

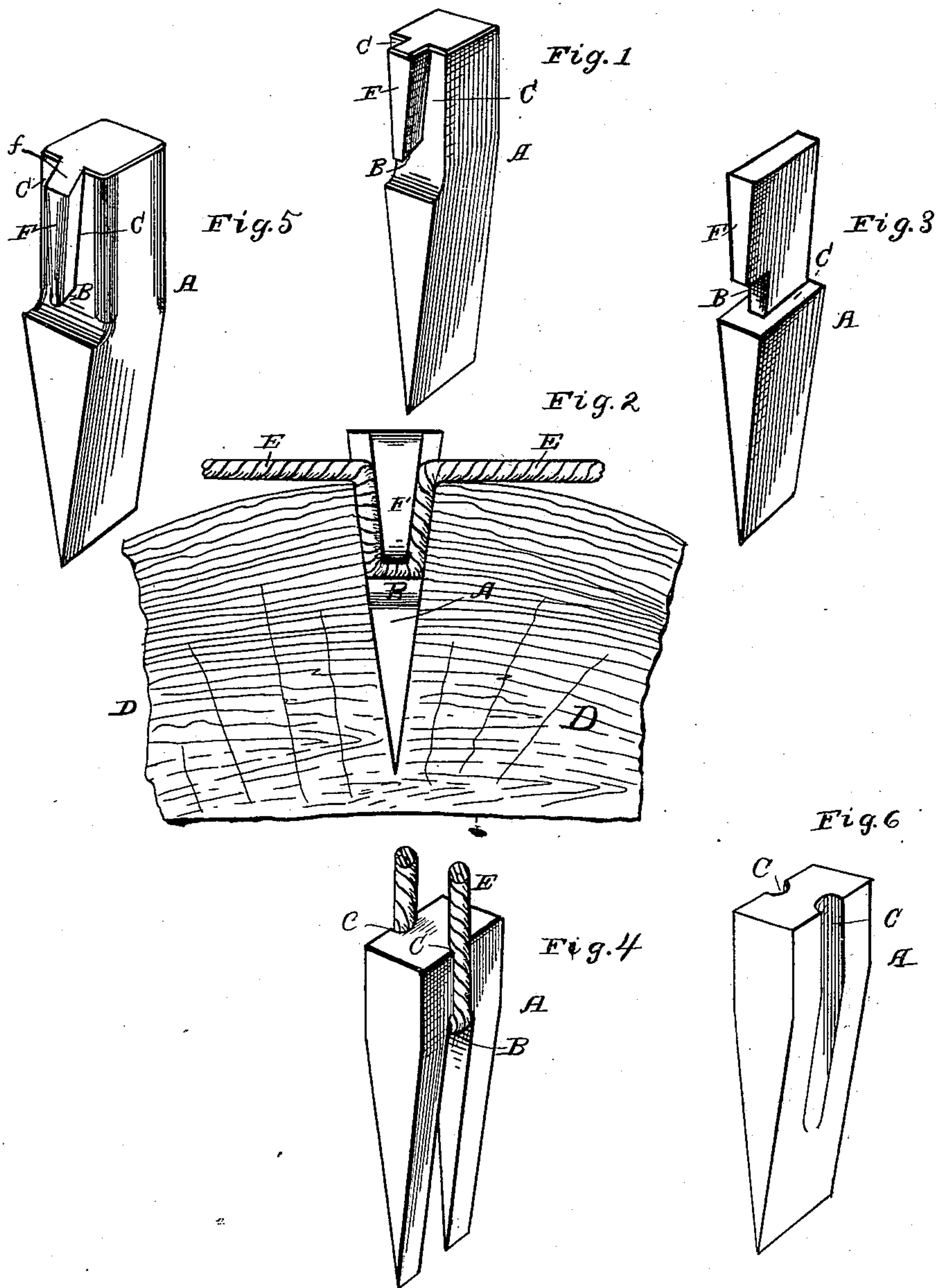
(No Model.)

W. J. LATCHFORD.

RAFTING WEDGE.

No. 345,153.

Patented July 6, 1886.



Witnesses:

J. C. Turner

D. W. Sommers

Inventor:

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attys.



# UNITED STATES PATENT OFFICE.

WILLIAM J. LATCHFORD, OF STILLWATER, MINN., ASSIGNOR OF ONE-THIRD  
TO H. T. KING AND MYRON I. McKUSICK, BOTH OF SAME PLACE.

## RAFTING-WEDGE.

SPECIFICATION forming part of Letters Patent No. 345,153, dated July 6, 1836.

Application filed November 9, 1885. Serial No. 182,282. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM J. LATCHFORD, a citizen of the United States, residing at Stillwater, in the county of Washington and State of Minnesota, have invented certain new and useful Improvements in Rafting-Wedges, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain improvements upon the pins or wedges used in rafting to unite with the logs the connecting-line which ties or binds together the logs making up the raft.

Heretofore it has been customary in rafting logs to employ perfectly-plain pins which are driven part way into the logs, leaving their ends project sufficiently far to allow the connecting rope or line to be passed around them by two or more half-hitches; but such arrangement is subject to the objection that it requires a large amount of rope for these hitches—nearly one-half the amount used being employed in this way—thus greatly increasing the cost of rafting, and to the further objection that the projecting ends of the pins are liable to become broken off, thus freeing the log from the rest of the raft, and allowing it to escape and become lost. Both of these objections it is the object of my invention to overcome.

