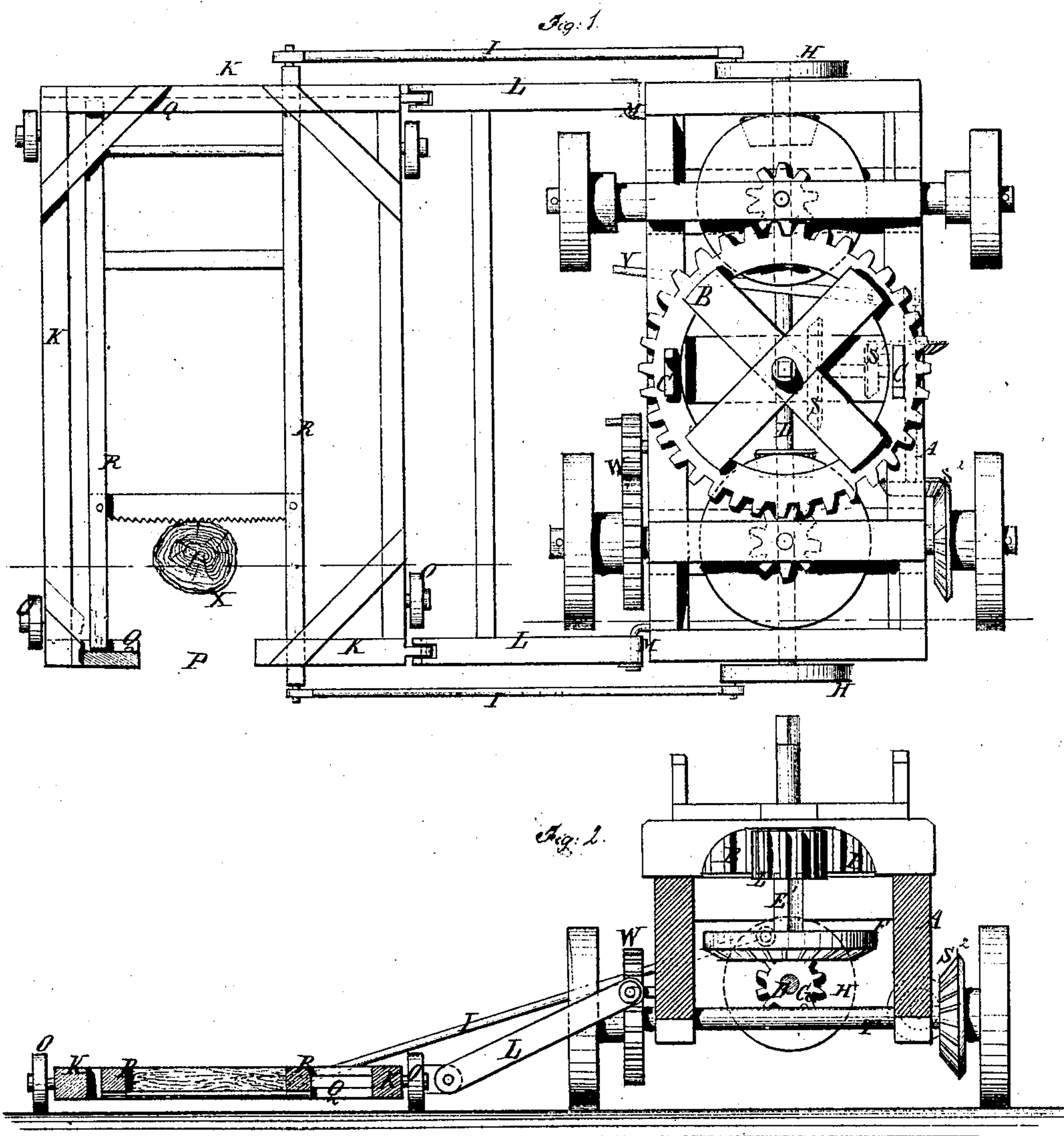


*A. & H. Goodman,*  
*Sawing Machine.*  
*No. 102,112.* *Patented Apr. 19. 1870.*



Witnesses:

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# United States Patent Office.

