

Jan. 26, 1926.

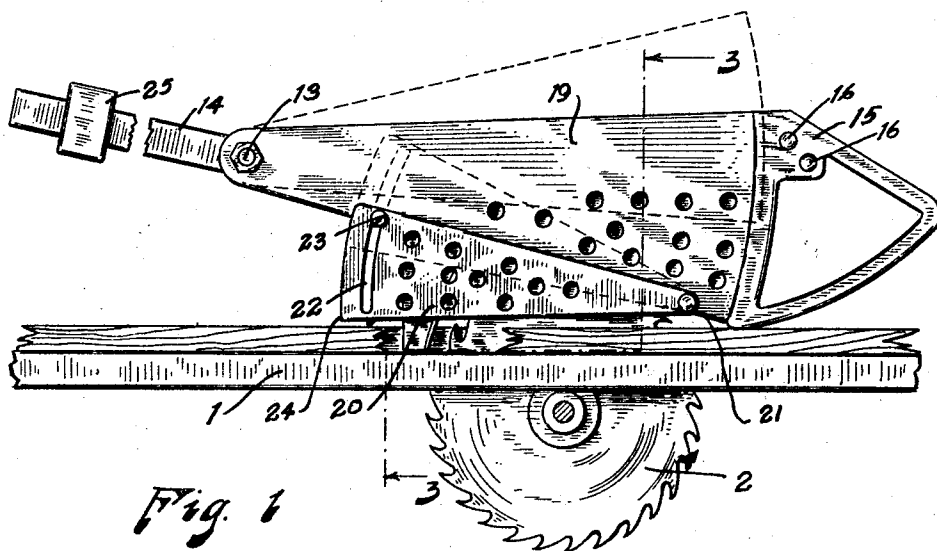
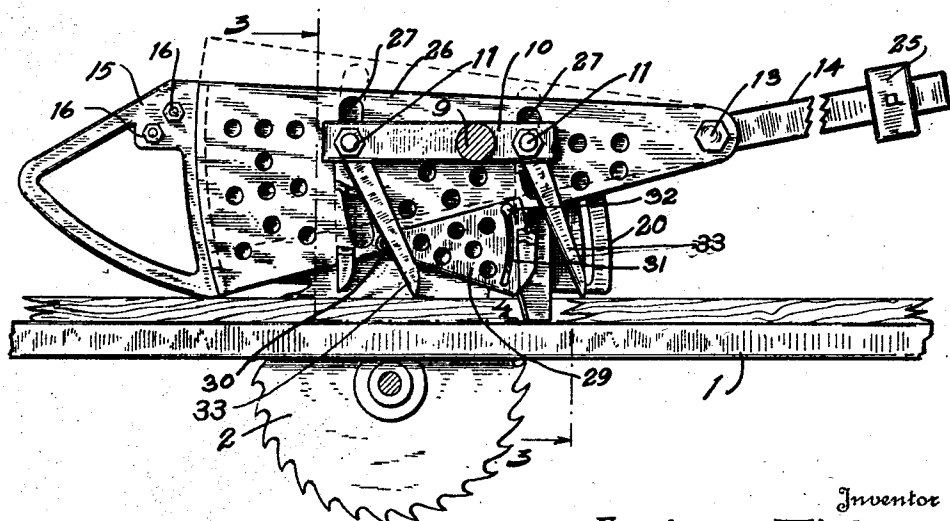
1,570,628

A. FLOHR

SAW GUARD

Filed Oct. 23, 1924

2 Sheets-Sheet 1



Inventor
Andrew Flohr.

