening.

No. 162,643. Patented April 27, 1875.

FIG. I.

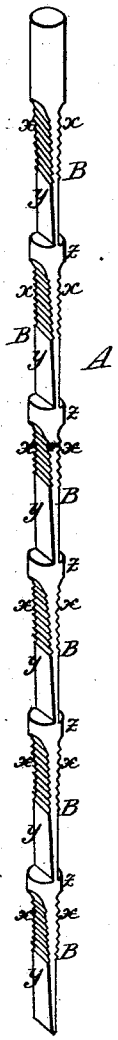


FIG. II.

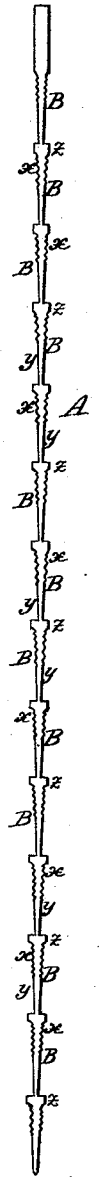


FIG. III.

FIG. IV.

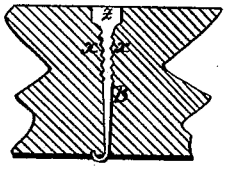


FIG. V.

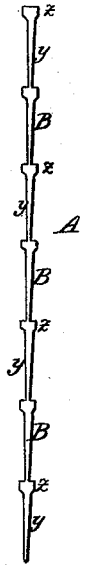
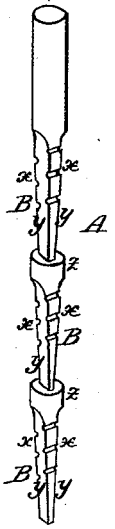


FIG. VI.



WITNESSES.

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UNITED STATES PATENT OFFICE.

LOUIS GODDU, OF WINCHESTER, ASSIGNOR TO THE AMERICAN CABLE SCREW WIRE COMPANY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SOLE-FASTENINGS.

Specification forming part of Letters Patent No. **162,643**, dated April 27, 1875; application filed April 7, 1875.

To all whom it may concern:

Be it known that I, LOUIS GODDU, of Winchester, in the county of Middlesex 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 drawings 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 are 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 in the sides of a wire or rod of round or other cross-section, such indentations 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 coincident indentations 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 roughening 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 roughening corrugations; and 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.

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, 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 thus 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 manufac-

tured, and is perfectly adapted 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*, formed or arranged immediately below the heads; and the same are, by preference, arranged obliquely, as illustrated, 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 in the opposite sides of the same. The roughening 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 roughening or holding corrugations are not considered essential in carrying out my invention.

The coincident indentations in the continuous length form the face-tapers to the peg, 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 whereby the nail is fed 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 following is claimed as new, namely:

1. A continuous length or integral wire or rod of distinct nails or pegs having heads *z* and clinching-points, and adapted to be separated where the different nails are joined in the wire-length before or after they are driven, substantially as herein illustrated and set forth.

2. A continuous wire of distinct nails or pegs having heads *z* and clinching-points, formed by coincident indentations in the sides of a wire or rod, and corresponding to the heads and points of such nails, and with angles of taper on two or more sides, substantially as herein set forth.

3. A continuous length or integral wire, on which coincident indentations are formed, of lengths equal to that of the nail blade or tang, to form unreduced sections *z*, whereby to serve as the means of feeding and determining the proper lengths of the pegs, and no more, substantially as herein set forth.

4. A continuous length or integral wire of distinct nails or pegs having transverse roughening corrugations, curves, or threads *x*, applied to the coincident indentations of the wire, which form 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.

LOUIS GODDU.

Witnesses:
EDWIN W. BROWN,
A. VAN WAGENEN.