

UNITED STATES PATENT OFFICE.

JOHN L. JOYCE, OF TOWNSVILLE, NORTH CAROLINA.

ROTARY-SAW GUIDE.

1,064,336.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN L. JOYCE, a citizen of the United States, and a resident of Townsville, county of Vance, State of North Carolina, have invented certain new and useful Improvements in Rotary-Saw Guides, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical sectional view taken through the frame which supports my improved saw guide; Fig. 2 a plan view of the saw guide with the guiding arms thrown up to inactive position; Fig. 3 an end elevation of the parts shown in Fig. 1; and Fig. 4 a detail sectional view showing the adjustable saw-engaging button.

The object of this invention is to provide a simple apparatus for guiding circular saw blades, provision being made whereby the guide arms will be automatically swung up to an elevated position out of the way should an unusually large log be passed through the machine and also whereby the guide arms may be quickly thrown down to operative position by an attendant, as more fully hereinafter set forth.

In the drawing, *a* designates a bed plate or bar supported on a pair of standards *b*, which standards are supported in any suitable manner at one side of the circular saw *c*. The bed plate *a* is clamped to the standards *b* by means of bolts *d*, the bed plate being provided with horizontal slots *e* to permit the bed plate to be adjusted toward and from the saw. The standards *b* are each provided with a vertical series of holes *e'* to permit the bed plate to be adjusted vertically to adapt the guide devices to saws of different diameters. The standards *b* may be braced by a bar *f*.

Upon the bed plate is mounted a pair of pillow blocks *h* and in these pillow blocks is journaled a pair of rock shafts *i* whose outer ends are provided each with a laterally bent arm *j* which when the shafts *i* are given a partial rotation will be caused to swing down and straddle the saw blade, the arms lying on either side of the blade, as shown in dotted lines in Fig. 3. The inner end of each shaft is provided with a laterally bent arm *k* and on the end of each of these arms is affixed a weight *l*. When the weighted arms *k* are swung forwardly to the position shown in Figs. 2 and 3 their weights overbalance the weight of the oppo-

sitely extending guide arms *j* and thus serve to normally hold these arms in the upper extremity of their position as shown in dotted lines in Fig. 3, in which position they will lie above the saw and be out of action. When it is desired to bring the guide arms into action the weighted arms *k* are thrown upwardly until they swing past the centers of the shafts *i*, in which upright position they will be held by a suitable stop or abutment *m* affixed to the inner one of the pillow blocks. In this position the weighted arms will normally hold the guide arms in their depending or active position, in which position one arm will lie at one side of the saw blade and the other arm will lie at the other side of the blade. In this active position the wooden knobs *n*, *n'* on the extremities of the guide arms will bear upon opposite sides of the saw blade and thus serve to prevent vibration of the blade during the rapid rotation of the blade. These guide knobs *n*, *n'* clasp the saw lightly at a suitable point between its teeth and its axis. To provide for clasp ing the saw with the proper degree of closeness, one of the knobs (*n'*) is rendered adjustable toward and from the other knob by means of a suitable set screw *n²*.

The adjustments at *d* for the bed plate provide additional adjusting means to bring the guide arms *j* to proper position with respect to the saw blade, and to prevent the guide knobs *n*, *n'* engaging the teeth of the saw while the guide arms are in the act of swinging into or out of active position, I so mount the shafts *i* that their axes diverge from each other in a horizontal direction, as shown in Fig. 2, whereby as the guide arms are swung upwardly off the saw they will spread apart sufficiently to avoid the swaged teeth of the saw and when the guide arms are swung downwardly again into active position they will be brought back to approximately parallel position after they pass the saw teeth.

It will be observed that should a piece of timber of unusual depth be sawed, the end of the timber will strike against the depending guide arms and automatically swing them upward out of the way and that the weights will hold the guide arms in their upper inactive position during the progress past the saw of this large piece of timber. The guide arms may be thrown into active position or out of active position by the

hand of an attendant or in any other suitable manner.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is—

In combination with a circular saw, of a pair of depending saw guiding arms, horizontal rock shafts carrying these arms, and weighted arms attached to the shafts, these weighted arms being adapted to hold

the guide arms in action and also out of action, said rock shafts having their axes obliquely arranged with reference to each other, for the purpose set forth.

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

JOHN L. JOYCE.

Witnesses:

FLOYD V. JOYCE,
E. E. DUNN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."