

GEORGE W. NICHOLS.

Improvement in Machines for Rossing Logs.

No. 128,060.

Patented June 18, 1872.

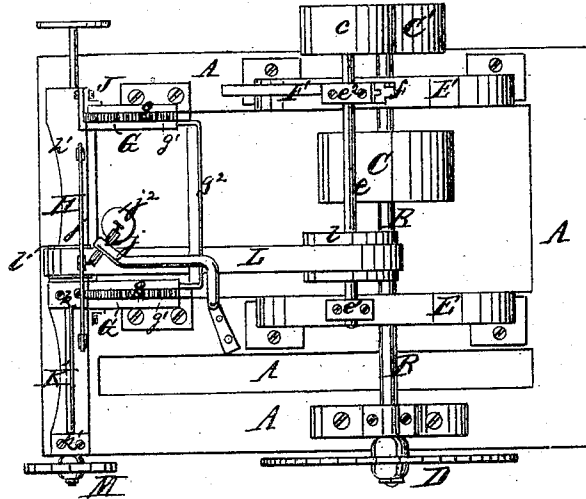


Figure 1.

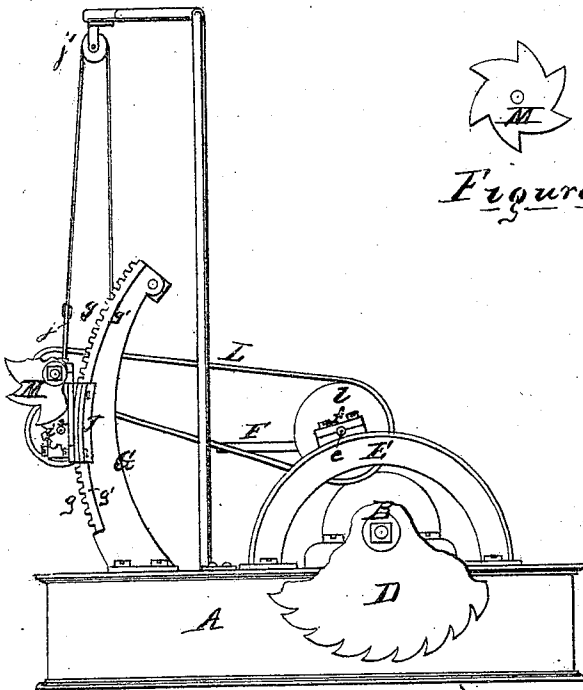


Figure 2.

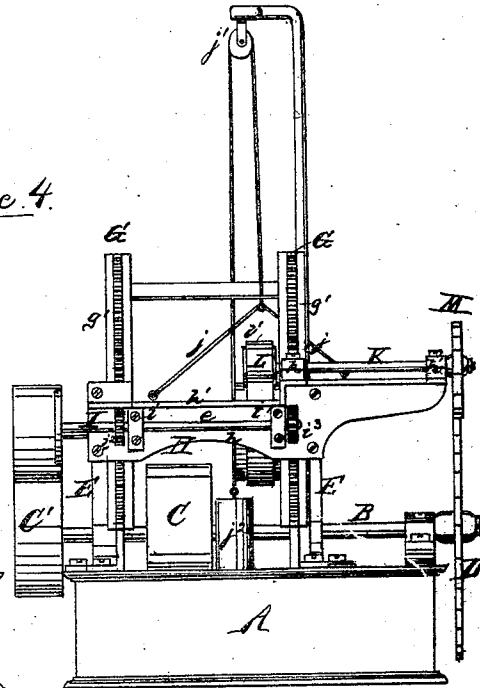


Figure 3.

Witnesses:

W. Thesley

Chas. Frouman

George W. Nichols

by
Kestel & Co.
Attys.

UNITED STATES PATENT OFFICE.

GEORGE W. NICHOLS, OF CLINTON, IOWA, ASSIGNOR TO HIMSELF AND
FREDERICK A. SCHULENBURG, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN MACHINES FOR ROSSING LOGS.

Specification forming part of Letters Patent No. 128,060, dated June 18, 1872.

To all whom it may concern:

Be it known that I, GEORGE W. NICHOLS, of Clinton, in the county of Clinton and State of Iowa, have made a certain new and useful Improved Adjustable Saw-Rosser and Top Saw for Saw-Mill purposes; and I do hereby declare that the following is a full and true description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

It is well known that lumber or logs for saw-mill purposes, from shipping, transportation, and handling, have their bark or exposed surface and crevices filled with snow, ice, sand, dirt, and other foreign matter; also the lumber varies from hard to soft, and otherwise its condition is such that the top and bark surfaces must be rossed, chopped, or planed preparatory for circular saw-mills.

