

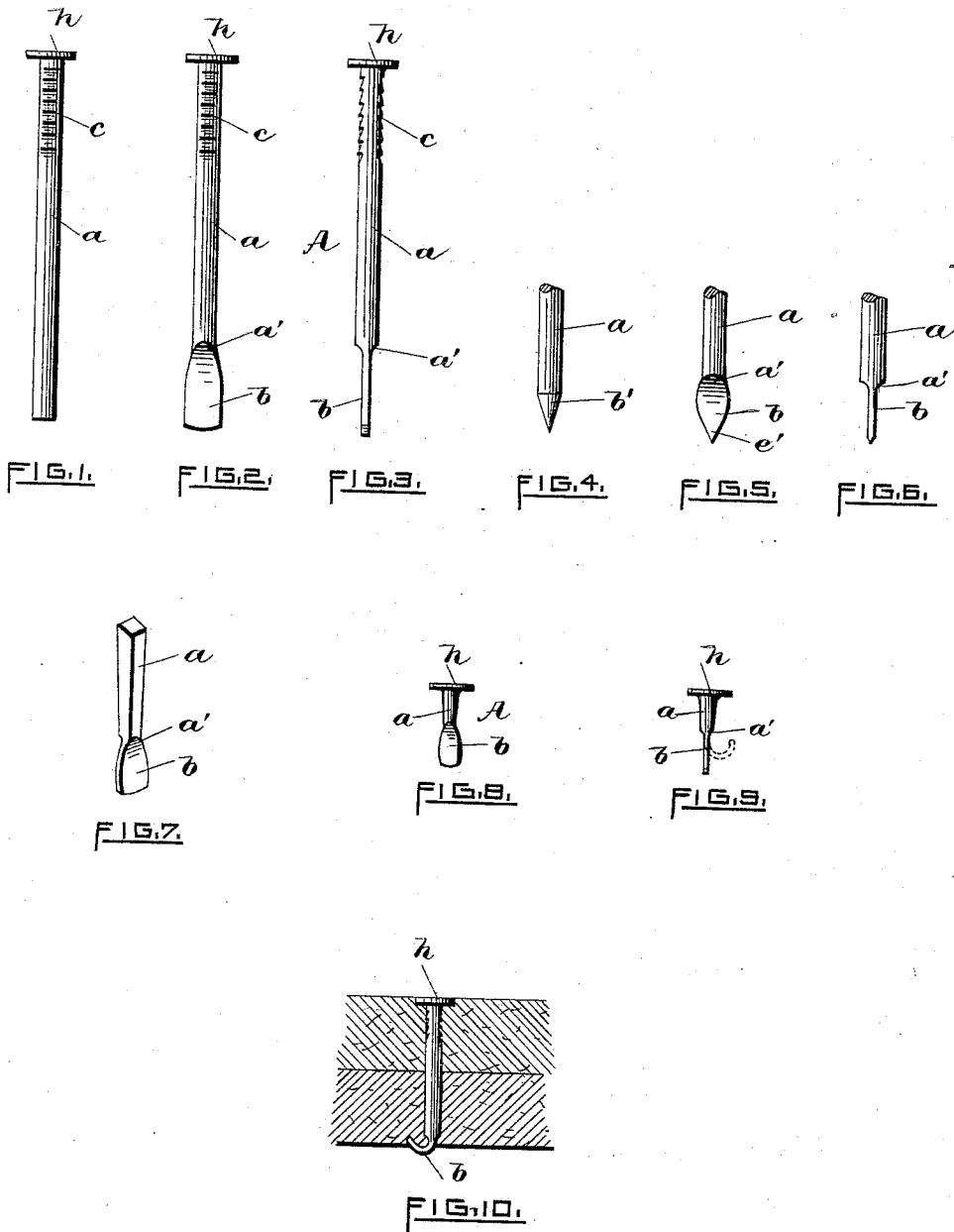
(No Model.)

J. F. THAYER.

FLAT POINTED NAIL OR TACK.

No. 387,380.

Patented Aug. 7, 1888.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JAMES F. THAYER, OF PROVIDENCE, RHODE ISLAND.

FLAT-POINTED NAIL OR TACK.

SPECIFICATION forming part of Letters Patent No. 387,380, dated August 7, 1888.

