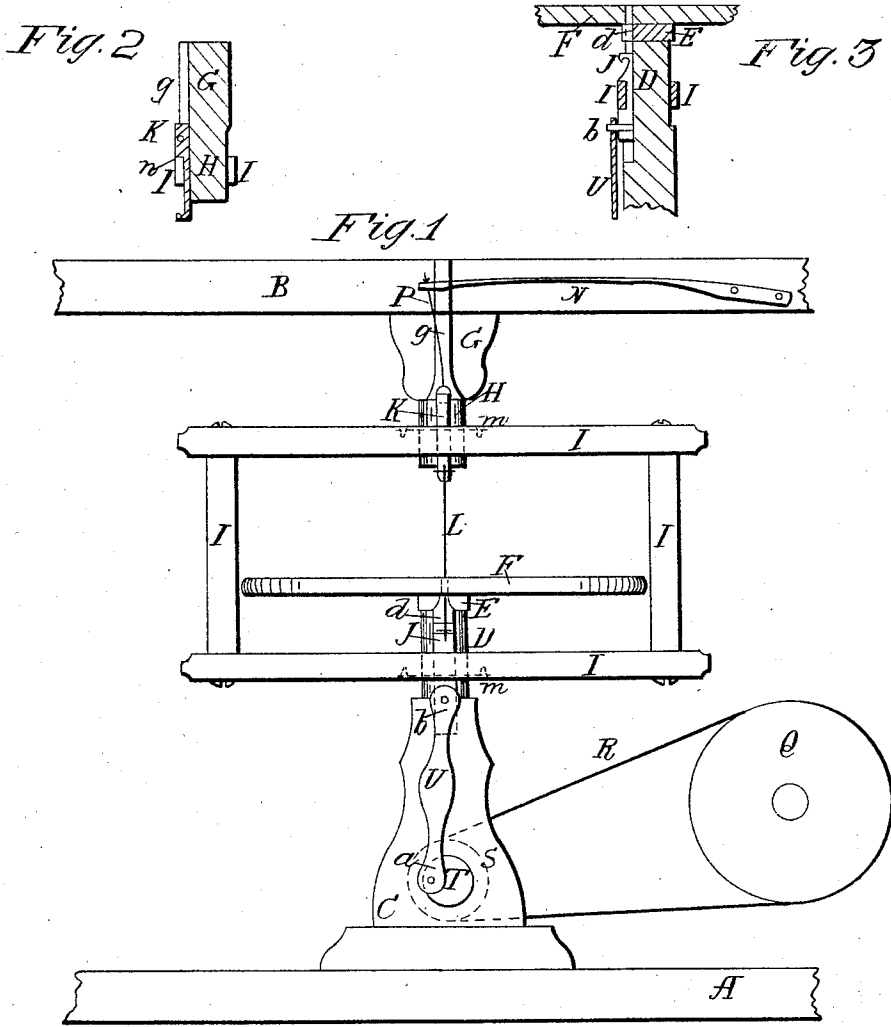


H. F. Shaw,
Scroll Saw,
No. 41,539, Patented Feb. 9, 1864.



Witness
N. Evans Jr.

Inventor:
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UNITED STATES PATENT OFFICE.

HENRY F. SHAW, OF WEST ROXBURY, MASSACHUSETTS.

IMPROVEMENT IN GIG-SAWS.

Specification forming part of Letters Patent No. 41,539, dated February 9, 1864.

To all whom it may concern:

Be it known that I, HENRY F. SHAW, of West Roxbury, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Gig-Saws; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation; Fig. 2, a transverse vertical section in the line of the saw through the top of the gate, the upper straining-slide, and the upper axle; and Fig. 3, a similar section through the bottom of the gate, the lower straining-slide, and the lower axle.

Like parts are indicated by the same letters in all the drawings.

The nature of my invention consists in revolving the sash or gate (by which the saw is strained and carried up and down) on a fixed axis around the saw, so that articles to be sawed, however long, may be turned without coming in contact with any stationary post or upright; also, in combining with said revolving sash or gate a spring, by means of which its weight is supported and nearly balanced, so that the bearing-points may be relieved of unnecessary friction.

To enable others skilled in the art to make and use my invention, I will now describe its construction and operation.

A represents the floor of a room, and B the ceiling; or A and B may be the top and bottom of a four-sided frame.

C is a stand, of cast-iron or other suitable material, which may be confined to the floor in the desired position by means of bolts or screws. The upper portion of D, as shown in Fig. 1, is round, forming the lower axle of the gate I.

E is a cap fast to the top of the axle D, and F is the round sawing table resting on the top of said cap.

G is a pendent stand or stud, the upper end of which is fast to the ceiling or frame B, the lower portion, H, being round and forming the upper axle of the gate. The axle H should be directly over the axle D.

The sash or gate is made of wood, and consists of the four pieces I I I I, confined together in any suitable manner. Through the center of the horizontal pieces of the gate

are round holes of the proper diameter to receive the axles H and D, *m m* (shown in dotted lines) being metallic rings or bearings bedded in the wood around said holes to sustain the friction on the axles H and D.

J is the lower strainer-slide, a side view of which is shown in Fig. 3, which plays in a vertical slot, *d*, in the axle D. Around the center of this slide, between two shoulders, (see Fig. 3,) turns the sash I. Motion is communicated to this slide J, and consequently to the sash I, by means of the pitman U, the upper end of which is connected with the slide by the pin *b*, and the lower end is connected by the pin *a* to the crank-wheel T, which is actuated by the pulley S, belt R, and drum Q, or in any other obvious manner.

K is the upper strainer-slide, which plays in the groove *g* in the axle H. Just above the center of this slide is a shoulder, *n*, (shown in the side view, Fig. 2,) which rests upon the top of the upper piece of the sash. Thus it will be seen that the saw L is strained between the top and bottom pieces of the sash, while at the same time the latter is free to revolve around the former, and that the strain does not come on any bearing or wearing points.

More or less tension may be given to the saw L in the usual manner—*i. e.*, by means of a screw passing down through the top of slide K and resting on the top of I.

N is a long flat spring, of wood or metal, the free end of which is connected with the top of slide K by means of the rope or wire P, for the purpose described.

Having thus described the construction and operation of my improvement, what I claim as new, and desire to secure by Letters Patent, is—

1. Revolving the sash or gate, by which the saw is strained and carried up and down on a fixed axis around the saw, so that stock, however long, may be turned, substantially as described.

2. In combination with said revolving gate or sash, the employment of a spring, N, substantially as set forth, and for the purpose described.

HENRY F. SHAW.

Witnesses:

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N. EVANS, Jr.