(No Model.)

A. J. DEETZ.

SAW SUPPORT.

No. 552,355. Patented Dec. 31, 1895.

Fig. 1

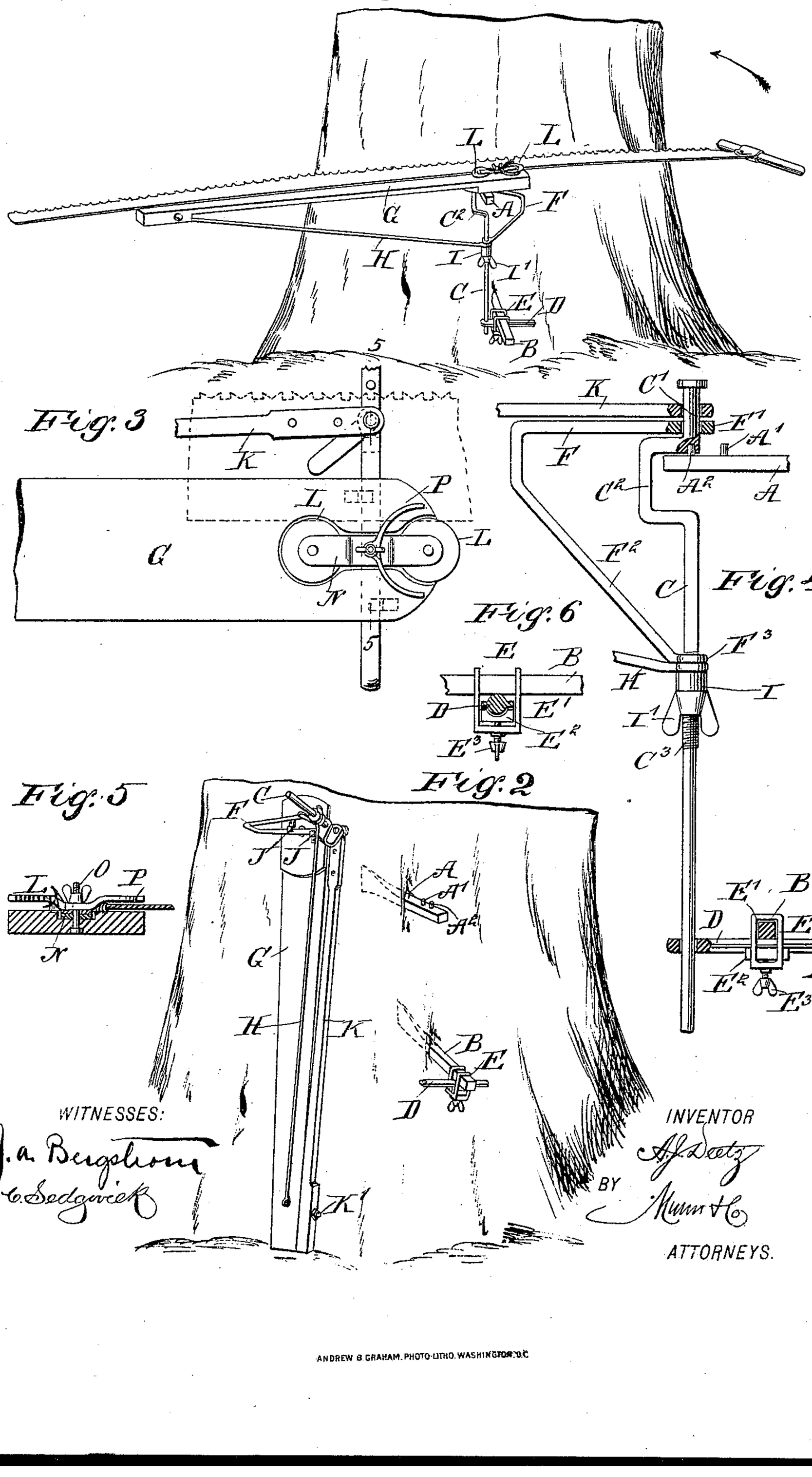

Fig. 3

Fig. 4

Fig. 6

Fig. 5

Fig. 2

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SAW-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 552,355, dated December 31, 1895.

Application filed September 20, 1893. Serial No. 485,955. (No model.)

To all whom it may concern:

Be it known that I, ALVA JACOB DEETZ, of Sisson, in the county of Siskiyou and State of California, have invented a new and Improved Saw-Support, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved saw-support, which is simple and durable in construction, and more especially designed to conveniently hold a crosscut or other saw in proper position to permit a single individual to saw down a tree, no matter how large its diameter.

The invention consists of a saw-table held on a bracket mounted to turn on a shaft journaled on spikes adapted to be driven in the tree.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improvement as applied and showing the saw in position for cutting the tree. Fig. 2 is a perspective view of the improvement in a folded position. Fig. 3 is an enlarged plan view of the saw-table and adjacent parts. Fig. 4 is a enlarged side elevation of the bracket and adjacent parts, parts being in section and the saw-table removed from bracket F so as to show spring K. Fig. 5 is a transverse section of the saw-table on the line 5 5 of Fig. 3, and Fig. 6 is a sectional side elevation of the clamp for the lower spike, the section being taken on the line 6 6 of Fig. 4.

