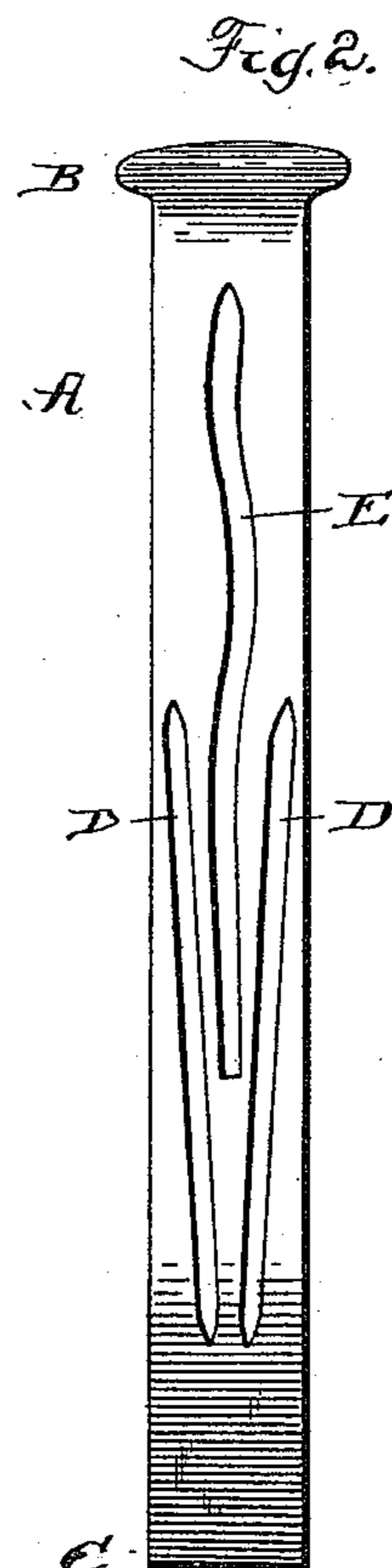
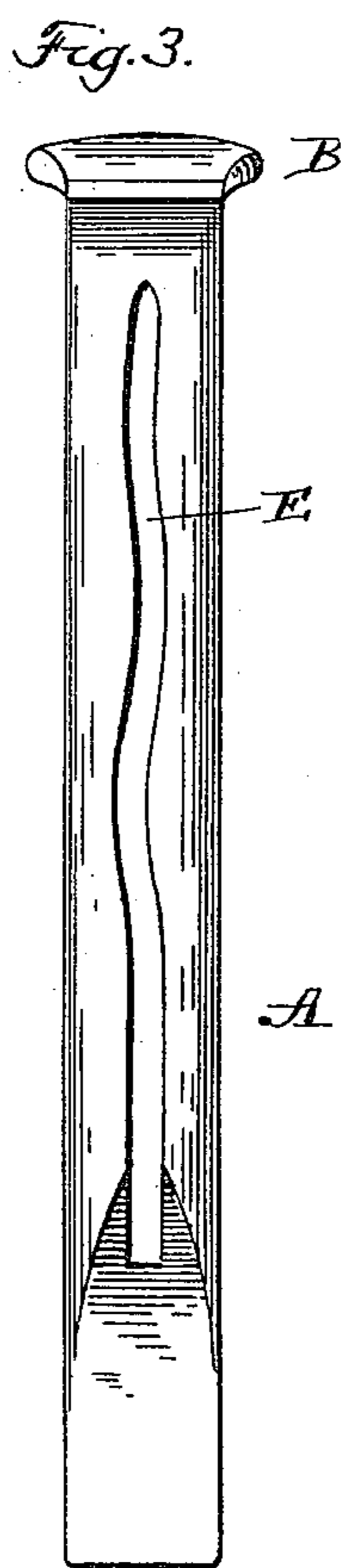
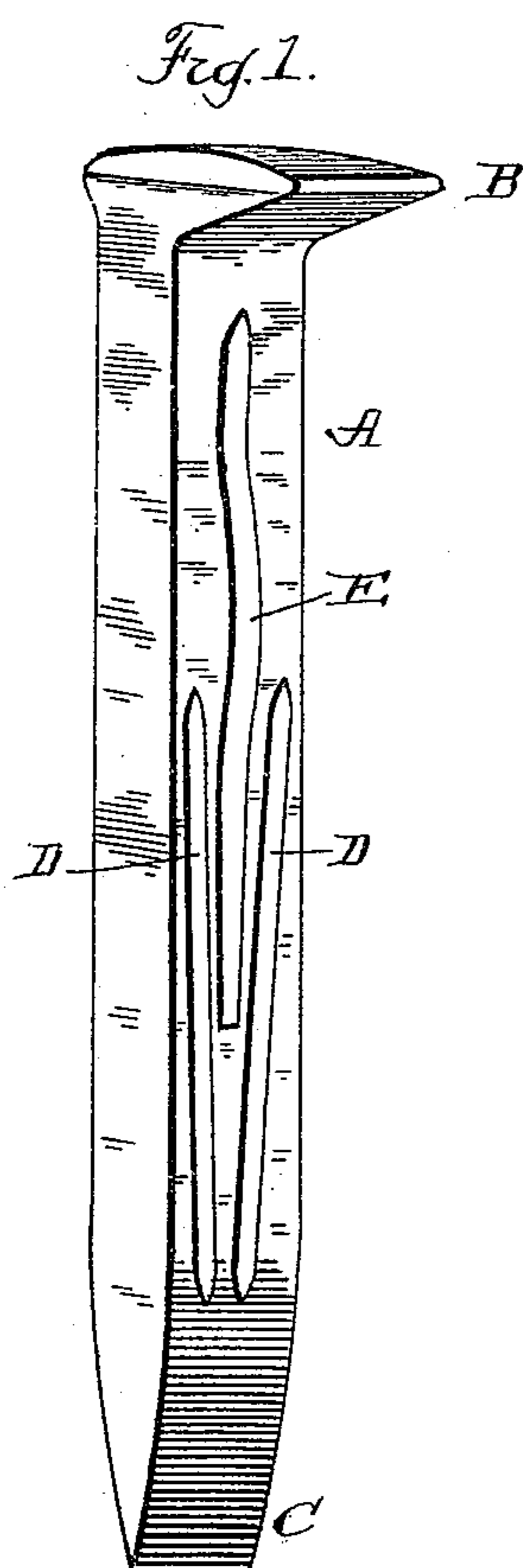


