

(No Model.)

W. S. McCLAY.  
RAILROAD SPIKE.

No. 562,411.

Patented June 23, 1896.

Fig. 1.

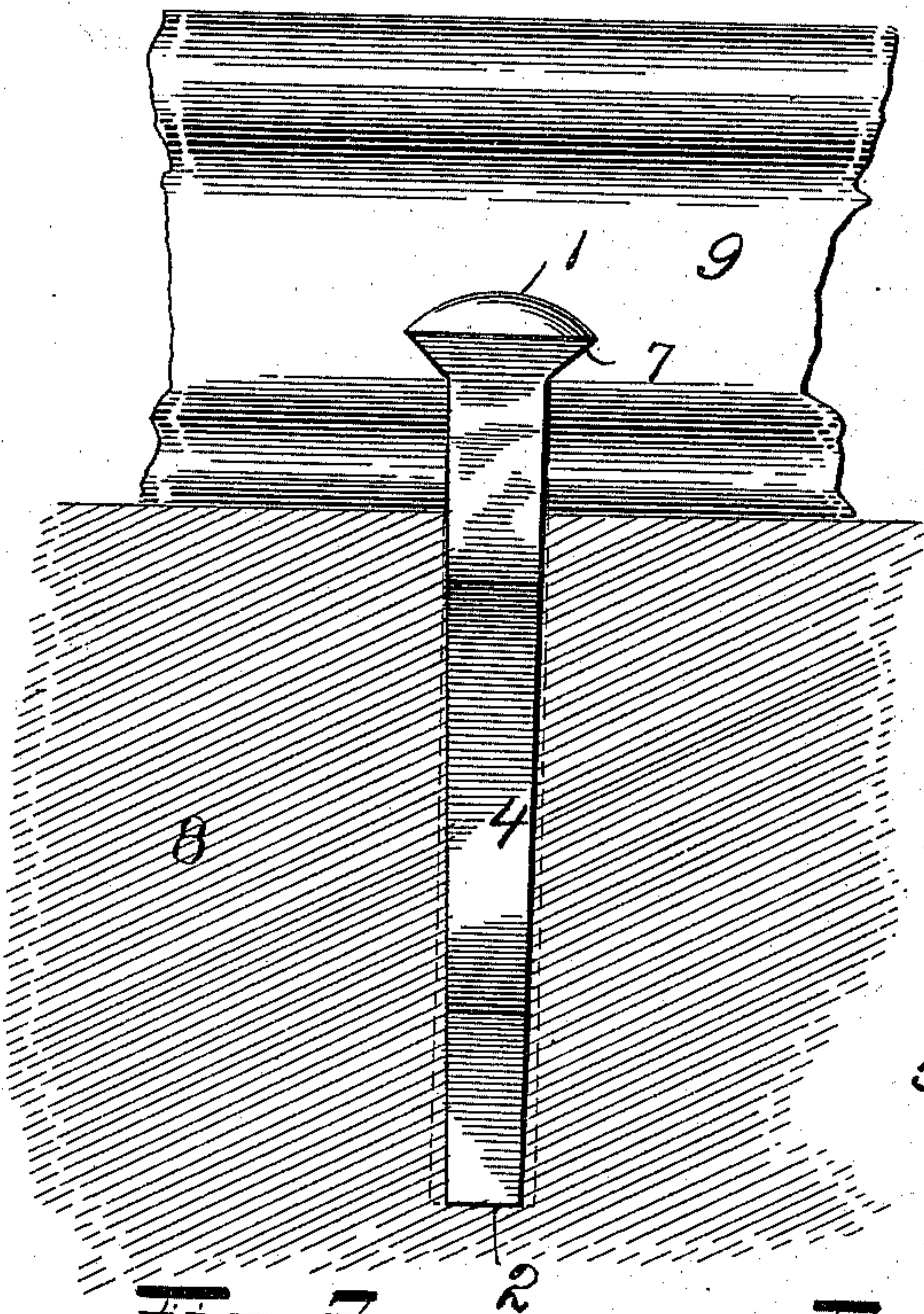


Fig. 2.