The rossing or preparing of logs for saw-mills as ordinarily accomplished involves extra labor, time, and expense; therefore, the chief object of this invention is to avoid the difficulties and inconveniences aforesaid by forming an improved rosser and top-saw attachment for circular-saw mills. The nature of this invention consists in a new combination of a saw-rosser constructed adjustably with circular-saw mills, for the purpose and in the manner now to be more fully described.

To enable those herein skilled to make and use my said improvement, I will now more fully describe the same, referring to

Figure 1 as a top plan, to Fig. 2 as a side elevation, to Fig. 3 as an end or front elevation, Fig. 4 as a side view of rosser in detail.

A represents the main frame of the mill. This is provided with main shaft B, carrying belting-pulley C, friction-pulley C', and circular saw D, as usual. E E represent standards or uprights to support the top driving-gear, consisting of the top-shaft *e* having one of its journals supported in proper bearings *e*¹, while its opposite journal rests in a bearing, *e*², forming part of the adjusting-lever F pivoted to a bearing, *f*, as indicated in Fig. 1. By means of the lever F the top friction-pulley *c* can be thrown in or out of gear with the lower friction-pulley C'.

A proper weight is usually provided on the hand-lever F to keep the friction-feed in po-

sition and contact, as required. My invention, however, consists in providing the mill thus described, or those in ordinary use, with the following improved attachment:

To the main frame A is securely bolted the uprights G G; these are formed curved, as shown, and cast or formed with segmentary teeth or racks *g* and side flanges *g*¹, as shown in Figs. 2 and 3. On top, said uprights are braced by a brace-bar, *g*². The circular part frame or uprights thus formed is provided with a cross-head, H, consisting of the vertical part *h* and horizontal top-part *h'*, as illustrated in Fig. 3. The said cross-head is transversely arranged and supported on the rack uprights by a transverse-shaft, I, operating in proper journal-bearings *i* *i*¹, bolted to said cross-head, said shaft being further provided with pinions *i*² *i*³ meshing with the rack-ports *g* of the respective uprights G. At one end the shaft I has a proper hand-wheel for the operator. Bolted to the cross-head H are guides J operating in the side-projecting flanges *g*¹ of the uprights G, so as to truly guide the vertical adjustment of the cross-head. Further to retain and balance the cross-head and otherwise to facilitate the vertical adjustment thereof, there is attached to the cross-head H, by means of the connecting-rods or links *j*, a cord, rope, or chain attachment passing over top-pulley *j*¹ secured to the top timber over head, the lower end of the attachment carrying a suspended weight, *j*². By the operator turning the hand-wheel, and by means of the gearing described, the cross-head can readily be adjusted, raised, or lowered, as required. The adjustable rosser attachment described is further provided with a transverse top-shaft, K, its journals in proper bearings *k* *k'*, bolted to the top of the cross-head. The shaft K is rotated by the belting connection L passing over the pulley *l*, situated on top of shaft *e* and pulley *l'*, secured to the inner end of the shaft K. To the opposite end of shaft K is keyed the saw-rosser M. The saw-rosser is, however, formed thicker and rougher in the teeth, so as to cut somewhat wider, and thus prevent the contact of the outer side edges of the mill saw-teeth with the contiguous side surfaces of the saw-cut of the rosser; thus the teeth of the circular saw are kept

from the dulling action produced by the foreign sandy matter that may have accumulated or be contained in the wood or timber. This advantage is doubly secured by arranging the cutting action of the rosser to be in reverse directions to that of the circular saw, as indicated, the sawing action of the rosser throwing upward and otherwise clearing from the wood its deposited foreign matter.

For purposes of the ordinary top-saw it is readily seen that the rosser can have its place supplied by a top-saw, the adjustability of the rosser attachment being such as to accommodate all sizes and forms of logs.

Having thus fully described my said invention, what I claim is—

The cross-head H, shaft I, pinions i^2 i^3 , shaft K, saw-rosser M with uprights G having racks g , side-flanges g^1 , guides J, and weight-attachment to operate, as and for the purpose set forth.

In testimony of said invention I have hereunto set my hand.

GEORGE W. NICHOLS.

Witnesses:

F. A. SCHULENBURG,
J. A. DERAGISCH.