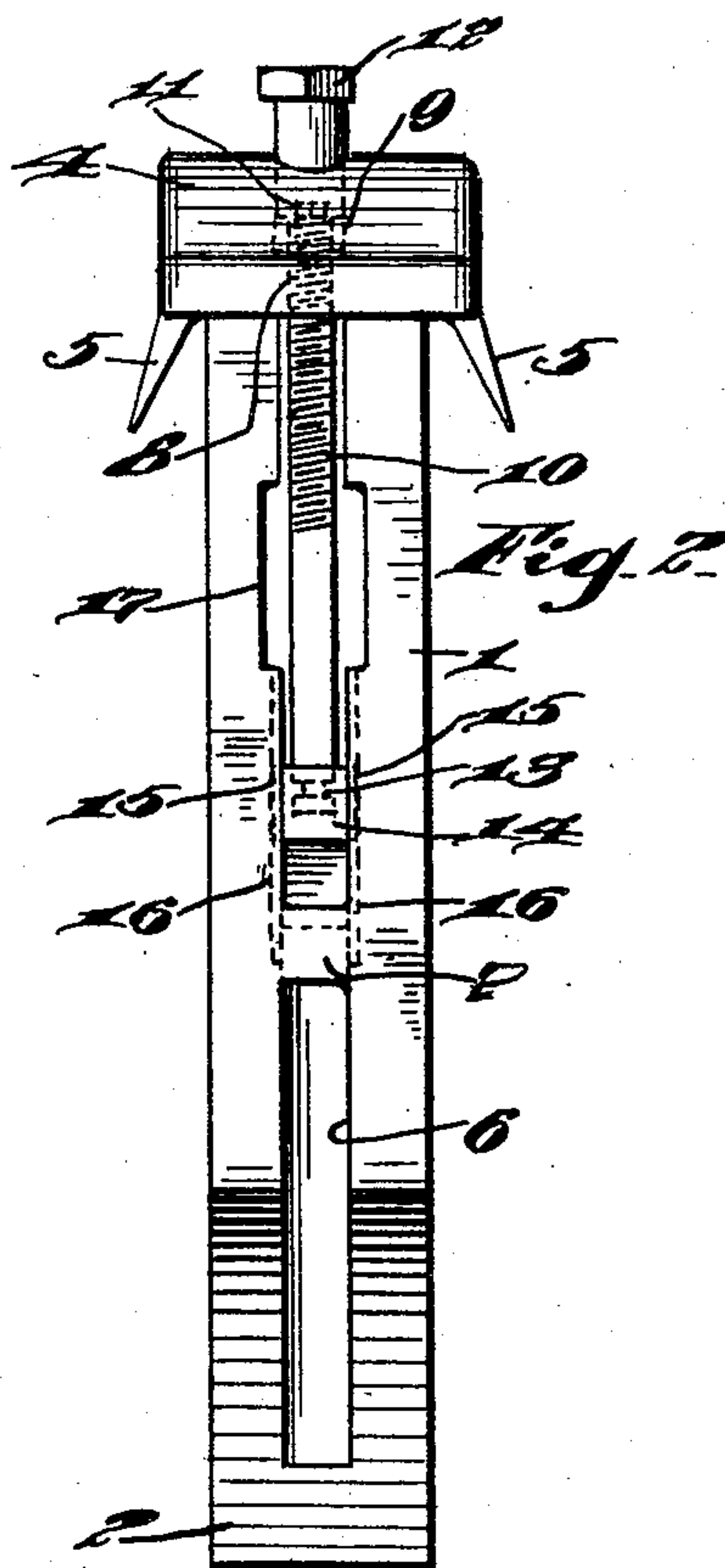
