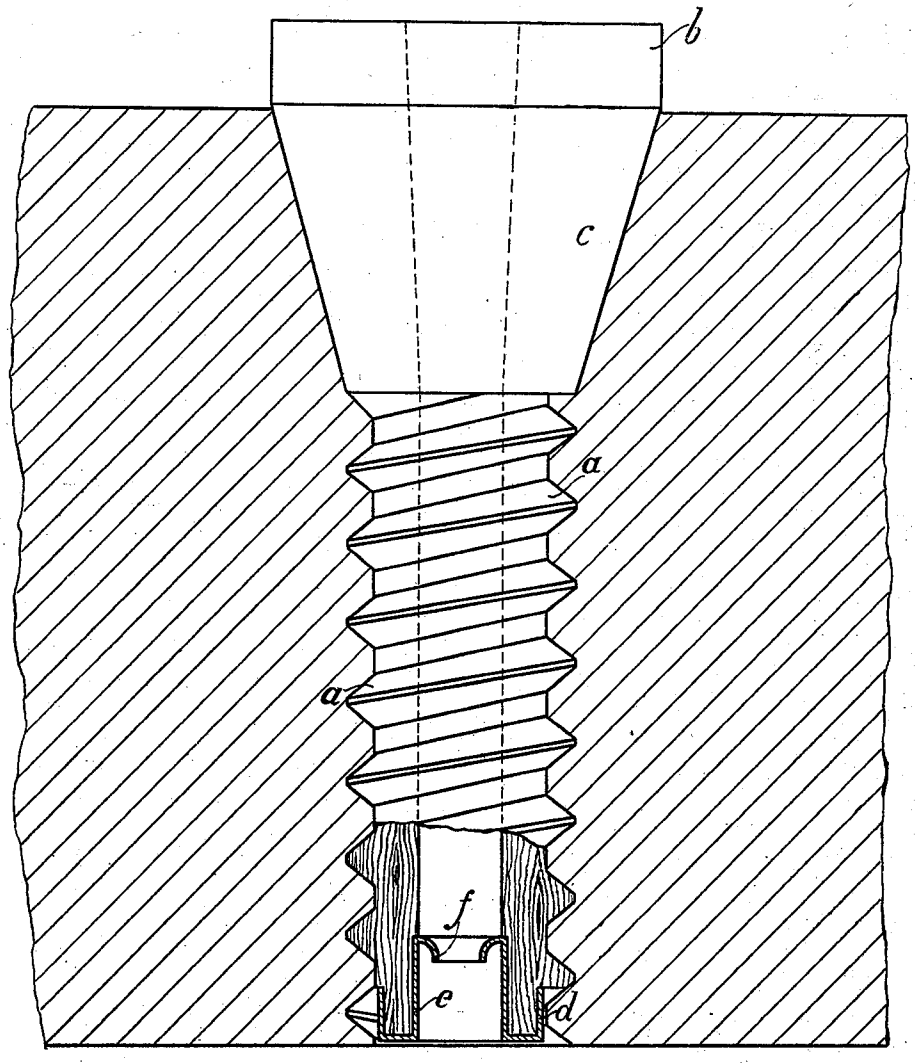
No. 698,070. Patented Apr. 22, 1902.

F. STAHL.

WOOD PEG OR FASTENER FOR WOODEN RAILWAY SLEEPERS OR THE LIKE.

(Application filed Feb. 16, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

FELIX STAHL, OF NUREMBERG, GERMANY, ASSIGNOR TO LEO SIMON, OF NUREMBERG, GERMANY.

WOOD PEG OR FASTENER FOR WOODEN RAILWAY-SLEEPERS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 698,070, dated April 22, 1902.

Application filed February 16, 1901. Serial No. 47,649. (No model.)

To all whom it may concern:

Be it known that I, FELIX STAHL, a subject of the German Emperor, residing at Nuremberg, Bavaria, German Empire, have invented Improvements in Wood Pegs or Fasteners for Wooden Railway-Sleepers or the Like, of which the following is a specification.

