

No. 751,767.

PATENTED FEB. 9, 1904.

E. C. WINTERS.  
RAILWAY SPIKE LOCK.  
APPLICATION FILED OCT. 23, 1903.

NO MODEL.

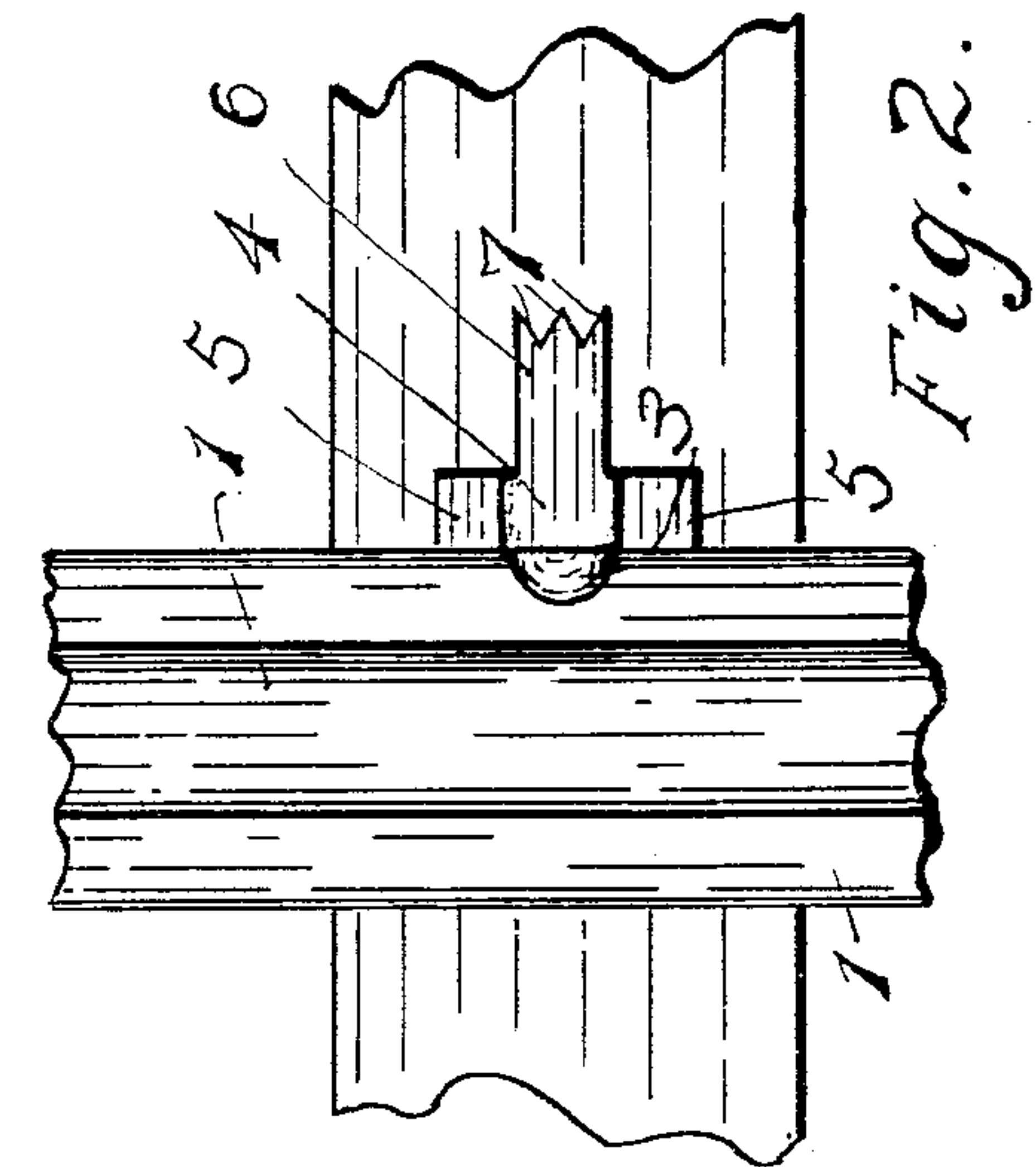


Fig. 1.