ALLEN GOODMAN AND HARDIN GOODMAN, OF WILLIAMSBURG, MISSOURI.

Letters Patent No. 102,112, dated April 19, 1870.

## IMPROVEMENT IN SAWING-MACHINE.

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

To all whom it may concern:

Be it known that we, ALLEN GOODMAN and HARDIN GOODMAN, of Williamsburg, in the county of Callaway and State of Missouri, have invented a new and improved Stump-sawing Machine; and we 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 drawing forming part of this specification.

This invention relates to improvements in machines for sawing stumps close to the ground, and consists in the application of a vibrating sawing-frame upon a frame hinged to the side of a truck-frame, and provided with small rollers, for rolling together with the truck toward the stump, as motion is imparted to the saw-frame by connecting-rods working from a line-shaft on the truck, and operated by a horse-power apparatus also mounted on the truck, to be worked by a sweep attached to the driving-wheel on the top of the truck, and arranged to work over the saw-frame and stump, or, in case of sawing high stumps or trees, the driver may be provided with short levers, and handed around.

The said power is also provided with a set of feeding-gears for working the driving-wheels of the truck, and arranged for being geared or ungeared with the power, as required, all as herein described.

Figure 1 represents a plan view of our improved machine; and

Figure 2 represents a front elevation of the same.

Similar letters of reference indicate corresponding parts.

A represents the frame of a truck, having considerable breadth vertically, and a large driving-wheel, B, mounted on the top, provided with yokes C, for the connection of sweeps or levers, for turning it.

This wheel drives the line-shaft D by means of the pinions E, shaft E', and bevel-wheels F and G. Two sets of these intermediate gears are preferably used, one on each side of the driving-wheel, for the purpose of equalizing the strain on the bearings of the driver, and for distributing it on the frame of the truck and the line-shaft.

This shaft has two cranks or disks H, with crank-pins for working the connecting-rods I.

K is a saw-supporting frame, hinged to the links L at M, and by them to the side of the truck-frame at N, so that it can be folded up and laid on the top of the

truck for transportation, or unfolded and laid on the ground, as shown in the drawing.

It is provided with small truck-rollers O, for moving while on the ground, together with the truck A.

This frame is provided with an opening P at the front end, and with ways Q on the cross-bars at each end, for the saw-gate R to work back and forth in. This gate carries a horizontal saw, cutting toward the opening P, and is worked back and forth by the rods I.

A train of bevel-gears  $s, s^1, s^2$ , is arranged in connection with the shaft of the wheel B, and with the shaft T of the driving-wheels of the truck, for feeding along the ground to carry the saw as it works toward the stump.

The gears  $s^1$  are thrown out or into gear by the hand-lever U, as the feeding may require.

We have also provided the hand-gears W, for feeding the machine up by hand when preferred.

X represents the stump to be sawed; the machine is to be so placed, relatively thereto, that it may be received through the space P, against the saw; the machine is then set in motion by the turning of the driving-wheel B, and the saw is fed against the stump by the power or hand-feed, as preferred.

For folding the saw-frame up over the truck, the connecting-rods I are disconnected from the saw-frame, and for this purpose they are arranged to be readily detached.

Having thus described our invention.

We claim as new and desire to secure by Letters Patent—

1. The combination with a truck-frame A of the saw-supporting frame K, and links Q, substantially as specified.

2. The combination with the saw-supporting frame K and truck A, connected as described, of the reciprocating saw and saw-gate, substantially as specified.

3. The combination with a truck-frame A, saw-supporting frame K, and reciprocating saw and saw-gate, as described, of the connecting-rods I, crank-shaft D, driving-wheel B, and intermediate gears, substantially as specified.

4. The arrangement with the driving-wheels of the truck-frame, and driving-wheel and shaft, of the train of feeding-gears  $s, s^1$ , and  $s^2$ , substantially as specified.

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