

Reciprocating Saw Mill.
N^o 2,114. *Patented May 29, 1841.*

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UNITED STATES PATENT OFFICE.

JEREMIAH ROHRER, OF ROHRERSVILLE, MARYLAND.

MANNER OF SUSTAINING LOGS IN SAWMILLS.

Specification of Letters Patent No. 2,114, dated May 29, 1841.

To all whom it may concern:

Be it known that I, JEREMIAH ROHRER, of Rohrersville, in the county of Washington and State of Maryland, have made an improvement in the manner of constructing sawmills, which improvement consists in the employment and adaptation of two rollers, which are used to brace and sustain the stuff which is being sawed, one of them pressing against the lower and the other against the upper part of the log or stuff; and I do hereby declare that the following is a full and exact description of the manner in which I construct my improved mill.

The general construction of the frame work of my mill, and the manner of operating the saw, and of governing the other movements thereof, do not differ from such as are in common use, my improvement relating exclusively to the sustaining of the logs by means of the two rollers, which is particularly necessary in the sawing of light and small stuff.

In the accompanying drawing, Figure 1, is a vertical section through the middle of the mill; the saw being omitted, and only such parts shown as are necessary to the illustration of my improvements.

A, A, is the log to be sawn, and B, and C, the head and tail blocks upon which it rests; D, D, are the ends of the carriage.

E, is the roller which is to bear against the lower, and F, that which is to bear against the upper side of the log. A view of these rollers, and of a part of the apparatus connected with them, as they would be seen from the end of the mill, is shown in Fig. 2. The upper roller F, is supported above the log by the frame work of the mill house, or by a frame for the purpose resting on its sills.

G, G, are two upright posts, supporting a frame H, H, which sustains the sliding piece I, on the lower end of which sliding piece is the roller F. This piece rests against the stationary piece J, and it can be raised at any time by the tender of the mill, by means of the cord K, passing over a pulley L, I make the slide I, in two pieces, which are hinged together at *a*; when the log is being drawn back, this hinged part will yield to the motion, and take off the pressure of the roller from the log.

The roller E, which sustains the log on its

lower side, revolves in a sliding frame *b, b*, which frame rises and falls between suitable guide pieces, or cheeks, *c, c*; the piece *d*, of this sliding frame, when the roller E, is in contact with the log, rests upon the end of a sliding bar *e*, and when this is withdrawn the roller will descend by its own gravity; the withdrawal of the sliding bar *e*, is effected by a self-acting apparatus, in the following manner. The sliding rod *e*, is attached at one end to a vibrating lever *f*, and when the upper end of this comes into contact with a descending piece *g*, on the bottom of the carriage, the sliding bar-*e*, will be withdrawn, and the roller E, will descend, and the rear end of the log can then pass over the roller, and be acted upon by the saw. When the roller E, is to be again made to bear upon the bottom of the log, it is raised up in the following manner.

M, is a lever working on a fulcrum at *h*; and *i*, a rope, or cord, attached by one end to this lever, and by the other to the sliding frame *b, b*; this cord passes over a pulley *j*, and it is manifest that under this arrangement, if the end *k*, of the lever M, be depressed, the sliding frame *b, b*, will be raised and the sliding bar *e*, may again pass under it; to cause it to do so, this bar may be acted upon by a spring, or by a weight, or it may be so fixed as to do so by the gravity of the lever *f*. A rod, or bar, of wood N, may be used by the tender of the mill to bear upon the end *k*, of the lever M, when the roller E, is to be raised.

Having thus fully described the nature of my invention, and shown the arrangement by which the same is carried into operation, what I claim therein and desire to secure by Letters Patent, is—

1. The manner in which I have arranged and combined the two rollers for making pressure upon the upper and lower parts of a log when being sawed in a saw-mill.

2. I am aware that a single roller has been used for supporting a log, but this has not been made to operate in the manner described by me, nor do I know, or believe, that there has previously existed any combination similar to that herein described, by which two rollers were made to coöperate in sustaining the stuff. I do not claim, therefore, the employment of a single roller under the log; but I do claim the manner in

which I have made the lower roller to operate, by causing the same to rise and fall vertically, and to be made self-operating when it is to be removed from under the log,
5 the respective parts thereof being constructed and arranged substantially in the manner set forth and being used in combi-

nation with the upper roller, operating as herein described.

JEREMIAH ROHRER.

Witnesses:

WASHINGTON MCCOY,
DAVID ROHRER.