

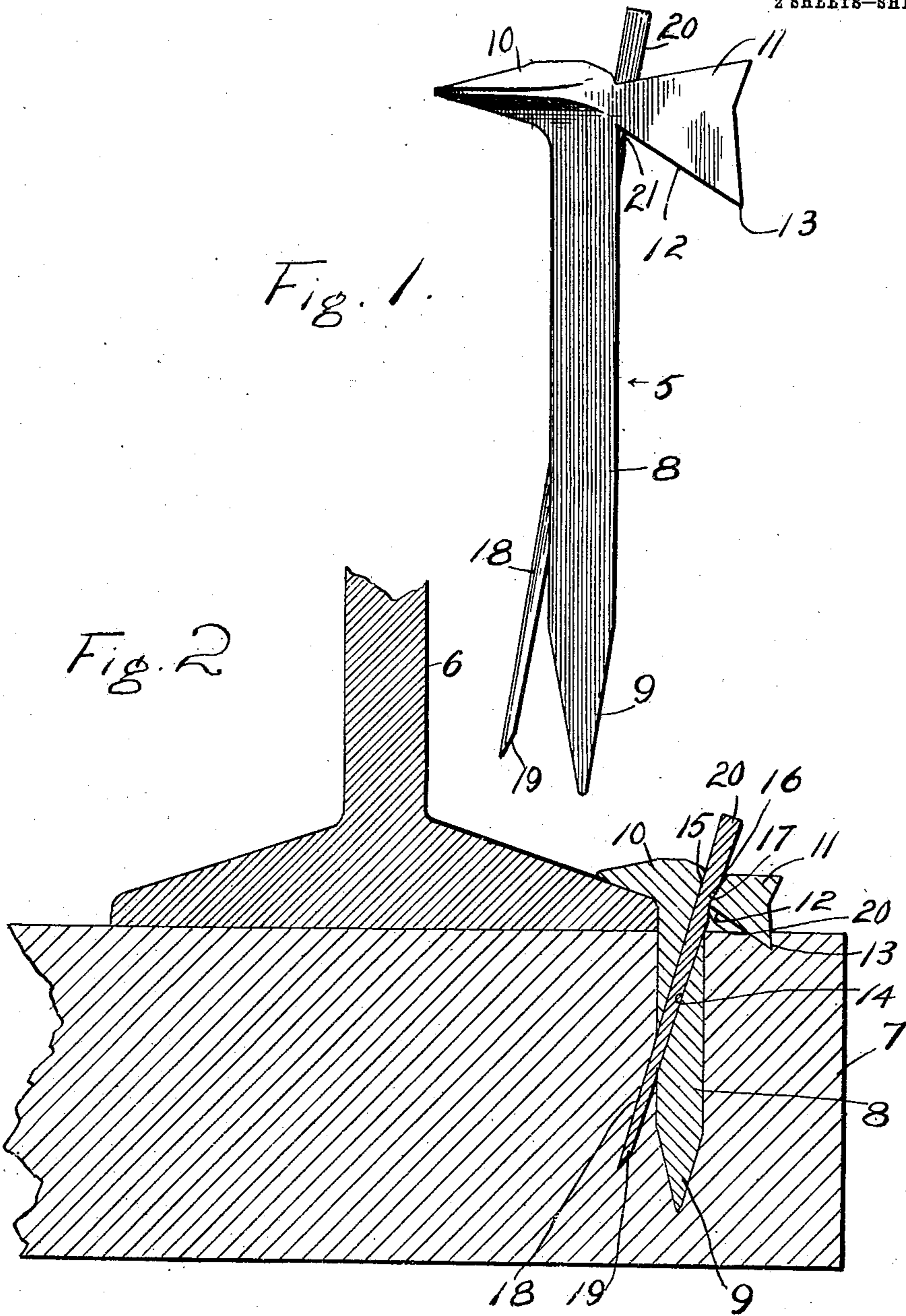
S. S. KEEN.  
RAILROAD SPIKE.  
APPLICATION FILED NOV. 13, 1907.

899,991.

Patented Sept. 29, 1908.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

J. C. Simpson.  
John L. Moore.

Inventor

Sidnie S. Keen.

By

*Charles Chandler*

Attorney.

