

THEODORE R. TIMBY.

Improvement in Railroad Spikes.

No. 121,023.

Patented Nov. 14, 1871.

FIG. 1.

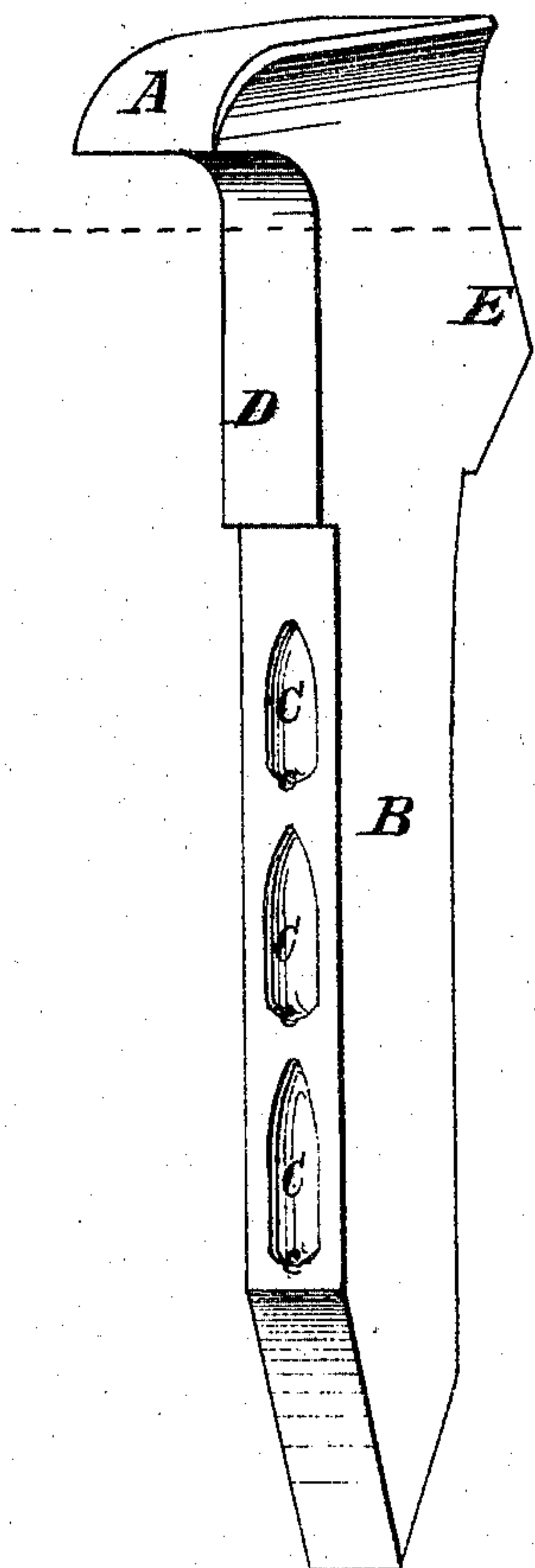


FIG. 2.

