

J. R. MORRIS.
SPIKE.
APPLICATION FILED MAY 12, 1910.

994,330.

Patented June 6, 1911.

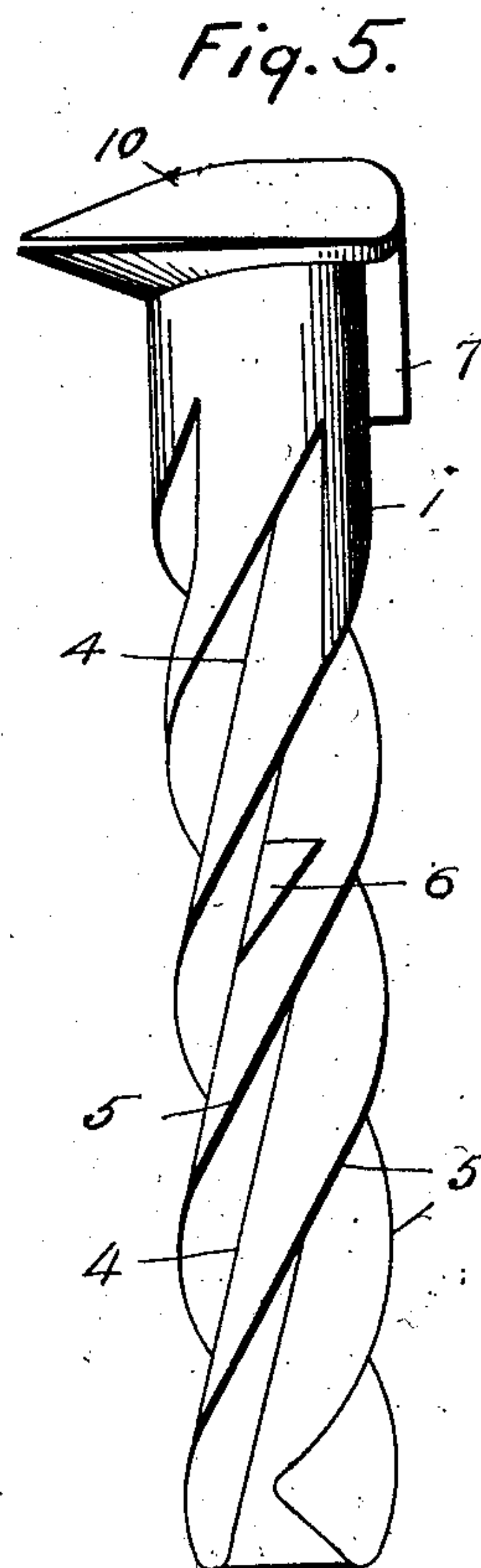
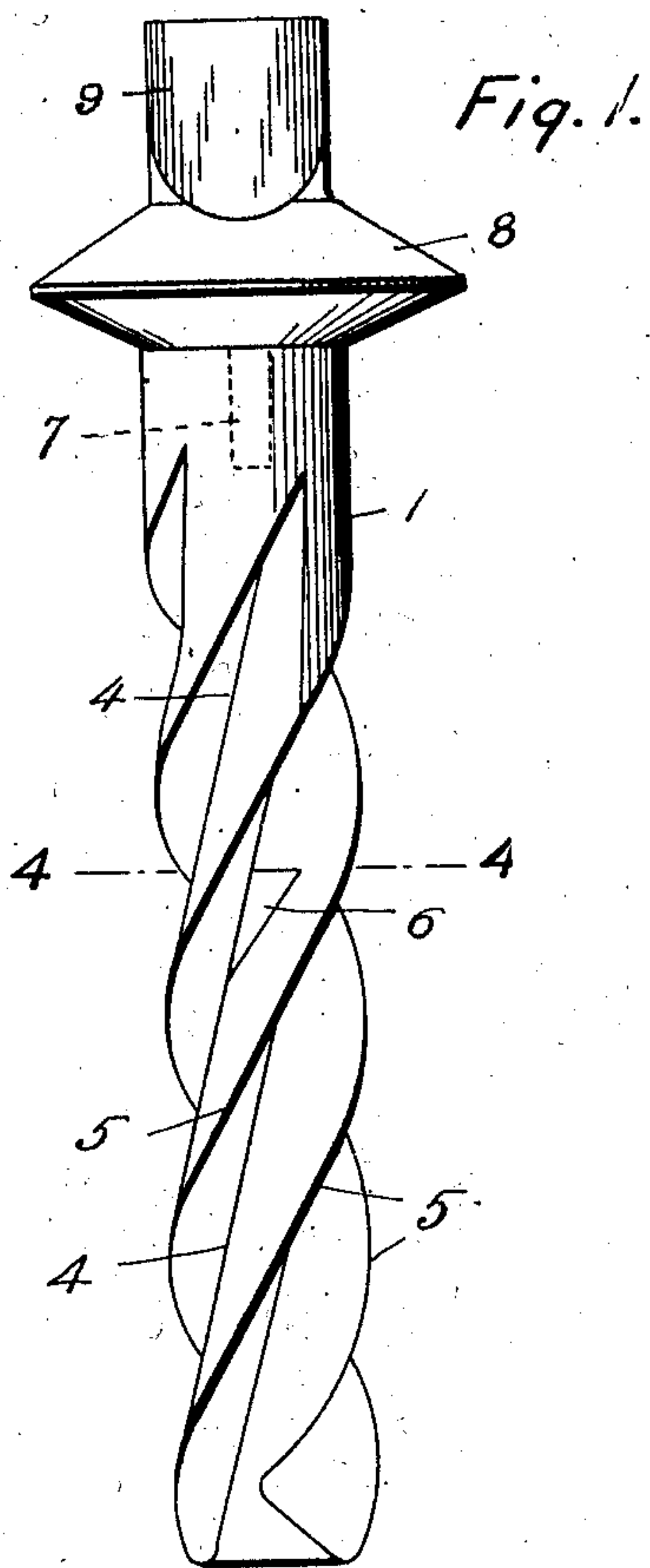


