

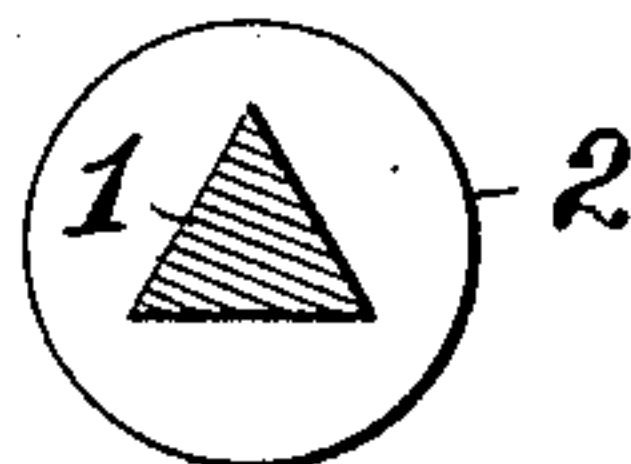
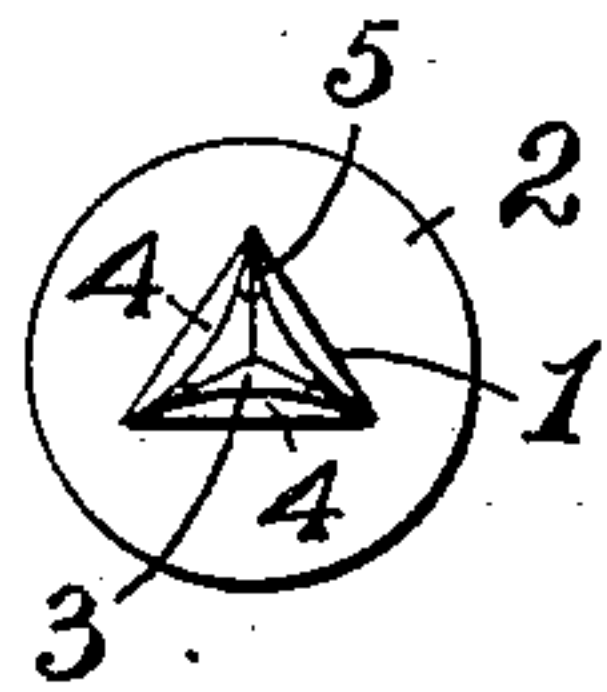
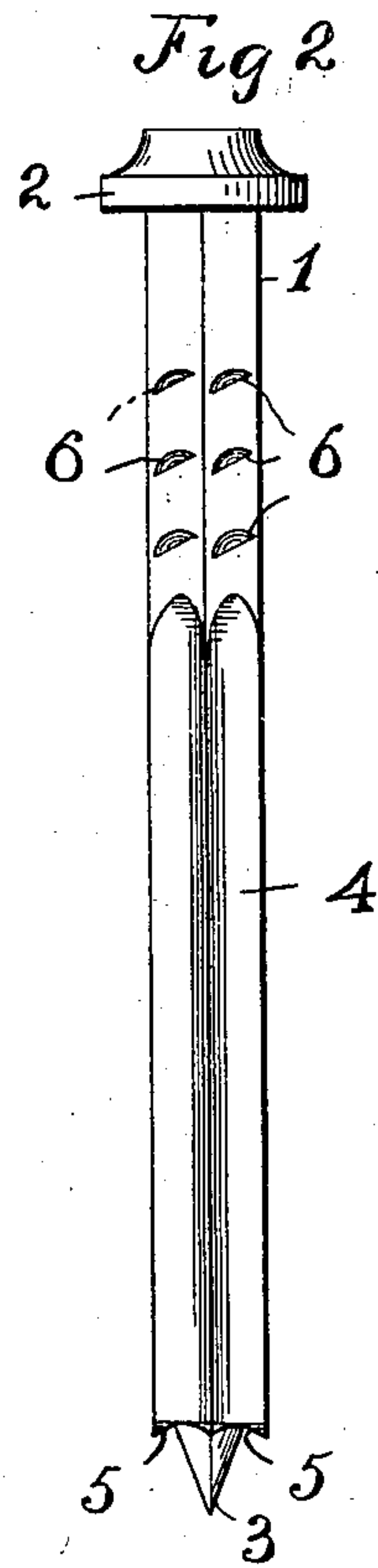
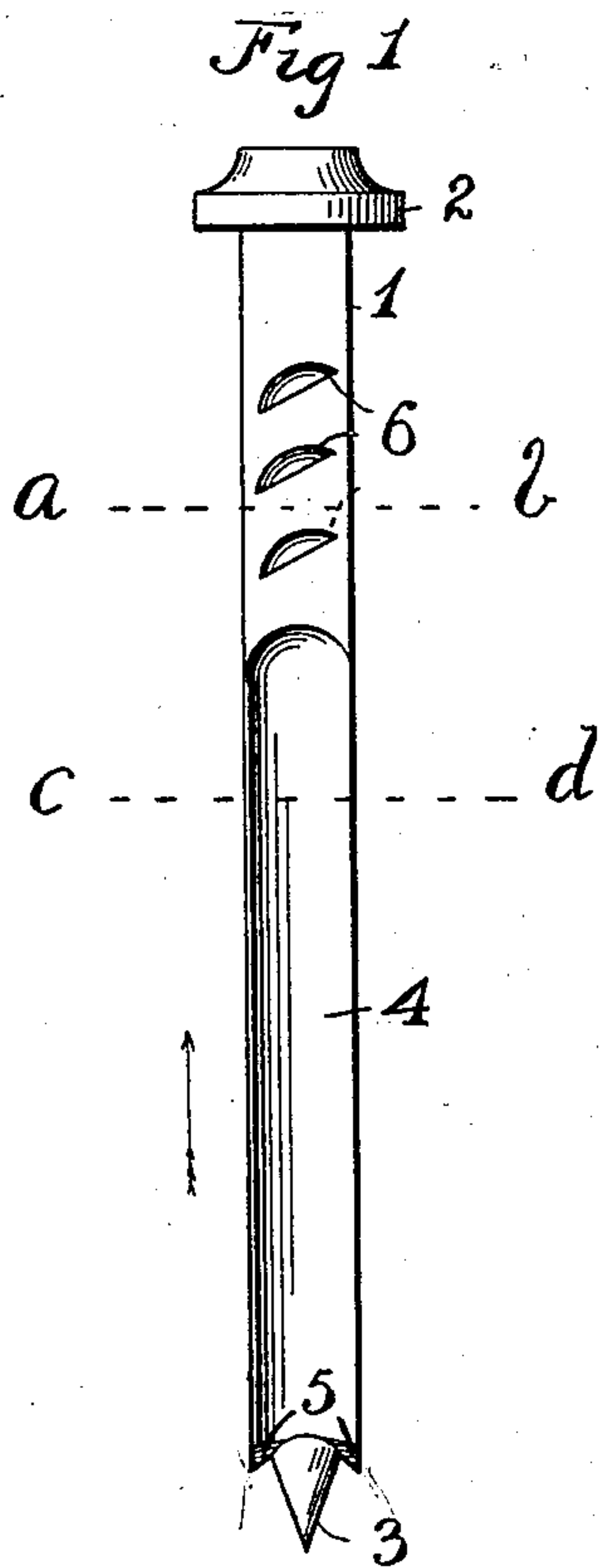
No. 723,452.