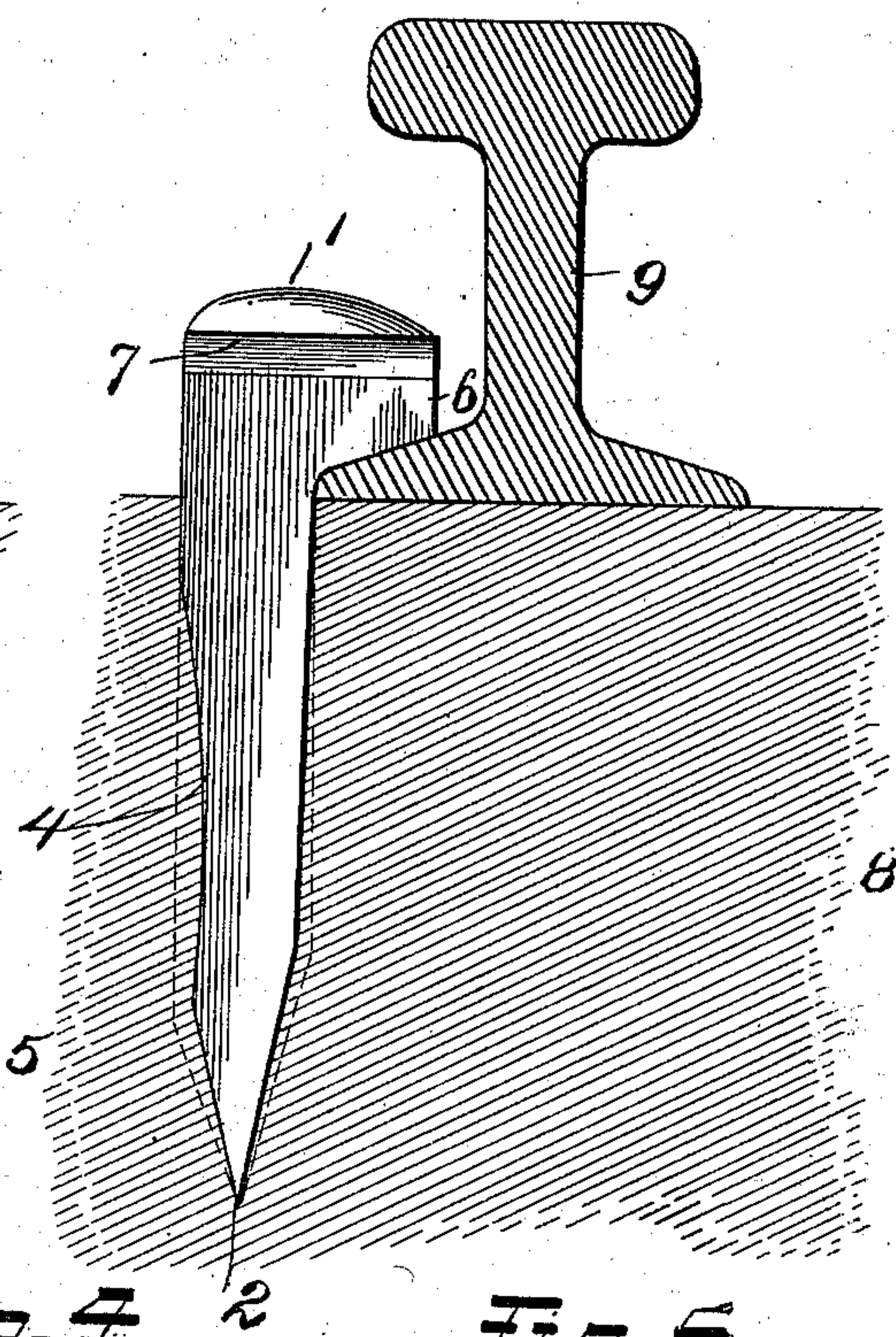


Fig. 3.

