P. J. MURPHY.

SAW CARRIAGE.

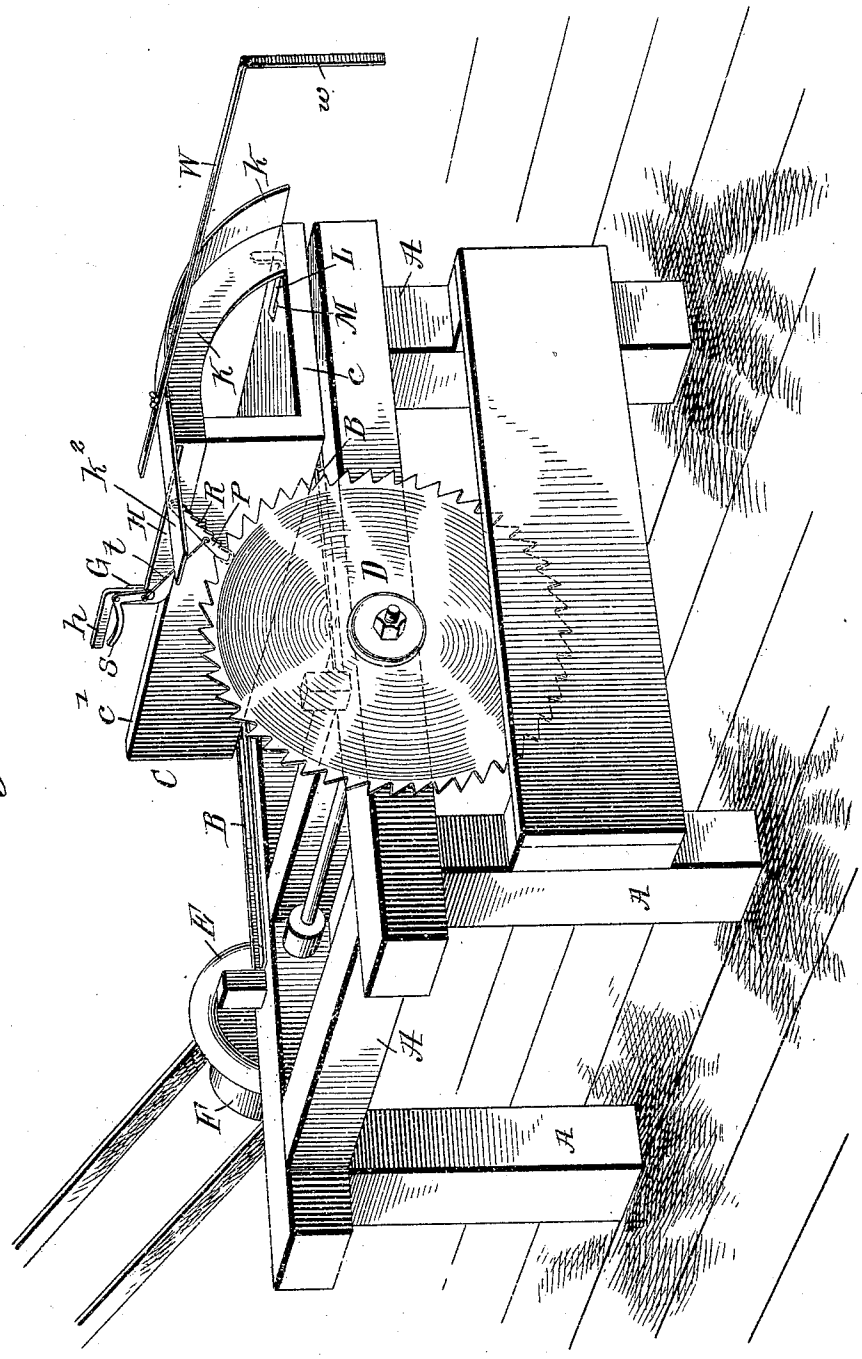
APPLICATION FILED JAN. 28, 1909.

940,470.

Patented Nov. 16, 1909.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES.