Fig. 2.

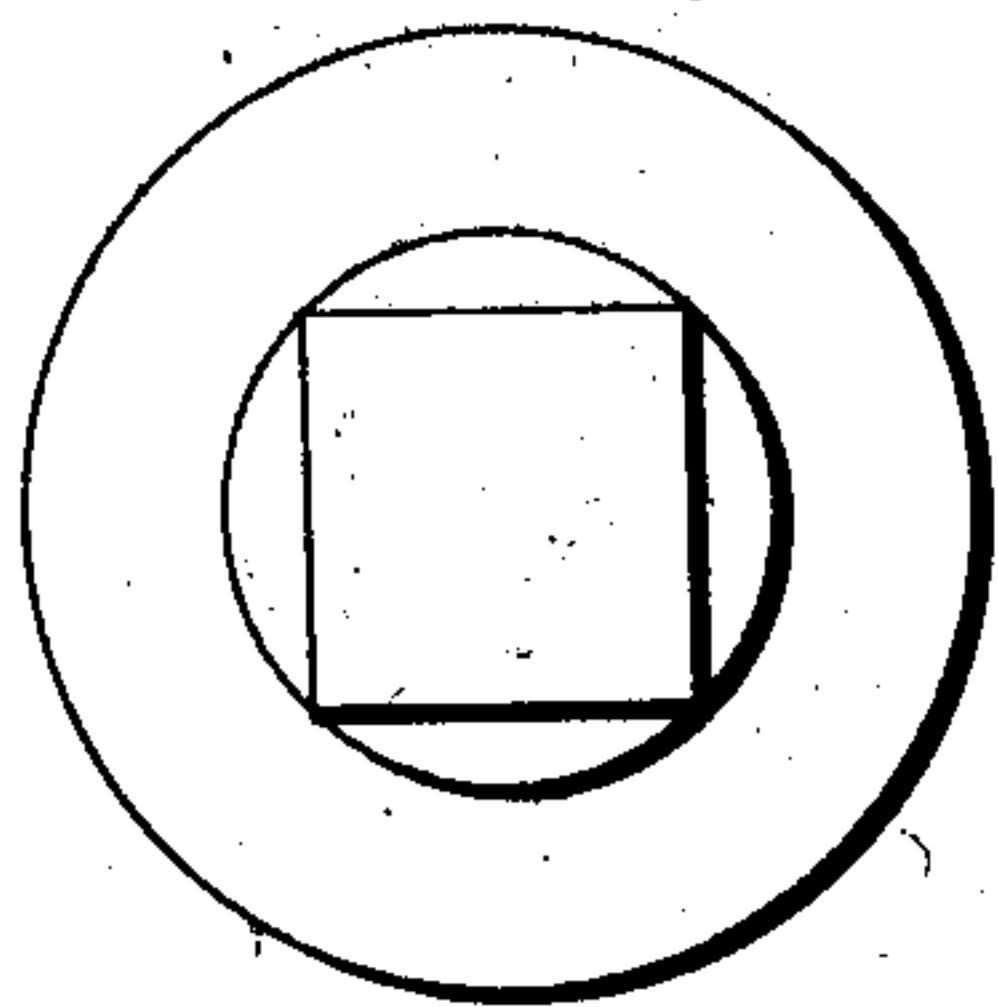


Fig. 4.

