July 9, 1929. C. G. WOLD 1,720,535

AUTOMATIC GUARD FOR SAWS

Filed Dec. 17, 1927 2 Sheets-Sheet 1

Fig. 1.

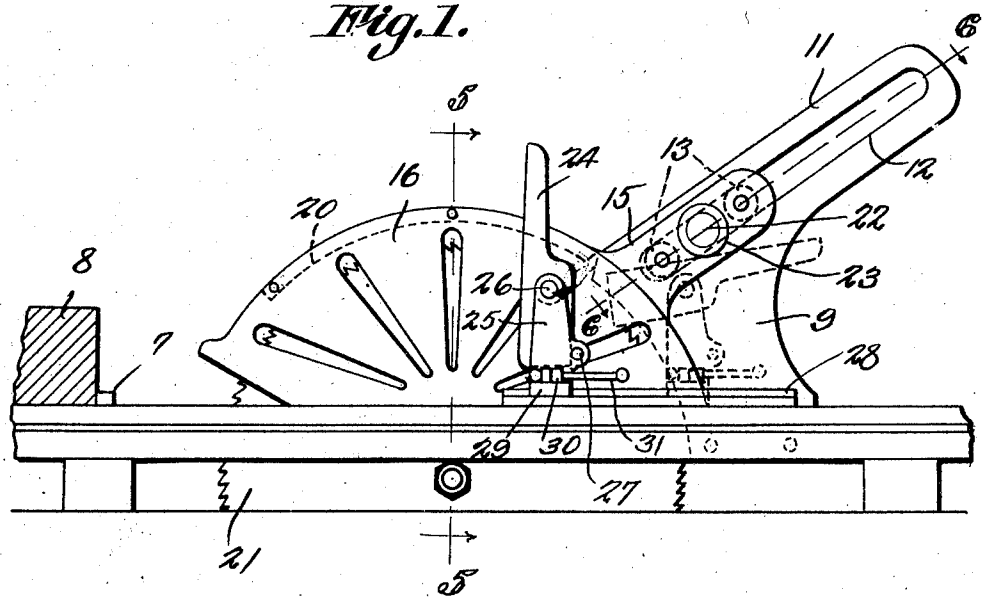
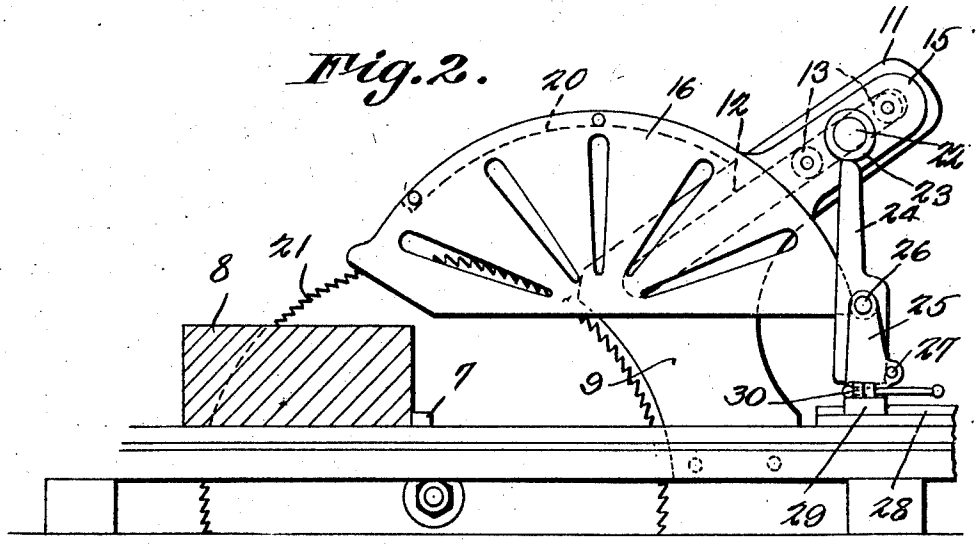


Fig. 2.



