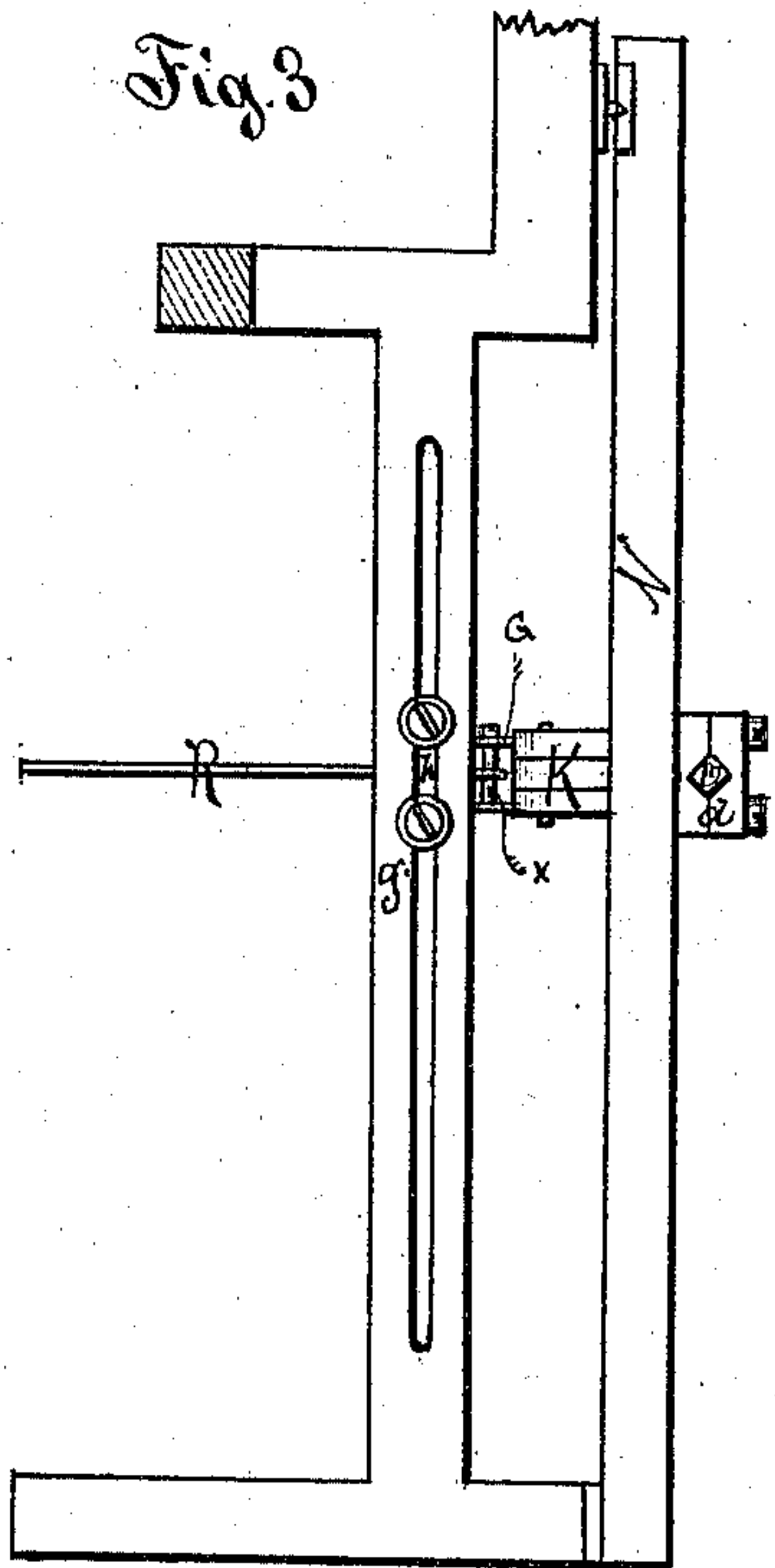
