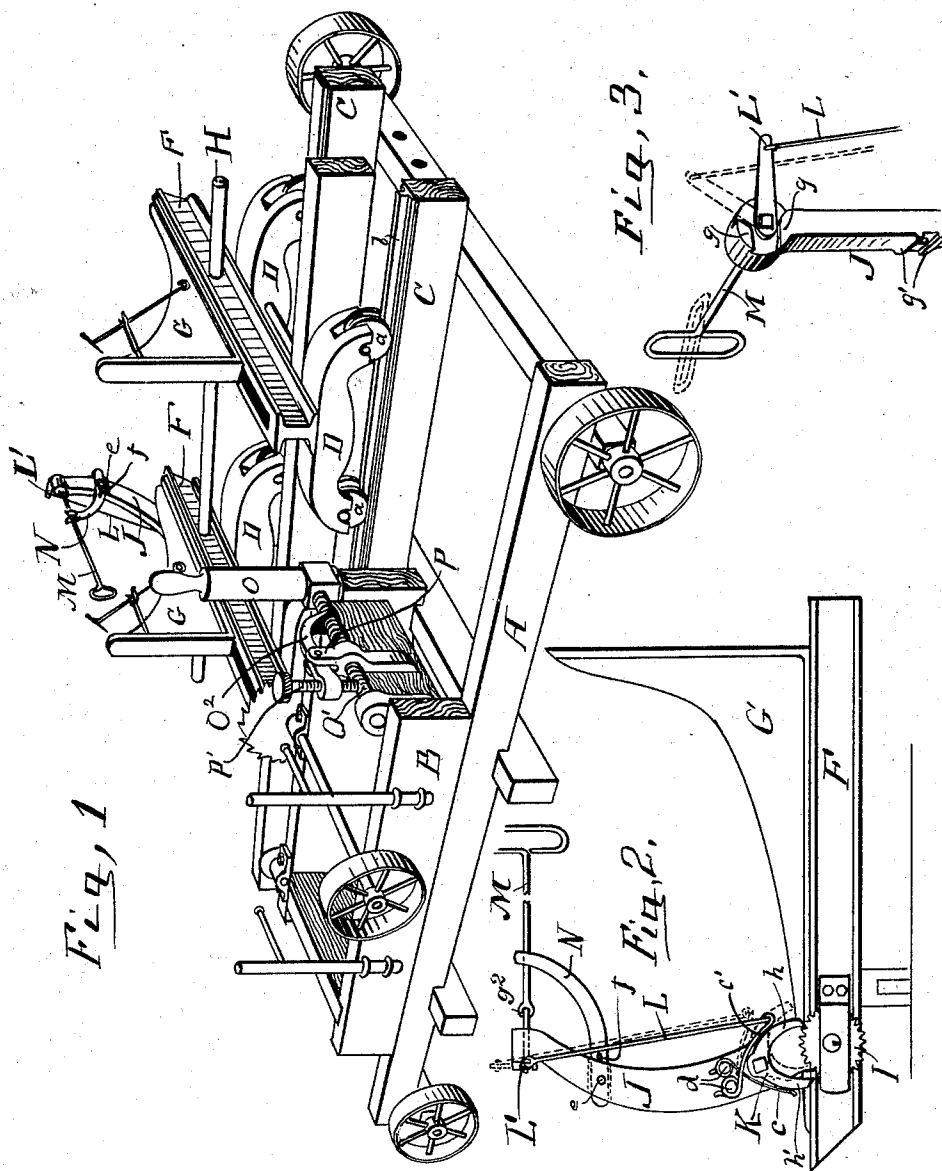


(No Model.)

G. W. STINEBRING.
PAWL AND RATCHET FOR SAWMILLS.

No. 477,710.

Patented June 28, 1892.



Witnesses,
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UNITED STATES PATENT OFFICE.

GEORGE W. STINEBRING, OF SHREVE, OHIO, ASSIGNOR OF ONE-HALF TO ALEXANDER CARL, GEORGE CARL, AND WILLIE H. CARL, OF SAME PLACE.

PAWL AND RATCHET FOR SAWMILLS.

SPECIFICATION forming part of Letters Patent No. 477,710, dated June 28, 1892.

Application filed March 12, 1892. Serial No. 424,660. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. STINEBRING, a citizen of the United States, residing at Shreve, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Pawls and Ratchets for Sawmills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a perspective view of a sawmill, showing the pawl-and-ratchet arm properly located with reference to the head-block shaft. Fig. 2 is a side view of the pawl and ratchet, showing the location of the operating lever and handle. Fig. 3 is a detached view of the top or upper end of the pawl-and-ratchet lever, showing location of the operating-handle and illustrating the different positions of the connecting link and arm.