Another well-known device consists of a wedge slotted part way from its lower sharpened edge toward its butt-end, and which straddles the connecting-rope; but this also is subject to objections which I overcome by the use of my invention. For instance, it is found that a wedge of such earlier construction is liable to become loosened, and to allow the rope to slip, and to finally become drawn out of the log into which it is driven, by reason of the great strain to which it is subjected from the connecting-rope, the strain being applied directly to the wedge. This objection is particularly felt when rafting in swift waters, where the strain upon the various parts of the raft is oftentimes exceedingly great, and yet where it is necessary that all parts of the raft should remain intact throughout its entire journey, in order to prevent loss. The con-

necting-rope which is usually employed is made from hard-twisted hemp, and it is found from actual experience that after a wedge of such earlier form has been driven into the log until it grips the rope a single additional blow upon the head of the wedge will often cause the rope to split the wedge and render it useless. To overcome these objections I have devised a rafting wedge or pin provided with a notch or seat into which the rope may be placed, and which is so situated between the ends of the wedge that as the wedge is driven into the log the rope shall be carried with it below the surface thereof, and combined with such seat or notch are grooves or cut-away portions in the sides of the wedge, in which cut-away portions the rope may lie and be confined between the wedge and the log.

To better illustrate my invention I have shown several forms of my device, although others will readily suggest themselves to those practically acquainted with the art to which my invention belongs.

Figure 1 is a view in perspective of one form of my invention. Fig. 2 is a cross-section of a portion of a log with my wedge inserted therein. Figs. 3, 4, 5, and 6 are perspective views of modified forms.

In the drawings similar letters of reference indicate like parts in all the figures.

A represents the body portion of the wedge or pin. It is usually made from some hard wood, and is adapted to be driven into the log D, to hold the rope E, by which the logs are fastened together.

Referring particularly to Fig. 1, B represents an oblique notch in the side or edge of the wedge, usually about three-eighths of an inch in depth. Extending from the notch B to the top of the wedge are two grooves, C C, situated in the corners of the wedge and separated by the rib F. These grooves C are usually about three-eighths of an inch deep in the direction of the depth of the notch, and about one-fourth of an inch deep in the opposite direction. These dimensions are suitable when a rope of three-eighths of an inch in diameter is used, that being the size usually employed, although I do not wish to be limited to any particular dimensions in this respect. The



rope is placed in the notch B, and as the wedge is driven into the log is carried thereby below the surface of the log, the rope falling into the grooves C C, as shown in Fig. 2, where it is closely held against slipping. When the rope is held in this manner it is practically impossible for the rope either to be drawn through its seats in the wedge, which overcomes liability from wear of friction by slipping of the rope, or for the rope to draw the wedge out from its seat in the log. Should the wedge be driven into the log until its butt-end is flush with the surface thereof, it might be impossible to withdraw it when it became desirable to separate the logs, thus rendering it necessary to cut the rope, which would result in considerable loss. To avoid this I drive the wedge into the log only part way, leaving the butt-end projecting a short distance above the surface, as shown in Fig. 2, so that the rib F may be broken or split off, thus allowing the rope to be withdrawn without cutting it.

In Fig. 3, instead of grooving the edge of the wedge, as in Fig. 1, the whole side of the upper part of the wedge is shown cut away, in order to allow the rope to be carried down with the wedge, and to lie between it and the log.

In Fig. 4 the wedge is shown as centrally slotted from its beveled edge upward toward the butt-end, so that it may straddle the rope, there being grooves for the rope in the side of the wedge extending from the upper end of the slot or seat to the butt-end of the wedge.

It will be seen that in all the constructions which I have shown the principal strain of the rope is sustained by the log itself, and not, as heretofore, solely by the pin or wedge. This greatly increases the effective strength of a wedge of given size and weight, besides materially lessening the danger of withdrawing it from the log.

Under some circumstances it may be practicable to dispense with the notch B, simply employing the rope seats or grooves C C, as shown in Fig. 6, such construction being particularly adapted for use upon logs which have either holes or slits formed therein for the reception of the wedge, as is often the case with timber which has been squared or partially dressed.

In Fig. 5 I have shown the corners of the wedge as being rounded, the upper edge or face of the rib F being also beveled, as at f, in order to prevent its being struck and broken off when the wedge is being driven into a log.

What I claim is—

1. The herein-described rafting-wedge, consisting of the body portion A, having the rope-seat B situated between the two ends thereof, and the rope-seats extending from the seat B toward the butt-end of the wedge, substantially as set forth.

2. The herein-described rafting-wedge, consisting of the body portion A, having the notch B, the grooves C C, and the rib F, situated between the grooves, substantially as set forth.

3. In combination with a raft-log and connecting-rope, the herein-described wedge, having the rope-seat B and the grooves C C, whereby the rope is confined between the wedge and the log, the said wedge projecting above the surface of the log, substantially as and for the purposes set forth.

4. The herein-described rafting-wedge A, having the rope-seats C C in its sides, substantially as set forth.

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

WILLIAM J. LATCHFORD.

Witnesses:

J. S. BARKER,  
M. P. CALLAN.