In the fastening of railway-rails on wooden sleepers it is usual to surround the means for fastening the rail to the wooden sleeper with a layer of longitudinal fiber—that is to say, a wood plug or peg—in order to afford a better hold to the means of attachment and for forming a water-tight joint for the space remaining between the perforation in the sleeper and the said peg. The attempt has hitherto been made to obtain this result by a very short enlargement of the diameter of the head of the peg in such a way that the thickened head when the peg is driven or screwed into the sleeper wedges open the perforation. In sleepers of unequal thickness or which are cut out with an adz it has been disagreeably noticeable that the ends of the peg project beyond the under surfaces of the sleeper, as the enlarged part at the head must be forced into the perforation. The projecting ends have then to be sawed off in order to protect the peg from great disturbances when the track is pushed into place or straightened. A second drawback of this kind of wood plugs consists in that the longitudinal fibers of the wood plug standing vertically on the ground eagerly attract, by reason of their capillarity, the moisture from the ground, and thus the effect sought to be obtained by the use of wood plugs is partially destroyed.

The attempt has been made to remove the first drawback in the present invention by making the peg a screwed one, which on its outer surface is provided with a long and thick cone between its under threaded part and its head, which is to be rasped off. By this formation of the peg-head, which lies against a corresponding elongated conical inner surface of the perforation in the wood sleeper, a water-tight and firm closing of the perforation in the sleeper is obtained even where the wood sleeper is deeply cut out with an adz, as in each case the lower part of the peg-cone is in contact with the conical inner surface of the perforation in the sleeper lying still beneath the adzed-out part without the under end of the peg projecting below the under surface of the sleeper. The second of the drawbacks hereinbefore mentioned is removed by a peculiar fastening formed on the under side of the peg, which is arranged in such a way that on the one hand it prevents moisture from rising from the ground and on the other hand allows rain, snow, or water entering into the hollow chamber or part of the peg from above to run off.

This improved wood peg is shown in the accompanying drawing. As may be seen therefrom, between the lower threaded part *a* and the headpiece *b*, which is to be cut or rasped off, there is a comparatively rapidly widening cone *c* of considerable length. When the screw-peg is tightened up, the lower part of the cone *c* encounters a corresponding conical inner surface in the perforation in the sleeper and fits firmly against the inner surface in such a way that it forms an impermeable solid joint against water. Simultaneously the longitudinal fibers of the peg itself are thereby firmly pressed together and form in this way a strong layer or bed, in which a means of fastening finds an excellent hold. On the lower end of the screw-peg *a* a metal cap *d* is then fitted, the interior cylindrical part *e* of which projects into the bore of the peg and in this manner covers all the parts of the outer and inner surface of the lower end of the peg, so that the absorption of moisture by means of the lower ends of the wood fibers of the screw-peg is prevented. The upper edges *f* of the cylindrical part *e* of the metal cap are bent round and are funnel-shaped downward, so that any rain-water accumulating in the longitudinal boring of the screw-peg and running down the same cannot reach the lower ends of the wood fibers, but runs out freely to the outside through the opening formed by the funnel-shaped edges. The use of this fastening-cap affords thus three advantages—namely, of preventing moisture from rising from the ground into the wood peg, of keeping snow and rain-water away from the lower ends of the wood fibers, and finally of carrying off such water freely into the ground.

Having now particularly described and as-

certained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. A form of construction of the wood peg such as described which consists in the lower end being covered by a cap *d* fitted thereon in order to protect it against moisture arising from the ground, substantially as hereinbefore described and shown.

2. A form of construction of the wood peg such as described which consists in the inner part *e* of the closing-cap, which inner part projects into the longitudinal boring of the wood peg, being formed at its upper end into a funnel *f* which on the one hand prevents the rising of moisture from the ground, and on the other hand allows rain or snow water, which penetrates from above, to run away, substantially as hereinbefore described and shown.

In witness whereof I have hereunto set my hand in presence of two witnesses.

FELIX STAHL.

Witnesses:
ANDREAS STICH,
OSCAR BOCK.