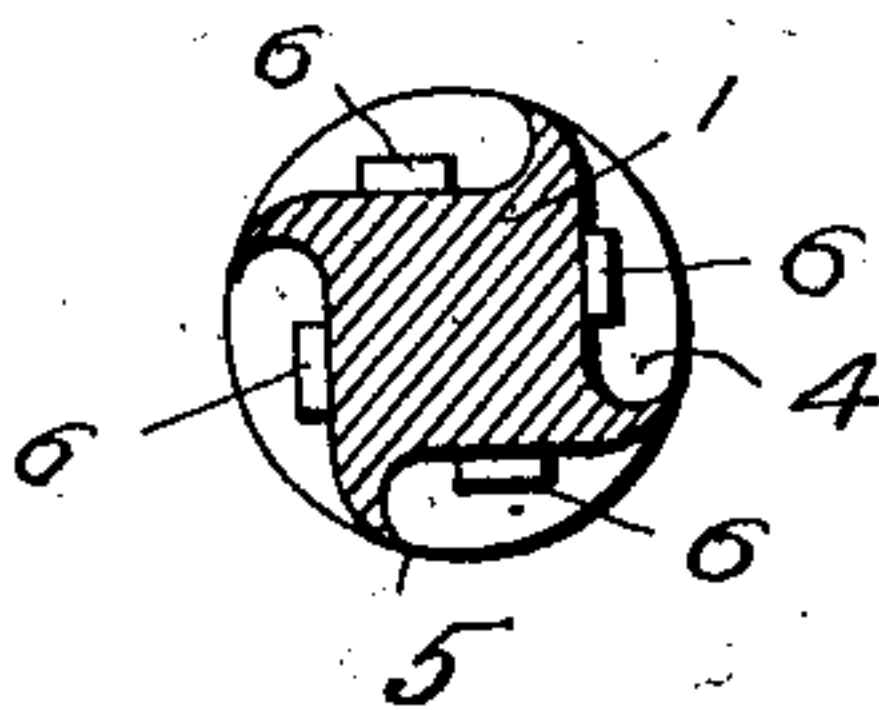
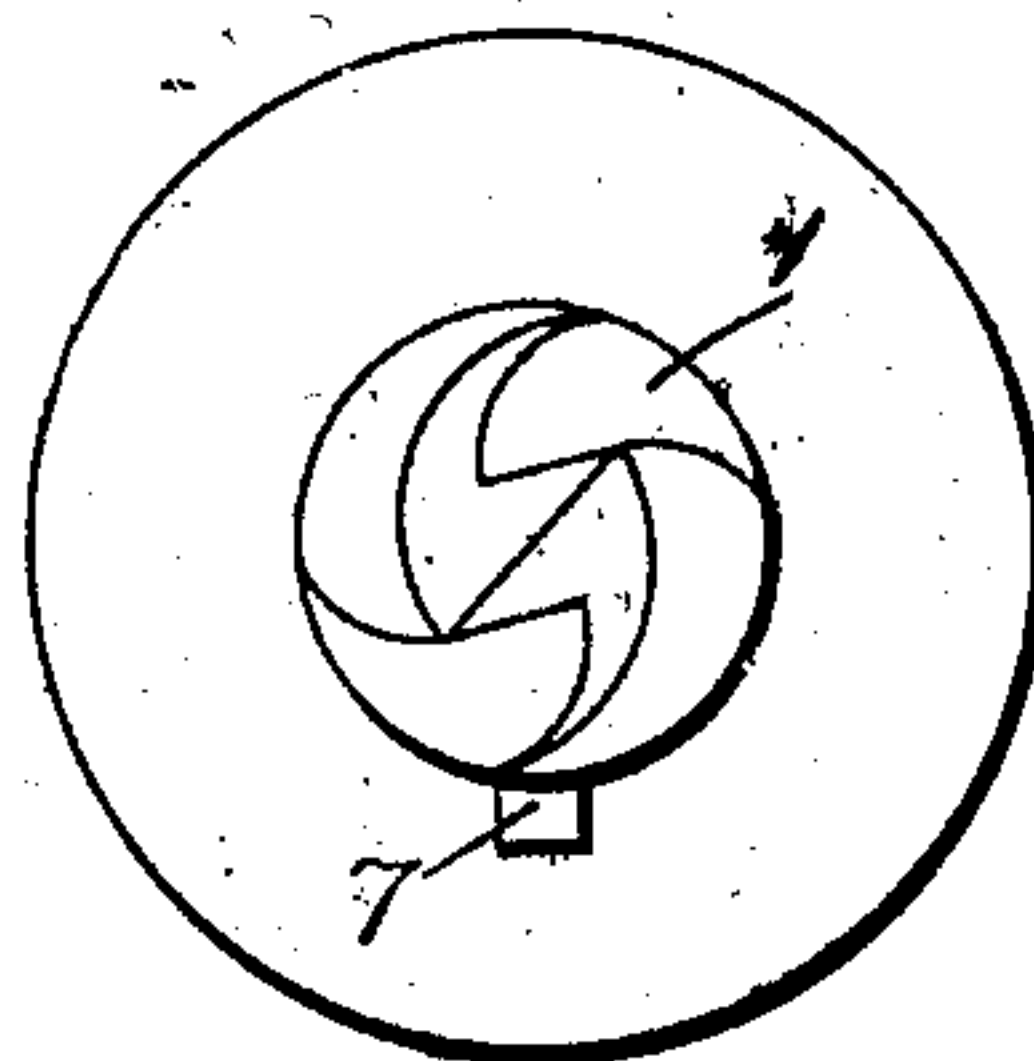