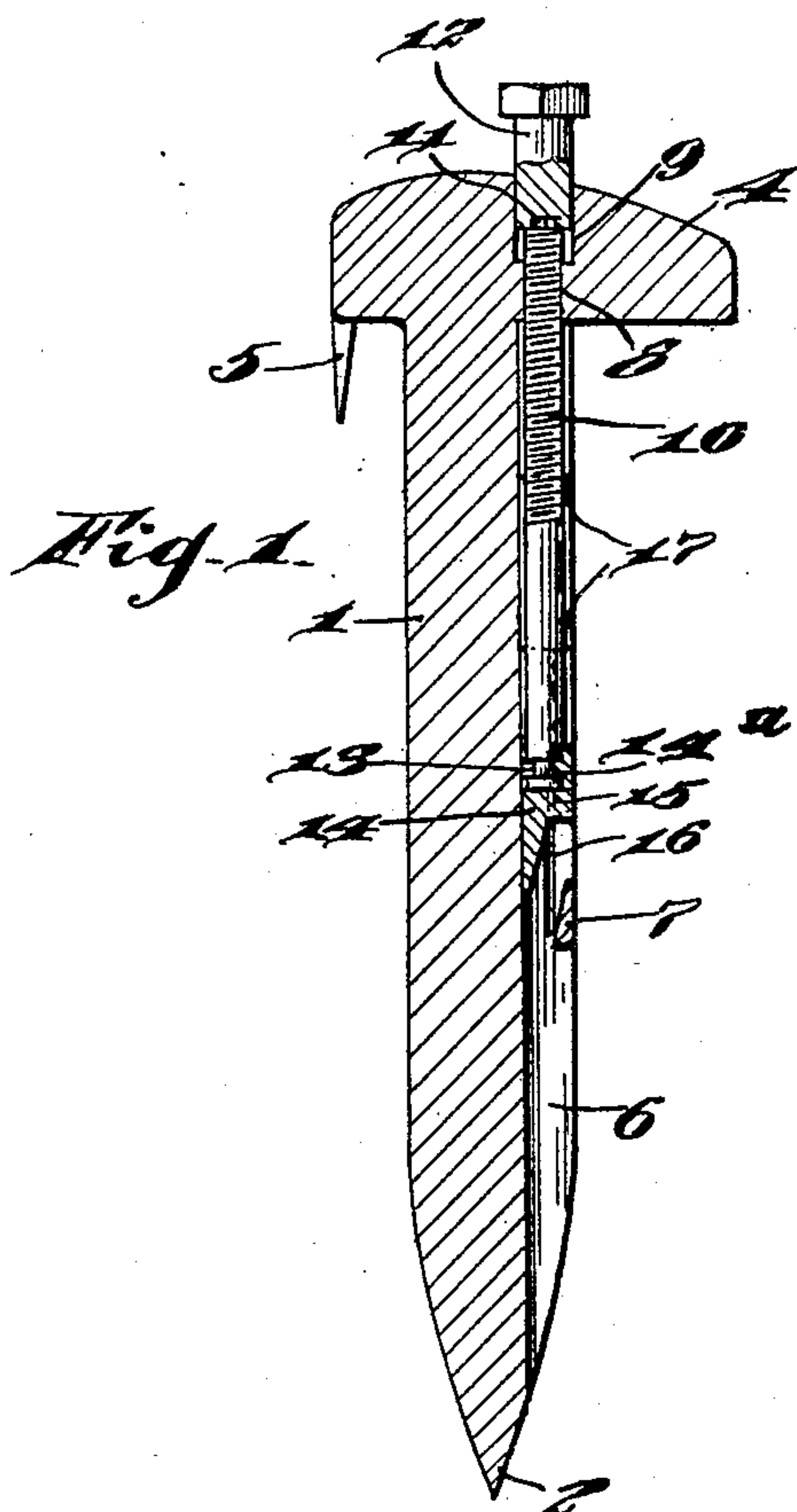