The present invention has relation to pawl and ratchets for sawmills; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the sills, which may be located upon the axles, or they may be properly secured to a fixed frame or other suitable foundation. The sawmill-frame B may be substantially of the form shown in the drawings and is so arranged that the saw-shaft, together with the different attachments, may be properly attached.

C represents a section of the track, which is fixed to the frame or sills A in any convenient and well-known manner, and for the purpose of forming a track of sufficient length a section may be added or attached at either end of the section shown in the drawings. Upon the track C are mounted the trucks D, which may be substantially of the form shown in the drawings and are provided with the grooved wheels *a*, which travel back and forth upon the rails *b*. The knee-beds F are

attached to the trucks D in any convenient and well-known manner and are located substantially as shown in the drawings, and, as shown, the knee-bands F are provided with the ordinary knees G. Upon the shaft H is located the ratchet-wheel I, which ratchet-wheel is so attached that it will rotate the shaft H, as hereinafter described. The lever J is mounted upon the shaft H and is so attached that it can be rocked back and forth independent of the shaft H. To the side of the lever J and adjacent thereto is located the ratchet-wheel I. Upon one side of the lever J is pivotally attached the double pawl K, which is located directly above the ratchet-wheel I and is so arranged that the free ends of the double pawl K will engage with the teeth located upon the ratchet-wheel I, said double pawl being adjustable in such a manner that but one of the branches of the double pawl K will be engaged with the teeth of the ratchet-wheel at any one time.

To the lever J are attached the springs *c* and *c'* by means of the posts or pins *d*, which springs are located substantially as illustrated in Fig. 2 and are so arranged that their free ends will normally press upon the top or upper side of the double pawl K. To the free end of the spring *c* is attached the rod L, which rod extends upward and connects with the free end of the arm L', which arm is securely attached in any convenient and well-known manner to the operating-handle M. The operating-handle M is pivotally attached to the top or upper end of the lever J. For the purpose of assisting in holding the operating-handle M at an angle to the lever J the segment N is provided, which segment is attached to said lever by means of the clamping-bolt *e* or its equivalent, and for the purpose of adjusting said segment N, together with the handle M, the slot *f* is provided, which slot is located substantially as shown in Figs. 1 and 2. The free end of the segment N is bifurcated for the purpose of receiving the handle M, which handle rests upon the bifurcated end of the segment N, substantially as shown in the drawings. For the purpose of limiting the movement of the arm L' the shoulders *g* are provided, which

shoulders are formed upon the top or upper end of the lever J. The springs *c* and *c'* are so formed that the arm or branch *h* of the yoke K will be normally held in contact with the teeth located upon the ratchet-wheel I, thereby holding the double pawl in such a position that it will rotate the ratchet-wheel I as the handle is pulled forward, which movement brings with it the top or upper end of the lever J. When it is desired to rotate the ratchet I by the backward movement of the lever J, the handle M is turned or rotated until it assumes the position illustrated in the dotted lines of Fig. 3, which movement elevates the free end of the arm L', carrying with it the connecting-rod L, which movement elevates or disengages the spring *c'* from the double pawl K, after which the spring *c* forces the arm *h'* of the double pawl K into contact with the teeth upon the ratchet-wheel I. For the purpose of causing the spring *c'* to engage the arm *h* with the teeth upon the ratchet-wheel I and at the same time cause the movement of the double pawl K to carry with it the spring *c* said spring is formed weaker than the spring *c'*. The spring *c* is formed only of such a strength that it will automatically oscillate the double pawl K when the spring *c'* is disengaged or brought out of contact with the double pawl K. The gage-roller O is located substantially as shown and is adjusted by means of the screw-threaded shaft O', which screw-threaded shaft is securely locked at the desired point of adjustment by means of the dog O², which dog is pivoted to the top or upper end of the arm P, which arm

is securely attached at the desired point upon the saw-frame. The dog is brought to bear upon the screw-threaded shaft by means of the set-screw P'. For the purpose of assisting in holding the segment N at an angle to the lever *j* the shoulders *g'* are formed upon the side of the lever J. For the purpose of providing a means for throwing or turning the handle M out of the way the joint *g*² is formed in said handle.

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

1. The combination of the lever J, provided with the shoulders or stops *g*, the arm L', fixed to the handle M, the connecting-rod L, the double pawl K, located above the ratchet-wheel I, and the springs *c* and *c'*, substantially as and for the purpose specified.

2. The combination of the shaft II, having mounted thereon the ratchet-wheel I, the operating-lever J, provided with the stops *g* and having attached thereto the operating-handle M, the adjustable segment N, provided with the slot *f*, the arm L', the connecting-rod L, the springs *c* and *c'*, having different degrees of tension, and the double pawl K, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE W. STINEBRING.

Witnesses:

JONAS SMITH,

W. B. LONGSDORF.