J. W. HUMASON.

SAW GUARD.

APPLICATION FILED NOV. 20, 1912.

1,082,870. Patented Dec. 30, 1913.

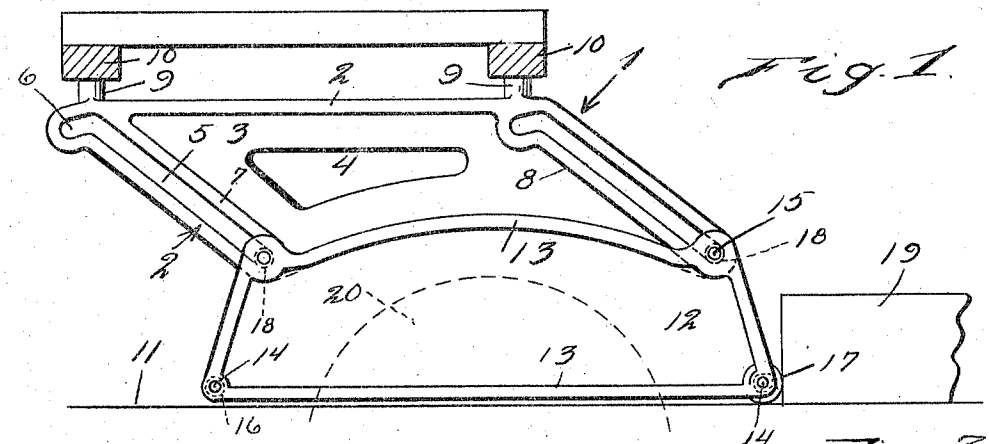


Fig. 1.

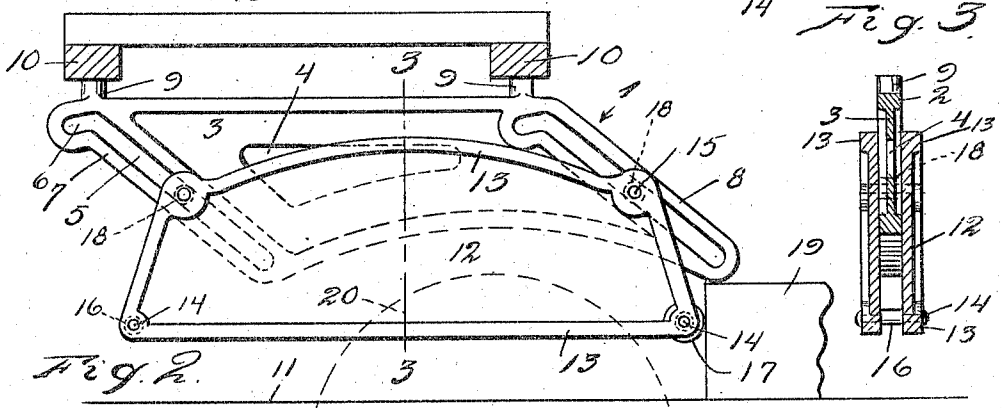


Fig. 3.

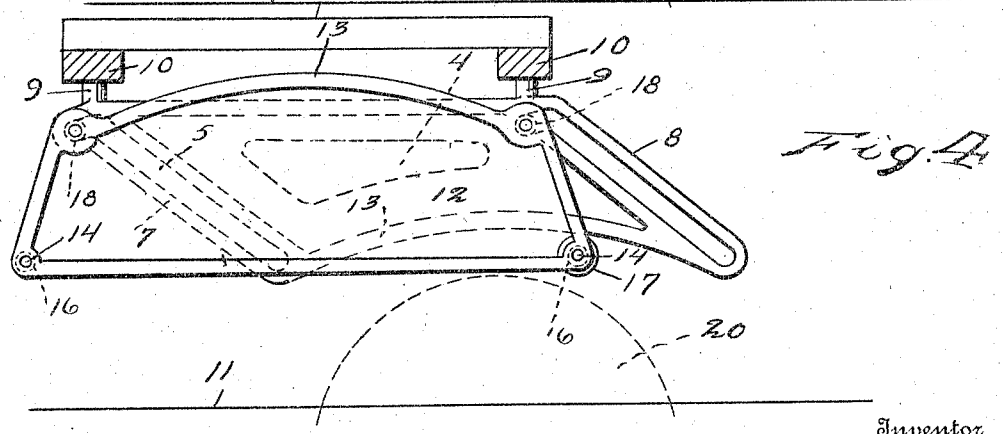


Fig. 2.

Fig. 4.

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UNITED STATES PATENT OFFICE.

