T. W. DOWLING.

Scroll Sawing-Machines.

No. 145,993. Patented Dec. 30, 1873.

Fig. 1.

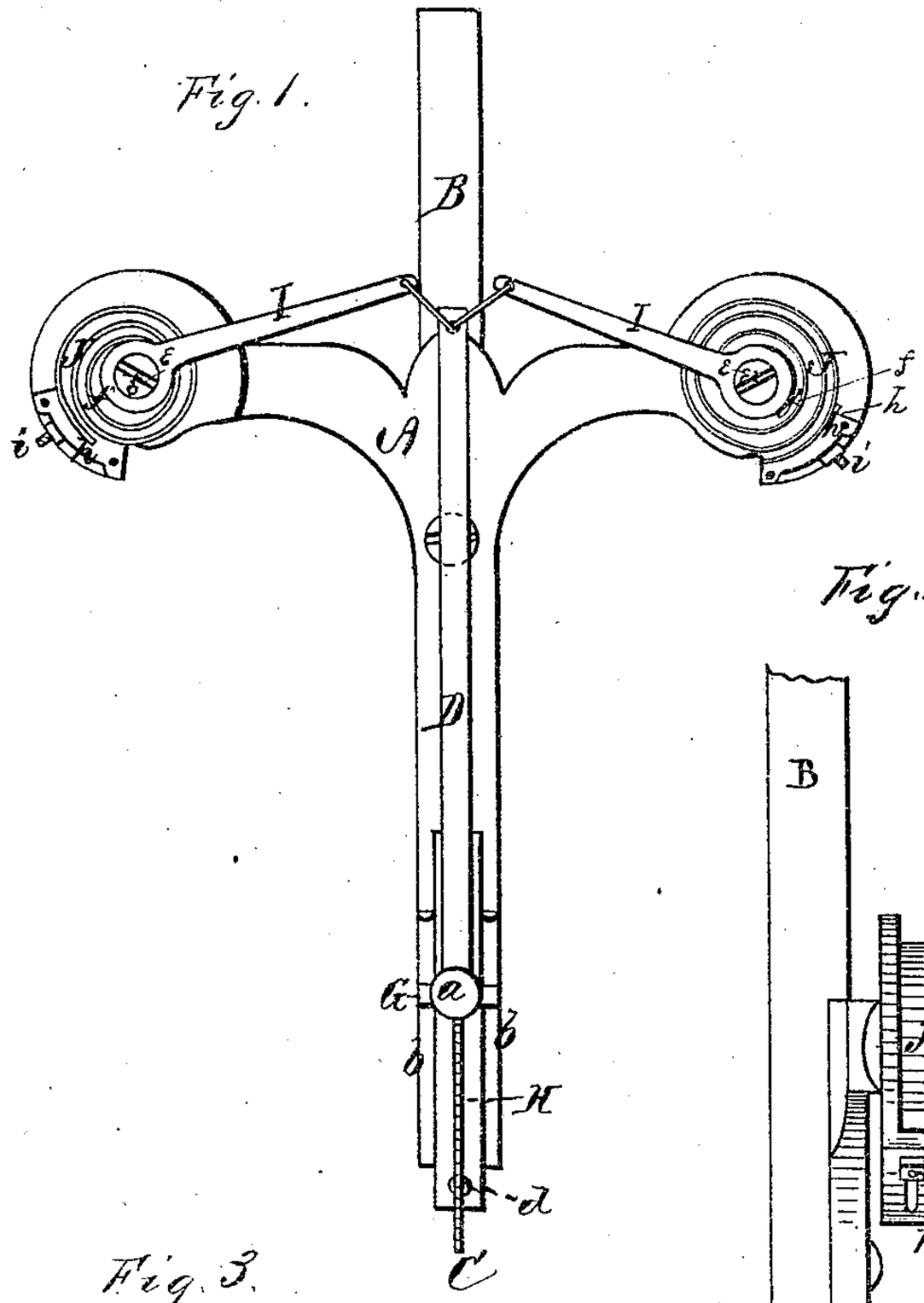


Fig. 2.