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L. A. Stanley

INVENTOR

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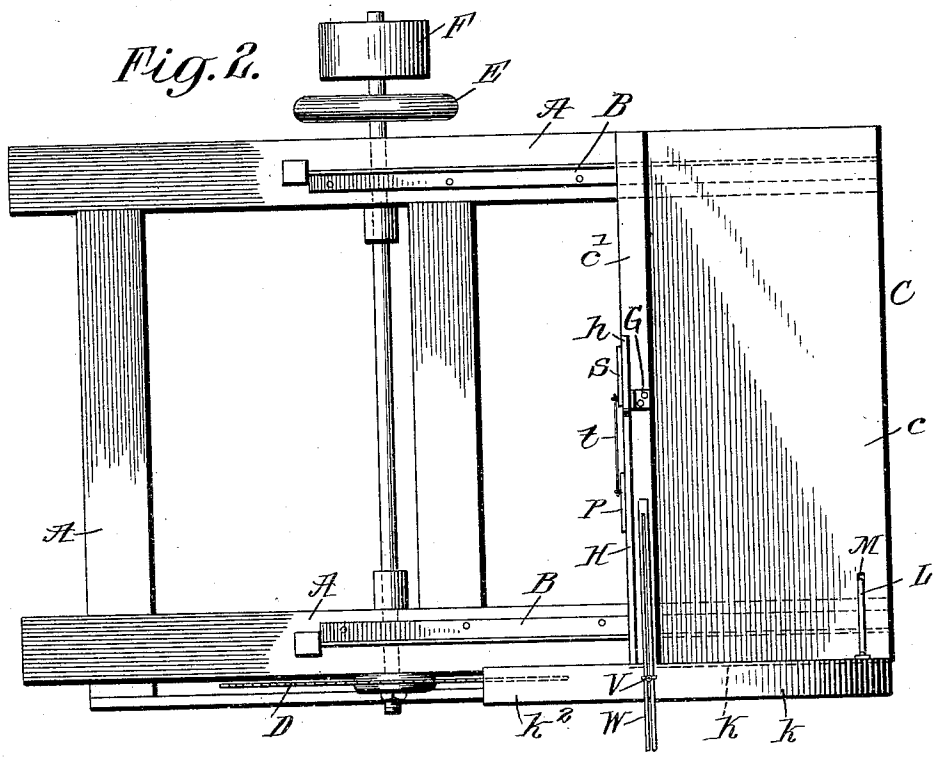
2 SHEETS—SHEET 2.

Fig. 2.



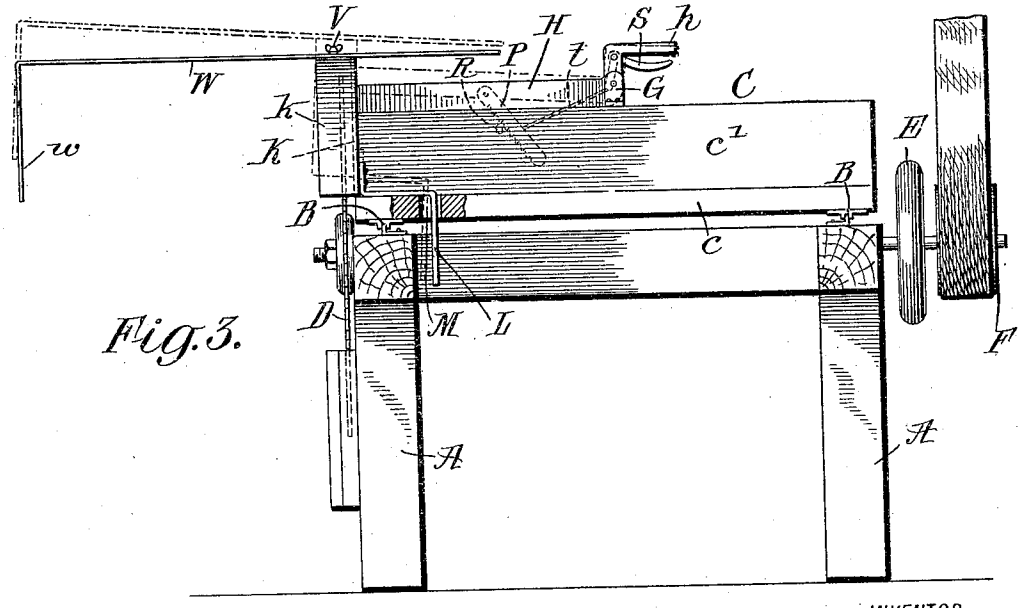


Fig. 3.

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UNITED STATES PATENT OFFICE.

PATRICK J. MURPHY, OF ALEXANDRIA, VIRGINIA.

SAW-CARRIAGE.

940,470. Specification of Letters Patent. Patented Nov. 16, 1909.

Application filed January 28, 1909. Serial No. 474,726.

To all whom it may concern:

Be it known that I, PATRICK J. MURPHY, a citizen of the United States, and a resident of Alexandria, in the county of Alexandria and State of Virginia, have made certain new and useful Improvements in Saw-Carriages, of which the following is a specification.

My invention relates to improvements in saw mechanism and it consists in the combinations, constructions and arrangements herein described and claimed.

