W. MELVILLE.

SAWING MACHINE.

No. 51,851. Patented Jan. 2, 1866.

Fig. 2

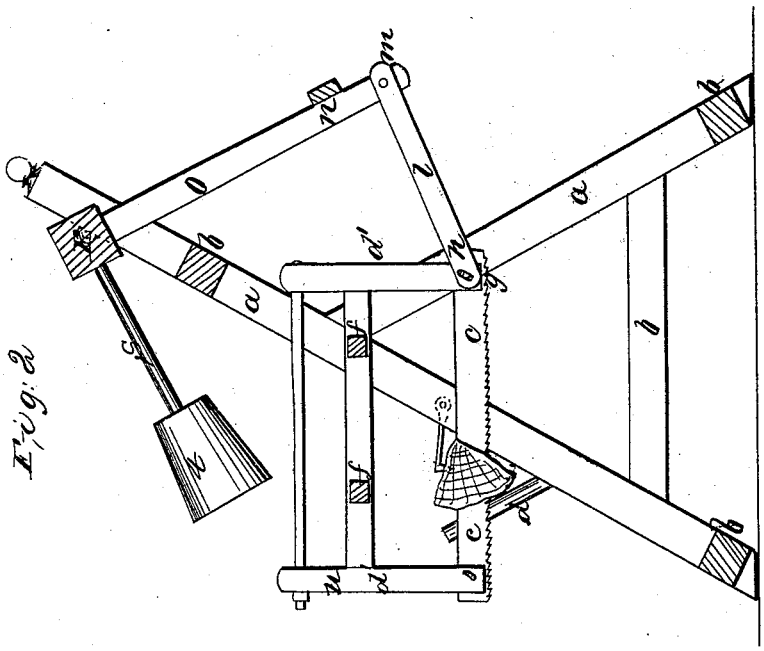
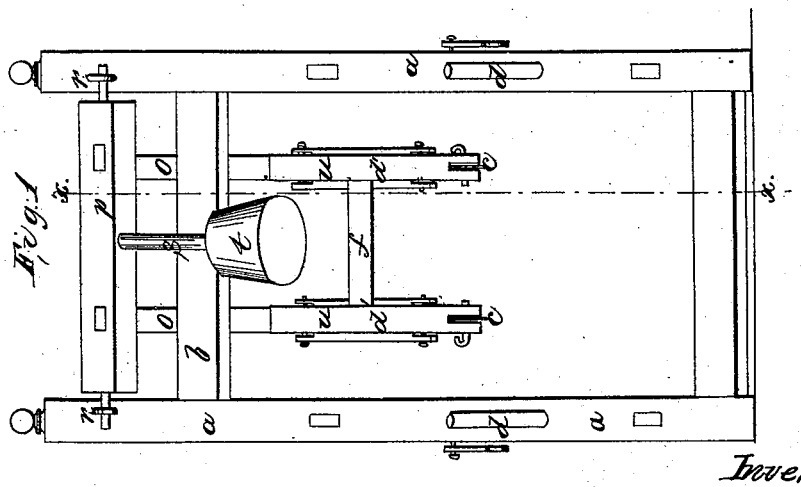


Fig. 1



Witnesses:

Inventor:

Wm Melville

By Munn & Co

Attys

UNITED STATES PATENT OFFICE.

WILLIAM MELVILLE, OF DETROIT, MICHIGAN.

IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. **51,851**, dated January 2, 1866.

To all whom it may concern:

Be it known that I, WILLIAM MELVILLE, of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in the Hanging of Saw-Blades; 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 fully understand and make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention relates more particularly to the hanging of saws to be operated by hand and especially adapted for family use; and it consists in hanging the saw in such a manner within a suitable supporting-frame that it can be operated with facility, ease, and with but little labor, compared to the ordinary way now practiced for sawing wood, as will be obvious from the following detail description, in which reference is had to the accompanying plate of drawings, illustrating my improvements—

Figure 1 being a view of one end of the same, and Fig. 2 a vertical longitudinal section taken in the plane of the line *x x*, Fig. 1.

a a in the drawings represent two parallel supporting-standard frames, strengthened by a series of cross bars or braces, *b b*, at any suitable points. These frames may be either fastened to the floor of a room, platform, or any other suitable place, or may be made of such a breadth of base that as the saw-blades *c c* are made to cut or sever the log or other piece of wood placed upon the supports *d d* for the same across the plane of movement of the saws, when operated as will be presently explained, the supporting-frame shall stand perfectly firm, fixed, and solid, as it were. These saw-blades *c c* are each secured in a similar frame, *d'*, attached together by cross-braces *f f*, and placed parallel to each other in a vertical position, each of their farther ends, *g g*, being pivoted or swiveled in the lower ends, *h*, of connecting link-pieces *l l*, similarly hung at their other ends, *m m*, in the lower portion, *n*, of the vertical frame *o*, swinging by its upper cross head or bar *p* in bearings *r* of the standards *a*. This cross-head *p* has secured in it, and at or near its center, at right angles, or nearly so, to the direction of its frame *o*, a projecting rod *s*, weighted at its outer end with a heavy weight, *t*, so that as the saw-blades are impelled forward by taking hold of the upright pieces *u u* of each of their frames the gravity of the weight necessarily aids such movement thereof, and thus imparts additional force to it to penetrate the log or piece of wood which had been previously placed in the machine to be sawed, as before explained, the saw being then drawn backward by the hand, and impelled forward again across the wood, and so on as long as may be deemed necessary or desirable.

By hanging the saws in the manner described to and within the swinging frame it can be adjusted to any position thereto, so as to take in logs of varying sizes and diameters.

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

The arrangement of the stationary frame *a*, swinging frame *d' d'*, saws *c c*, arms or links *l l*, frame *o*, bar *p*, weight *t*, and supports *d d*, as and for the purpose set forth.

WILLIAM MELVILLE.

Witnesses:

JOSEPH KUHN,

JOHN GREEN.