P. A. Gerry,

Drag Saw.

No. 59,994. Patented Nov. 27, 1866.

Fig. 1

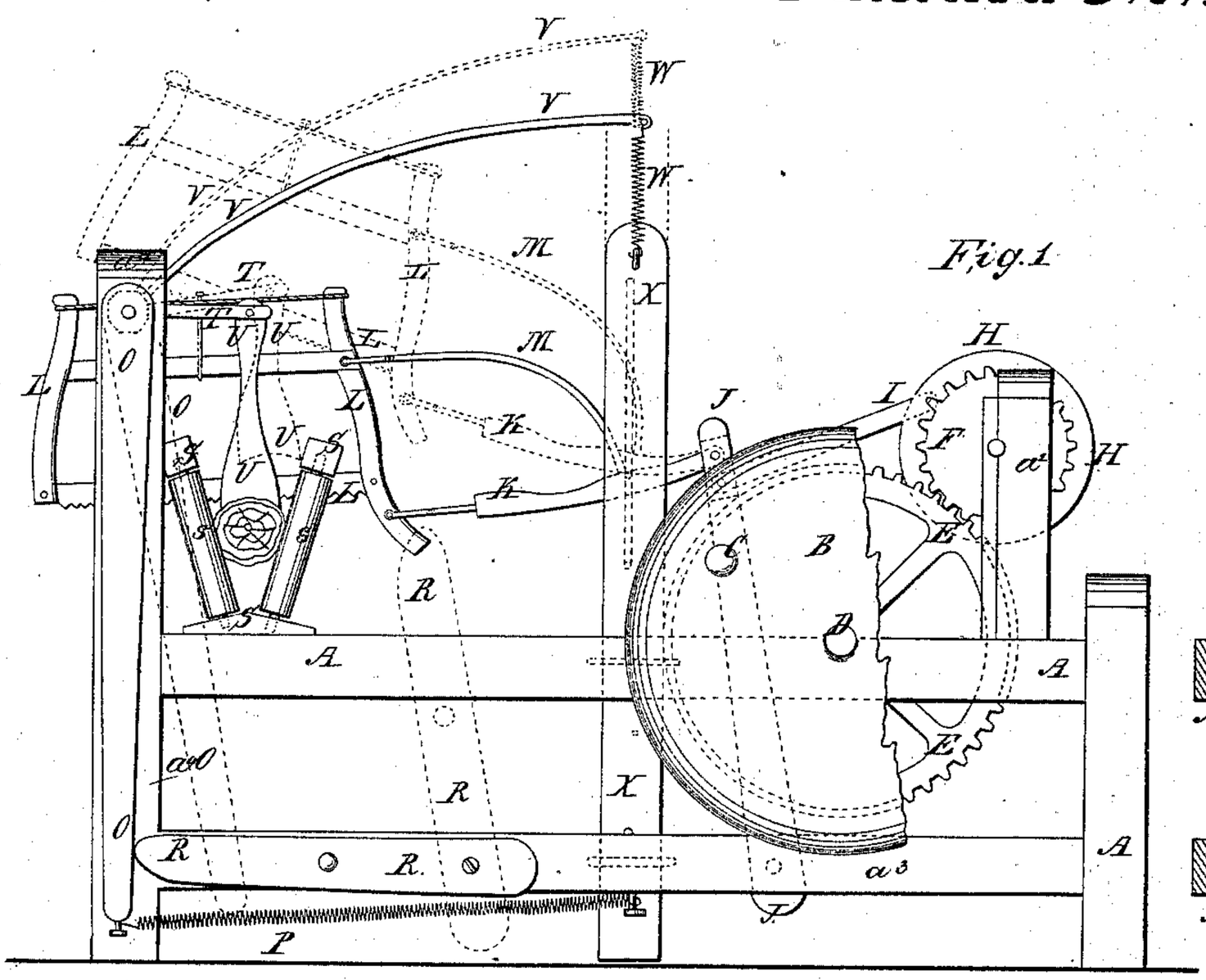


Fig. 3

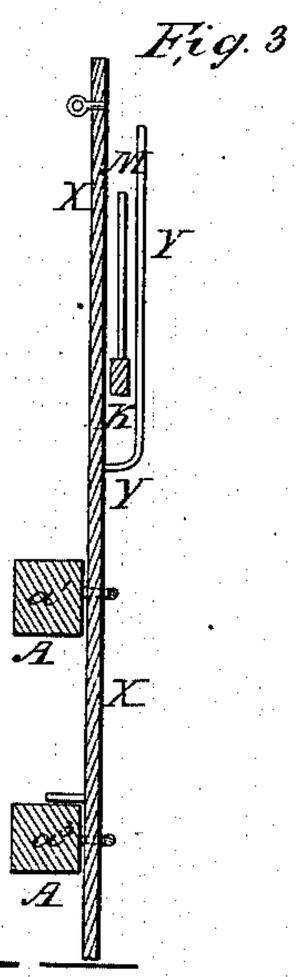