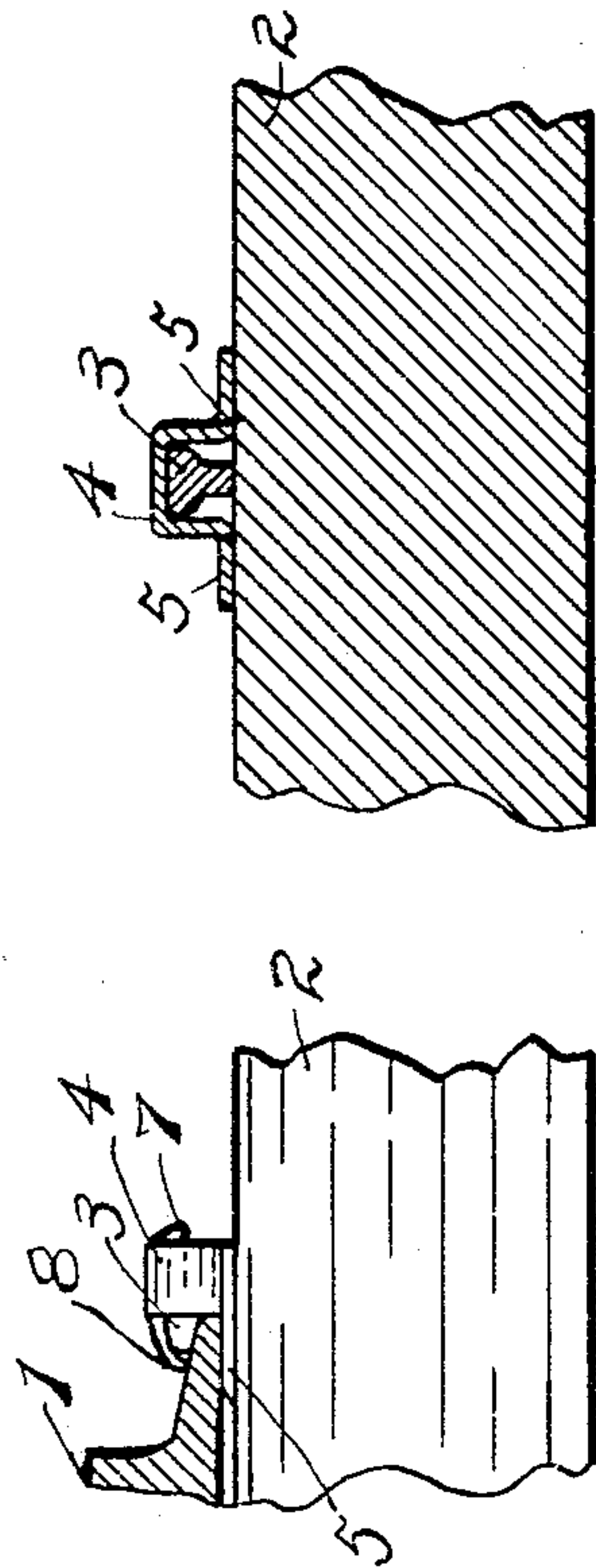


Fig. 2.