**SPIKE.**

APPLICATION FILED APR. 1, 1910.

Patented Sept. 6, 1910.



*Fig. 3*

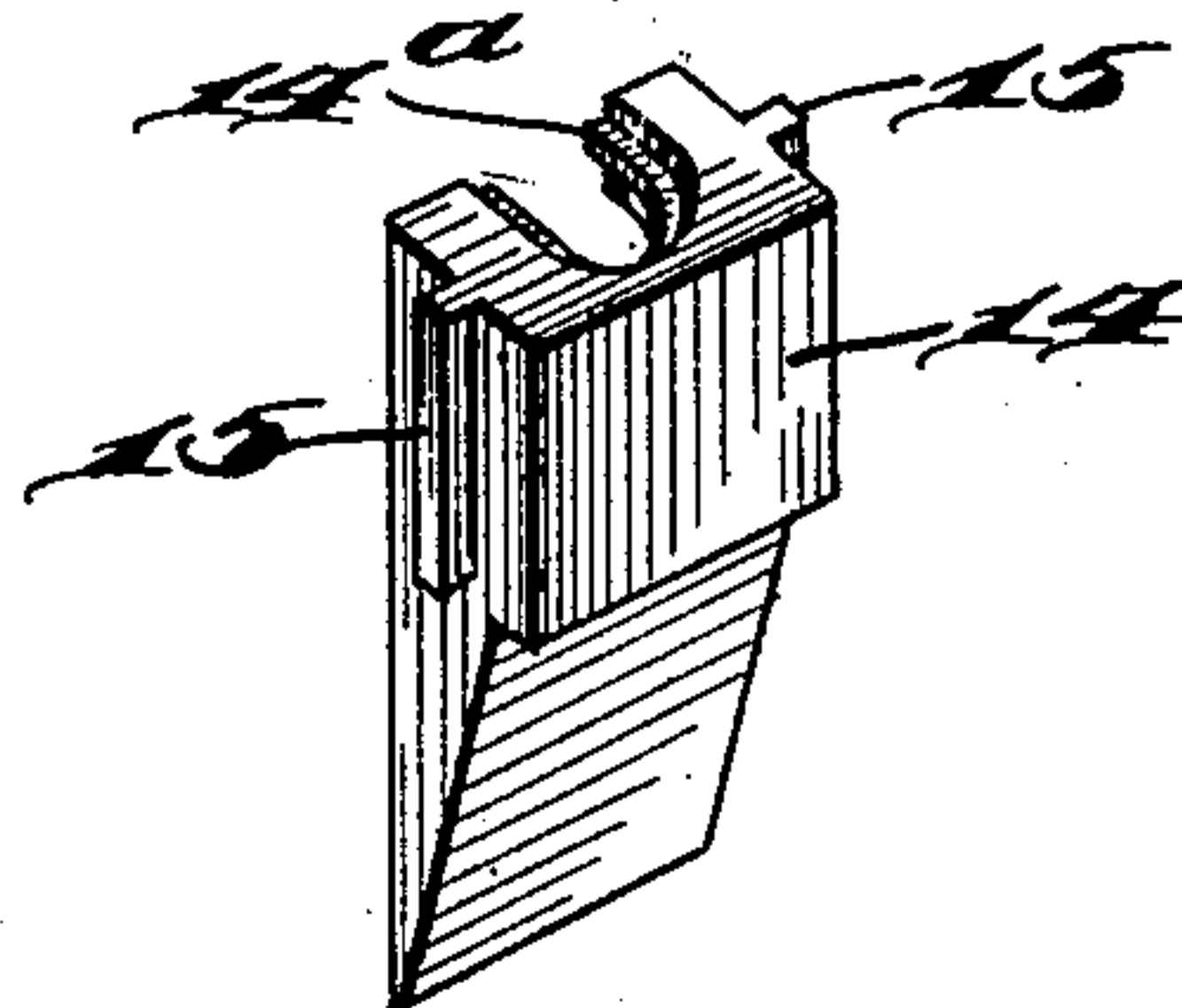
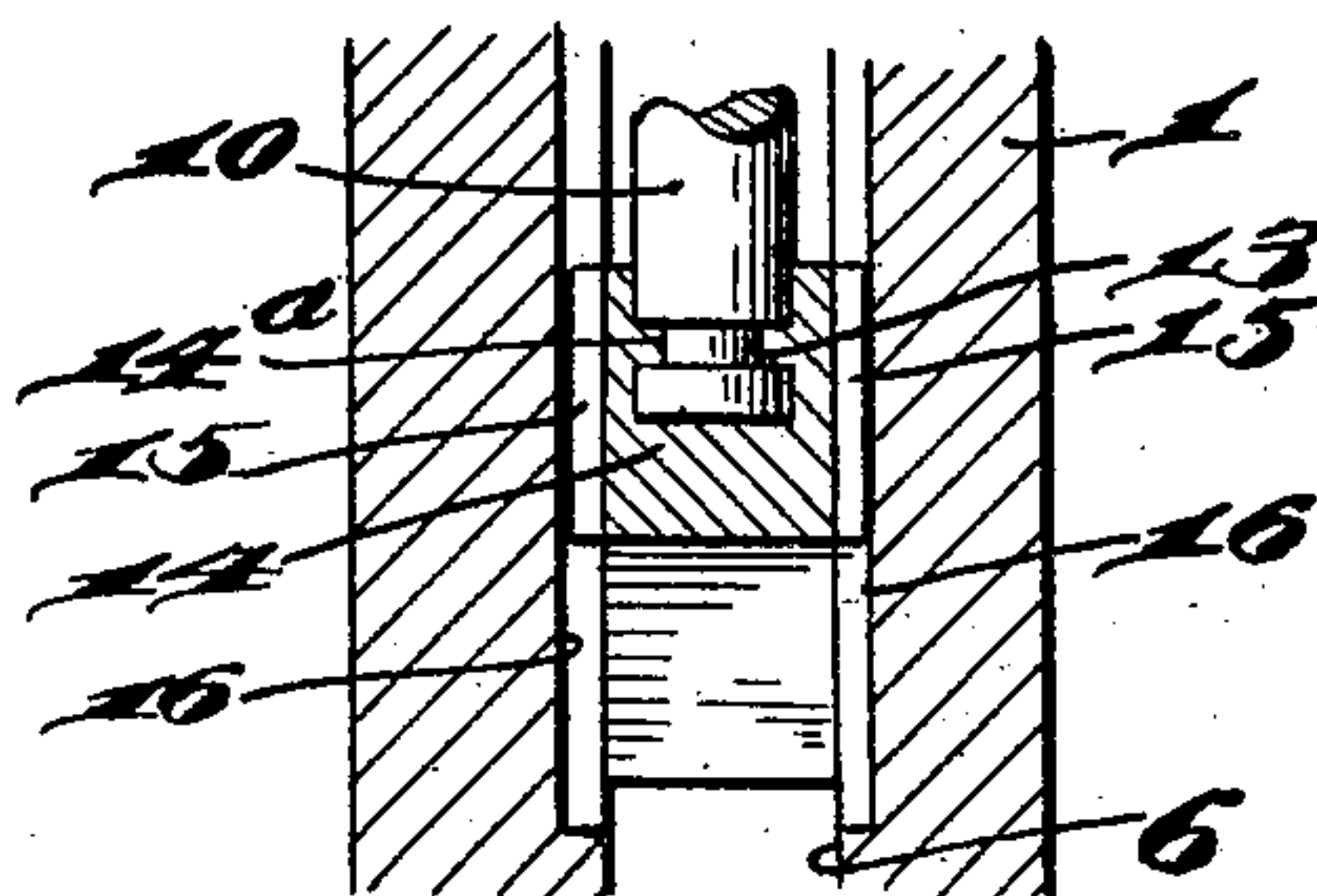