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Inventor

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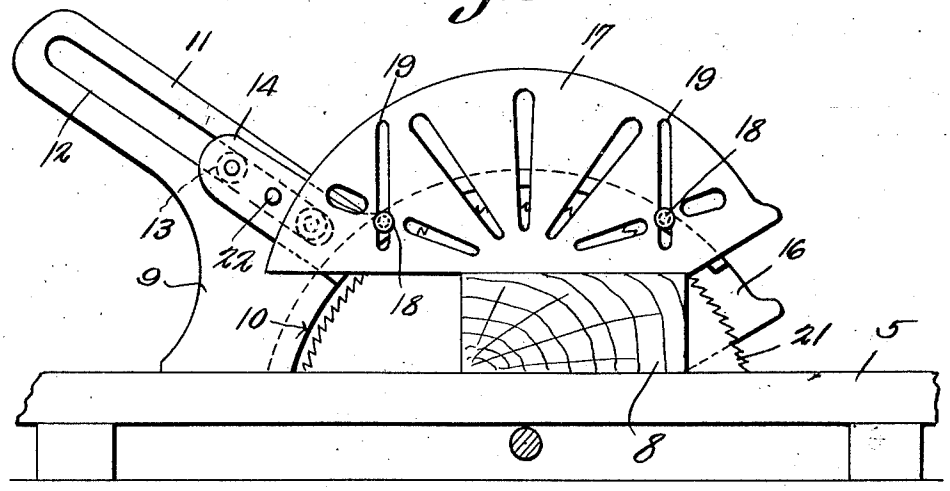
Attorneys.

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Fig. 3.



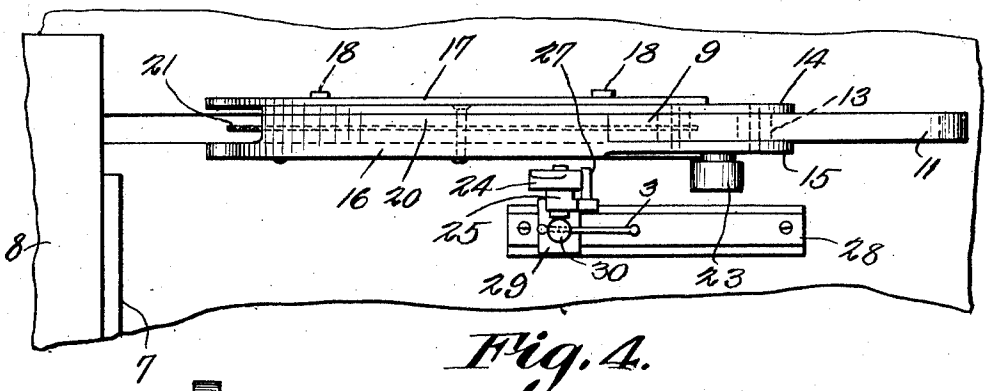
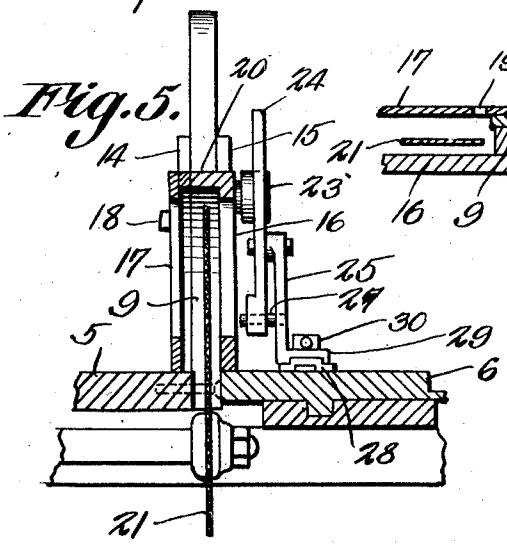


Fig. 4.

Fig. 5.



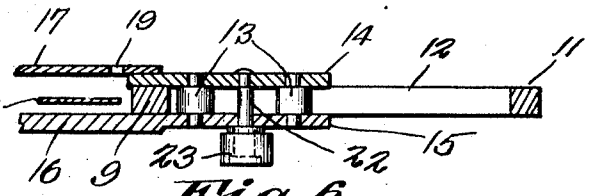


Fig. 6.

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Patented July 9, 1929. 1,720,535

UNITED STATES PATENT OFFICE.

CALMER G. WOLD, OF EAU CLAIRE, WISCONSIN.

AUTOMATIC GUARD FOR SAWS.

Application filed December 17, 1927. Serial No. 240,869.

