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J. TUISKU.
SUPPORTING APPARATUS FOR DRAG SAWS, &c.
APPLICATION FILED SEPT. 15, 1903.

NO MODEL.

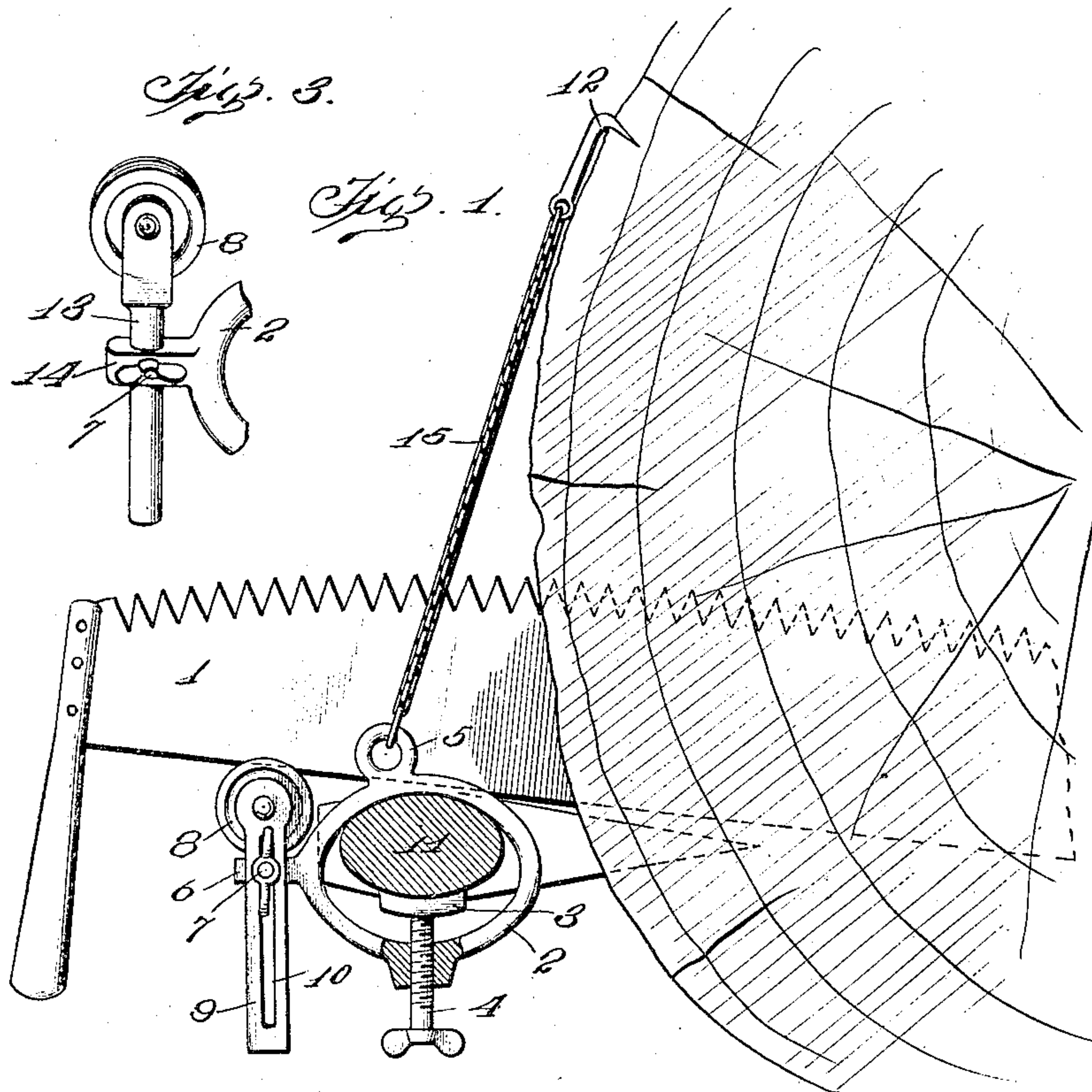
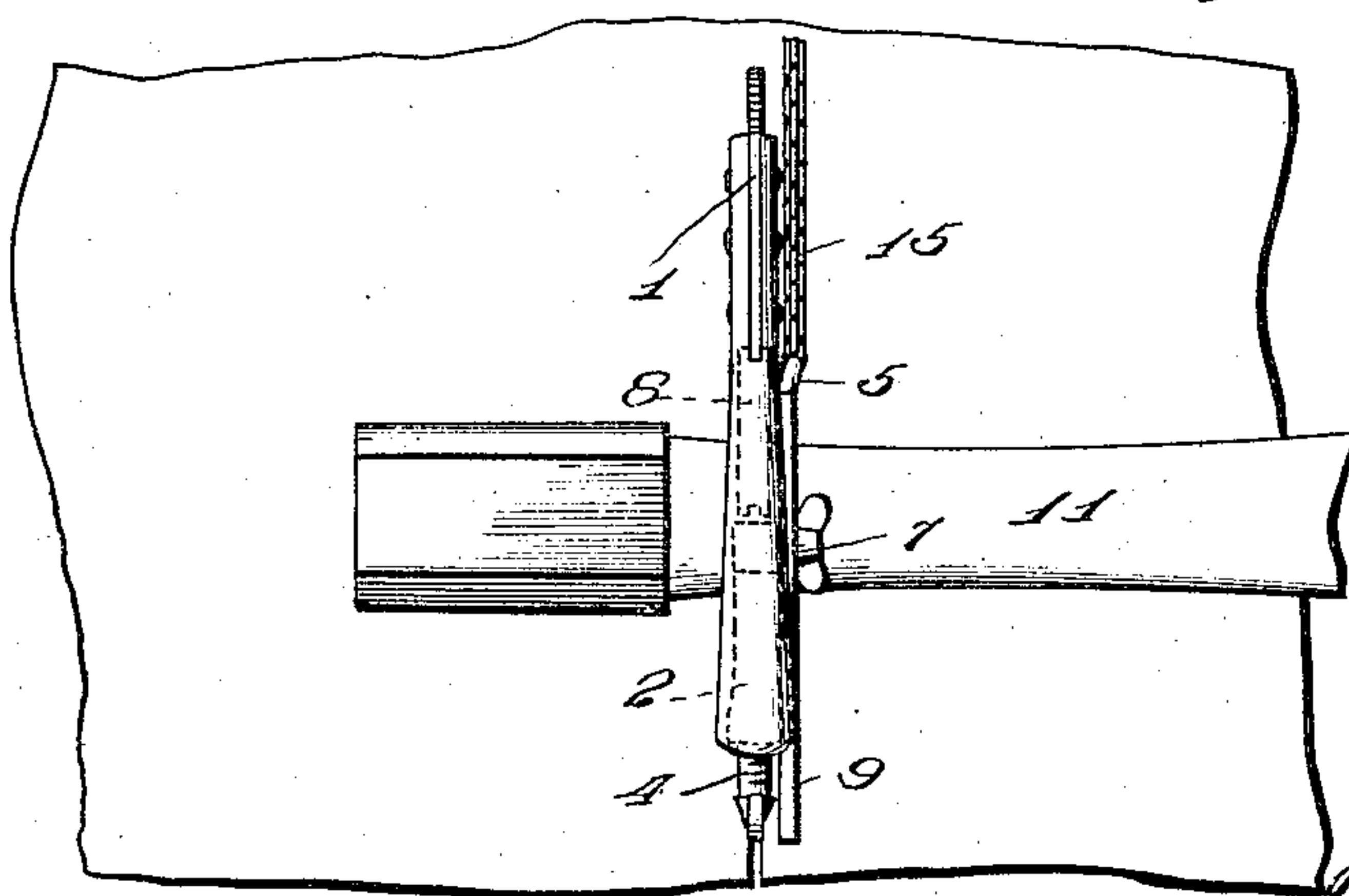


Fig. 2.