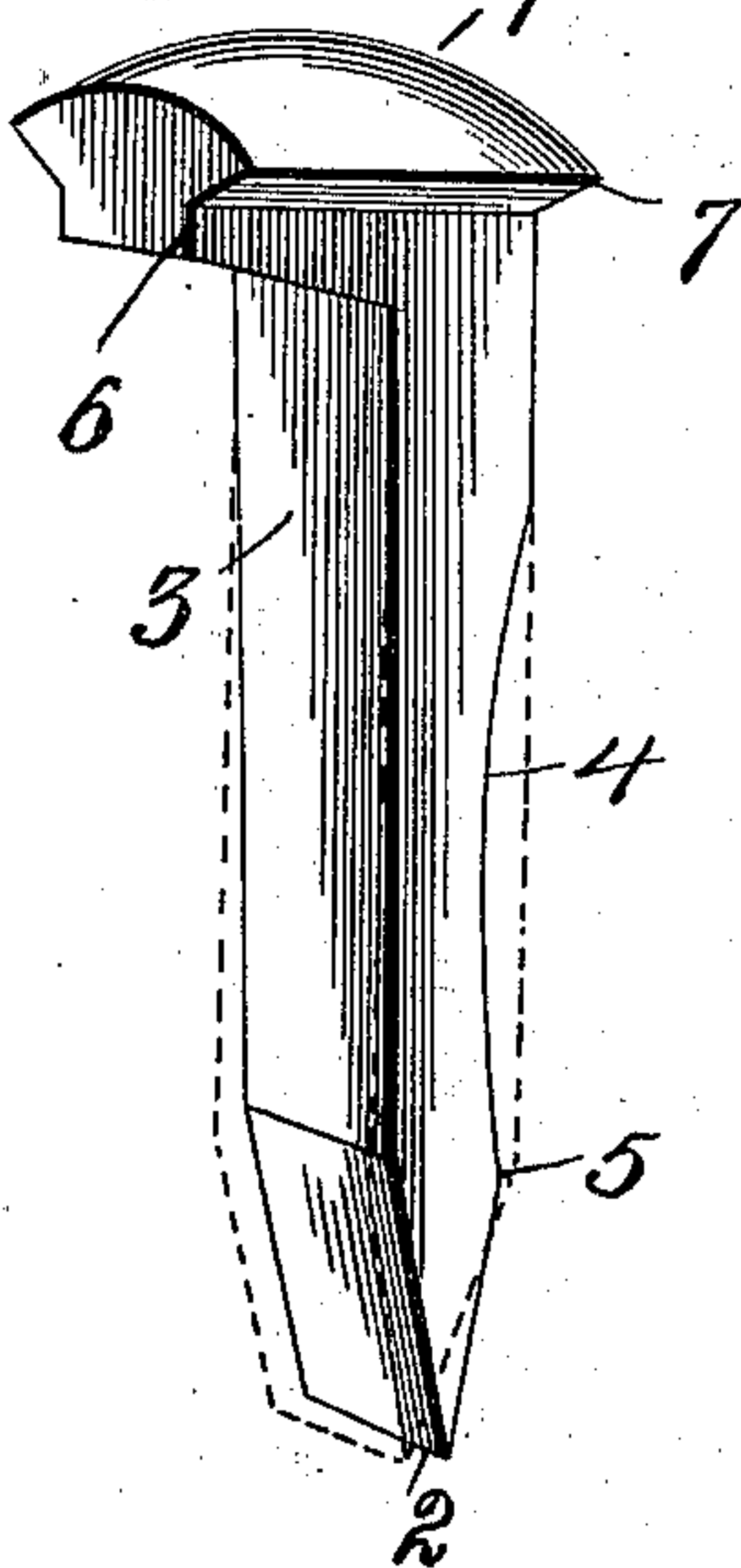


Fig. 4.

