(No Model.)

W. TAYLOR.

NAIL OR SPIKE.

No. 272,600. Patented Feb. 20, 1883.

Fig. 1.

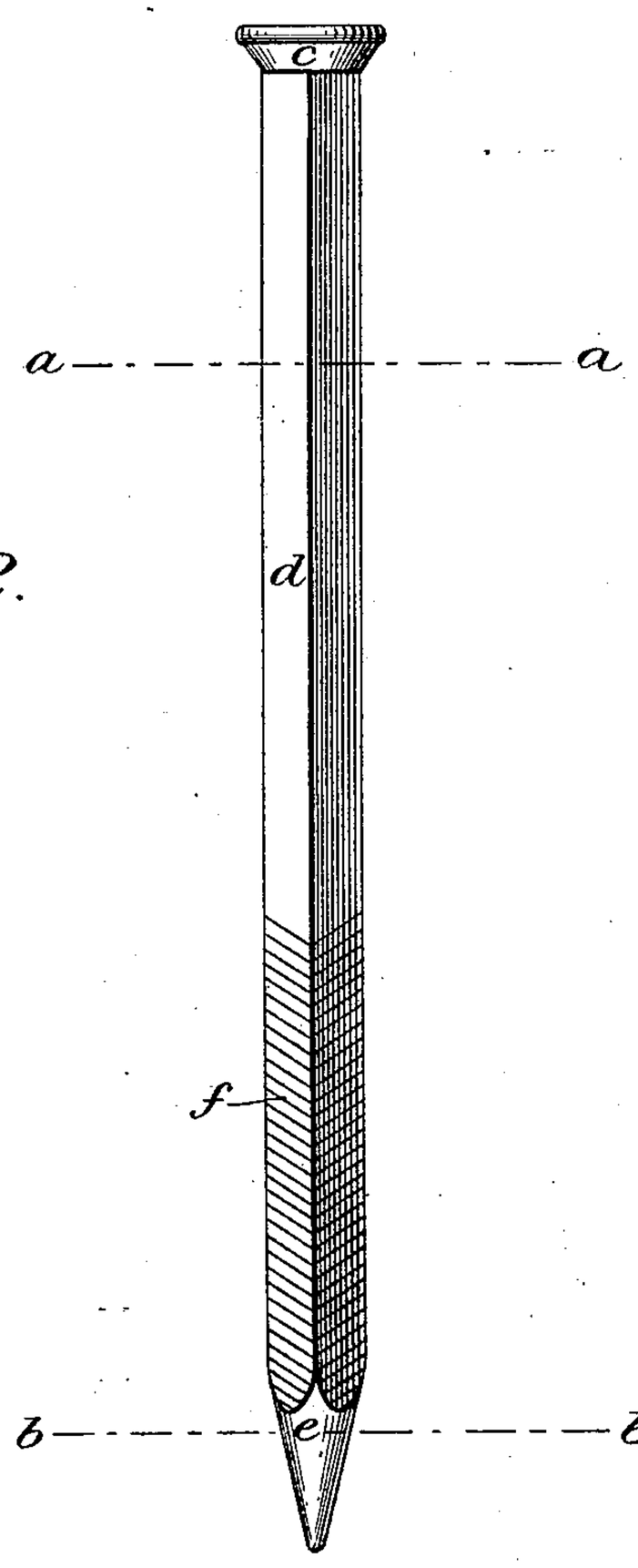
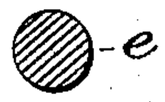


Fig. 2.

Fig. 3.



Witnesses.
Alvin L. Large
John F. Large

Inventor
William Taylor
per Josiah H. Ellis
atty

UNITED STATES PATENT OFFICE.

WILLIAM TAYLOR, OF PITTSBURG, PA., ASSIGNOR OF TWO-THIRDS TO ISRAEL C. PERSHING AND SIMEON BISSELL, OF SAME PLACE.

NAIL OR SPIKE.

SPECIFICATION forming part of Letters Patent No. 272,600, dated February 10, 1883.