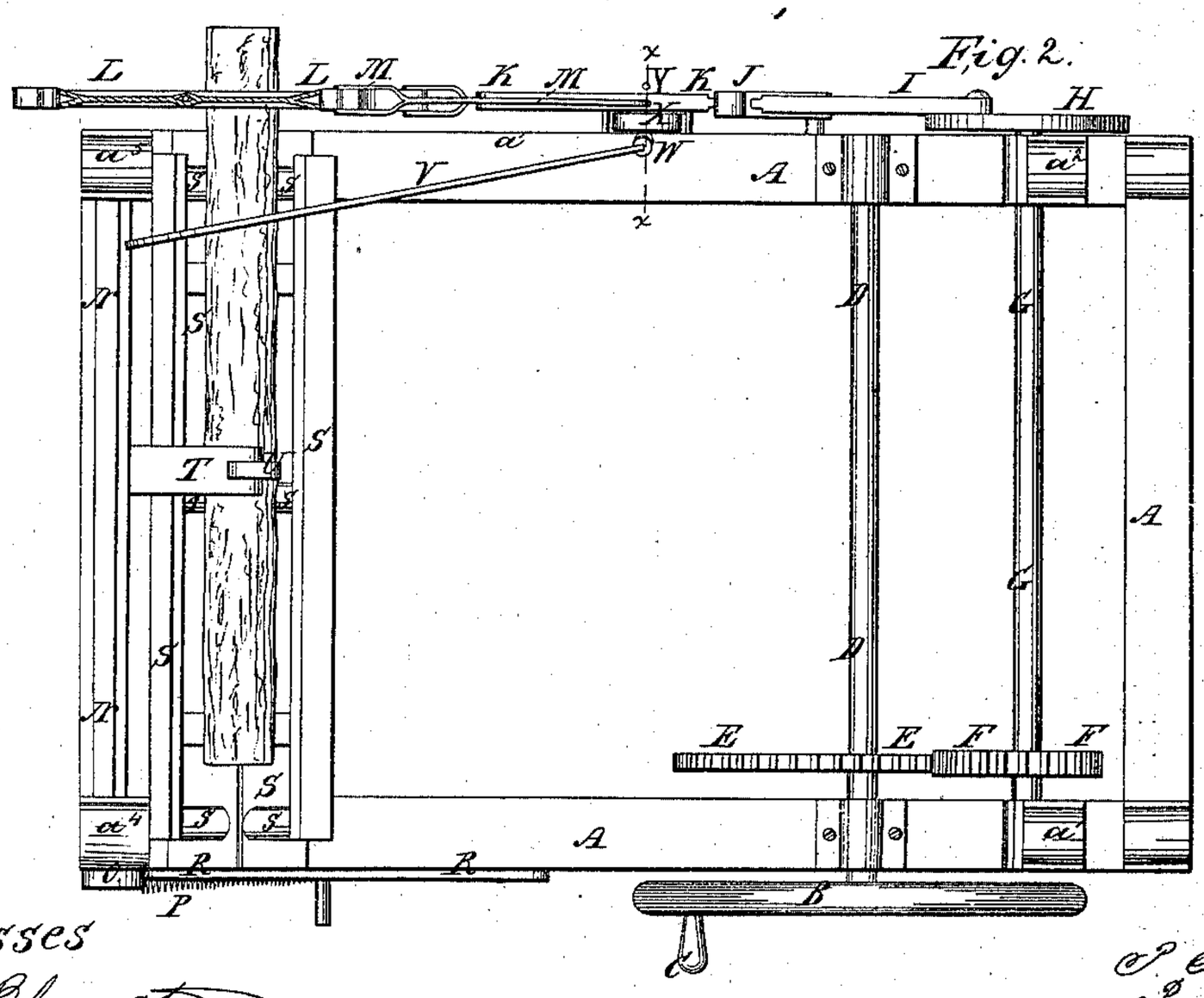


Fig. 2.



Witnesses

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IMPROVEMENT IN SAWING MACHINES.