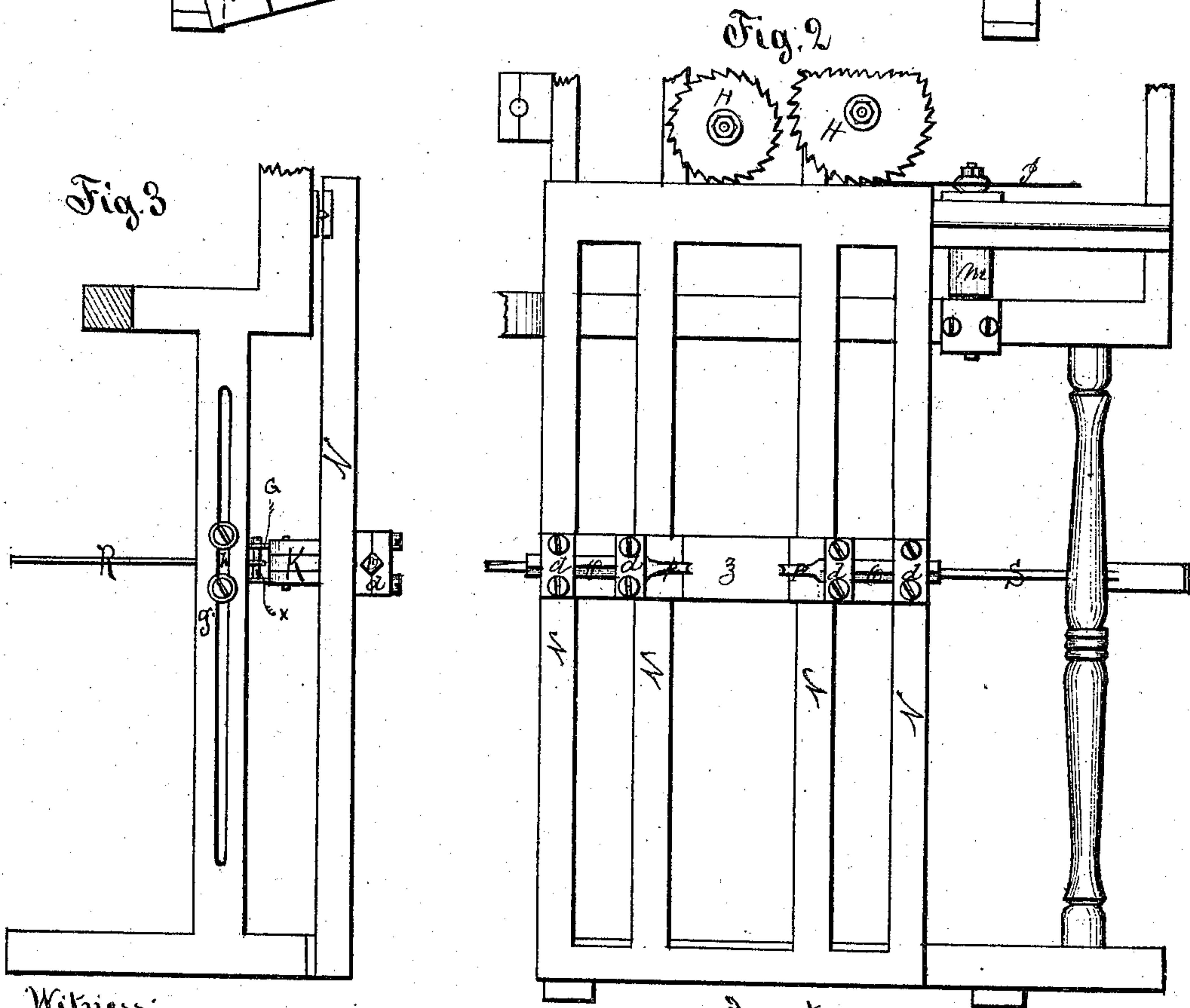