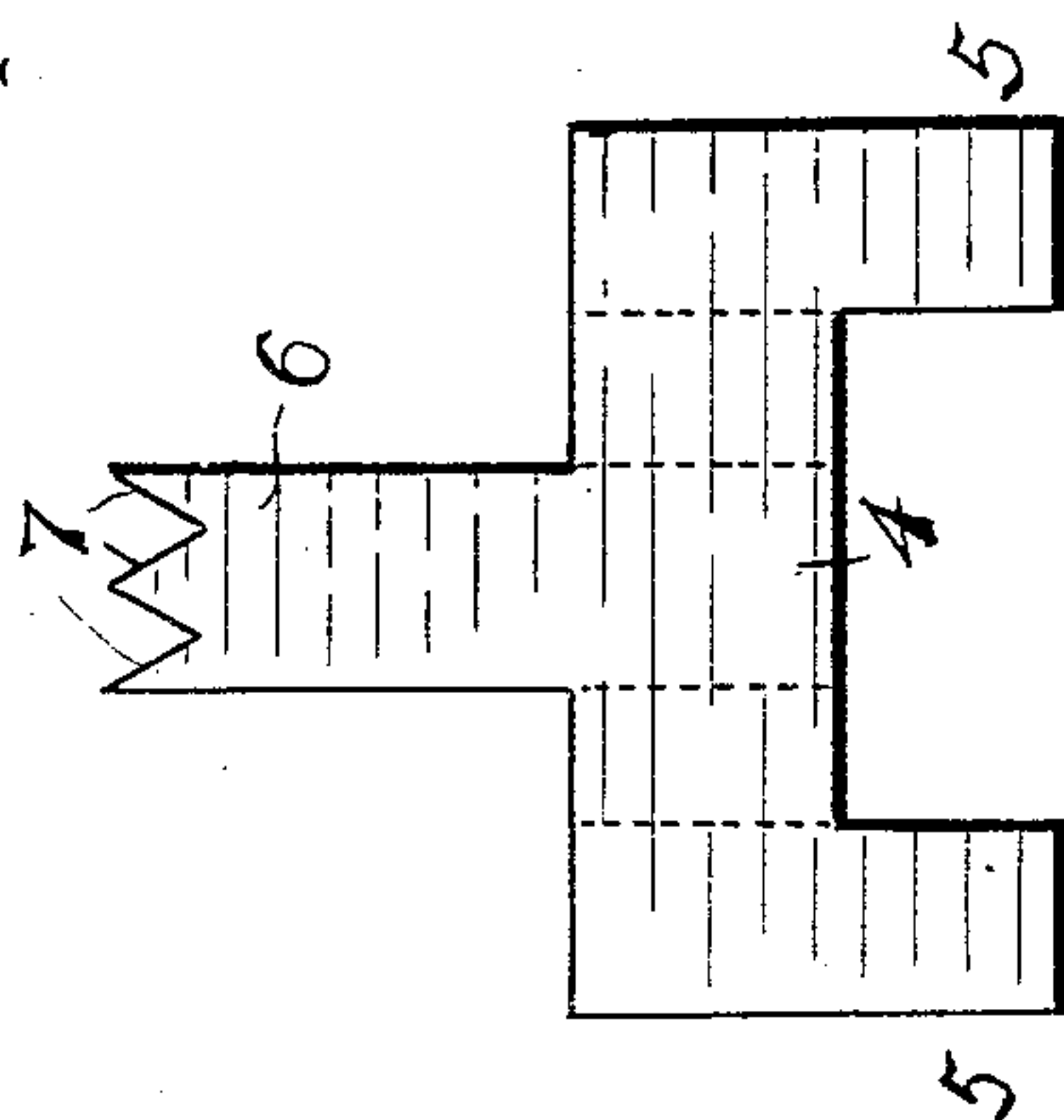


Fig. 3.

