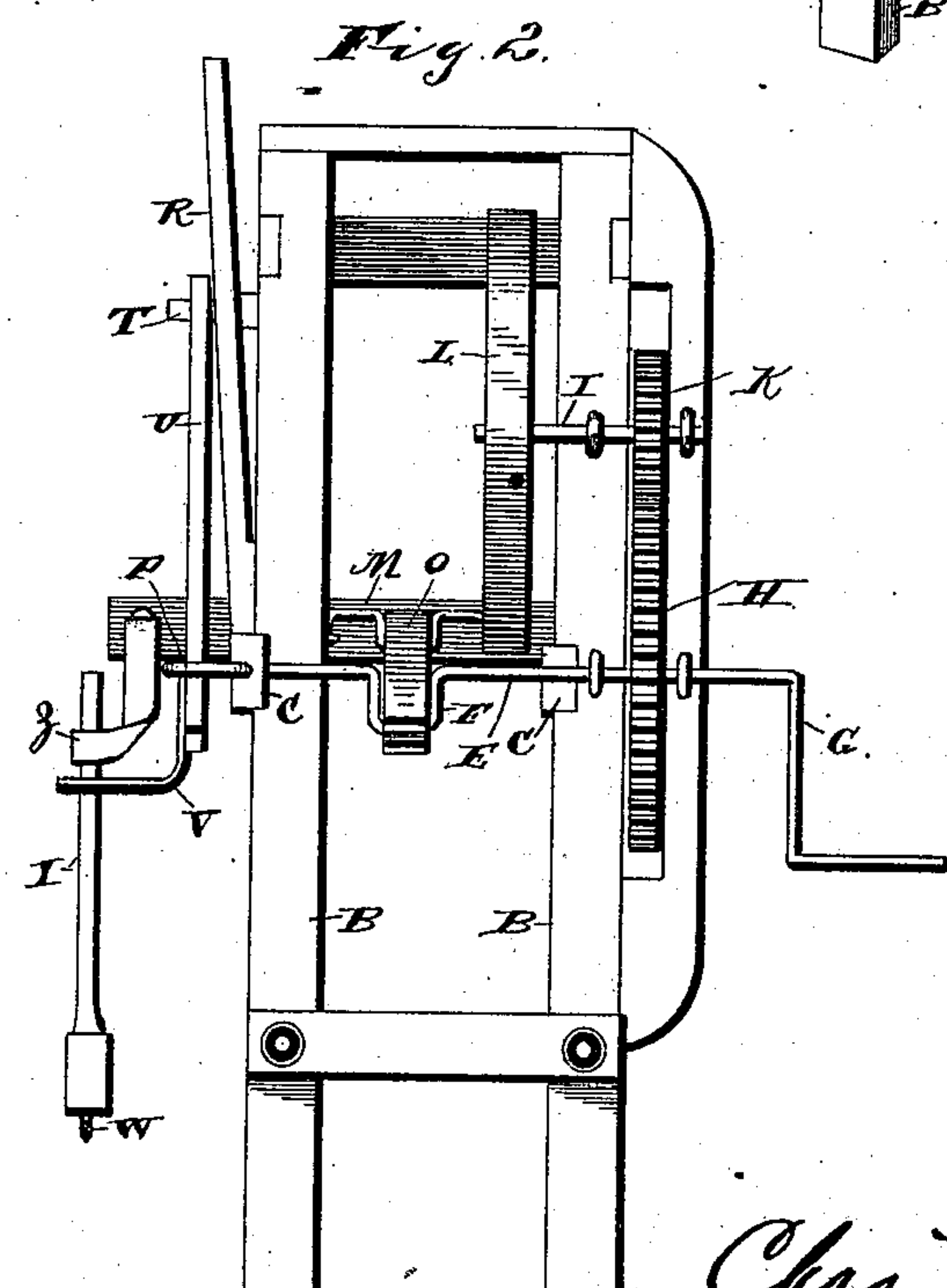
