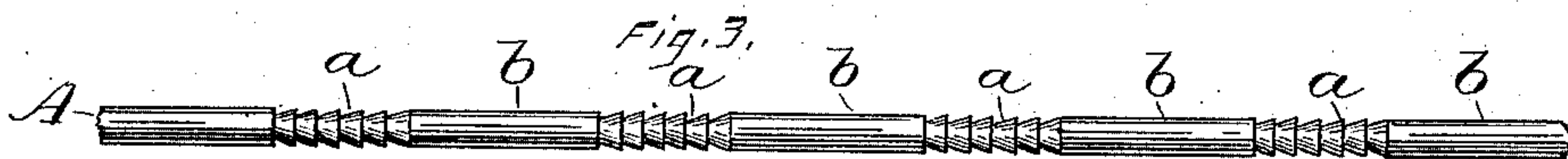
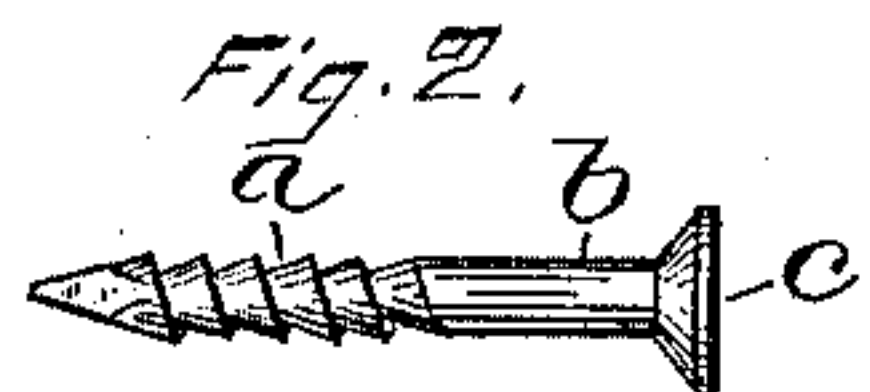
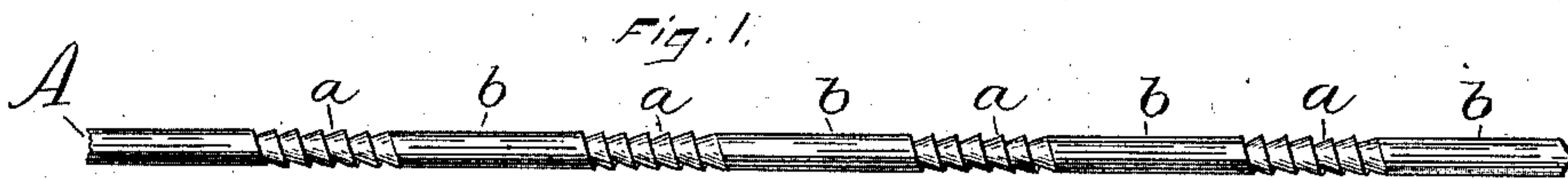


(No Model.)

H. K. JONES.  
WIRE STOCK FOR NAILS.

No. 335,133.

Patented Feb. 2, 1886.



Witnesses.

John Edwards Jr.  
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Inventor.

Horace A. Jones.

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# UNITED STATES PATENT OFFICE.

HORACE K. JONES, OF HARTFORD, ASSIGNOR TO THE RUSSELL & ERWIN  
MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT.

## WIRE STOCK FOR NAILS.

SPECIFICATION forming part of Letters Patent No. 335,133, dated February 2, 1886.

Application filed August 4, 1885. Serial No. 173,500. (No model.)

*To all whom it may concern:*

Be it known that I, HORACE K. JONES, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Wire Stock for Making Nails or Screws, of which the following is a specification.

My invention relates to wire stock prepared for use in the production of drive screws or nails; and the object of my invention is to produce a wire-nail stock having alternate barbed and smooth portions, the latter of which may be used for forming the head, and thereby produce a solid or seamless head.

In the accompanying drawings, Figure 1 is a side elevation of my wire-nail stock having barbs of a spiral form. Fig. 2 is a side elevation of a drive screw or nail made from said stock; and Fig. 3 is a side elevation of my wire-nail stock, in which the barbs are arranged concentric with said stock or wire.

I provide my wire-nail stock A with a surface of alternate barbed portions *a* and smooth portions *b*, thereby forming what I term an "intermittently-barbed" wire or rod. These portions are formed of such lengths that one barbed portion and one adjoining plain portion are, when taken collectively, of a proper length for a nail-blank. The smooth portion *b* is designed as a blank for forming the head *c*, Fig. 2, of the drive screw or nail, and, if desired, to also form a smooth or plain portion under the head of the nail, as shown in said Fig. 2. The barbed portion may, however, be made a little longer, so that in the finished nail the barbs may come well up to the head of the nail.

In Fig. 1 I have represented the barbed portion of a spiral form. In other words, each barbed portion has on the surface of the wire or stock a continuous spiral rib, substantially at right angles to said wire on one side of said rib and slanting back gradually on the other side, whereby each coil acts as a ratchet-tooth or barb when it is driven into the wood. A nail made from stock having this form of barb may be removed from the wood by unscrewing it.

In Fig. 3 each barbed portion has on the surface of the wire or rod a series of barbs or ribs, which are also of ratchet form; but instead of

being eccentric and spiral they are concentric and extend straight around the wire, forming, as it were, a series of truncated cones.

Both styles of barbs are old, but they have been used on stock which had no intermediate smooth portions.

By first forming the stock into alternate barbed and plain portions the nail may be headed, cut, and pointed by suitable machinery, thereby producing the finished nail at a small cost, which nail will have a seamless or solid head, the same as if it was headed from plain round wire, and, furthermore, the nails formed from said stock can, if desired, have a smooth or plain surface for a portion of their length under the head, the same as an ordinary wood-screw.

The barbs of the barbed portions can be made of any desired form or depth without having any effect whatever on the character of the heads, because said heads are formed from the plain unbarbed portions.

This intermittently-barbed wire-nail stock may be formed by any suitable machinery—as, for instance, by passing a smooth wire between grooved rollers having alternate plain and barbed portions or by swaging it between reciprocating dies, or otherwise—the manner of producing the intermittently-barbed wire not being material to this invention, excepting as the barbed portions represent the portions which I have worked in the wire, while the plain portions are unwrought, and therefore retain the size and shape of the original round rod or wire from which I make my stock.

My wire-nail stock, having alternate smooth and barbed portions, may be made of any indefinite length; or, if desired, it may be made into nails as fast as the barbed portions are formed on the wire.

I am aware that a prior patent shows and describes a series of connected shoe-nails having smooth oval heads and a flattened body, barbed on its flat sides, and that another patent shows a rod having alternate threaded and unthreaded portions, the threads being raised and projecting beyond the cylindrical body of the wire, the said stock being formed by rolling a wire of an oval or elliptical form in cross-section and changing the entire wire into the



form specified. All of said prior art is hereby disclaimed.

In my nail-stock the groove or grooves between the barbs are sunk below the surface of  
5 the original wire.

I claim as my invention—

The within-described nail-stock, consisting of a continuous metallic round rod or wire having the alternate barbed and smooth por-  
10 tions, the former having sunken grooves ex-

tending around the stock, and the latter being unwrought portions of the original round wire or rod from which said stock is formed, substantially as described, and for the purpose specified.

HORACE K. JONES.

Witnesses:

M. S. WIARD,  
W. C. RUSSELL.