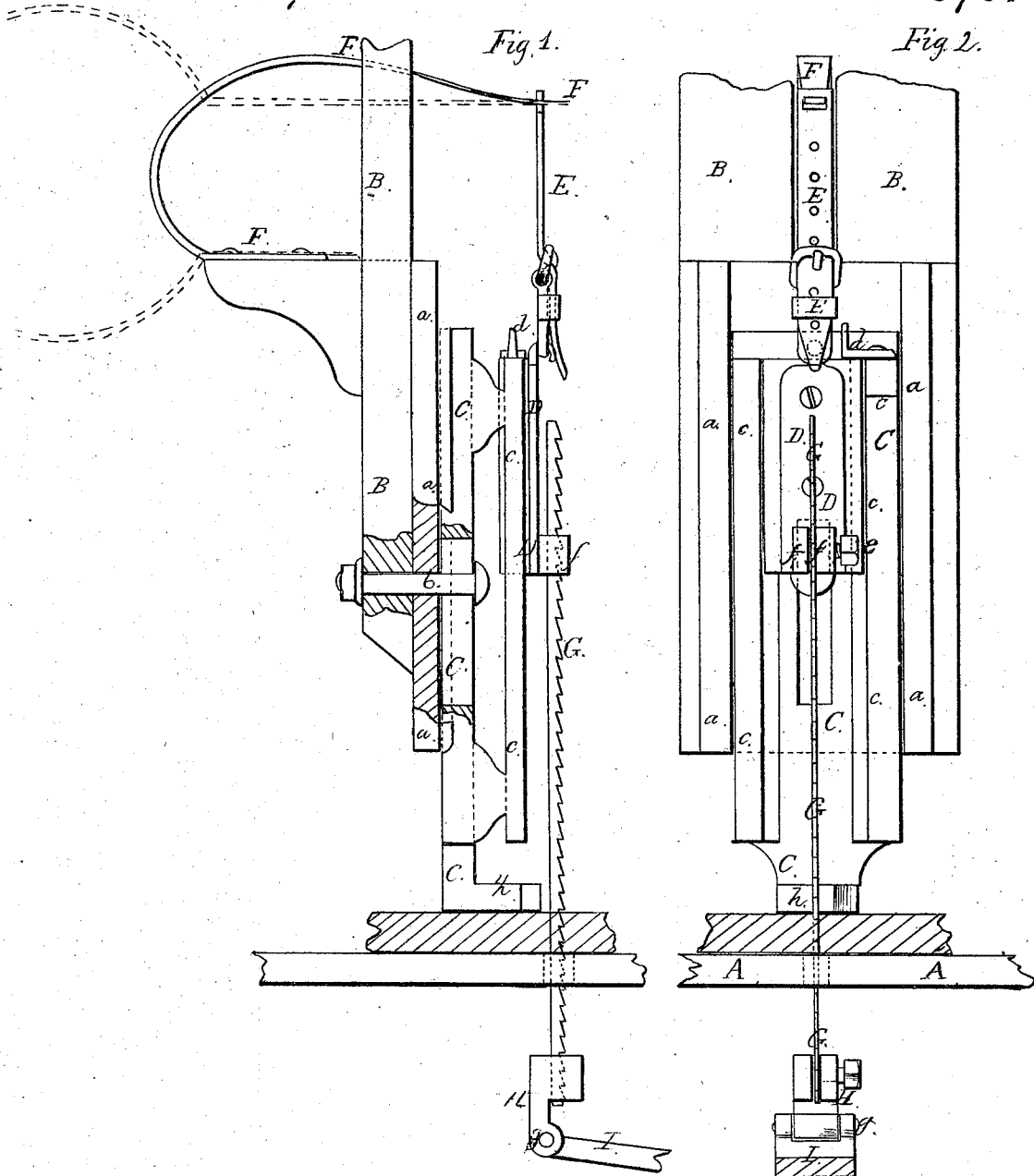


G. M. Nickerson,

Scroll Saw.

No. 100,551.

Patented Mar. 8. 1870.



Witnesses.
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GOUVERNEUR M. NICKASON, OF ELLENVILLE, NEW YORK.