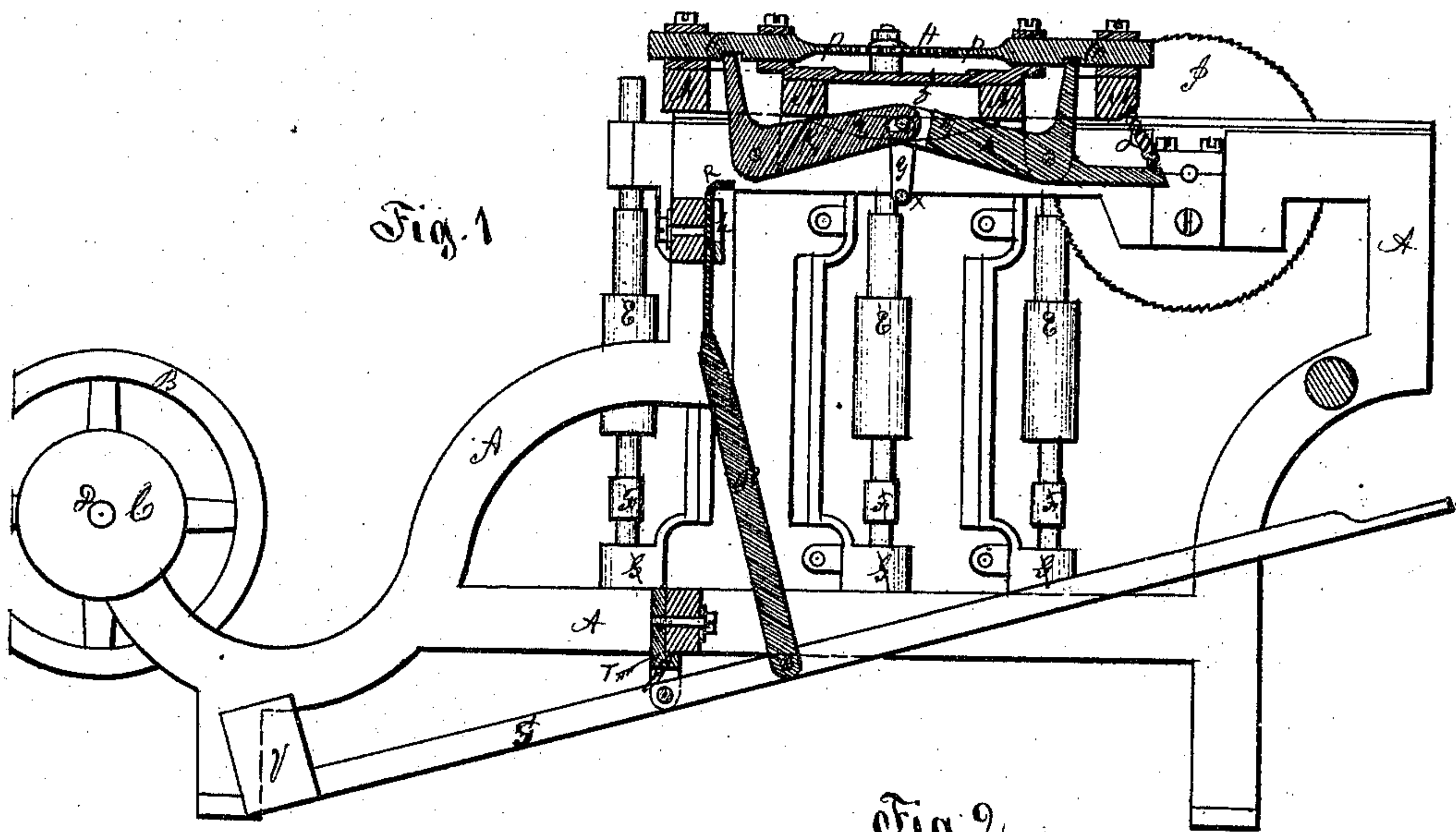


