

(No Model.)

J. H., J. R. & W. E. SMITH.

WEDGE FOR FILLING AND TIGHTENING WOOD JOINTS.

No. 567,048.

Patented Sept. 1, 1896.

Fig. 1.

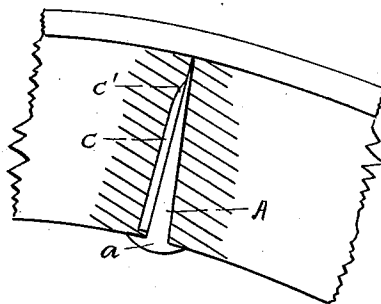


Fig. 2.

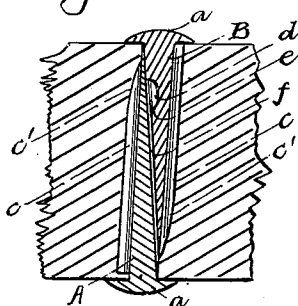


Fig. 5.

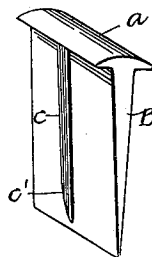


Fig. 3.

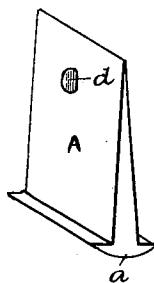


Fig. 4.

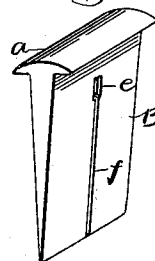
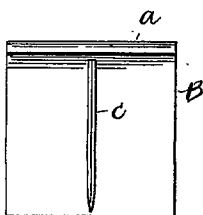


Fig. 6.



Witnesses.

G. M. Anderson
Phillemasi.

Inventors

John H. Smith.
James R. Smith.
William E. Smith.
by E. W. Anderson
their Attorney.

UNITED STATES PATENT OFFICE,

JOHN H. SMITH, JAMES R. SMITH, AND WILLIAM E. SMITH, OF SNOHOMISH,
WASHINGTON.

WEDGE FOR FILLING AND TIGHTENING WOOD JOINTS.

SPECIFICATION forming part of Letters Patent No. 567,048, dated September 1, 1896.

Application filed April 9, 1896. Serial No. 586,862. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. SMITH, JAMES R. SMITH, and WILLIAM E. SMITH, citizens of the United States, and residents of Snohomish, in the county of Snohomish and State of Washington, have invented certain new and useful Improvements in Wedges for Filling Up and Tightening Wood Joints; and we 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a sectional view showing single wedge applied to stretch vehicle-tire. Fig. 2 is a sectional view showing both wedges as applied to a joint. Figs. 3 and 4 are perspective views of the two wedges. Fig. 5 is a perspective view of wedge, showing opposite side of same. Fig. 6 is a front elevation of one of wedges.

This invention is designed to provide self locking and keying wedges for use in filling up or tightening wood joints; also, to provide wedges of this character having means whereby they will close the joint and render it water or air tight.

The invention is particularly adapted for use in tightening vehicle-tires by expanding the felly.

With these objects in view the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letters A and B designate a pair of wedges embodying the invention. These wedges are preferably of considerable width or breadth, (a matter, however, which depends largely upon the character and area of the joint with which they are to be used,) their opposite faces being equally inclined. Each wedge has a convex head *a*, extending its full width and breadth and projected laterally thereof at both sides. The lower faces of these lateral projections are at substantially right angles to the vertical plane of the wedge, so that when the latter is driven into the joint the

head will seat in close contact with the surfaces adjacent to the joint and render it air or water tight. For special work, however, it is obvious that the angle of these lower faces may be made to suit the angle of the surfaces upon which they are seated. Preferably the upper convex surface of the head meets, or nearly meets, the said lower face, in order to form comparatively thin edges adapted to seat themselves in the surfaces against which they are driven. It may here be stated that the lateral projection of the head is sufficient to carry the edges thereof beyond the face of the opposing wedge when a pair of wedges are applied oppositely to each other, as in Fig. 2. Each wedge is provided on one of its faces with a spline or rib *c*, which extends from the head to a point near the thin edge. Sufficient space is, however, left between the upper end of said spline or rib and the under side of a head to permit a chisel to be engaged therewith. These splines or ribs are beveled to give them comparatively sharp edges, and are preferably tapered off near the thin edge of the wedge, as indicated at *c'*, to enable them to enter the wood easily. The opposite face of one of the wedges, as A, is formed with a projection, such as *d*, which is designed to engage and seat in a socket or recess *e* in the corresponding face of the opposite wedge. When, as shown, this projection *d* does not extend the full depth or length of the wedge, the opposing wedge is formed with a groove *f*, leading to the socket or recess *e*. This groove forms a way for the said projection as the wedges are driven upon each other. In use the two wedges are driven into the joint from opposite sides, the spline or groove C of each cutting its way into one of the faces of the joint, the projection *d* coming into engagement with the socket or recess *e* and the heads *a* closing down over the joint. Being locked in this manner it is impossible for them to slip upon each other or fall out of place.

In some cases it is desirable to wedge the joint from one side only, as in tightening vehicle-tires. One of the wedges, as A, is then employed. When driven into a joint that is liable to shrink in dry weather and swell in wet weather, the wedges can be par-

tially removed by driving a thin chisel or other tool between the under face of the head and the wood at one or both sides of the joint. This will permit the joint to swell, and when shrinkage again occurs the wedges can be reseated.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A pair of wedges, one of which has on one of its faces a projection and the other of which has on its corresponding face a socket or recess adapted to seat said projection when the two wedges are oppositely applied to each other, both wedges having also a projection on their opposite or outer faces, substantially as specified.

2. A pair of wedges adapted to be applied to each other oppositely, each wedge having on its outer face a sharpened spline or rib, one of the wedges having on its inner face a projection and the other having on its corresponding face a socket or recess adapted to seat said projection, each wedge having also

a head which projects laterally thereof at both sides, substantially as specified.

3. A pair of self locking and keying wedges adapted to be applied to each other oppositely and having each a projection or spline upon its outer face, and having upon their inner faces means whereby they are locked one to the other, substantially as specified.

4. As a new article of manufacture, the herein-described wedge, having a convex head projecting laterally thereof on both sides, and having upon the face thereof a lateral rib or projection whose outer end terminates a short distance from the said head, whereby a tool may be inserted between said end and the head, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

J. H. SMITH.
J. R. SMITH.
W. E. SMITH.

Witnesses:

DANIEL MEAGHER,
M. J. MCGUINNESS.