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SAW-GUARD.

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To all whom it may concern:

Be it known that I, JOHN W. HUMASON, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Saw-Guards, of which the following is a specification.

This invention comprehends certain new and useful improvements in saw guards, and relates more particularly to guards designed especially for use on circular saws.

The primary object of the invention resides in the provision of a saw guard which shall be of extremely simple construction, strong, durable, and automatic in operation.

Another and more specific object of the invention is the provision of a saw guard comprising a pair of spaced parallel plates, mounted for upward and rearward movement in a slotted guide frame.

The invention also aims to provide a guard of this nature, which will prevent the operator accidentally coming in contact with the saw, which will operate with little or no extra effort on the part of the sawyer, and which may be easily installed.

With these and other objects in view, as will become more apparent as the description proceeds, the invention consists in certain novel features of combination, construction, and arrangement of parts, which will be hereinafter fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which,

Figure 1 is a side elevation of my invention, showing the guard in its operative position, Fig. 2 is a similar view, showing the guard partly raised, Fig. 3 is a transverse sectional view taken upon the plane of line 3—3 of Fig. 2, and, Fig. 4 is a side elevation of my invention, showing the guard locked in its raised position.

Referring to the drawings in detail by numerals, 1 designates, generally, the guide frame, which is formed preferably of aluminum and comprises a slotted plate reinforced about its perimeter by the rib 2. The front and rear edges of the guide frame are inclined downwardly and forwardly, as indicated in the drawings. The body portion 3 of the frame may be formed with a central opening 4 to reduce weight, and the guide slots 5 formed adjacent to the front and rear edges of said body. These slots are extended, at their upper extremities, rearwardly and slightly downwardly, as indicated at 6. Reinforcing ribs 7 and 8 are formed adjacent to the inner edges of the slots for the purpose of strengthening the guide frame and forming a better track for rollers, to be referred to hereinafter. The top edge of the guide frame is formed with the projections 9, whereby said frame may be easily secured to suitable supporting members 10. It is to be understood that I do not wish to be limited to this particular fastening means but may secure the guide frame either to the top of the saw table indicated by the line 11 or to the ceiling of a room in any desired manner.

The saw guard comprises the parallel spaced plates 12 which may be reinforced along their perimeters by the ribs 13. The corners of the plates 12 are further thickened, as shown in the drawings, and provided with circular openings to receive the rivets 14 and 15. A spacing block 16 is positioned upon the intermediate portion of the rear rivet 14, a large roller 17 is mounted upon the forward rivet 14, and smaller rollers 18 are carried by the rivets 15, whereby the plates 12 are held in parallel spaced relationship. The rollers 18 work within the slots 5 of the guide frame 1 and raise automatically when a rearward pressure is applied to the roller 17, as would be the case when a piece of timber 19 is being moved into contact with the saw 20. When the rollers 18 reach the upper ends of the slots 5 and move into the portions 6 thereof, the saw guide is locked in its raised or inoperative position.

It is to be understood that the guide frame and saw guard may be made of any suitable material of any size and may be positioned at any suitable height above the table top 11 so as to effectually guard the saw 20. As shown in the drawings, the top of the saw guard and bottom of the guide frame are somewhat curved to present a pleasing appearance and permit of the roller 17 being raised without interfering with the proper action of the rollers 18.

In the operation of my improved saw guard, the piece of wood 19 to be sawed, is pushed rearwardly against the roller 17, thus raising the guard so as to permit of the wood coming in contact with the saw. The offset portions 6 of the slots 5 are provided

in order that the guard may be locked in its raised position when it is desired to sharpen the saw teeth, change saws, etc.

While I have shown and described the preferred embodiment of my invention, I do not wish to be limited to the exact combination and arrangement of parts, but may make such changes as will fall within the scope and spirit of the invention.

Having thus described my invention what I claim is:—

1. A guard for circular saws, comprising a guide member formed with downwardly and forwardly extending slots, parallel guard plates, means for holding said plates in spaced relationship, and rollers mounted upon certain of said means, for movement within the slotted member.

2. A guard for circular saws, comprising a guide frame formed adjacent its front and rear edges with downwardly and forwardly inclined slots, the upper ends of said slots being extended rearwardly and downwardly, spaced guard plates, means for holding said plates in spaced relationship, rollers mounted upon certain of said means for movement within the slots, whereby the guard plates are guided and may be locked in their raised position, and an additional roller upon one of said means for engagement with a piece of timber to be sawed.

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

JOHN W. HUMASON.

Witnesses:
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H. M. SHUGART.