F. G. Chapman,

Mortising Machine.

No. 100,502.

Patented Mar. 8. 1870.



Witness:

*Wm H. Lutz,
Jas Leon Simon*

Inventor:

Frank G. Chapman

UNITED STATES PATENT OFFICE.

FRANK G. CHAPMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO DENNIS BEACH,
OF SAME PLACE.

IMPROVEMENT IN MORTISING-MACHINES.

Specification forming part of Letters Patent No. 100,502, dated March 8, 1870.

To all whom it may concern:

Be it known that I, F. G. CHAPMAN, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improved Franking Attachment for Sash-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal sectional elevation of a dovetailing or sash machine with my invention attached. Fig. 2 is a plan view of the same. Fig. 3 is a side elevation of the same.

This is a device combined with the ordinary dovetailing-machine to make or "frank" the small mortises in the sash-stiles to receive the tenons of the mortises.

That others may understand the construction and operation of my invention, I will particularly describe it.

A A represent the frame of the machine. D is the pulley-shaft, C the receiving-pulley, and B the pulley transmitting motion to the saws H H I.

Mounted upon the frame A, and moving upon suitable ways, is the bed-plate or table N, which slides back and forth to feed the work. The bed-plate *z* is mounted upon the central portion of the table N, and upon said bed-plate are the lugs *d d*, in which guides are formed for the plungers O O, which carry the franking-chisels P P.

Beneath the table N are the bell-crank levers K K, the upper ends of which engage in notches or recesses cut in the lower sides of the plungers O, so that when the free ends of said levers are depressed the plungers are forced forward or toward each other, and the stuff which is upon the table N is operated upon by the franking-chisels. The lower ends of the levers K are brought together and lapped as shown in Fig. 1. A bolt is passed through the lapped portions of said levers, (slots being provided for the passage of said pin through one lever,) and a stirrup, G, is suspended therefrom. The stirrup G is formed of two T-shaped plates, *y y*, connected by the above-mentioned joint-pin and the pin *x*. The T-extensions *y* rest against the under surface of the table N, and

serve to prevent the stirrup end of levers K from rising too high and being thus disengaged from their bearings in slots in plungers O, and they also serve to keep the stirrup in a perpendicular position and insure its proper engagement with the hook R, by which the levers and plungers are simultaneously operated. The hook R rests against the slotted frame-piece *g*, and is kept in position by the adjustable stirrup *h*. At its lower end the rod R is jointed to the foot-lever S, by means of which it may be depressed to operate the levers K, plungers O, and chisels P. The lever S is hung to the frame A by means of an adjustable fulcrum, and a counterpoise, V, elevates the rod R when the foot is removed from the treadle of the lever S.

The levers K may be weighted to cause them to recede after being operated, or springs L may be employed for that purpose.

The bed-plate *z* is adjustable upon the table N to locate the franking-chisels at the proper point, and the stirrup *h* and fulcrum T are correspondingly adjustable along the supporting-bars of the frame, and they may be severally secured at the desired points by means of set-screws, as shown in Fig. 1, or equivalent convenient means.

It is evident, also, that the above-described franking device may be duplicated upon the table N and arranged to be operated by a single treadle, S.

When the stile has been placed upon the table N and has been operated upon by the tenoning-saws or other devices, the table N is pushed continually forward until the hook R has entered the stirrup G, when the chisels P may be operated as described.

The treadle S may be connected continually with the stirrup G by means of flexible connection, a slotted rod, or other similar arrangement; but the operation would be less satisfactory, and I therefore prefer the method shown.

Having described my invention, what I claim as new is—

1. The chisel-carrying plungers O O and levers K K, attached to an adjustable bed-plate, *z*, in combination with an operative treadle, S, for the purpose set forth.

2. The levers K K, attached to the moving table N, and provided with the stirrup G, in combination with the laterally-adjustable draw-rod R and treadle S, for the purpose set forth.

3. In combination with the dovetailing-machine, as described, the adjustable frank-

ing-chisels P P and their operating mechanism, substantially as herein shown and described.

FRANK G. CHAPMAN.

Witnesses:

JAS. ISON PIMM,

JOHN A. SILENCE.