Application filed September 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM TAYLOR, a citizen of Great Britain, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have made a new and useful Improvement in Nails and Spikes, which will be readily understood from the following description, taken in connection with the accompanying drawings, wherein—

Figure 1 represents a front elevation of my improved nail or spike; Fig. 2, a cross-section of the shank of the spike on the line *a a;* Fig. 3, a transverse section of its tapering point on the line *b b.*

The object of my invention is to produce a nail or spike possessing great strength and stiffness proportioned to its weight, and one that will drive easily and hold tenaciously without impairing the fiber of the wood.

The head of this nail or spike may be of any desirable thickness and of any convenient diameter, and centrally arranged in axial line with its shank. However, the shape of the head is immaterial, provided it answers the purposes for which it is intended. The shank may be of any length and size adapted to such uses as nails, spikes, bolts, and pins are put to in fastening together articles of wood or other material. The point should be long, tapering, and round, so that when being driven into wood it will easily displace its fiber and enter without much resistance; and to increase or improve the holding quality of the spike or nail in the woody fiber, that part of the shank immediately above the taper of its point should be roughened.

This nail or spike I prefer to make of steel and give the head *c* any desirable shape or form; but in order to accomplish the object of my invention, and thereby produce a superior nail, I make the body or shank *d* three-cornered or triangular in transverse section, which shape gives a maximum degree of strength and stiffness proportioned to its weight. The three corners of the shank *d* are parallel with each other from the head *c* to the commencement of the taper at the point *e*, being of uniform structure between those parts. The point *e* is round, smooth, and tapering, constituting a regular sharp cone, somewhat greater in length than the diameter of any part of the nail below its head. That part of the shank *d* above the taper of the point *e*, and extending therefrom toward the head *c* about one-third the length of the shank, is provided with a series of parallel nicks, *f*, arranged transversely or diagonally to its axis, or otherwise given a roughened surface, the intervening portion of the shank, or that part existing between the head and nicks, being left perfectly plain.

This construction of nail is such as enables it to be readily and accurately driven into the hardest wood without danger of splitting it, making a hole no larger than it can completely fill, and when driven the shape of the nail is such as to enable the fiber of the wood to lie closely against its shank, while the nicked or roughened surface near the point improves its holding and retaining property.

As nails and spikes are generally used for fastening two or more pieces of wood together by passing entirely through one piece into the other, there is no necessity for having the nail roughened, except at that part entering the secondary piece of wood.

I am aware that nails having a series of nicks in the shank are not new; but heretofore in such cases the nicks were located on the shank immediately underneath the head, extending but a short distance therefrom, such nicks being incidentally made by roughening the gripping-dies to assist in holding the blank during the heading process, and such nicks, instead of being beneficial to the nail, were and are rather injurious, as they tend to weaken its shank at a part requiring the greatest strength, whereas my improved nail is designedly nicked or roughened at a part remote from the head, producing no weakness of the shank, but assisting very materially in giving it a retentive hold in the wood.

I am also aware that nails and spikes having a triangular shank have been in use for a long time, and therefore are not new. I am also aware that nails and spikes having a round conical point have heretofore been used and of itself comprises nothing new. Therefore I lay no claim to any of those devices when separately considered; but

I do claim—

1. As a new article of manufacture, a headed nail or spike having a shank of triangular

form, provided with a round tapering conical point.

2. A headed nail or spike having a shank of triangular form, provided with a series of transverse or diagonal nicks, notches, or indentations on one or all of its sides, at or near its point.

3. A headed nail or spike having a shank of triangular form, terminating in a conical point and nicked, notched, or roughened from the taper of its point about one-third of its length upward toward the head, the intervening portion of the shank being plain.

4. A headed and pointed nail or spike the shank of which from the head to the taper of the point is of uniform diameter, and provided with a nicked or roughened surface at or near the point, substantially as and for the purposes hereinbefore set forth.

WILLIAM TAYLOR.

Witnesses:
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