Witnesses

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SUPPORTING APPARATUS FOR DRAG-SAWS, &c.

SPECIFICATION forming part of Letters Patent No. 767,255, dated August 9, 1904.

Application filed September 15, 1903. Serial No. 173,336. (No model.)

To all whom it may concern:

Be it known that I, JOHN TUISKU, a citizen of Finland, residing at Everett, in the county of King and State of Washington, have invented certain new and useful Improvements in Supporting Apparatus for Drag-Saws or the Like; and I do hereby 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.

This invention relates to improvements in devices or apparatuses for supporting and guiding drag-saws or the like.

The object of the invention is to construct a mechanism for supporting a drag-saw when in the act of undercutting fallen trees or logs.

Another object of the invention is to provide a support for the saw which is both longitudinally and vertically adjustable.

Another object of the invention is to construct an efficient, cheap, and durable device with a minimum number of parts.

With other objects in view the invention consists in the novel construction and arrangements of parts, as is hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the claims hereto appended.

In the drawings, Figure 1 is a side view of my invention, showing a saw and a sectional fragmentary view of a log or the like. Fig. 2 is a rear view of the invention in an operative position and a fragmentary view of a log or the like. Fig. 3 is a fragmentary view of another embodiment of the invention.

Like numerals of reference designate corresponding parts throughout all the figures of the drawings.

In the drawings reference-numeral 1 designates an ordinary drag-saw, which is shown in a cutting position upon a log and retained in said position by means of my invention, which consists in a clamp comprising an annular ring 2, which is provided with a concave washer 3 or clamping-block adjustably

mounted within said annular member 2 by means of a set-screw 4. The end of the set-screw 4 engages the washer or clamping-block 3, projecting through said member 3, and is flattened similar to a rivet, so as to retain said block 3 and the member 4 in an assembled position to permit of the rotation for the adjustment of the set-screw 4. Formed integral with the annular member 2 is a perforated extension 5. A boss or extension 6 is formed integrally with the annular clamping member 2 and is provided with a removable set-screw 7.

To permit of the guiding of the drag-saw 1, I employ a grooved wheel 8, which is journaled between the yoke members of a vertically-adjusting bar or shaft 9. Said bar or shaft is provided with an elongated slot 10. Within this slot 10 the bar 9 is adjustably secured to the extension 6 by means of the set-screw 7, passing through the slot 10 and provided with means for locking the shaft or bar 9 in a vertical position.

The placing of the support and guide in position for the operation of the drag-saw consists in the operator sinking the blade of his ax into a log at any desired point thereon and passing the annular clamping member 2 of the device over the handle 11 of the ax, the said clamping member retained in a fixed position thereon by means of the adjustable set-screw 4. To assist in supporting the device, I also employ a flexible auxiliary support, which comprises a chain 15 or the like secured within the apertured extension 5 of the annular member 2. Said chain is provided with a hook 12, which can be sunk into a log, as shown in Fig. 1, for producing the secondary supporting feature of the invention.

In Fig. 3 I have shown my preferred form of the vertically-adjustable shaft, which carries the grooved guiding-wheel for the drag-saw. The shaft 13 employed in this construction is adapted to be rotated within the extension 14, which is formed integral with the annular member 2. It is obvious that I provide the extension 14 with a central aperture,

which extends in the same transverse plane with that formed upon the annular member 2 for the adjustment of the set-screw 4 thereon. The extension 14 is formed at right angles to the annular member 2. The set-screw 7 in this embodiment is adapted to engage the periphery of the shaft to lock the same in a predetermined position. As the saw is actuated and moves upwardly the said shafts 9 and 13 may be vertically adjusted, permitting wheel 8 to normally engage the back of the saw.