Letters Patent No. 100,551, dated March 8, 1870.

IMPROVEMENT IN SCROLL-SAWS.

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

To all whom it may concern:

Be it known that I, GOUVERNEUR M. NICKASON, of Ellenville, in the county of Ulster, and State of New York, have invented a new and improved Scroll-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 part of this specification, in which—

Figure 1 represents a side elevation, partly in section, of my improved scroll-saw.

Figure 2 is a front elevation of the same.

Similar letters of reference indicate corresponding parts.

My invention relates to improvements in scroll-saws, and

The invention consists in the construction, combination, and arrangement of parts, as hereinafter specified.

A, in the drawing, represents the saw-table or bed, supported on suitable legs or posts.

B is the upper frame or guide, suspended from suitable stationary devices.

On the face of the guide B are one or two grooves or projecting ribs *a a*, between which a vertically-adjustable slotted plate, C, can be moved up and down.

The plate C can be fastened in any suitable position by means of a screw and nut, *b*, or its equivalent.

The guide B may, instead of the plate C, be slotted, to allow the up and down adjustment of the latter.

The face of the plate C has one or two guide-ribs or grooves, *c c*, to retain and hold a vertically-adjustable plate, D, which is, by means of an adjustable strap, E, suspended from a strong spring, F, that is fastened to the frame B, and that tends to draw the plate D up.

The upper end of the plate D is drawn by the spring against a pivoted stop, *d*, fastened to the plate C, as shown.

The upper end of the saw-blade G, is, by a screw, *e*, fastened to lugs, *f f*, that project from the slide D.

The lower end of the saw-blade is, in a similar manner, fastened to a short block, H, which is, by a pin, *g*, pivoted to the end of an operating-treadle or pitman, I.

On the lower end of the slide C is formed a presser-foot, *h*.

The slide C is, before operation is commenced, let down upon the stuff to be sawed, and is then clamped by the screw *b*.

Motion is then imparted to the saw, as on thinner stuff, the slide C is brought lower down, its stop *d* is also lowered, and the motion of the saw consequently reduced.

The spring F draws the saw up after each stroke. Its power can be regulated by lengthening or shortening the strap E.

When the saw is not used, the stop *d* is swung aside, so that the spring will elevate the slide D as much as possible, to prevent useless straining of the said spring.

By unfastening the upper end of the saw-blade, the said block can be freely turned on the pivot *g*, and its inclination can thereby at will be varied.

The saw can be taken hold of when desired, without any injury to it.

The spring is a very essential part of the invention. By the use of this spring, the peculiar form and application of the same, the power is imparted to the saw direct, and without any possible friction, at the same time increasing the speed considerably, while it is freed from all strain or tension.

When the presser-foot is to be moved up or down, it is only necessary to loosen the top end of the saw, and to then pass the presser-foot in any direction, and the saw stands still, so that by the application of the lugs and the set-screw, the saw can be taken hold of where desired.

By the combination of the slides with the presser-foot, no more saw is used than is necessary to do the work, thereby increasing the power of the saw.

In case the saw is to be changed or filed, it can always be done without touching any part of the machine, save turning back the two set-screws that hold the saw in place.

The spring holds the slide-plate firmly against the stop, and the stop prevents the spring drawing the slide-plate D from the slides C.

When the machine is not in use, the strap is detached at the lower end, the slide then stands on the saw, and the spring is relieved.

The strap that operates the spring is calculated to take up and let out, to regulate the strain of the saw, according to circumstances.

The object of the hinge or pivot at the bottom of the saw-blade is to allow the top of the saw to pass forward and back, for the purpose of slipping the top end through a hole to the inside, for inside cutting.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The stop *d*, pivoted to the slide C, and arranged to regulate the movement of the saw or slide D, in combination with the spring F, plate D, and strap E, all constructed and arranged to operate as shown and described.

2. The slotted slide C, adjustable in guides *a*, by means of the screw-bolt *b* and nut, and provided with the presser-foot *h*, the upper slide D, stop *d*, adjustable strap E, and spring F, all constructed, arranged, and operating in the manner set forth.

G. M. NICKASON.

Witnesses:

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