J. W. Clark,

Saw-Mill Appliance,

No. 65,347. Patented June 4, 1867.

Fig. 1.

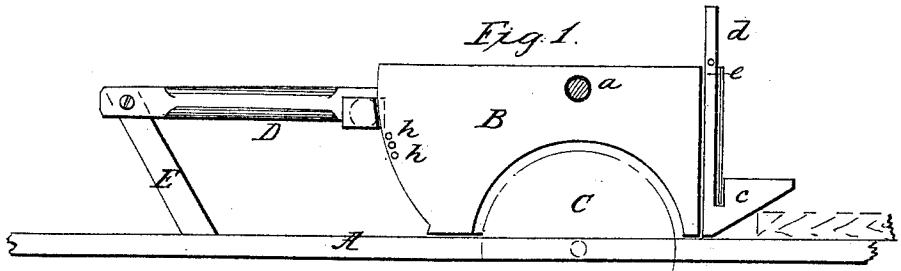


Fig. 2.

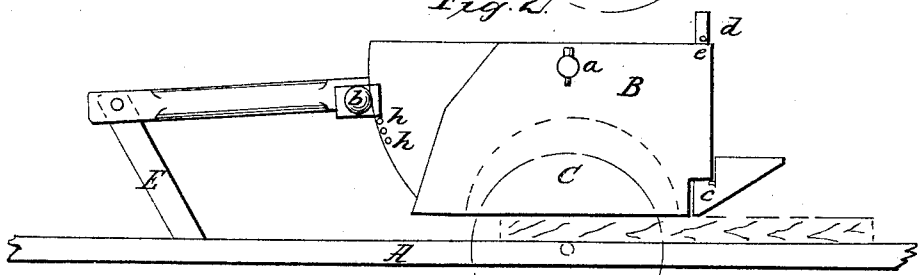


Fig. 3.

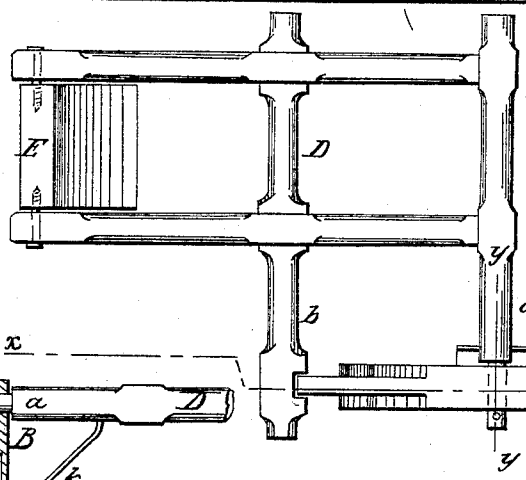
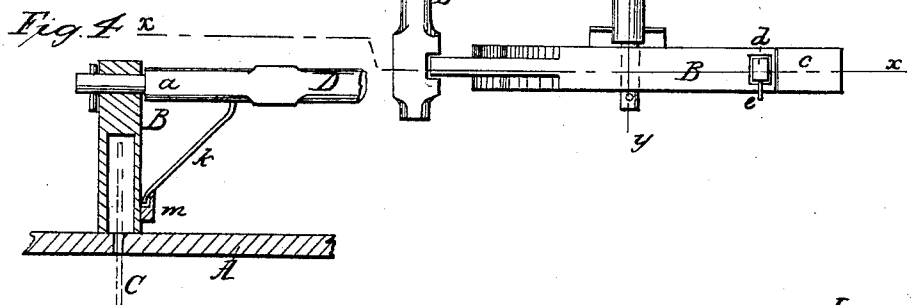


Fig. 4



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AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

United States Patent Office.

J. W. CLARK, OF IOLA, KANSAS.

Letters Patent No. 65,347, *dated June* 4, 1867.

IMPROVEMENT IN GUARDS FOR CIRCULAR SAWS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. W. CLARK, of Iola, in the county of Allen, and State of Kansas, have invented a new and improved Guard for Circular Saws; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved circular-saw guard, taken in the plane of the line *x x*, fig. 4, showing it when the saw is not at work.

Figure 2 is a side elevation view, taken when the saw is at work and the guard is raised for the lumber to pass.

Figure 3 is a plan.

Figure 4 is a transverse vertical section, taken in the plane of the line *y y*, fig. 1.

Similar letters of reference indicate like parts.

The design of this invention is to provide a self-adjusting guard for circular saws for preventing all possibility of accidents, while in no way interfering with the operation of the saw or the handling of the lumber in passing it to or taking it from the saw, and at the same time abating the flying saw-dust by conducting it under the saw-table.

This improvement consists in a cover for the saw pivoted to a hinged frame, and arranged in such manner as to rise when the lumber passes to the saw, by means of a self-adjusting drop in front, which falls just as the last end is about coming to the saw, and thus prevents the hand from following too far, and coming in contact with the saw. The guard may be made of metal or wood, and adapted to saws of all sizes.

A represents the saw-table, and C the circular saw. B is the box or cap-guard placed over the saw, which guard is suspended or pivoted to the end of an arm, *a*, on the frame D, which is hinged or jointed at one side to a standard, E, so that it can rise and fall with the guard B. The rear end of the guard-cap B is fitted to slide up and down in a guide-arm, *b*, projecting from the vibrating frame D. On the front end of the cap-guard B is a self-adjusting drop, *c*, which is formed with an inclined face on the under side, as shown in figs. 1 2. The foot or lower end of the drop *c* is shouldered to fit under the end of the guard B, and lift it when the drop rises to allow the lumber to pass under it to the saw, but falls of itself independently of the guard by means of the sliding guide-bar *d*. A pin, *e*, in the bar *d*, holds the drop in place when the saw is not at work, and may be transferred to one of a series of holes, *h h*, in the rear end of the guard B, to regulate its elevation when the saw is at work. On the arm *a* is a guide-brace, *k*, the end of which works in a slide, *m*, on the side of the guard-cap B.

The operation is manifest. When the end of the lumber to be sawed is pressed against the drop *c*, it will rise and lift the guard B to allow the stock to pass under to the saw, and finally the whole guard, which adjusts itself on its pivot-arm *a*, will rest on the upper surface of the stock parallel with the saw-table A as the stock passes on over the saws, as shown in fig. 2, the stock being indicated in red lines. As the end passes from under the drop *c* it will fall of itself, and prevent the hand from coming in contact with the saw when the stock is not followed by another piece. The saw-dust will be conducted by the cap B down under the table. When the guard is not needed it may be thrown back with the frame D out of the way.

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

The saw-guard B, provided with the self-adjusting drop *c*, and suspended on the vibrating frame D, constructed and operating substantially as and for the purposes herein described.

J. W. CLARK.

Witnesses:

D. R. HOVEY,

CHARLES P. TWISS.