It will be understood that in cutting downward into fallen trees that have crossed, the said trees will split with the grain as the saw passes through the same, for the under tree acts as a fulcrum upon the upper tree which is being cut, and of course as the said saw passes through said upper tree the slot formed by the drag-saw will spread apart and finally ruin the value of the lumber, as heretofore stated.

In operation the woodman simply takes the wood-ax and with a hard blow fastens the blade thereof in the log with the handle thereof parallel with the log. The handle also crosses a point where it is desired to have the log severed. The annular member or ring 2 is then slipped over the handle 11 and moved to the point where the saw crosses and there attached by the set-screw 4, provided with washer 3. The wheel-shaft is set at the desired height to support the back of the cross-cut or drag saw, and if it is necessary for the supporting of the device the flexible member 15, as heretofore described, may also be attached by means of a hook 12, which is secured thereto at one end and engages the log, while the other end of said flexible member is secured to the extensions 5, formed integral with annular member 2. This support braces the handle in case the same should be likely to spring out of position or if the blade tends to fall from its place on the lower side of the log. When the saw is first placed against the bottom of the log to cut upward, the ax and this support must be placed as far down the side of the log as possible; but the ax-handle must stand out some distance from the log. No difficulty is found in using this support even at the commencement of the cut, and thereafter the supporting-ax can easily be placed in new positions as the saw cuts upward.

In the foregoing description I have described the preferred form of my invention; but it is obvious that certain modifications and changes can be made thereto, and I therefore reserve the right to do so, so far as such changes and modifications shall fairly fall within the scope of my invention.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the character described, the combination of an annular member provided with a set-screw, an extension formed integral with said member, said extension projecting at right angles to said member and having an aperture extending therethrough, a shaft slidably mounted within the apertured portion formed upon said extension, a guiding-wheel journaled upon said shaft, and means for retaining said member in a fixed position.

2. In a device of the character described, the combination of an annular member provided with a pair of apertured extensions, a set-screw carried by said annular member, a flexible auxiliary support secured to one of said extensions, a vertically-sliding shaft provided with a grooved wheel slidably mounted within an aperture formed within one of said extensions, and means for controlling the vertical movement of said shaft.

3. A drag-saw support and guide, comprising annular clamping means, a set-screw adjustably mounted thereon, an apertured extension formed integral with said clamping means, a flexible member secured to said extension, a hook carried by said flexible member, a secondary apertured extension formed integrally with said clamping means, a shaft journaled in said secondary apertured extension, a grooved wheel journaled upon said shaft, and means carried by said secondary extension for controlling the movement of said shaft.

4. In a device of the character described, the combination of an encircling casing provided with an adjusting-screw having a concaved washer, an extension secured to said casing in a position opposite the said set-screw, said extension provided with a flexible auxiliary support, and a vertical and longitudinal adjustable saw-guide assembled with said casing and provided with means for retaining the same in a predetermined position.

5. In a device of the character described, the combination with a suitable support, of a casing adapted to encircle said support, said casing provided with an adjusting thumb-screw, an extension formed integral with said casing, a shaft adjustably carried by said extension and provided with means for engaging a saw.

6. In a device of the character described, the combination with a support, of an adjustable casing mounted upon said support, adjustable locking means secured to said casing, an adjustable shaft removably mounted upon said casing, a grooved wheel journaled upon said shaft, and means for retaining said wheel and its shaft in a fixed position.

7. In a device of the character described,
the combination with a support, of a sur-
rounding casing therefor, rotary, adjustable
means carried by said casing, and auxiliary
5 flexible supporting means secured to said cas-
ing.

8. In a device of the character described,
the combination with a support, of a sur-
rounding casing therefor, vertically-adjust-

able saw-engaging means carried by said cas- 10
ing, and auxiliary flexible supporting means
secured to said casing.

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

JOHN TUISKU.

Witnesses:

G. WARD KEMP,
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