Application filed October 1, 1887. Serial No. 251,166. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. THAYER, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Nails or Tacks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention herewith relates to nails or tacks.

The nails to which my improvement is more particularly applicable are those made from wire, although nails or tacks cut from a rod of metal may be made embodying my improvement.

It is well known that in driving the ordinary nail into wood its entering is rendered more or less difficult owing to a tendency to lateral movement and a comparatively blunt point formed on the nail. Sometimes it is desirable that the point of the nail be clinched into the wood or material into which it may be driven. This result is hardly possible when nails of such ordinary form are employed.

The objects of my improvements are to so shape the point or lower portion of a nail or tack that it will meet with less resistance in entering the wood, and also at the same time enter true and fair. The nail, moreover, may be readily clinched, thus presenting a comparatively broad surface and rendering its withdrawal correspondingly difficult. I attain these advantages mainly by submitting the lower portion of the shank of the nail, including its point, to suitably-operated swaging-dies, which flatten and broaden the portion of the metal lying between them until it exceeds the diameter or thickness of the plain portion of the shank of the nail, the result being a nail having the lower portion of its shank made comparatively thin and extending rearwardly from the point, substantially uniform in thickness up to its intersection with the normal size of the shank of the nail, the width of such

swaged portion being, as just stated, somewhat greater than the normal size of the wire or unswaged portion of the shank.

In order to illustrate my improvements, I have prepared the accompanying sheet of 55 drawings, in which—

Figure 1 represents a perspective view of an ordinary wire nail with its end cut off square. Figs. 2 and 3 are views of the same after the lower portion of the nail has been subjected 60 to swaging dies or rolls, thereby producing the broad central end portion, *b*, the lower edge of which is slightly curvilinear. Fig. 4 is a perspective view of the lower portion of a wire nail having a cone-shaped point. Figs. 5 and 56 are views of the same after swaging, as just described with reference to Figs. 2 and 3. Fig. 7 is a perspective view of a nail having a shank square in cross-section and provided with my improved point. Figs. 8 and 9 are 70 perspective views of a tack having my improvement, and Fig. 10 represents my improved nail driven into wood and clinched.

In the manufacture of my improved nail the stock or metal forming the same may be 75 of usual quality, although I prefer to use "low" steel or iron having considerable ductility and homogeneousness.

In the drawings I have represented what is termed a "wire nail," having a circular 80 cross-section. It is obvious, however, that wire having other forms of cross-section may be used, if desired, or, as hereinbefore stated, the nails may be cut from a nail-rod, as common. 85

It is apparent that by the use of suitable dies and operating mechanism the point may be shaped at the same time the nail is severed from the coil of wire.

In the drawings, *a* indicates the shank of 90 the nail, and *h* the head.

c designates a roughened portion of the shank adjacent to the head. Now, if the end of the nail be cut off square, as shown in Fig. 1, and submitted to suitable swaging-dies, the 95 lower portion of the nail would be flattened out, as represented in the next two succeeding figures, the swaged portion *b* being somewhat wider than the diameter or normal size of the wire. In case the nail be first pointed, as at 100

b', Fig. 4, the resultant point *b*, after swaging, is substantially as shown in Figs. 5 and 6, the same terminating in the pointed tip *e'*.

An advantage possessed by my improved nail is that it may be more readily guided while being driven, the thin point portion easily entering without severing the fibers of the wood, thereby separating them, so that when the main portion of the nail arrives the point will have already prepared an elongated slit for its reception.

Another important feature is that the swaged point portion may be more readily bent, as in clinching. A nail thus clinched into wood offers more resistance to withdrawal than the ordinary form of nail.

What I claim is—

1. As an improved article of manufacture, a nail or tack having a flattened point or en-

tering end portion somewhat wider than the normal size of the shank portion of the nail, the same extending rearwardly up to its intersection with the shank and being substantially uniform in thickness and width.

2. A nail of the class hereinbefore described, the same consisting of a head, a roughened shank portion adjacent to the head, and a flattened point portion substantially of a uniform thickness and whose width exceeds that of the unflattened portion of the nail's shank, substantially as shown and set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

JAMES F. THAYER.

Witnesses:

CHARLES GREENE,
GEO. W. PRENTICE.