

W. B. GARDINER.
 GUARD FOR CIRCULAR SAWS.
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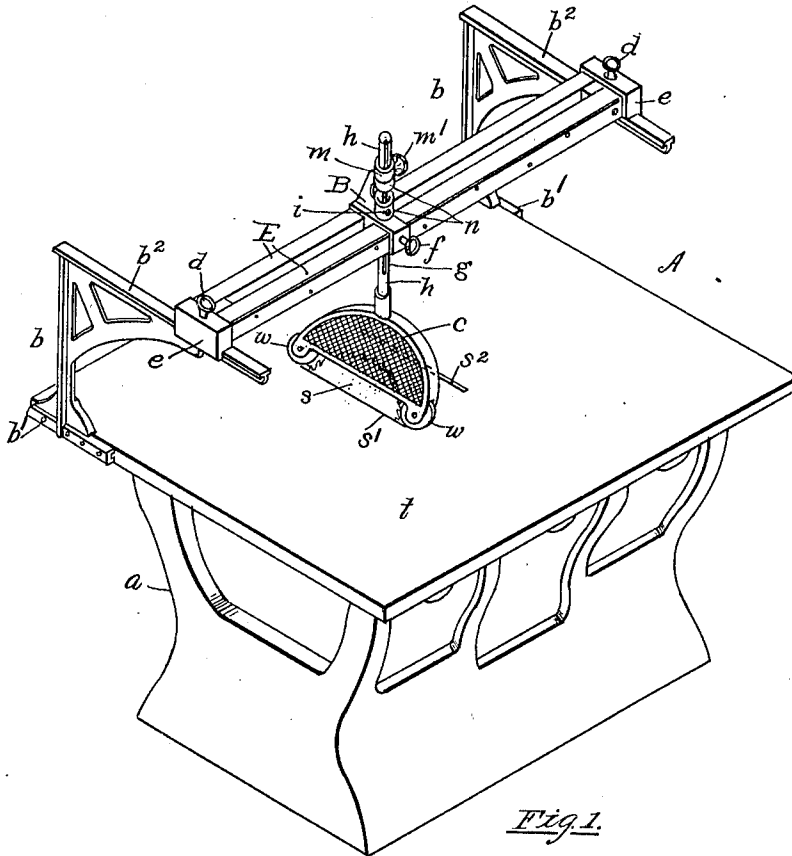


Fig. 1.

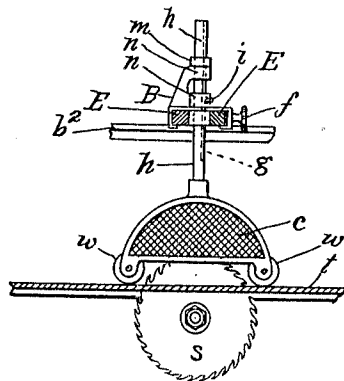


Fig. 2.

Witnesses.

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GUARD FOR CIRCULAR SAWS.

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To all whom it may concern:

Be it known that I, WARREN B. GARDINER, a citizen of the United States, residing at Saylesville, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Guards for Circular Saws, of which the following is a specification.

My invention relates to saw-guards, and it consists in the construction and arrangement of its parts, as hereinafter set forth and claimed.

The primary object of my invention is to provide safety guard means devised to prevent the operators of circular saws from injury.

A further object of the invention is to provide the guard with supporting means whereby it (the guard) can be readily adjusted in vertical and horizontal planes, as desired; the device as a whole adapted to be detachably secured to the saw-frame or table.

In saw-guard devices as usually constructed the supporting means therefor permit of vertical movement only.

In the saw-guard and mounting means forming the subject of this application for patent the guide may be adjusted to any practical height above the table, and, when in use, moves up and down automatically in unison with the work or stock being acted upon by the saw; the guard may be adjusted to allow a clearance of some two feet or more at the rear of the saw without demounting the guard; the latter may be moved on its support to the extreme right and left to the outer edges of the table longitudinally; in the event of running the stock endwise over the saw the guard and its holder may be readily moved back out of the way; in case the saw binds in the stock, the act of raising or freeing the latter causes the guard to move freely with it; and the presence of the guard and its supporting members do not prevent a practically clear view of the saw and stock at all times.

In the accompanying drawings, Figure 1 is a perspective view of a circular-saw-machine having my improved adjustably mounted guard-device attached thereto, and Fig. 2 represents a cross-section taken through the supporting tie-bar having a cross-head movably mounted thereon for carrying the guard.

Again referring to the drawing, A designates a circular-saw-machine of usual construction, having a frame *a*, table *t*, and circular-saw *s*.

The following description relates more particularly to the saw-guard proper *c* and means for adjustably mounting it in a cross-head B adjustably slidable on a movable upper tie or bar E clamped to a pair of stationary oppositely disposed metal side brackets *b* detachably secured to the rear portion of the saw-table *t*. Each bracket member *b*, of suitable height, is provided with a base *b*¹, whereby the bracket is adapted to be attached to the outer edges of the table. The upper portion of the bracket is provided with a forwardly extending arm *b*² having its top surface machined off true and disposed parallel with the face of the table.

E designates a pair of laterally separated tie-bars extending longitudinally of the table. The ends of the bars are fixed in metal heads *e* adjustably secured to the respective arms *b*² of said brackets by suitable holding or clamping means, as for example, by set-screws *d*. As thus constructed, the bars are adapted to move as one. A cross-head member B is slidably supported on said tie-bars and is capable of lateral movement (right and left) thereon. A screw *f*, or other analogous means, may be employed to maintain the cross-head in its adjusted positions. The cross-head is constructed to support and carry a chambered safety-guard *c*, the latter when in use being adapted to incase and protect the upper portion of a mounted circular-saw. The upper part of the guard's frame is fixed to a vertical rod *h* freely movable endwise in upper and lower bearings *n* therefor formed in the cross-head. In order to prevent the rod from turning on its longitudinal axis it may be provided with a groove *g* into which a pin *i* fixed in the bearing *n* extends. A movable collar *m* adjustably secured to the rod *h* by a set-screw *m*¹ provides means whereby the guard may be vertically adjusted with relation to the top of the saw-table *t*, as desired.

In normal use the guard member is adapted to rest freely upon and be supported by the upper side of the work or wooden stock then being acted upon by the circular saw. The lower side of the guard may be provided with anti-friction wheels *w*. The upper bearing of the cross-head serves, in con-

nection with the adjusted collar *m*, to form a stop for limiting the downward movement of the guard.

The table *t* is adapted to be used in connection with saws varying in kind; that is to say, a cutting-off saw may be mounted to extend upward through a slot *s*¹ in the table, and another slot *s*², parallel with the other slot, cut in the table for a splitting-saw; one of the saws being positioned for service, while the other may be disposed temporarily below the table. The cross-head carrying the guard is adapted to be readily moved to the right or left, as desired, so as to practically incase and protect the working saw.

I claim as my invention:

The herein described combined frame and guard for circular saw machines, the same

comprising a pair of bracket or frame members arranged to be removably attached to the table of a circular saw machine, a horizontally disposed cross-head adjustably mounted on said brackets, a guard proper constructed to protect the upper portion of the periphery and sides of the saw, a vertically disposed bar having the guard suspended therefrom, and means connected with said bar and cross-head for changing the position of the guard in lateral and vertical directions relatively to the cross-head.

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

WARREN B. GARDINER.

Witnesses:

GEO. H. REMINGTON,
CHARLES E. REMINGTON.

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