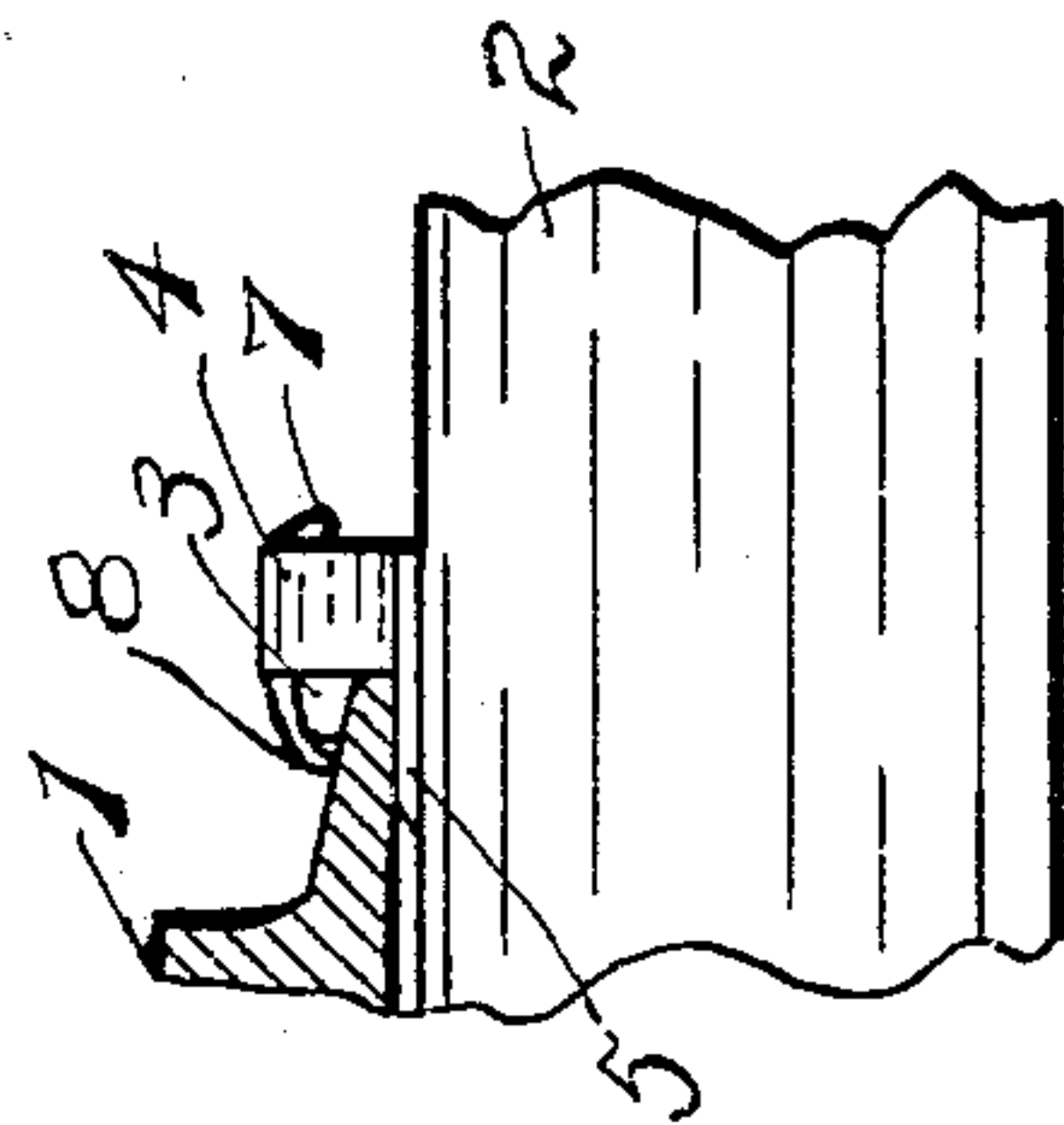


Fig. 4.

Witnesses

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# UNITED STATES PATENT OFFICE.

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## RAILWAY-SPIKE LOCK.

SPECIFICATION forming part of Letters Patent No. 751,767, dated February 9, 1904.

Application filed October 23, 1903. Serial No. 178,260. (No model.)

*To all whom it may concern:*

Be it known that I, ELHANAN C. WINTERS, a citizen of the United States, residing at Rockfalls, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Railway-Spike Locks; 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to devices for retaining a railway-spike in place after it has been driven into the sleeper, and aims to provide a more simple means for that purpose than is now in use.

