(No Model.)

H. A. HARVEY.

ROLLED SPIKE.

No. 456,723. Patented July 28, 1891.

Fig. 1.

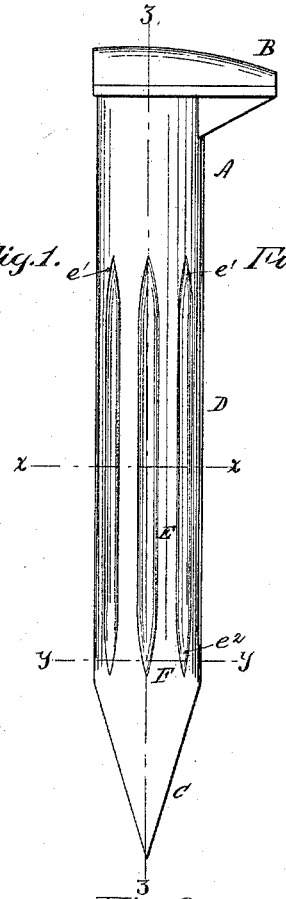


Fig. 4.

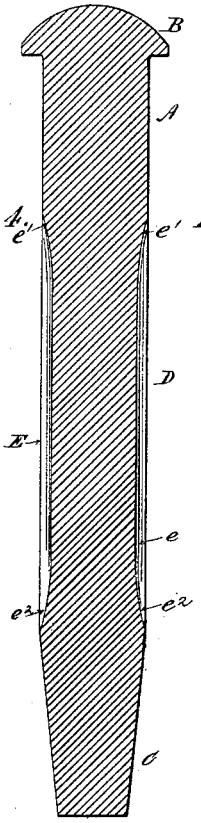


Fig. 5.

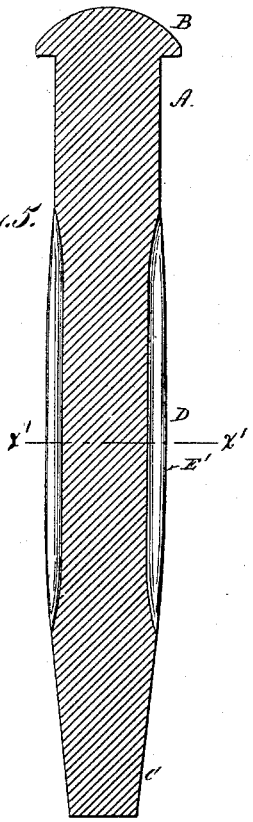


Fig. 2.

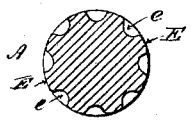


Fig. 6.

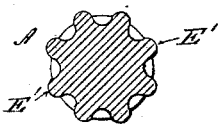
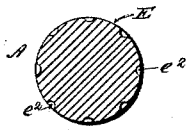


Fig. 3.



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UNITED STATES PATENT OFFICE.

HAYWARD A. HARVEY, OF ORANGE, NEW JERSEY.

ROLLED SPIKE.

SPECIFICATION forming part of Letters Patent No. 456,723, dated July 28, 1891.

Application filed January 19, 1889. Serial No. 296,814. (No model.)

To all whom it may concern:

Be it known that I, HAYWARD A. HARVEY, of Orange, New Jersey, have invented certain Improvements in Rolled Spikes, of which the following is a specification.

This invention is an improvement upon the rolled spikes shown and described in United States Patent No. 395,898, issued to Hayward A. Harvey January 8, 1889, one of the peculiarities of which spike is that it has a chisel-point which is slightly narrower than the diameter of the adjoining cylindrical part of the shank. It is found that when such spikes are driven into certain kinds of wood they have a tendency to turn on their longitudinal axes. In the present invention such tendency is corrected by the presence of a series of parallel longitudinal ribs, which are formed along a portion of the shank of the spike in the act of rolling it between suitably-shaped rolling-dies. The ribs project but slightly from the shank of the spike, or, in other words, the grooves between the ribs are comparatively shallow. The natural resilience of the wood into which the spike is driven suffices to make it hug the entire periphery of the embedded portion of the shank. Thus the longitudinally-ribbed spike is possessed of the superior holding qualities of the rolled spike shown and described in the patent above referred to, and is also prevented from turning upon its longitudinal axis when it is being driven.

The accompanying drawings, illustrating the application of the invention to railroad-spikes, are as follows:

Figure 1 is an elevation of a spike having longitudinal ribs only upon the middle portion of its shank, which is of smaller diameter than the adjoining portion. Fig. 2 is a transverse section taken through the plane indicated by the line $x\,x$ on Fig. 1. Fig. 3 is a transverse section taken through the plane indicated by the line $y\,y$ on Fig. 1. Fig. 4 is a longitudinal section taken through the plane indicated by the line $z\,z$ on Fig. 1. Fig. 5 is a longitudinal section similar to Fig. 4, except that the middle portions of the ribs are represented as extending farther out from the body. Fig. 6 is a transverse section taken through the plane indicated by the line $x'\,x'$ on Fig. 5.

Referring to the railroad-spike shown in the drawings it will be seen that in each case the shank A is provided with the usual offset-head B and with the chisel-point C, which is slightly narrower than the adjoining cylindrical portion of the shank.

In the spike shown in Fig. 1 only the middle portion D of the shank is provided with the parallel longitudinal ribs E. The grooves e between the ribs E gradually diminish in depth toward the ends e' and e^2, respectively, where the ribs E terminate. It will be seen that the core of the ribbed portion D is of smaller diameter than the portion F of the shank adjoining the point, while the extreme diameter, measuring through the ribs E, is the same as the diameter of the enlarged portion F of the shank. In the spike represented in Fig. 5 the middle portions of the ribs E′ extend farther out from the body, so that the apex of each rib is slightly curved in the longitudinal plane, as shown in Fig. 6. It will be obvious that the ribs may be varied in form and extent in many other ways without departing from the invention.

What is claimed as the invention is—

1. A rolled spike provided upon the middle portion only of its shank with a series of longitudinal ribs projecting outwardly beyond the normal periphery of the shank, substantially as described.

2. A rolled spike having a chisel-point slightly narrower than the adjoining cylindrical portion of the shank and having the middle portion only of its shank provided with a series of longitudinal ribs, substantially as described.

HAYWARD A. HARVEY.

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