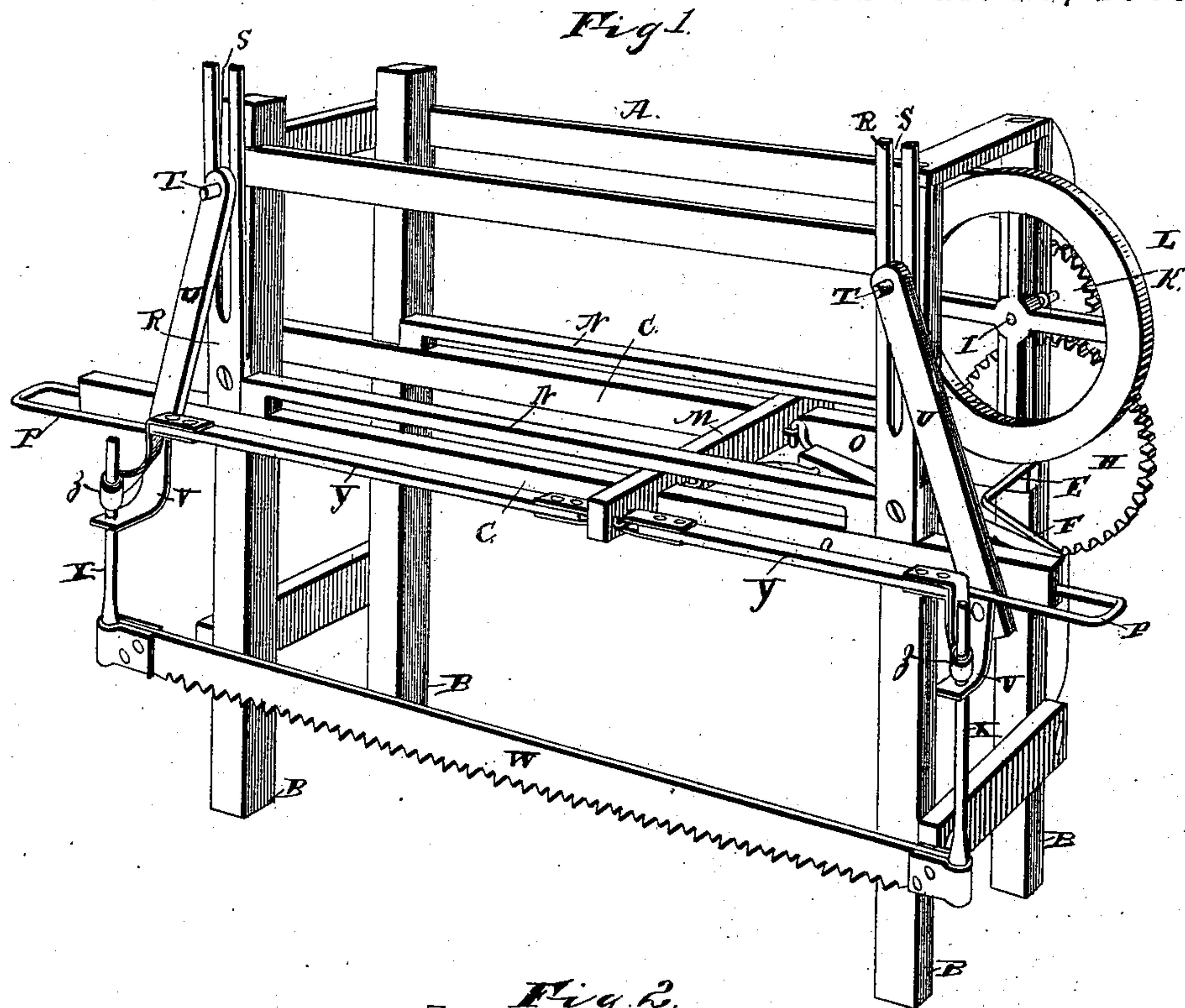