P. A. GERRY, OF DOVER, MAINE.

Letters Patent No. 59,994, *dated November* 27, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, P. A. GERRY, of Dover, in the county of Piscataquis, and State of Maine, have invented a new and useful Improvement in Wood-Sawing Machine; and I 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 drawings, forming a part of this specification, in which—

Figure 1 is a side view of my improved wood-sawing machine, a part of the balance-wheel being broken away to show the cog-wheel, and showing in red the position of the parts when the saw is elevated.

Figure 2 is a top view of the same.

Figure 3 is a detail sectional view of the same, taken through the line *x x*, fig. 2.

Similar letters of reference indicate like parts.

My invention has for its object to furnish an improved machine, by means of which wood may be sawn rapidly and conveniently; and it consists, first, in the combination of balance-wheel, cog-wheels, crank-wheel, and shafts with each other and with the frame of the machine, for the purpose of communicating motion to the saw; second, in the combination and arrangement with each other, and with the saw, crank-wheel, and frame of the machine, of the arms by means of which the saw is connected to the crank-wheel, from which it receives motion; third, in the combination with each other and with the frame of the machine of the arms, spiral springs, and roller, by means of which the saw is elevated; fourth, in the combination with the roller of the arms, one or more, for holding the wood; and, fifth, in the combination with each other, and with the roller and frame of the machine, of the arms and spiral spring by means of which the roller is operated.

A is the frame of the machine. B is the balance-wheel, to which is attached a handle, C, for operating the machine. The balance-wheel, B, is attached to the end of the shaft, D, which revolves in bearings on the frame, A, as shown in fig. 2. To this same shaft, D, within the frame, A, as shown, is attached a large gear-wheel, E, which meshes into a smaller gear-wheel, F, attached to the shaft, G. This shaft, G, revolves in bearings in supports, a^1 and a^2, attached to the frame, A, as shown in fig. 1. To the farther end of this shaft, G, is attached the crank-wheel, H, to which is pivoted the crank-arm, I. The other end of the arm, I, is pivoted to the upper end of the arm, J, the lower end of which is pivoted to the bottom sill, a^3, of the frame, A, as shown in fig. 1. To the upper end of the said arm, J, is also pivoted the end of the arm, K, to the forward end of which is attached the saw, L. M is a brace attached to the arm, K, and connected with the upper part of the bow or frame of the saw, as shown in fig. 1. In the drawings the saw is represented as being an ordinary bow or buck saw, but any straight or cross-cut saw may be used. N is a roller revolving in bearings in the upper ends of the posts, a^4 and a^5, of the frame, A. One axle of the roller, N, projects through the post, a^4, and to its end is attached an arm, O, to the lower end of which is attached one end of the coiled wire spring, P, the other end of which is attached to the lower sill, a^3, of the frame, A. This spring draws the lower end of the arm, O, forward, revolving the roller, N, except when the said lower end of the arm, O, is held back by the lever, R. This lever is pivoted to the side of the sill, a^3, as shown, and has a handle, S, attached to it for convenience in operating it. When this lever is pushed down into a horizontal position, its forward end presses the lower end of the arm, O, back, revolving the roller, N, to the right, and when the lever, R, is raised away from the arm, O, the coiled spring, P, immediately draws the lower end of the arm, O, forward, revolving the roller, N, to the left. S is the wood-frame, which holds the wood while being sawn. Between the upper and lower side pieces of this frame are placed rollers, s^1, against which the stick to be sawn rests, and which enables said stick to be easily fed forward to the saw. To the roller, N, is attached one or more arms, T, to the end of each of which is pivoted a swinging arm, U. When the roller, N, is revolved to the right by the arm, O, as before described, the lower ends of the arms, U, are pressed against the wood, holding it securely in place while being sawn. To the roller, N, is also attached an arm, V, to the forward end of which is attached one end of the coiled spring, W. To the other end of this spring is attached the upper end of the slide-bar X. This bar slides vertically in guides attached to the sides of the timbers, a^3 and a^6, of the frame, A, and has a guide-arm, Y, attached to its side, as shown in figs. 1 and 3. When the roller, N, is revolved to the left by the arm, O, the arm, V, and spring, W, lift the sliding-bar, X; this brings the guide-arm, Y, into contact with the saw-arm, K, and raises the saw, L, out of the way while the stick is being moved forward for another cut, the various parts taking the positions shown in red in fig. 1.

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

1. Clamping the wood by means of the lever R, operating with the arm O, roller N, arms T, and swinging arm U, arranged and operating as herein represented and described.

2. Raising and lowering the saw by means of the lever R, arm O, roller N, arm V, spring W, and slide-bar X, with its guide-arm Y, substantially in the manner and for the purpose represented and described.

P. A. GERRY.

Witnesses:

CYRUS HILL,

MARK PITMAN.