Primarily my device comprises a spike holder or lock, a pair of plates extending therefrom beneath the rail, and a plate integral with the lock adapted to engage the sleeper to prevent movement of the lock away from the rail, the construction being such that no bolts, screws, or other means outside of the device itself are required to secure it in place.

Another advantage lies in the fact that my invention can be stamped from a piece of sheet metal and easily bent into the proper form, whereby the cost of manufacture is reduced to a minimum.

In the drawings, Figure 1 is a transverse section of a rail and sleeper, showing one of my devices on each side of the rail, one thereof being in section. Fig. 2 is a plan view of my device before the rear plate is bent into contact with the sleeper. Fig. 3 is a cross-section of one of the locks with the spike in position therein. Fig. 4 is a plan view of my device as it appears when cut from a piece of metal before being properly formed. Fig. 5 shows a modification of my device in side elevation.

Similar numbers refer to similar parts throughout the several views.

1 represents the rail, 2 the sleeper, and 3 the usual spikes for securing the rail in place. Covering the head of the spike is an arch 4, integral with the lower edges of which are two plates 5 5, adapted to be driven beneath the rail on each side of the spike until the

arch comes in contact with the rail. Projecting rearwardly from the upper part of the arch 4 is a plate 6, provided with points or teeth 7. When the lock is in position, this plate is bent downward until the teeth are forced into the sleeper, whereby movement of the lock away from the rail is prevented. In this position the plate 6 also partially closes the arch 4 in rear of the head of the spike and prevents a backward movement of the spike from the rail.

When the lock is in place, the weight of the rail on the plates 5 tends to hold the arch 4 against the head of the spike and prevents the raising thereof, and the relation of the parts is not affected by the tendency of the rail to sink into the ties. This sinking of the rail into the sleeper, which frequently occurs, only serves to more securely engage the plate 6 with the sleeper.

The upward tendency of the spike is not sufficiently strong to require a lock of heavy construction, and my device can therefore be formed of sheet metal, as already mentioned. In the manufacture thereof it is first stamped out by means of proper dies into the form shown in Fig. 4, after which it is bent at the dotted lines into the desired shape, or the stamping and bending may be performed in one operation.

When it is desired to replace one of the sleepers, the lock can be readily removed by bending the plate 6 upward out of engagement with the sleeper and replacing it when the new tie is in position with the rail spiked thereto.

When in use, my invention serves the further purpose of reinforcing the spike in preventing a lateral movement or spreading of the rail. This is frequently caused by a movement of the spike in the wood lengthwise of the sleeper; but it will be seen that in my invention the arch is in contact with the rail and is held in such position by the plate 6. In addition to this the spike is also held in contact with the rail by reason of the head of the spike being supported in the rear by said plate 6.

In Fig. 5 is shown a modification of my device wherein a tongue 8 is projected forwardly

from the arch 4 and clenched downwardly over the head of the spike 3. In this construction a small part only of the plate 6 is used, such part being bent downwardly in rear of the head of the spike.

It is apparent that, as has been already suggested, my device is adapted to be secured in position without the aid of any screw, bolt, or other means of fastening aside from that contained in itself, which fact adds greatly to its simplicity and low cost of production as compared with more complicated devices of the same class.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. In a railroad-spike lock, the combination of the arch 4, plates 5, integral with the lower

edges of such arch, and plate 6, integral with the upper part of the arch 4, adapted to engage the sleeper in rear of such arch, substantially as shown.

2. In a railway-spike lock, the combination of the arch 4, plates 5, integral therewith, tongue 8, projecting forwardly from said arch, and adapted to engage the head of the spike, and the plate 6, extending from the rear of said arch to engage the head of the spike, substantially as shown and described.

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

ELHANAN C. WINTERS.

Witnesses:

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IRVING L. WEAVER.