384 *A. J. O'Brien*
Attorney

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2 Sheets-Sheet 2

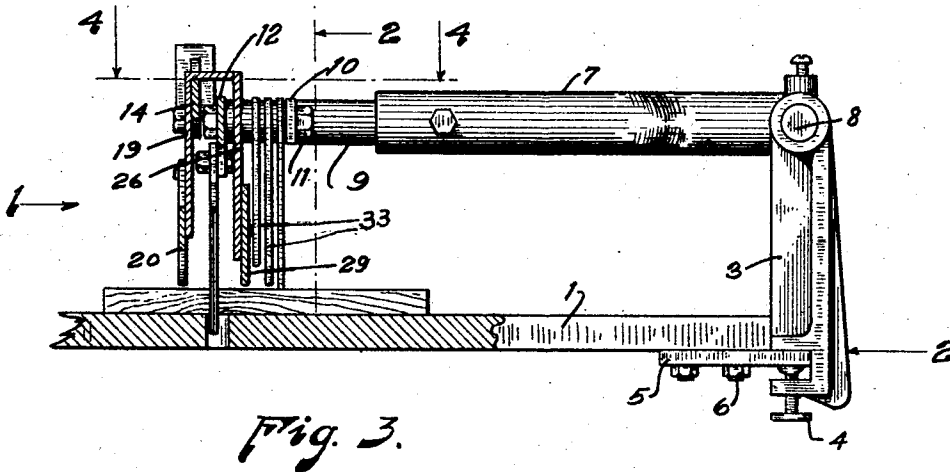


Fig. 3.

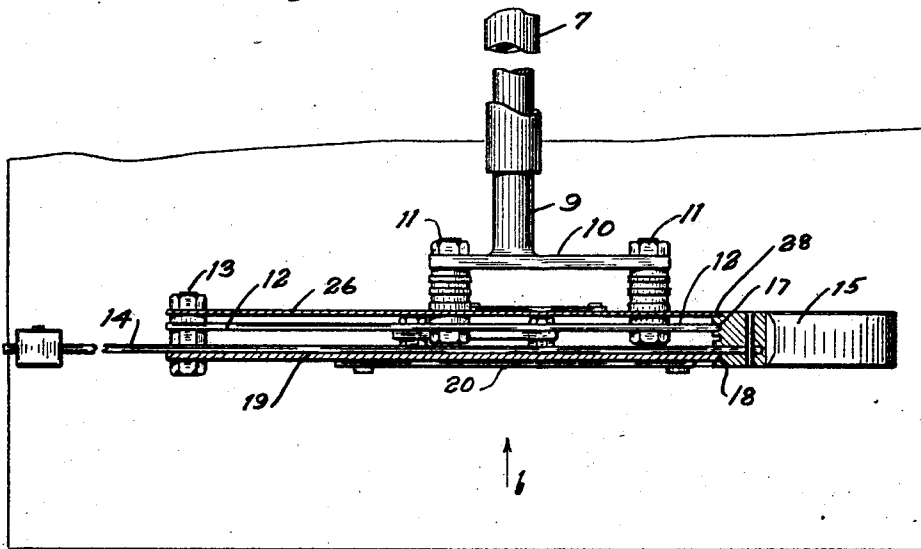


Fig. 4.

Inventor

Andrew Flohr.

By

A. J. O'Brien

Attorney

UNITED STATES PATENT OFFICE.

ANDREW FLOHR, OF COLORADO SPRINGS, COLORADO.

SAW GUARD.

Application filed October 23, 1924. Serial No. 744,919.

To all whom it may concern:

Be it known that I, ANDREW FLOHR, a citizen of the United States, residing at Colorado Springs, county of El Paso, and State of Colorado, have invented certain new and useful Improvements in Saw Guards; and I 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 the characters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in saw guards of the type described and claimed by me in my co-pending application, Serial No. 669,731, filed October 20, 1923.

The importance of properly guarding saws so as to reduce accidents to a minimum, is well recognized and will therefore not be elaborated upon here.

In my co-pending application, to which reference has been made, I have illustrated and described a saw guard, which is admirably adapted for the purpose. I have found, however, that the part that extends down on the side of the saw does not have the proper shape to provide the most satisfactory protection. It has therefore become necessary to provide additional element which cooperates with the others to produce improved results and it is to this new combination that my present invention is directed.

My invention can be most clearly described and will be most readily understood when reference is had to the accompanying drawing, in which the same is illustrated, and in which:

Fig. 1 is a side elevation of my improved guard looking in the direction of the arrow 1 in Fig. 4;

Fig. 2 is a section taken on line 2—2, Fig. 3;

Fig. 3 is a section taken along lines 3—3, Figs. 1 and 2, and

Fig. 4 is a section taken on line 4—4, Fig. 3.

