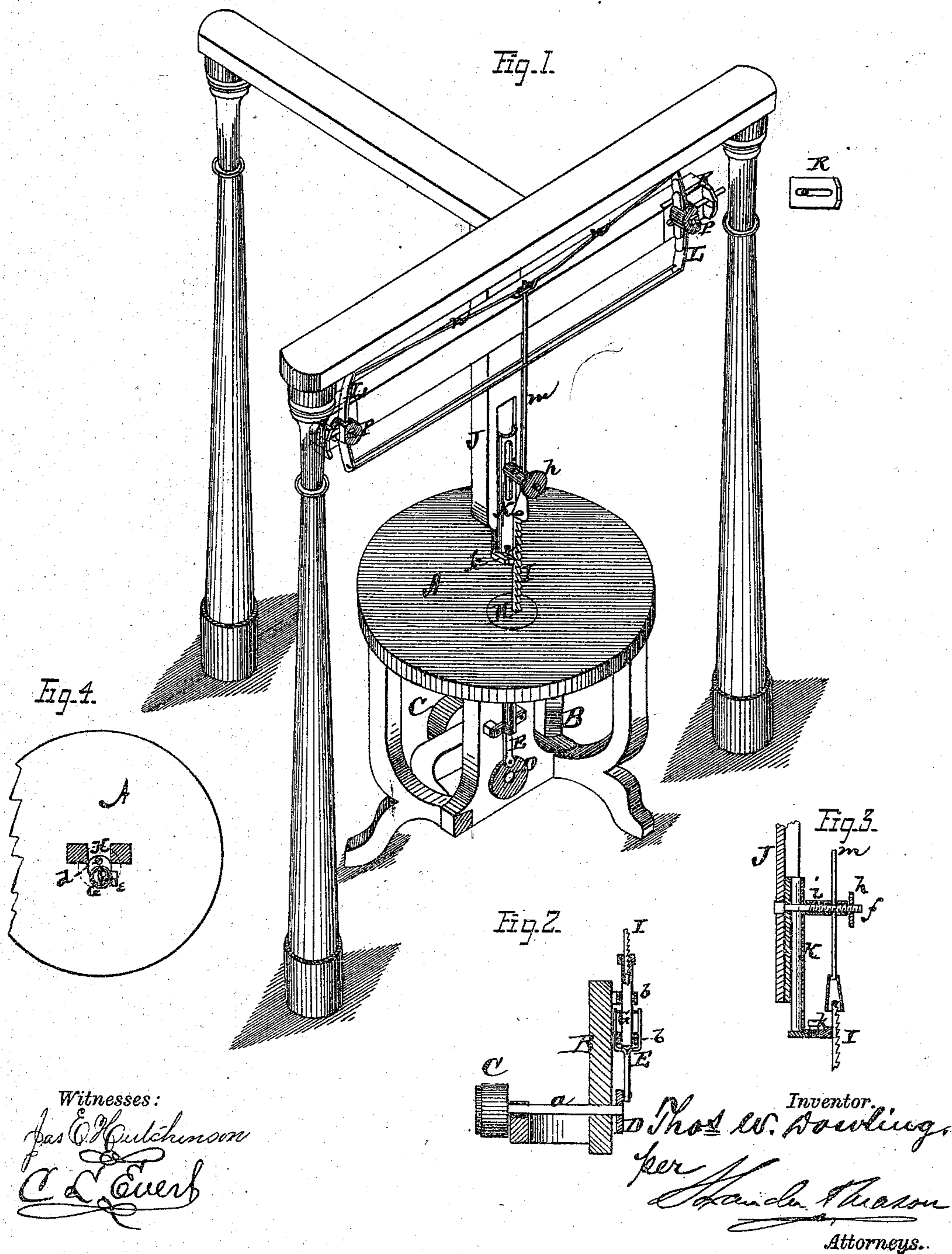


T. W. DOWLING.

Improvement in Scroll-Sawing Machines.

No. 131,669.

Patented Sep. 24, 1872.



# UNITED STATES PATENT OFFICE.

THOMAS W. DOWLING, OF PONTIAC, MICHIGAN.

## IMPROVEMENT IN SCROLL-SAWING MACHINES.

Specification forming part of Letters Patent No. 131,669, dated September 24, 1872.

*To all whom it may concern:*

Be it known that I, THOS. W. DOWLING, of Pontiac, in the county of Oakland and in the State of Michigan, have invented certain new and useful Improvements in Scroll-Sawing Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a scroll-sawing machine, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my entire machine, and Figs. 2, 3, and 4 are detached views of certain parts thereof.

A represents the saw-table supported at a suitable height by a frame, B. In the lower part of the frame B is a short shaft, *a*, with a drive-pulley, C, at the rear end, and a balance crank-wheel, D, at the front end. This wheel is, by a pitman, E, connected with an upright slide, G, moving in suitable bearings or boxes *b b*, attached to the frame. The slide G is a hollow round tube, which makes it very light and at the same time strong and durable. The upper end of the pitman E is forked, so as to pass the lower bearing *b*, and is attached to the slide in the center, which makes the action perfect and easy. In the center of the table A is a plate, H, let in, through which the saw I passes, by which plate a bearing is secured for the saw to work in to keep it steady and to support it as the slide below carries it through the timber. No matter how light or delicate the saw is this bearing makes it firm and secure from breaking while in operation. The plate H is secured by a set-screw, *d*, underneath the table. The lower end of the saw I is secured in the upper end of the slide G by a set-screw, *e*. J represents a perpendicular bar arranged above the saw-table in rear of the saw. This bar is on its front side provided with a vertical groove, in which is placed a ver-

tical bar, K, having at its lower end a forward projecting foot forming a gage to be adjusted to any thickness of timber. The gage K is slotted vertically, and through said slot extends forward a horizontal stud, *f*, with screw-threads on its outer end for the reception of the screw hand-wheel *h*. On this stud is placed a sleeve, *i*, which is forced against the gage by the wheel *h*, thus holding said gage at any desired height. Upon the foot of the gage K is an adjustable bearing, *k*, for the saw to work in, which gives it every advantage in speed and finish of workmanship. The upper end of the saw I is coupled to the lower end of a rod, *m*, which passes through the sleeve *i* and stud *f*, and the upper end of said rod is coupled to wires *n n*, which are attached to elliptic springs L L, the lower ends of said springs being also connected by suitable wires. Each spring L passes through a head, P, which is adjustable in an L-shaped plate, R, so that the head can be moved in or out at will to regulate the tension of the spring. The saw is strained by the elliptic springs L L, which springs have double the advantage of those now generally used, because they spring free and direct from end to end on their centers, making them most prompt in acting with the movement below, and at the same time give the saw a secure, equal, and, if necessary, a most delicate strain.

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

1. The arrangement of the crank-wheel D, forked or crotched pitman E, tubular slide G, and bearings *b b*, the forks of the pitman passing in front and rear of the lower bearing, and attached directly to the slide, substantially as and for the purposes herein set forth.

2. In combination with the slotted gage K, the screw-stud *f*, sleeve *i*, and hand-wheel *h*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of June, 1872.

THOMAS W. DOWLING.

Witnesses:

O. F. WISNER,  
JAMES JEMISON.