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SPIKE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN R. MORRIS, a citizen of the United States, residing at Waterloo, in the county of Blackhawk and State of Iowa, 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 it appertains to make and use the same.

This invention relates to improvements in spikes.

One object of the invention is to provide a spike having formed therein a series of longitudinally disposed spiral grooves or threads whereby when the spike is driven the same will revolve and thus screw its way into a tie or other object.

Another object is to provide a spike of this character having means to prevent the casual unscrewing or loosening of the spike.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings; Figure 1 is a side view of a spike constructed in accordance with the invention; Fig. 2 is a plan view of the top or outer end of the same; Fig. 3 is a similar view of the inner end of the spike; Fig. 4 is a cross sectional view on the line 4-4 of Fig. 1; Fig. 5 is a side view of the improved spike showing the same provided with the common or ordinary form of railway spike head.

In the embodiment of the invention as shown in the accompanying drawings 1 denotes the body portion of my improved spike which is cylindrical in shape and may be of any suitable size and length. The body portion 1 of the spike is provided with a series of spiral grooves 4 which form a series of spiral threads 5 which when the spike is driven into a tie or other object causes the spike to revolve thus screwing its way into the tie. There may be any desired number of grooves and spiral threads formed on the body portion of the spike the latter being here shown as having formed therein four grooves and threads.

In each of the grooves 4 and preferably arranged at different horizontal planes are formed steps or shoulders 6 which act as

stops to assist in holding the spike against casual loosening or removal from the tie or other object in which the same is driven. At the upper end of the spike and on one side thereof is formed a vertical radially projecting key 7 which when the spike is driven in to the proper distance is adapted to enter the tie or other object in which the spike is driven thus forming an additional lock for holding the spike against casual unscrewing.

On the upper end of the spike is formed a head which is shown in the first four figures of the drawing as consisting of an annular radially projecting flange 8 having outwardly inclined upper and lower sides. The flange or projection 8 of the head is adapted to engage the flange of the rail or other object to be held by the spike. On the upper side of the flanged head 8 is formed an extension 9 with which is adapted to be engaged a wrench or similar tool for the purpose of unscrewing the spike from the tie when it is desired to remove or extract the spike. The key 7 while of sufficient width to hold the spike against casual loosening or unscrewing is not sufficient to prevent the unscrewing of the spike by a wrench when sufficient power is applied thereto.

In Fig. 5 of the drawings the spike is shown as being provided with the ordinary or common form of spike head 10 which is engaged with the flange of the rail or with any other object in the usual manner. The spike shown in Fig. 5 with the exception of the head 10 is constructed in the same manner as the spike shown in the first figures of the drawings.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. A spike comprising a cylindrical body portion having therein a plurality of spiral grooves arranged to form a series of spiral threads, a series of stop shoulders formed in said grooves to hold the spike against

casual unscrewing or loosening when driven, and a head formed on the upper end of said spike.

2. A spike comprising a cylindrical body
 5 portion having a plurality of spiral grooves arranged to form a plurality of spiral threads, stop shoulders formed in said
 grooves, a radially projecting key formed on one side of the spike at its upper end, said
 10 stop shoulders and key being provided to hold the spike against unscrewing or loosening after being driven, and a head formed on the upper end of said spike.

3. A spike comprising a cylindrical body
 15 portion having a plurality of spiral grooves arranged to form a plurality of spiral

threads, stop shoulders formed in said grooves, a key formed on one side of the spike at its upper end, a head formed on the upper end of said spike, said head comprising an annular radially projecting flange, and means whereby a wrench may be applied to said head for the purpose of unscrewing the spike. 20

In testimony whereof I have hereunto set
 my hand in presence of two subscribing witnesses. 25

JOHN R. MORRIS.

Witnesses:

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