This invention relates to wood sawing machines and aims to provide an automatic guard for guarding the usual disk saw to insure against injury to the operator.

The primary object of the invention is to provide a guard of this character which will normally house the upper portion of the saw, and one which will automatically move from its guarding position when a length of wood is moved into contact with the saw.

A further object of the invention is to provide a guard of this character which will automatically move to its guarding position after the wood has been sawed or passed by the saw.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is a side elevational view of a saw and a guard, the guard being in its active or guarding position.

Figure 2 is an elevational view illustrating the guard as moved to its inactive position, while a length of wood is being sawed.

Figure 3 is an elevational view taken from the opposite side of the saw guard and illustrating one of the sections of the saw guard as returned to its guarding position.

Figure 4 is a plan view of the guard.

Figure 5 is a sectional view taken on line 5—5 of Figure 1.

Figure 6 is a sectional view taken on line 6—6 of Figure 1.

Referring to the drawings in detail, the reference character 5 designates the saw table which includes the carriage 6 on which the wood being sawed is positioned and held while it is being moved towards the saw.

On the carriage 6 is a block 7 against which the length of wood which in the present showing is indicated by the numeral 8, is positioned to hold the wood in its proper position while it is being sawed. The guard which embodies a pair of movable sections includes a main supporting section 9 which is secured to the saw table, the inner surface thereof being slightly curved as at 10 conforming to the curvature of the saw.

The main supporting section has a rearwardly extended portion 11 formed with an elongated opening 12, within which the rollers 13 operate, the rollers being secured between the plates 14 and 15, the latter plate being a part of the guard section 16, as clearly shown by Figure 1. Cooperating with the guard section 16 is a guard section 17, which is movable with respect to the guard section 16, the same being connected to the guard section 16 by means of the bolts 18 that extend laterally from the guard 16.

These bolts 18 operate in the elongated openings 19 which are disposed vertically with respect to the guard section 17, the connection between the bolts and section 17 being such as to permit of free vertical movement of the section 17.

The guarding section 16 has a laterally disposed flange 20 against which the movable section 17 engages, to the end that the sections 16 and 17, when in their active or guarding positions, define a housing for the disk saw, which is indicated by the numeral 21, and which is shown as operating within the guard.

Supported by the plates 14 and 15 is a shaft 22 on which the roller 23 is mounted, the roller 23 being disposed laterally of the plate 15 so that it will lie in the path of travel of the pivoted arm 24.

As shown, the arm 24 is mounted on an arm 25 and is pivotally supported at 26 so that it will swing freely in one direction, but will be restricted against swinging in the opposite direction by its contact with the pin 27 secured at the base of the arm 25.

Arranged on the carriage 6 is a track 28 on which the base 29 that supports the arm 25 is adjustably mounted, there being provided a securing member in the form of a screw 30 operated by the member 31 for securing the base 29 in its positions of adjustment, throughout the length of the track 28. Thus it will be seen that by moving the base 29, the location of the arm 24 may be changed with respect to the roller 23 to cause the guard to be operated at various intervals.

The operation of the device is as follows:

A length of wood is positioned on the carriage and is moved against the block 7, whereupon the operator moves the length of wood to be cut forwardly, moving the carriage at the same time. As the carriage moves forwardly, the arm 24 engages roller 23 moving the guard vertically or to a position as shown

by Figure 2 allowing the length of wood to pass under the guard and be cut by the saw 21.

As the length of wood is cut, the operator of course moves that portion of the length of wood held in his hand, away from the saw. It follows that the section 17 of the guard will now drop downwardly guarding the saw until the carriage is returned and the length of wood sawed has been removed.

When the wood has been removed from the guard it is obvious that the guard will gravitate to its guarding position or position as shown by Figure 1.

I claim:—

1. A guard for rotary saws including a pair of vertically slidable sections, a carriage for delivering material to the saw, a pivoted finger on the carriage, a roller carried by one of the guard sections, said finger adapted to engage the roller to move the guard sections vertically, and said guard sections adapted to gravitate to their normal positions.

2. A guard for rotary saws including a pair of vertically slidable guarding sections, a carriage for delivering material to the saw, a finger mounted on the carriage and pivotally supported for swinging movement in one direction, means carried by one of the guard sections to be engaged by the finger to elevate the guard section, and said guard section adapted to gravitate to its normal position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

CALMER G. WOLD.