In the ordinary operations of sawing wood for fuel or for other purposes by means of a circular saw, the latter is mounted at one side of a frame upon which there is a movable carriage. The stick of wood is placed on this carriage and the latter is moved up toward the saw by the workman who holds the stick of wood upon the carriage and at the same time pushes the latter toward the saw. It often happens that a workman will hold the stick with his hand too near the saw and the injuries resulting from the accidental cutting of the hands are very numerous.

An object of my invention is to provide a device, which, while permitting the easy manipulation of the saw carriage, and the adjustment of the stick of wood to the proper length, prevents the saw from coming in contact with the hand of the operator.

A further object of my invention is to provide means whereby the guard may be raised or lowered to any convenient height and retained in its position to permit the adjustment of the wood to the proper place for sawing.

A further object of my invention is to provide an improved gage for accurately determining the proper length of the sticks to be sawed.

My invention is illustrated in the accompanying drawings in which similar reference characters indicate corresponding parts in the several views, and in which—

Figure 1 is a perspective view showing one embodiment of my invention. Fig. 2 is a plan view of the device, and Fig. 3 is an end view of the device, certain parts being shown in section.

In carrying out my invention I provide a main frame A carrying the rails B, upon which the carriage C is arranged to slide in the manner clearly shown in the drawings.

The circular saw D is mounted in suitable bearings on the frame A and is provided with the usual fly wheel E and power pulley F.

The carriage C consists of a base member c and an upright c'. On the member c' is provided an upwardly extending arm G, to which is pivoted a Z-shaped lever H. At the end of the lever is an integral arc-shaped guard member K, having a laterally projecting flange k on its upper edge arranged to lie directly above the saw D and having one end extended as shown at k^2 in Fig. 2. The guard K and the lever H are preferably formed from one casting but they may be made of two pieces and be secured together in any suitable manner.

Referring now to Fig. 3 it will be seen that there is a Z-shaped guide member L which is attached to the guard K and whose lower end extends downwardly through a slot M in the base member c of the carriage. The slot M is elongated in order to allow an upward movement of the guard about the pivot of the lever H.

On the side of the lever H which is next to the saw is a pivoted stop P which is provided with teeth arranged to engage a pin or stud R on the carriage proper. This stop is normally kept in engagement with the pin R by its own weight but may be lifted out of engagement by means of the bell-crank lever S pivoted on the handle h of the lever H and connected to said bell-crank lever by means of the link p. On the top of the guard is a slotted rod W provided with a downwardly extending end w arranged to engage the end of a stick of wood. This rod may be moved inwardly and outwardly and held in position by means of the set screw V.

From the foregoing description of the various parts of the device the operation thereof may be readily understood. The sticks or blocks of wood may of course vary in size. In order to accommodate a stick of greater diameter than usual, the operator pushes down on the handle h, thereby raising the guard which is held in its raised position by means of the pivoted stop P. The stick is then placed underneath the guard close to the upright member c' and is moved until it comes into engagement with the arm w of the gage which has previously been set to provide for the sawing of the stick at the proper length. The operator now presses the lever G with his thumb,

thereby releasing the stop P and allowing the guard to come down upon the stick. The workman now pushes the stick and the carriage forward in the ordinary manner and the saw cuts the stick to the proper length. The guard absolutely prevents the hand of the workman from coming in contact with the saw. The downwardly depending member L prevents any undue movement of the guard, being guided in the slot M.

While the gage is useful in determining the lengths of the blocks or sticks, it is apparent, of course, that the guard would serve its purpose without the gage. With this device the blocks or sticks may be cut rapidly while the safety of the workman is insured. I am aware that other forms of the device, based upon the same principle, might be made, but I regard as my own all such modifications as fairly fall within the spirit and scope of the invention.

I claim—

1. In a saw mechanism, a frame, a carriage slidably mounted on said frame, a circular saw carried by said frame at one side thereof, a guard comprising an arc-shaped member provided with a flange arranged to extend out over the saw, and an integral Z-shaped lever pivotally mounted upon said carriage, a stop member carried by said lever for retaining said guard in its adjusted positions, and means for releasing the guard.

2. In a saw mechanism, a frame, a carriage slidably mounted on said frame comprising a slotted base portion and an upright portion, the latter bearing an upwardly extending arm, a guard comprising an arc-shaped member at one end of said carriage having a flange on its upper edge arranged to extend out over the saw and provided with a Z-shaped member arranged to pass through a slot in the carriage base, and an integral Z-shaped lever pivoted at its central portion upon said upwardly extending arm, a stop member pivotally secured to said lever, a bell-crank lever pivotally mounted on said Z-shaped lever and connected with said stop member, a lug on said upright portion adapted to be engaged by said stop member, and a gage rod adjustably secured upon said arc-shaped guard member.

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Witnesses:

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