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2 SHEETS—SHEET 2.

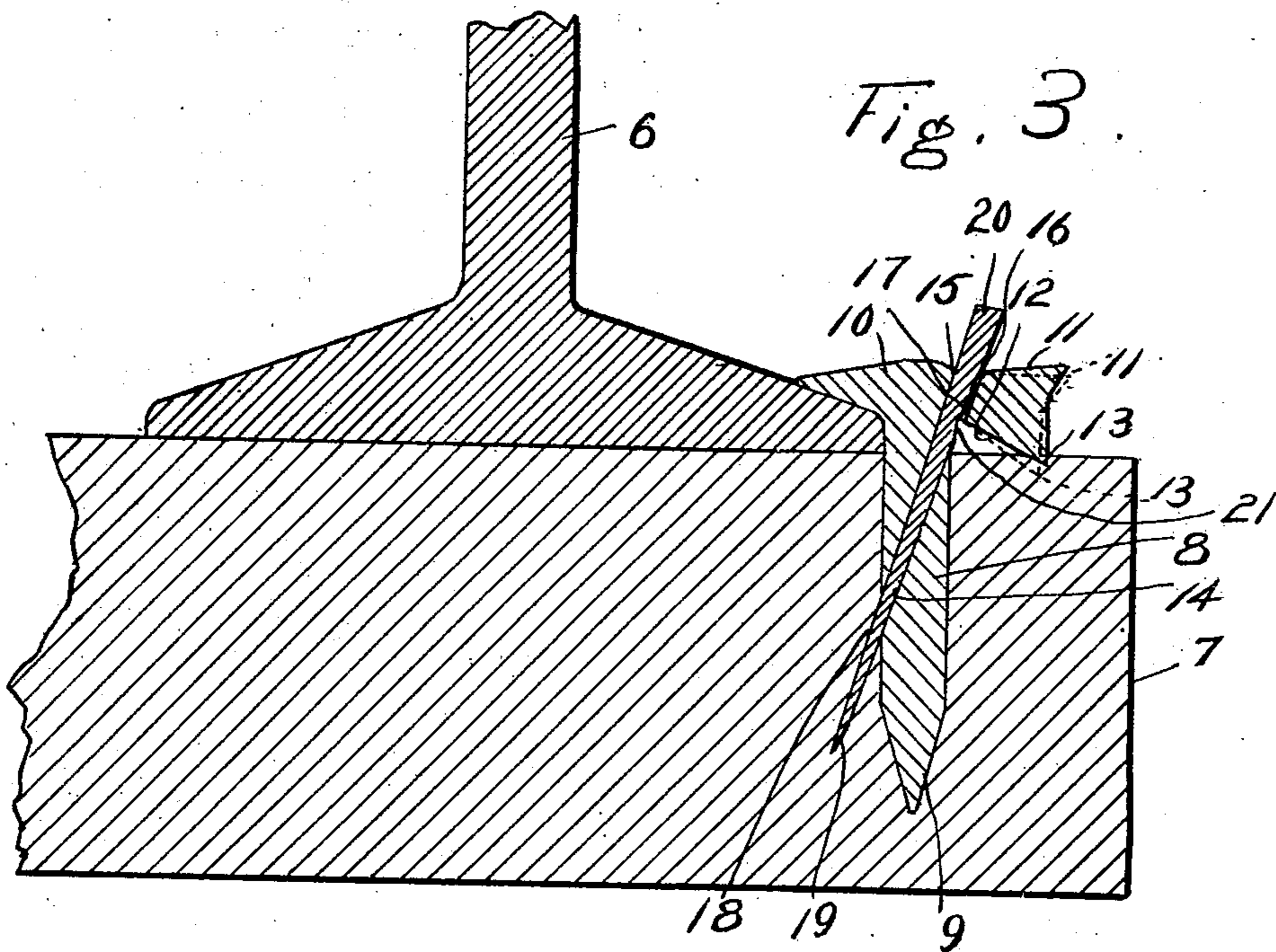
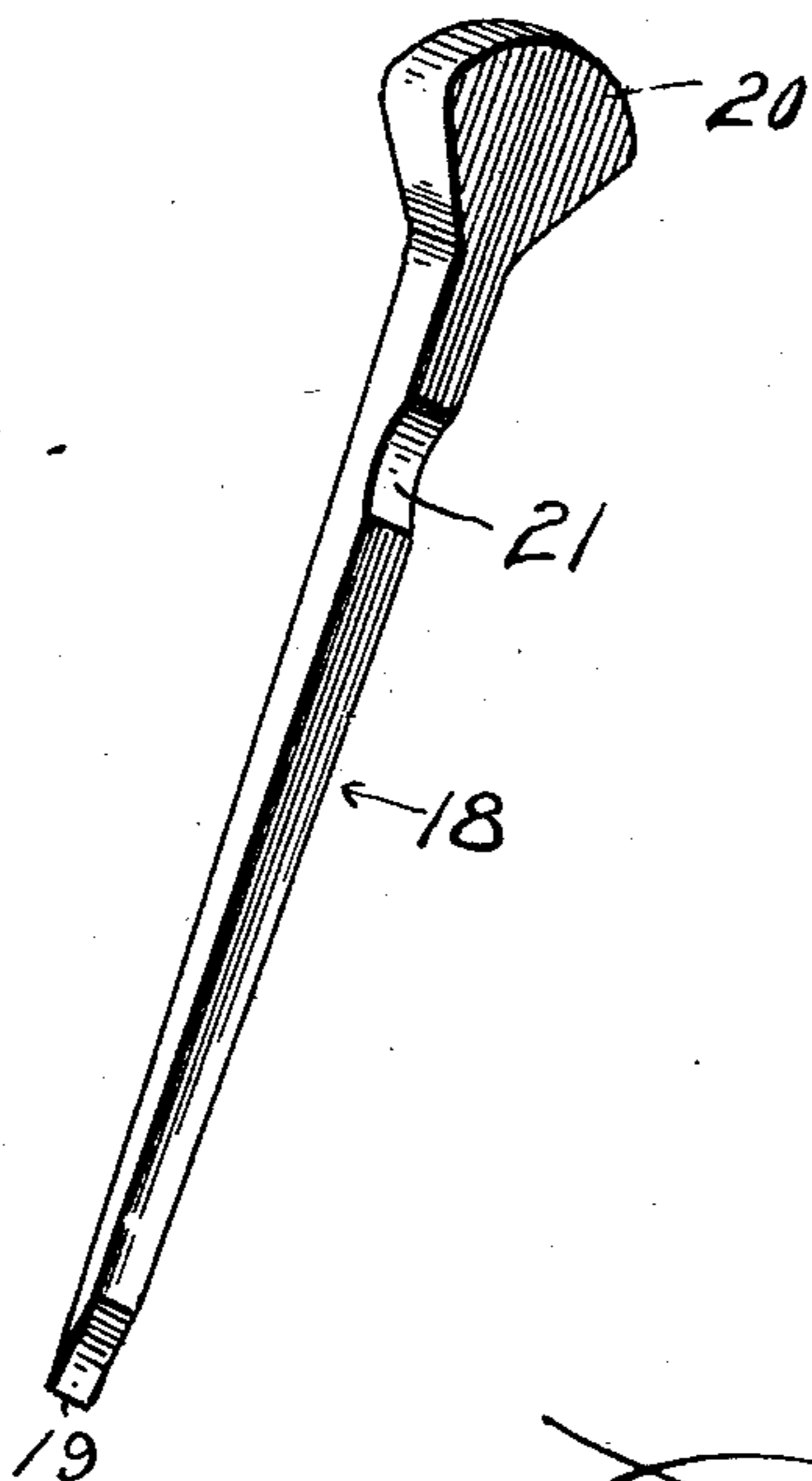