(No Model.)

M. HAUPREICHT.  
SPIKE.

No. 440,227.

Patented Nov. 11, 1890.



Witnesses  
Ira R. Steward  
Alfred T. Sage

By

Inventor  
M. Hauptrecht  
his Attorney.

# UNITED STATES PATENT OFFICE.

MATHIAS HAUPREICHT, OF BROOKLYN, NEW YORK.

## SPIKE.

SPECIFICATION forming part of Letters Patent No. 440,227, dated November 11, 1890.

Application filed March 21, 1890. Serial No. 344,779. (No model.)

*To all whom it may concern:*

Be it known that I, MATHIAS HAUPREICHT, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Spikes; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to spikes generally, and has for its object to so construct the spike that it will most securely take hold of and retain its hold on the wood into which it will be driven, and thus more effectually bind together the parts intended to be joined one to the other.

To the accomplishment of these objects and such others as may hereinafter appear, the invention consists in the construction hereinafter particularly described and claimed, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a perspective of the spike. Fig. 2 is a rear view of the same. Fig. 3 is a side view showing the invention applied to a spike which is round in cross-section.

In the drawings, the letter A designates a spike formed with a head B and point C of any ordinary approved construction, but preferably made with a long chisel-point, as shown. In cross-section the spike may be of any desired configuration, angular or round.

In one or more sides of the spike, preferably on the front and rear faces, are formed two grooves or ways B, extending longitudinally of the spike, but obliquely to its length—that is, they incline inwardly from opposite edges of the spike toward each other, from their upper ends downwardly, thus forming a V or wedge shaped groove with a central core, with the base of the wedge toward the upper end of the spike and the apex toward its point. The advantage of this construction is not only that the fibers of the wood are compressed and forced into the grooves so as to give increased contact and conse-

quent binding-surface and increasing the area and friction nearly double that of a plain-surface spike, but the wood is compressed in such a direction that any tendency to withdraw the spike forces the wood, as it were, into a narrower space—that is, wedges it into or between the converging walls of the inwardly-inclined grooves, and thus the more tightly binds the spike to the wood, so that any tendency to withdraw the spike or work it out by the vibratory motion of the rail only tightens the grip of the spike instead of loosening it.

There may be used on the same side of the spike with the converging grooves, or on another side, a curved or irregular groove E, which is preferably formed at its lower end with a square terminal instead of a taper, as shown in the other grooves, so as to form a shoulder against which the fibers of the wood will bear and constitute a stop against the outward movement of the spike. This groove may extend between the straight grooves and above them, if desired. This curved or irregular groove serves to compress and deflect the fiber of the wood in an irregular line, so that the spike meets with more resistance in an attempt to withdraw it than when the groove is straight, although inclined.

I may use only the two grooves converging toward each other, as described, or I may use only the single groove, curved or irregular, as described; but I prefer to use both together, as then the very best results are obtained.

The grooves may extend any desired distance along the length of the spike; but the length illustrated is deemed the best. I, however, may vary the length of the grooves and may also change the angle of their inclination and also the direction and length of the curve without departing from the spirit of the invention.

This invention, although particularly well suited for railway-spikes, still is not confined thereto, as it may be applied to any other form of fastening of the spike or nail order. It may also be applied to round instead of angular spikes—for instance, as illustrated in Fig. 3, where a spike circular or round in cross-section is illustrated, and in that figure I have illustrated only a curved or irregular groove in the spike.

Having described my invention and set forth its merits, what I claim is—

1. A spike or similar article formed on the same face with two grooves inclining inwardly toward each other in the direction of their lower ends, substantially as and for the purposes set forth.

2. A spike or similar article provided on its face with a longitudinally-extending curved or irregular groove, substantially as and for the purposes set forth.

3. A spike or similar article having formed in its face two inwardly-inclined grooves converging toward their lower ends and a curved or irregular longitudinally-extending groove, substantially as and for the purposes set forth.

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

MATHIAS HAUPREICHT.

Witnesses:

WILLIAM S. WARWICK,  
JOHN M. FENORESTY.