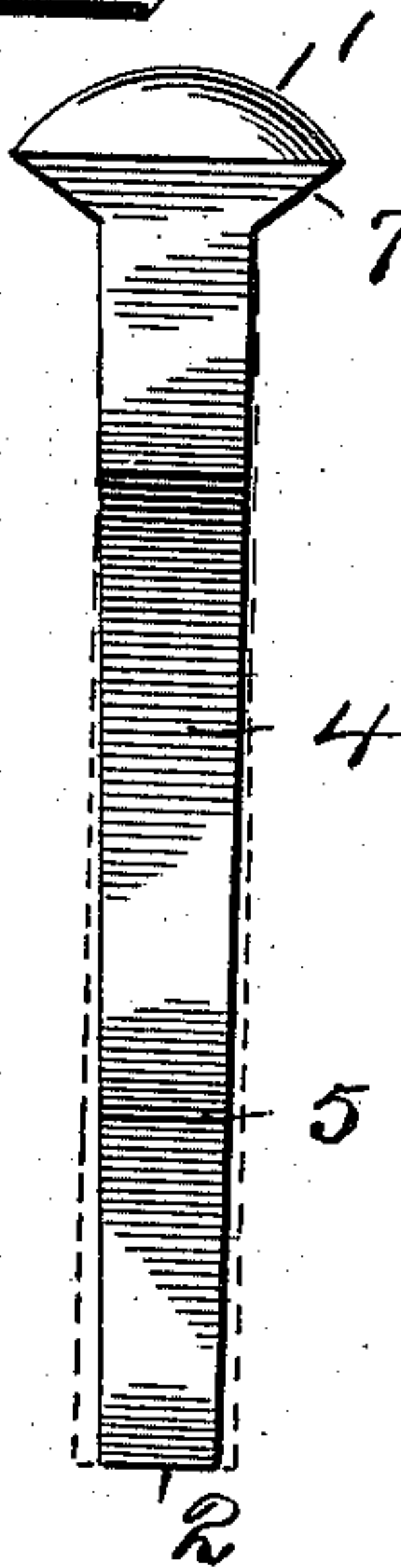
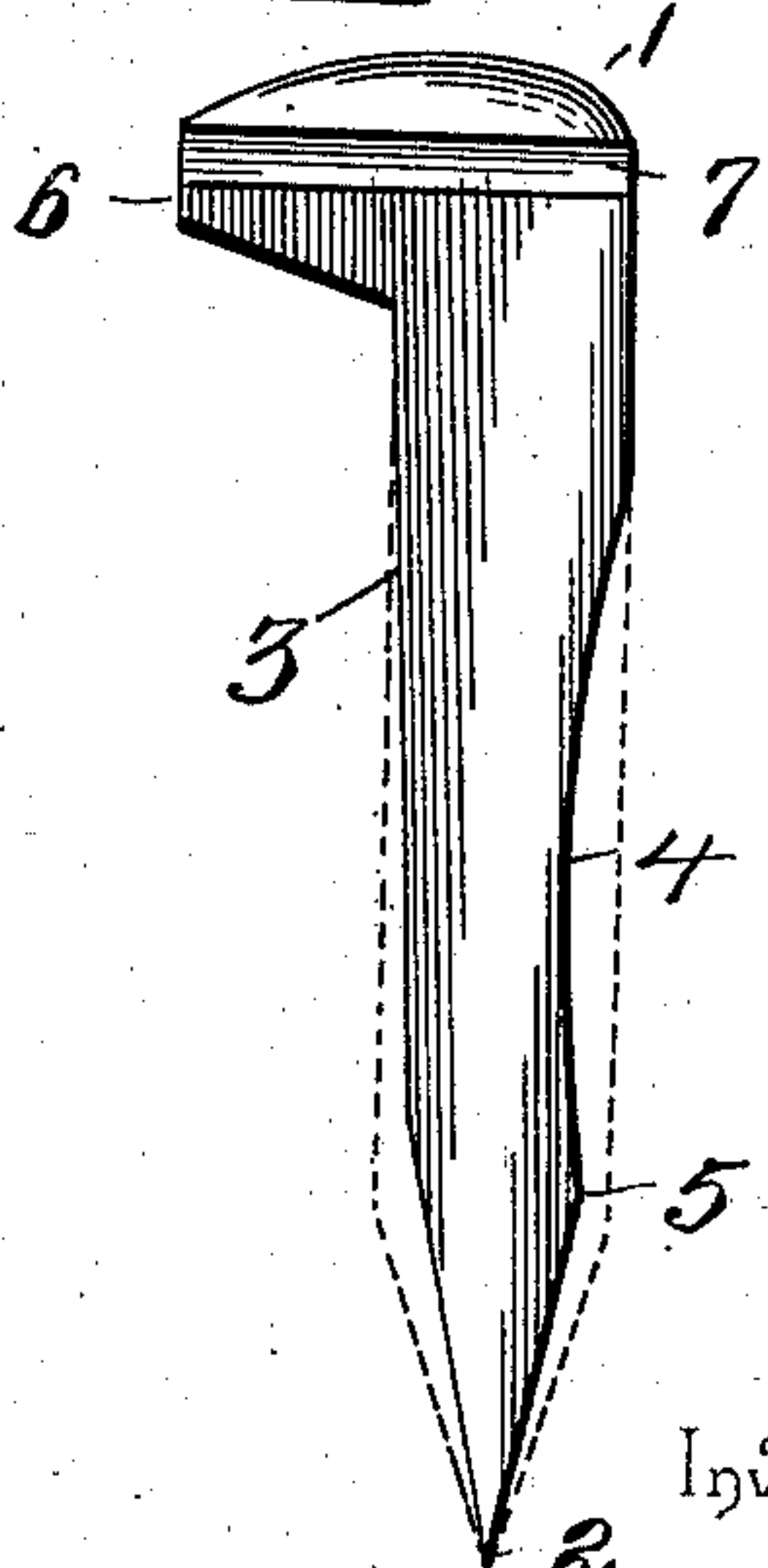


Fig. 5.