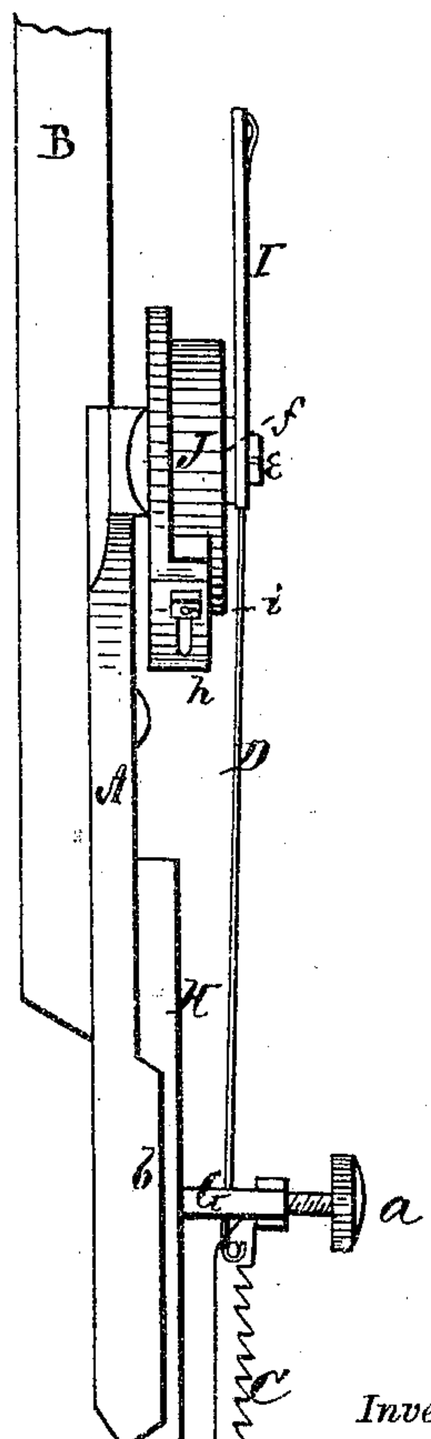


Fig. 3.

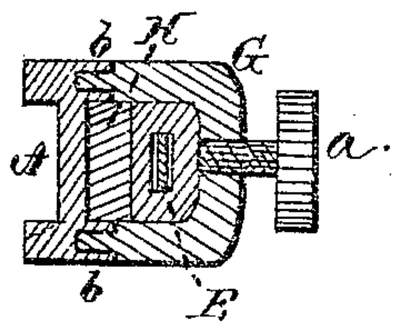
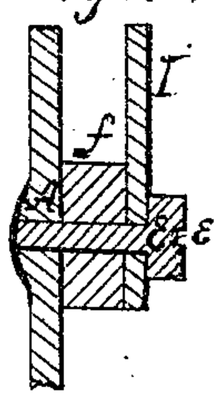


Fig. 4.



Witnesses:
Franck L. Durand
C. L. Ewest

Inventor.
Thomas W. Dowling
per Alexander Dunbar
Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS W. DOWLING, OF PONTIAC, MICHIGAN.

IMPROVEMENT IN SCROLL-SAWING MACHINES.

Specification forming part of Letters Patent No. **145,993**, dated December 30, 1873; application filed May 14, 1873.

To all whom it may concern:

Be it known that I, THOMAS 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 Machine; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings 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 an upper or take-up attachment for scroll-sawing machines, as will be hereinafter more fully set forth.

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 front view, and Fig. 2 a side view, of my invention. Figs. 3 and 4 are sections through detached parts thereof.

A represents a casting of any suitable form secured to the ceiling of a room by an upright timber, B. C represents the saw, which is attached to the lower end of a strap, D, and this strap passes through a slot in a block, E. This block E is placed in a guide, G, attached to the casting A, and is pressed by a set-screw, *a*, against the timber-gage H, to hold the same at any height required, said gage being placed vertically between guides *b b* on the casting A. At the lower end of the gage H is a slotted stud, *d*, through the slot in which the saw C passes, and is guided in its movement up and down. The upper end of the strap D is directly connected with the inner ends of two levers, I I, the outer ends of which are secured on the front sides of two pulleys, *f f*, said pulleys being centered on stationary screw-studs *e e* on the casting A. Around each of these pulleys is rolled a steel-band spring, J, the inner end of which is fastened to the face of the pulley, and the outer end adjusted stationary by a bolt and nut, *i*, in a slotted flange, *h*, on the casting. The springs J J may be rolled up to any required pressure, and the springs equalized, one with the other, with great accuracy.

This strain or take-up attachment being of such broad scope, and having direct lever purchase, it takes up on the stroke quick and steady, which is one of the most necessary requisites to a perfect-working scroll-sawing machine.

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

The combination of the casting A, constructed as shown, the adjustable springs J J, pivoted arms I I, strap D, gage H, block E, guide G, and set-screw *a*, all constructed to operate substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of April, 1873.

THOMAS W. DOWLING.

Witnesses:

T. A. FAIRFIELD,

C. J. FIELD.