Since this invention relates to a mere improvement on the guard described and claimed in the above-identified application, the drawings have been confined to the specific improvement and such parts of the old device as necessarily co-operate with it.

Numeral 1 designates the top or table

portion of a sawing machine and 2 the circular saw. For the purpose of supporting the guard, I have provided a bracket 3 (Fig. 3) that has a clamping screw 4, by means of which it is secured to the steel plate 5, which is fastened to the table by bolts C. A tubular arm 7 is pivoted at 8 to the upper end of the bracket 3 and carries the rod 9, which is provided at its outer end with a transverse member 10, to which the guard is secured by means of bolts 11. A flat bar 12 is secured in parallel relation with the member 10 and has a pivot pin secured to its rear end. A flat bar 14 is pivoted on the pin 13 and has secured to its forward end a guard member 15. The guard member is held in place on the bar 14 by bolts 16 and is provided with grooves 17 and 18, the former of which receives the end of the bar 12 and the latter of which receives the end of the guard plate 19 whose other end is pivoted at 13 in such a manner that it can be raised with respect to the guard 15 in the manner indicated by dotted lines in Fig. 1. For structural reasons the guard plate 19 has to be made triangular and pivoted at or near its vertex. (Fig. 1.) This leaves the side of the saw exposed when the saw is idle and when a thin piece is being sawed. It is one of the objects of this invention to provide a means which co-operates with the guard plate 19 for the purpose of completely guarding the saw at all times. I accomplish this by attaching a sector-shaped plate 20 to the plate 19. The plate 20 is pivoted at 21 and is provided with an arcuate slot 22 which receives a guide pin 23. It is now evident that the plate 20 can rotate about its pivot 21 to the extent of the length of the slot 22, as shown in dotted lines in Fig. 1. The rear lower corner 24 of the auxiliary guard plate 20 rests upon the upper surface of the work or on the table. When the work is thicker than that indicated in Fig. 1 the plate 20 will approach nearer to the dotted line position, but will always extend downwardly from the plate 19 sufficiently to cover the side of the saw. A weight 25 is attached to the rear end of the bar 14 and serves as a counterweight.

The guard plates 19 and 20 serve to protect one side of the saw and are usually sufficient to afford reasonable protection to the workmen. It is preferable, however to make the protection as complete as possible, and for this reason, I have provided a guard

plate 26 which is usually pivoted at 13. This plate is of substantially the same size and shape as the plate 19 and is provided with slots 27 thru which the bolts 11 pass.

5 The movable end of plate 26 is arcuate and engages in a rabbet 28 and can be rotated about the pivot 13 as indicated by dotted lines in Fig. 2.

10 An auxiliary guard plate of triangular shape is pivoted at 30 to the lower edge of plate 26 and provided with an arcuate slot 31 which cooperates with a guide pin 32 all as shown in Fig. 2. It is now apparent that one side of the saw is protected by means of 15 the guard plates 19 and 20 while the other side is protected by the plates 26 and 29. By means of the four or more plates, the saw blade becomes almost entirely enclosed so that accidental injury becomes almost im- 20 possible.

It is evident that the idea of pivoting sector-shaped plates like 19, 20 and 26, 29 together so as to more completely enclose and protect the saw blade, can be extended by 25 attaching similar plates to the guard plates 20 and 26, but as this is merely a matter of duplication, it has not been shown.

For the purpose of preventing the boards

from being thrown towards the operator, I have provided several dogs 33 that are pivot- 30 ed at their upper ends on bolts 11 and rest their sharpened lower ends upon the upper surface of the board sawed. The pawls of each set vary in length so as to more effectively engage the board. In the drawings I 35 have shown two sets of three pawls each, but a greater or less number may be used as desired.

Having now described my invention, what I claim as new is: 40

A saw guard comprising a support, a 45 frame pivotally attached to said support and projecting to one side of the support, a counterweight attached to said frame, said counterweight being located on the opposite side 50 of the support, a guard plate pivotally attached to said frame, said plate being sector shaped, an auxiliary guard plate, also of substantially sector shape pivoted near its vertex to the first mentioned plate at a point 50 near the arcuate portion of the latter and means for guiding and limiting the movement of the auxiliary plate with respect to the main guard plate.

In testimony whereof I affix my signature.

ANDREW FLOHR.