Fig. 4.



Witnesses

J. C. Simpson  
John S. Mers

Inventor

Sidnie S. Keen.

By

Charles Chanabes

Attorney S.

# UNITED STATES PATENT OFFICE.

SIDNIE S. KEEN, OF COTTONDALE, ALABAMA.

## RAILROAD-SPIKE.

No. 899,991.

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed November 13, 1907. Serial No. 402,001.

*To all whom it may concern:*

Be it known that I, SIDNIE S. KEEN, a citizen of the United States, residing at Cottondale, in the county of Tuscaloosa, State of Alabama, have invented certain new and useful Improvements in Railroad-Spikes; and I do hereby 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 it appertains to make and use the same.

This invention relates to new and useful improvements in spikes, and more particularly to a spike embodying such characteristic features of construction as adapt it for use especially in connection with railway rails.

In its general conception, the invention comprises a spike body having an opening therethrough, and an auxiliary pin passing through said opening at an angle to said spike body and having for its function to prevent the said body from working loose.

In connection with a spike of the above general type, the invention aims as a primary object to provide a novel construction, combination and arrangement of parts, comprehending means for preventing the pin from working loose from the body and likewise means for reinforcing the body when in use.

The details of construction will appear in the course of the following description, in which reference is had to the accompanying drawings, forming a part of this specification, like characters of reference designating similar parts, throughout the several views, wherein:

Figure 1 is a side elevation of a spike constructed in accordance with the present invention. Fig. 2 is a central longitudinal sectional view thereof, showing the manner of use. Fig. 3 is a detailed longitudinal sectional view illustrating by dotted lines the relation of the reinforcing head to the auxiliary pin, when the said head is bent by hammering. Fig. 4 is a detailed perspective view of the auxiliary pin.

The improved spike is designated by the numeral 5, and is employed in connection with a track rail 6 supported upon a tie 7. The spike 5 comprises a body 8 rectangular in cross section and having at its lower end a point 9 formed by tapering the ends of opposite sides of the body 8 and at its upper end, a driving head 10. Formed integral with the head 10, is a rearwardly extending

reinforcing head 11 having its under surface 12 disposed on a downward and outward incline and meeting the adjacent side of the body 8 at an acute angle, the inclined surface 12 terminating in a pointed biting end 13. The body 8 is formed between its front and rear faces with an inclined hole 14 which tapers downwardly and which opens as a groove 15 in the rear face of the head 10. Registering with the groove 15, is a similar groove 16 having an inclined rear wall 17 of the same degree of inclination as the hole 14. The auxiliary pin above referred to is designated by the numeral 18, and is of tapering form to fit conformably in the hole 14. The pin 18 has its lower end pointed at 19 and at its upper end is formed with a driving head 20. Below the head 20 a transverse groove 21 is provided on the rear face of the pin 18, the purpose of which groove will hereinafter appear.

The pin 18 is somewhat resilient and in use, after the body 8 has been driven into the tie with its head 10 engaged upon the rail flange, the pin 18 is driven through the grooves 16 and 15 and the hole 14 as far as possible, so that its lower end portion projects inwardly of the body 8 beneath the rail. It will be understood that when the body 8 is driven into the tie the biting edge 13 of the head 11 takes into the wood and reinforces said body by preventing the same from working outwardly with relation to the rail. After the pin 18 has been driven through the body 8 in the manner described, the head 11 is hammered so as to bend downwardly at a slight angle from its normal disposition in which operation, the lower edge of the groove 17 engages in the groove 21 and thus affords a positive means for preventing upward displacement of the pin. Such displacement is likewise guarded against in the event of failure to hammer the head 11 in the manner described by the tightening of the wood fibers about the exposed upper end portion of the pin 18, such tightening occurring by reason of the wood fibers being wedged in the space between the rear face of the body 8 and the inclined under face 12 of the head 11. The body 8 likewise, together with the rail, causes the fibers to tighten about the lower end portion of the pin 18.

It will thus be seen that the provision of the head 11, not only reinforces the spike against outward displacement with relation

to the rail as above set forth, but in addition to this function, serves as a means for guiding the pin 18 and for preventing accidental displacement thereof.

5 The invention is simple in its structural details, inexpensive to manufacture and practical and efficient in use.

What is claimed is:—

10 A spike of the type set forth, comprising a spike body having at its upper end a driving head and a head rearwardly of said driving head and said body, the said spike body being formed with a hole oblique to the axis of the spike between its front and

rear faces, said second head having a groove 15 in alinement with said hole, and an auxiliary pin for insertion through said groove and said hole, said second head being adapted to be bent downwardly, so as to engage the lower edge portion of its groove with said 20 pin, as and for the purpose set forth.

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

SIDNIE S. KEEN.

Witnesses:

S. C. WEATHERFORD,  
J. W. CARSON.