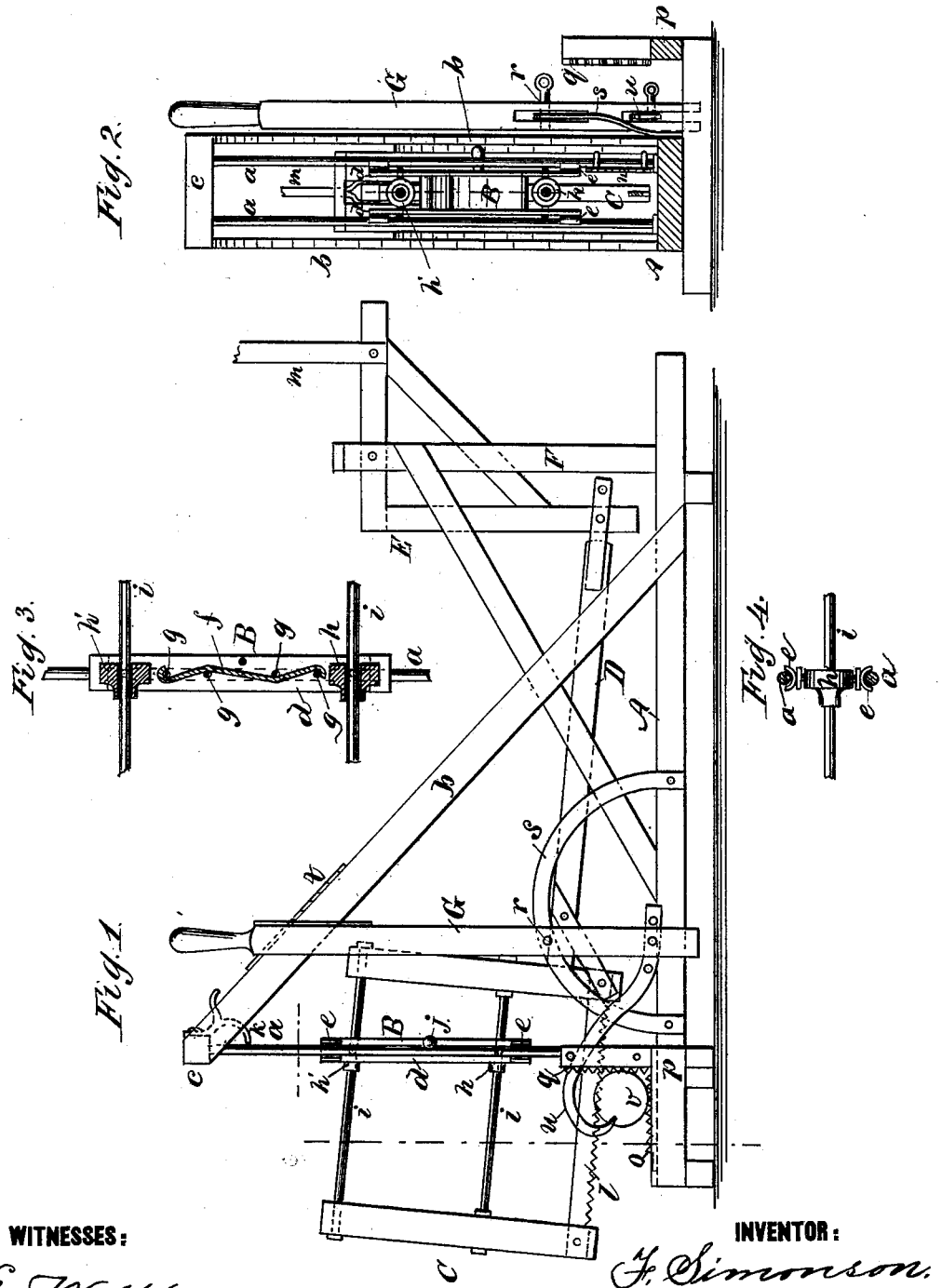
F. SIMONSON.

SAWING-MACHINE.

No. 190,787. Patented May 15, 1877.



WITNESSES:

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FLAVEL SIMONSON, OF ROUND GROVE, ILLINOIS.

IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. **190,787**, dated May 15, 1877; application filed March 12, 1877.

To all whom it may concern:

Be it known that I, FLAVEL SIMONSON, of Round Grove, in the county of Whitesides and State of Illinois, have invented an Improvement in Sawing-Machines, of which the following is a specification:

Figure 1 is a side elevation of my improved sawing-machine. Fig. 2 is a transverse section on line *x x* in Fig. 1. Fig. 3 is a detail view of a portion of the machine on line *y y* in Fig. 2. Fig. 4 is a detail view, in section, on line *z z* in Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

Referring to the drawing, A is the bed-piece of the frame of the machine, supporting two parallel vertical iron rods, *a*, and two braces, *b*, that are secured to the cross-piece *c*, attached to the upper ends of the rods *a*. B is a guide, consisting of the side pieces *d*, to which the semicircular pieces *e* are attached, that embrace the rods *a*, and the curved plate *f* and the bolts or rivets *g*, that pass through the side pieces and hold the parts of the guide firmly together. Boxes *h h*, for receiving the rods *i i* of the saw-frame C, are pivoted in the guide B. The pivots of the upper box *h'* rest in slots in the side pieces, so that when the rods *i i* pass diagonally through the guide B they will not bind. A handle, *j*, is attached to the guide B, and a catch, *k*, is attached to the cross-piece *c*, which engages one of the semicircular pieces *e* when the guide is raised as far as possible. The saw-frame C, containing the saw *l*, is attached to a rod, D, that is jointed to a right-angled lever, E, journaled in posts F, that project upward from the bed-piece A. The lever E takes a vibrating motion from any convenient motor, through the connecting-rod *m*. It is hung by a pin passing through its horizontal arm, so as to give the saw but one canting cut. A serrated plate, *n*, is attached to one of the rods *a*, and a similar plate, *o*, is attached to the bed-piece A, with its serrated edge uppermost. A right-angled support, *p*, is attached to the cross-timbers that support the bed A, and is provided with a serrated plate, *q*. Upon this support and the plate *o*, and against the edges of the serrated plates *n* and *q*, the wood to be sawed is placed. G is a lever, pivoted at *r* to the arc-shaped iron *s*, and provided with an iron plate, that is engaged by a ratchet-bar, *t*, attached to the brace *b*. A dog, *u*, is pivoted in the lower end of the lever G, and is capable of clamping the log *v* firmly against the edges of the plates *n* and *q*.

The operation of the machine is as follows: The guide B is raised by the handle *j* until it is engaged by the catch *k*. A log is placed against the serrated plates *n g*, and securely clamped by the dog *u* by drawing the lever G, the said lever being held in place by the ratchet-bar *t*. The guide B is now released from the catch *k*, and lowered until the saw comes into contact with the log, when, being in motion, it cuts its way through the log, being forced downward by the weight of the saw-frame. When the log is cut through, the guide B rests upon the upper end of the plate *n*, and prevents it from dropping too low.

It will not be necessary to stop the reciprocating motion of the saw when the cut is changed.

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

The combination of the saw-frame C, having rods *i* and carrying the saw *l*, with the guide B, rods *a*, and catch *k*, substantially as herein shown and described.

FLAVEL SIMONSON.

Witnesses:

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