The improved saw-support when in position for use is sustained on two spikes A and B, adapted to be driven in the tree, one above the other, as is plainly illustrated by Figs. 1 and 2. On the spike A and on the upper surface thereof are formed two pins A′ and A², one of which is engaged at a time by the pivot end C′ of a shaft C, journaled at its lower end in the eye of a bar D adapted to be fastened in place by a clamp E on the lower spike B. This clamp E is formed with a frame E′ hung on the spike B, and into which extends the bar D. A clamping-block E² engages the under side of the bar D and is pressed in contact therewith by a set-screw E³, screwing in the frame E′ so as to securely clamp the bar in place. The bar D can be readily adjusted by loosening the set-screw E³, so as to hold the shaft C in a proper vertical position, the eye of the bar D then being in vertical alignment with a corresponding pin A′ or A².

In the shaft C is formed a bend C² for permitting the shaft to swing around from one side of the spike A to the opposite side. The pivot end C′ of the shaft C is engaged by the eye F′ of a bracket F, supporting at its upper horizontal portion the saw-table G, the said bracket being provided with the brace F² formed on its lower end with an eye F³ loosely engaging the shaft C, so that the bracket F is free to swing on the said shaft. The eye F³ rests on top of the eye of a brace H extending outward to rigidly connect with the outer end of the saw-table G to properly support the same.

The eye of the brace H rests on a washer I supported on a winged nut I′ screwing on the threaded portion C³ formed on the shaft C, (see Fig. 4) so as to permit the operator to raise or lower the brace H, bracket F and saw-table G, carrying the saw to hold the latter in proper position relative to the cut to be made.

The forward end of the table G is secured to the bracket F by the keepers J, (see Fig. 2 and also dotted lines in Fig. 3,) bolted or otherwise fastened to the under side of the table G and engaging opposite sides of the bracket F. The pivot end C′ of the shaft C is also engaged by the free end of the spring K extending in alignment with one edge of the saw-table G, the said spring being connected by a bolt K′ to the outer end of the said saw-table, as is plainly shown in Fig. 2.

On the top of the saw-table G are formed recesses in which fit the horizontally-disposed guide-wheels L adapted to be engaged by the back edge of the saw-blade, as is plainly indicated in Figs. 1, 3, and 5. The wheels L are journaled in a frame N fastened by a bolt O to the saw-table G, and on the uppermost end of the said bolt, under its nut, is held a forked arm P, extending over the top of the

saw-blade so as to hold the latter down on the upper surface and on either side of the saw-table. (See Fig. 5.)

The operation is as follows: When the several parts are in the position indicated in Fig. 1, then the shaft C is held on its bearings on one of the pins A′ or A², and the eye of the bar D, and the bracket F on which the saw-table is fastened is free to swing on the said shaft C. Now when the saw is placed on the table with its back edge against the wheels L and the arm P extending with one of its prongs over the blade, as is illustrated in Figs. 1 and 3, then the operator can conveniently move the saw forward or backward by manipulating the handle thereof, the saw being guided horizontally so as to cut the tree. As the cut in the tree progresses the operator keeps moving the saw to one side so as to swing the saw-table G around correspondingly, whereby a cut is made around one-half of the tree, the saw-table swinging in the same manner so as to always support the free end of the saw-blade. When sawing, the operator presses the saw in the tree harder when drawing on the saw, so that the pressure exerted by the operator on the frame N causes a greater pressure on the guide-wheels L, whereby the forward end of the saw-table is caused to move outward, away from the free end of the spring K, and when the operator then pushes the saw back he releases the pressure on his end so that the saw-blade will not cut at the handle end, but in pushing it back through the cut in the tree the teeth will again cut. Thus the saw will cut about one-third on the pushing stroke and two-thirds on the drawing stroke.

The above-described operation is repeated, so that the tree is readily cut, no resetting of the device being necessary.

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

1. A saw support comprising the vertical shaft provided with upper and lower spikes by which it may be secured to a tree, an angular horizontally swinging bracket journaled at its upper and lower ends on said shaft and having an upper horizontal member and a saw table secured at one end on said horizontal member and free at its opposite end.

2. A support comprising a vertical shaft cranked near its upper end, an upper horizontal spike having a pin on which the cranked end of the shaft is journaled to swing around the outer end of said spike, a lower spike to which the lower end of the shaft is journaled, an angular bracket journaled on the shaft at opposite sides of its crank to turn thereon and a saw table secured at one end to the upper end of the bracket to turn therewith and free at its opposite end, substantially as described.

3. A saw support, comprising spikes adapted to be driven in the tree, a shaft journaled on the said spikes, a bracket journaled on the said shaft, a saw table fastened at one end to the said bracket, and a brace attached to the outer end of the said saw table and mounted to turn at its inner end on the said shaft, substantially as shown and described.

4. A saw support, comprising spikes adapted to be driven in the tree, a shaft journaled on the said spikes, a bracket journaled on the said shaft, a saw table fastened at one end to the said bracket, and a spring fastened to the outer end of the said saw table and mounted to turn at its free end on the said shaft, substantially as shown and described.

5. A saw support comprising upper and lower spikes, a vertical shaft carried thereby, a horizontally swinging bracket mounted on the shaft, a saw table secured at one end to the upper edge of the bracket to turn therewith, and longitudinally aligned horizontal guide wheels on the upper side of the bracket end of the saw table, substantially as described.

6. A saw support comprising upper and lower spikes, a vertical shaft carried thereby, a horizontally turning bracket journaled on said shaft, a saw table secured at its inner end to the upper side of the bracket to turn therewith, a frame at the bracket end of the table on the upper side thereof, guide wheels mounted in said frame, a transverse forked arm and a bolt securing the frame and arm to the saw table, substantially as described.

7. A saw support provided with two spikes, of which one is provided with pins forming the pivot for a shaft, and a bar having an eye to form a bearing for the said shaft, and a clamp securing said bar to the other spike, substantially as shown and described.

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