Fig. 4.



Inventor

Witnesses

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# UNITED STATES PATENT OFFICE.

MATHIAS MACK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO  
HERMON SAVAGE, OF PHILADELPHIA, PENNSYLVANIA.

## SPIKE.

969,382.

Specification of Letters Patent.

Patented Sept. 6, 1910.

Application filed April 1, 1910. Serial No. 552,768.

*To all whom it may concern:*

Be it known that I, MATHIAS MACK, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Spikes, of which the following is a specification.

My invention relates to improvements in spikes, and more particularly to spikes designed to be driven into railroad ties to clamp the rails thereto, the object of the invention being to provide improved mechanism on the spike which will securely clamp the wood of the tie and prevent any possibility of accidental movement of the spike.

A further object is to provide a spike which may be driven into the tie, as are ordinary spikes, and when in position in the tie a screw-threaded rod carried by the spike may be turned to move a wedge, and the latter securely clamping the wood of the tie interiorly of the tie.

With these and other objects in view, the invention consists in certain novel features of construction, and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a view in longitudinal section illustrating my improvements. Fig. 2, is a view in elevation. Fig. 3, is a detail perspective view of the wedge, and Fig. 4, is an enlarged view in longitudinal section through the wedge and screw, at right angles to Fig. 1.

1, represents the spike, which is provided with a sharp lower end 2, to be driven into the tie and with a head 4 at its upper end, to engage over the base flange of the rail. The outer end of this head 4 is provided with diverging prongs or spurs 5, which are driven into the tie and prevent lateral movement of the spike.

Spike 1 is provided with a longitudinal groove 6, across which an integral bar 7 extends as illustrated. The head 4 is provided with screw-threaded opening 8, and an enlarged socket 9, communicating with the opening 8.

In the opening 8, a screw-threaded rod 10 is located, and is disposed in the upper portion of the groove 6. The upper end of this screw-threaded rod 10 is made into the form of an angular head 11, to receive a removable turning device 12. This turning de-

vice 12 has a socket in its lower end to engage the head 11, and at its upper end is made angular, so that it may be readily turned by an ordinary wrench.

The lower end of rod 10 is provided with an annular groove 13, and 14 represents my improved wedge which is made with a socket to receive the end of rod 10, and has an internal flange 14<sup>a</sup> to engage in the groove 13 and compel the wedge and rod to move longitudinally together, but permit the rod to turn in the wedge.

The wedge 14 is provided at opposite sides with guide flanges 15, movable in longitudinal grooves 16 in the spike, and the wedge is entered at an enlarged recess portion 17 in the spike, and then moved to the position shown.

It will be noted particularly by reference to Fig. 1, that the wedge 14 and bar 7, have beveled or inclined faces, substantially parallel to each other, so that when the spike is driven down into the tie, the wood which enters groove 6 will move between these two faces, and when the wedge is forced downward by means of the screw-threaded rod 10, this wood will be securely clamped between the wedge 14, and bar 7, and there can be no possibility of accidental movement of the spike.

To remove the spike, the rod 10 is turned in an opposite direction to release the wood between the wedge 14 and the bar 7, when the spike can be readily withdrawn. In driving the spike, the turning device 12 is removed and is only in the position shown in adjusting the wedge.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

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

1. A spike having a longitudinal groove therein, a bar across said groove, a wedge movable in said groove, and a screw threaded rod for moving said wedge, substantially as described.

2. A spike having a longitudinal groove therein, a bar across said groove, a wedge,

guide flanges on the sides of said wedge movable in grooves in the walls of said first mentioned spike groove, a screw-threaded opening in said spike, a screw-threaded rod 5 in said opening, and said rod connected to said wedge, substantially as described.

3. A spike having a longitudinal groove therein, and a head on one end, said head having a screw-threaded opening there- 10 through, and an enlarged socket communicating with said opening, a bar across said groove, a wedge movable in said groove, a

screw-threaded rod in said opening, connected to the wedge, and a removable turning device in said socket engaging the end 15 of said rod, substantially as described.

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

MATHIAS MACK.

Witnesses:

P. H. KRENKEL,  
CHAS. E. POTTS.