Witnesses

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By *his* Attorneys.

William S. McClay

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# UNITED STATES PATENT OFFICE.

WILLIAM S. McCLAY, OF UNIONTOWN, PENNSYLVANIA.

## RAILROAD-SPIKE.

SPECIFICATION forming part of Letters Patent No. 562,411, dated June 23, 1896.

Application filed June 22, 1895. Serial No. 553,723. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM S. McCLAY, a citizen of the United States, residing at Uniontown, in the county of Fayette and State of Pennsylvania, have invented a new and useful Railroad-Spike, of which the following is a specification.

The intent of the present invention is the construction of a spike especially designed for use in the building of railways, and which when driven into the tie will grip the foot of the rail firmly without requiring the driving up of the head so as to bring the body of the spike close against the foot of the rail, as commonly practiced and attendant upon the use of the ordinary spike. Where the spike is tapped after being driven, an opening is formed in the rear thereof which admits moisture, which soon results in the rotting of the tie and the weakening of the spike by the corrosive action of the moisture thereupon.

A further purpose of the invention is the provision of a spike which will obtain a firm anchorage in the tie and which can be extracted by means of a suitable puller, so as to be used again as often as required.

With these and other objects in view the invention consists, essentially, of a railroad-spike having its rear side depressed longitudinally on a curved line, said depression intersecting with the beveled side of the point and having its origin a short distance from the head.

The invention also consists of a spike whose sides taper from the head to the point, the front side receding from a vertical line passing through the juncture of the head with the said front side; also in the details of construction which hereinafter will be more fully set forth and claimed, and which are illustrated in the accompanying drawings, in which—

Figure 1 is a rear elevation showing the application of the invention. Fig. 2 is a side view thereof. Figs. 3, 4, and 5 represent different positions of the improved spike.

The dotted lines in these several views designate the outline of the ordinary railroad-spike, and are employed to emphasize the differences and advantages of the present invention. For the sake of clearness in the

disclosure the spike will be described with reference to a vertical position.

The body of the spike has its sides tapering from the head 1 to the point 2, as clearly indicated by contrast with the dotted lines, and the front side 3 recedes from the perpendicular, as most clearly indicated in Fig. 5. The penetrating end of the point 2 is a little to the rear of a line passing vertically through the center of the spike, and the front side of the point 2 has a longer bevel than the rear side, thereby enabling the front side of the spike to be crowded against the foot of the rail when driving home. A depression 4 is located in the rear side of the body and extends longitudinally of the spike, and has its origin a short distance from the head and intersects with the rear beveled side of the point 2. This depression curves throughout its length and extends inwardly at a middle point, so that the anchoring point 5, located at the point of intersection of the said depression with the beveled side of the point, stands in the rear and obtains a firm grip in the tie, so as to prevent the accidental withdrawal of the spike under the vibrations incident to the traffic upon the rails.

The offstanding lip 6 of the head is T-shaped in elevation, and the head is strengthened by lateral ribs 7, and its top side is convexed, thereby causing the blows of the sledge or other driving-tool to be delivered at about a central point of the spike-body.

The spike is driven into the tie 8 in the usual manner, and its point is set as close to the foot of the rail as possible, and during the driving of the spike the latter by reason of the receding front side 3 and the depressed rear side 4 will gradually approach the foot of the rail 9, and firmly grip the foot thereof when driven home, thereby obviating the lateral driving usually practiced to bring the ordinary spike close against the foot of the rail after the said spike has been driven home.

Inasmuch as the cross-sectional area and contour of the spike may vary according to the particular requirement for which the spike is designed, it is to be understood that in the embodiment of the same various changes in the form, proportion, and the minor details of construction may be resorted to with-



out departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

- 5 As an improved article of manufacture, a spike constructed substantially as herein specified, having a head convexed on its top and formed with an offstanding lip and lateral ribs, and having its sides tapering, and  
10 having the penetrating point disposed in the rear of a line passing centrally and longitudinally through the spike, the front side of the point being of a longer bevel than the rear

side, and having a longitudinal depression in the rear side curving inwardly between its 15 extremities and forming an anchoring point in proximate relation to the point, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature 20 in the presence of two witnesses.

WILLIAM S. McCLAY.

Witnesses:

A. M. KRAMER,

S. A. POUNDSTONE.