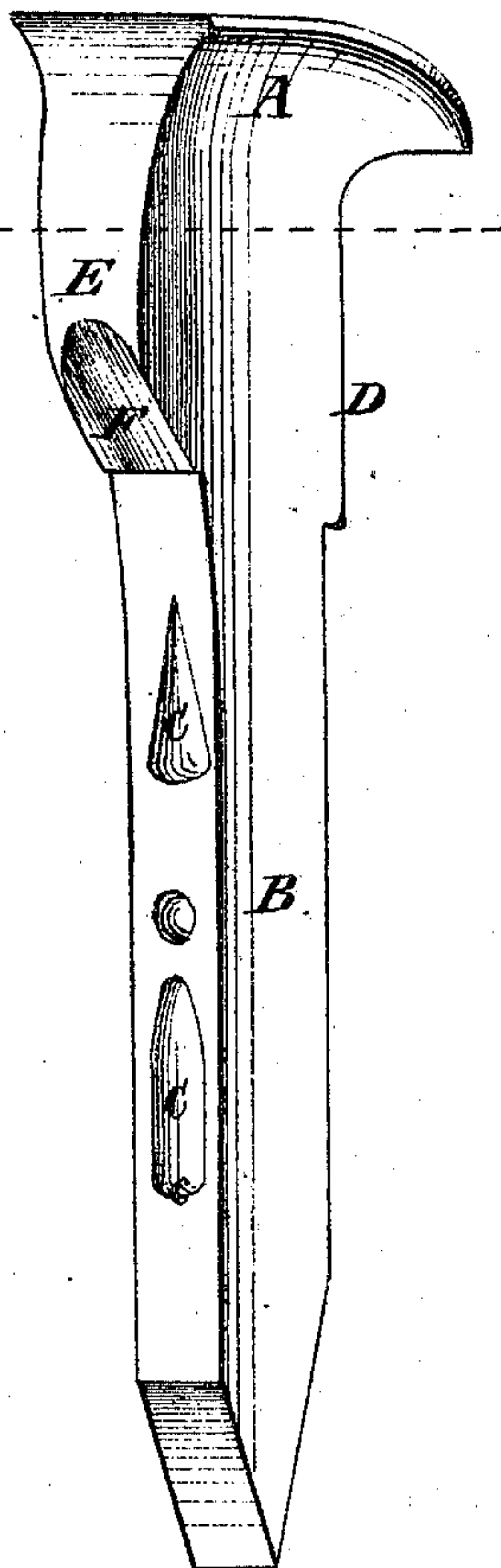
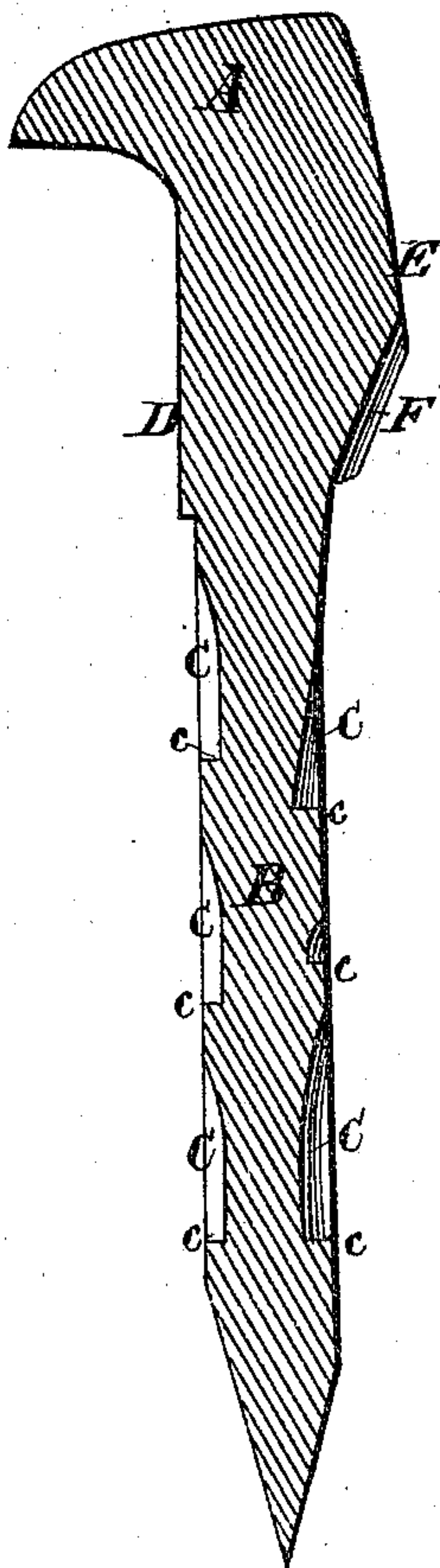


FIG. 3.



ATTEST.

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THEODORE R. TIMBY, OF TARRYTOWN, NEW YORK.

IMPROVEMENT IN RAILROAD SPIKES.

Specification forming part of Letters Patent No. 121,023, dated November 14, 1871.

To all whom it may concern:

Be it known that I, THEODORE R. TIMBY, of Tarrytown, in the county of Westchester and State of New York, have invented an Improvement in Railway Spikes; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same.

My spike is square, or approximately so, in its transverse section; is made with a projection at back, forming an angle at a point below the line to which it is intended to be driven into the wood, with an enlargement at front to take the wear which is caused by contact with the flange or base of the rail, and also impart greater stiffness and strength to the upper part of the spike. Instead of the barbs, which are more commonly employed to give a secure hold in the wood, I form in the body or lower part of the spike grooves, cavities, or indentations, sloping above, and with abrupt or rectangular shoulders at their lower ends; but the enlargement in front and the recesses or cavities I do not claim as new in themselves.

In the drawing, Figure 1 is a perspective view of my improved spike, looking from the front. Fig. 2 is a perspective view of the same, looking from the rear. Fig. 3 is a longitudinal section thereof.

A is the head, and B the body of the spike. C C C are cavities formed at their lower extremities, with abrupt shoulders *c*, which do not obstruct the driving of the spike, but when it is driven afford a very secure hold on the grain of the wood. The end of the grain of the wood fits into these cavities, and, by emptying a number

of these cavities, they may be made to exert any necessary amount of holding force. D represents an enlargement in front of the neck of the spike where it is subjected to wear from contact of the base of the rail. By thus enlarging the spike at this point its durability is greatly increased, inasmuch as the limit of the life of the spike is determined by the wear and final breakage of the neck, where the chief strain occurs. E is an enlargement or cavity on the back of the neck of the spike, formed to give additional strength at this point, and also to afford a more secure hold in the tie. The dotted line shows the depth to which the spike is driven into the tie—that is to say, beyond the most prominent part of the rear projection E. In the act of driving the spike the wedge-shaped lower part of the projection E has the effect of pressing the upper part of the spike forward, causing the head A to more tightly clamp the base of the rail. At the lower part of the projection E is a longitudinal groove or cavity, F, so formed that when the spike is driven the ends of the fibers will be compressed together rather than apart, and tendency to split the timber will thus be avoided. The projection E is especially valuable in permanently holding the top of the spike up to its work.

I claim as my invention—

The rearward projection E, formed of a double bevel, with an obtuse angle below the point to which the spike is intended to be driven.

THEODORE R. TIMBY.

Witnesses:

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