PATENTED MAR. 24, 1903.

J. W. ESTES.  
NAIL.

APPLICATION FILED JUNE 23, 1902.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN W. ESTES, OF ELWOOD, MISSOURI, ASSIGNOR OF ONE-HALF TO HARRY C. VROOMAN, OF ROSEDALE, KANSAS.

## NAIL.

SPECIFICATION forming part of Letters Patent No. 723,452, dated March 24, 1903.

Application filed June 23, 1902. Serial No. 112,733. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. ESTES, a citizen of the United States of America, residing in Elwood, in the county of Greene and State of Missouri, have invented a new and useful Improvement in Nails, of which the following is a specification, reference being had therein to the accompanying drawings, forming a part thereof.

My invention relates to improvements in nails.

The object of my invention is to provide a nail that will not be liable to split a piece of wood when driven into it. Its further object is to provide a nail that will have great strength proportionate to its weight.

A further object is to provide a nail that may be easily started in driving.

My invention consists in a nail the body of which is provided with a plurality of sides, preferably three, each of which has a longitudinal groove therein beginning at one end and decreasing in depth toward the other end.

It consists, further, in providing a head at one end and a central pointed projection at the other end, the adjacent sides being beveled at their lower ends outside the pointed projection.

Other features of novelty are hereinafter fully described and claimed.

In the accompanying drawings, illustrative of my invention, Figure 1 is a side elevation view showing one side of a three-sided nail. Fig. 2 is a similar view showing two sides of the nail. Fig. 3 is an end view looking in the direction indicated by the arrow in Fig. 1. Fig. 4 is a cross-section taken on the dotted line *a b* of Fig. 1. Fig. 5 is a similar view taken on the dotted line *c d* of Fig. 1. Both the latter views are taken in the direction indicated by the arrow.

Similar numerals of reference indicate similar parts.

1 indicates the body, which is preferably triangular in cross-section. 2 is the head. 3 is a pointed central projection at the other end of the body. Each side is provided with a groove 4, which extends from the pointed projection 3 toward the head, preferably de-

creasing in depth until it terminates some little distance below the head. The grooves 4 are preferably curved throughout, so as to offer little resistance. The lower ends of the sides are beveled toward each other to provide a cutting edge, as indicated by 5. The beveled edge 5 is preferably inclined from the outer edge upwardly to the pointed projection, as shown, so as to provide points at the outer edges of the sides of the body which enter the wood after the point 3 and cause the fiber to be forced inwardly instead of outwardly, thus obviating any tendency to split the wood. In each side above the grooves 4 are a series of obliquely-inclined transverse notches 6, which preferably terminate at their ends inside the corners of the body.

In operating my invention the point is inserted and the nail driven in the ordinary manner, the cutting edges 5 and the grooves 4 tending to compress the wood and force it inwardly instead of outwardly. The notches 6 will receive some of the wood fiber, which will prevent the nail coming out after it is in place. The triangular form gives great strength to the body proportionate to the weight of the nail. The sides 4 are preferably parallel throughout at their outer edges, so as to prevent tendency to expand the wood when the nail is driven.

My invention may be variously modified without departing from its spirit.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A nail comprising a body provided with a plurality of parallel sides each being provided with a longitudinal groove extending upwardly from the lower end, the lower ends of adjacent sides being beveled toward each other, the beveled ends being inclined upwardly from their outer sides toward the axis of the body, and a pointed projection located at the lower end of the body and extending beyond the lower ends of the sides of the body, substantially as described.

2. A nail comprising a triangular body, the lower ends, where adjacent sides meet, being inwardly and upwardly inclined and bev-

eled toward each other, the edges formed by  
the meeting of adjacent sides being parallel  
their full lengths, and a pointed projection  
at the lower end of the body extending below  
5 the edges of the body and located centrally  
between the beveled portions, substantially  
as described.

In testimony whereof I have signed my  
name to this specification in presence of the  
two subscribing witnesses.

JOHN W. ESTES.

Witnesses:

WARREN D. HOUSE,  
R. E. HAMILTON.