(No Model.)

C. M. YOUNG.  
SAWING MACHINE.

No. 380,073.

Patented Mar. 27, 1888.



Witnesses.  
*Geo. H. Hooper*  
*J. W. Garner*

Inventor,  
*Chas. M. Young.*  
By *his* Attorneys,  
*C. A. Snowles.*



# UNITED STATES PATENT OFFICE.

CHARLES MADISON YOUNG, OF EBY, INDIANA.

## SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 380,073, dated March 27, 1888.

Application filed November 30, 1887. Serial No. 256,532. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES MADISON YOUNG, a citizen of the United States, residing at Eby, in the county of Warrick and State of Indiana, have invented a new and useful Improvement in Sawing-Machines, of which the following is a specification.

My invention relates to an improvement in sawing-machines; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a sawing-machine embodying my improvements. Fig. 2 is an end elevation of the same.

A represents a vertical rectangular frame, which is provided with four vertical corner-posts, B, and a pair of horizontal beams, C, one of which is on each side of the frame.

E represents a shaft which is arranged transversely on one end of the frame, is journaled in suitable bearing, provided near its inner end with a crank, F, and has near its outer end a crank, G. To the said shaft is rigidly secured a spur-wheel, H.

I represents a shaft which is arranged at a suitable distance above the shaft E, is provided with a pinion, K, that meshes with the wheel H, and has a fly-wheel, L, rigidly secured to its inner end.

M represents a cross head which is arranged transversely on the beam C, and is guided in suitable ways, N, which are arranged longitudinally on the upper sides of the said beams. One end of this cross-head projects beyond the front side of the frame, and the said cross-head is connected to the crank F of the shaft E by means of a pitman, O.

P represents a pair of horizontal guideways, which are arranged on the ends of one of the beams C; and on the front outer side of the corner-posts, on the front side of the frame, are arranged a pair of vertical standards, R, which are provided with vertical slots S. T represents a pair of bolts which work in the said slots, and have their outer ends projecting beyond the front sides of the said standards. To the said bolts are pivoted the upper ends of a pair of links, U, which extend downward and work in the guideways P, and have curved

brackets V pivoted to their lower ends and extending outward therefrom.

W represents an ordinary crosscut-saw, provided at its ends with the usual vertical handles, which handles extend upward through openings near the outer ends of the brackets V, as shown.

Y represents a pair of connecting-rods, which have their inner ends pivotally attached to the projecting end of the cross-head, and are provided at their outer ends with curved brackets Z, having eyes through which the handles X extend.

The operation of my invention is as follows: The bolts T are adapted to move vertically in the slots S, and thereby the saw may be raised or lowered. In starting to saw a log the said bolts are moved upward in the said slots until the lower edge of the saw will just clear the log, and the operator then grasps the crank-handle and rotates the crank-shaft E, which imparts reciprocating motion to the cross-head through the pitman, causes the links or rods Y to reciprocate the saw, and causes the links U to swing back and forth in the guideways P. The gravity of the saw causes it to descend in the kerf in the log as the sawing proceeds until the saw passes entirely through the log. The brackets V, being pivoted to the lower ends of the swinging links U, keep the standards or handles of the saw always in a vertical position, and thereby prevent them from binding in the brackets.

The function of the shaft which is geared to the crank-shaft and provided with a fly-wheel is to steady the motion of the saw and cause the same to move at a uniform rate of speed.

Having thus described my invention, I claim—

1. In a sawing-machine, the combination of the vertically-movable swinging links having the brackets pivoted to their lower ends and adapted for the attachment of the saw-handles, the reciprocating cross-head, and the rods Y, pivotally connected to the said cross-head, and adapted also for the attachment of the saw-handles, substantially as described.

2. The combination, in a sawing-machine, of the frame having the guideways P, the guideways N, and the vertical standards R, provided with the vertical slots S, the cross-head ar-



ranged in the guideways N, the crank-shaft journaled in the frame, the pitman connecting the same to the cross-head, the bolts T, movable vertically in the slots S, the swinging links  
5 U, having their upper ends pivoted to the said bolts and working in the guideways P, the brackets V, pivoted to the lower ends of the said swinging links and having the openings adapted to receive the vertical handles of the  
10 saw, and the rods Y, having their inner ends pivotally connected to the cross-head, and provided at their outer ends with the arms adapted to be attached to the saw-handles, substantially as described.

15 3. The combination of the frame, the guideways P, secured thereto, the slotted standards secured to the frame, the swinging links movable vertically in the slots of said standards and having their lower ends playing in the

guideways P, the brackets pivoted to the lower 20 ends of the links, the saw connected to the brackets, and gearing connected to the saw to reciprocate the same, as set forth.

4. The combination of the frame having longitudinal guideways, the cross-head mounted 25 in said ways, gearing to reciprocate the cross-head, the swinging links, the saw connected to said links, and the rods Y, connected to the cross-head and having the arms Z connected to the saw, substantially as set forth. 30

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHARLES MADISON YOUNG.

Witnesses:

COMMODORE KELLEY,  
UNION RICE.