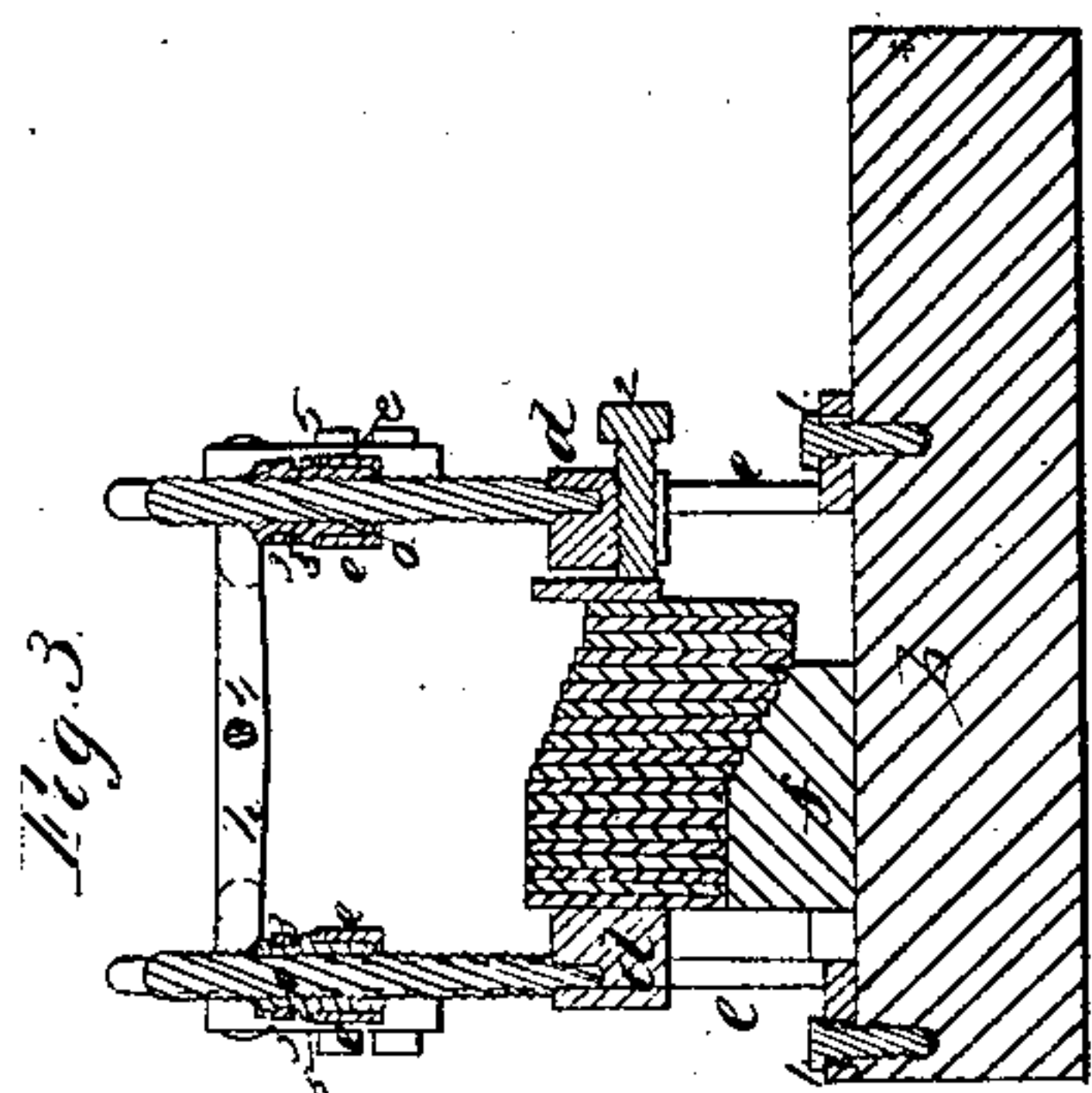
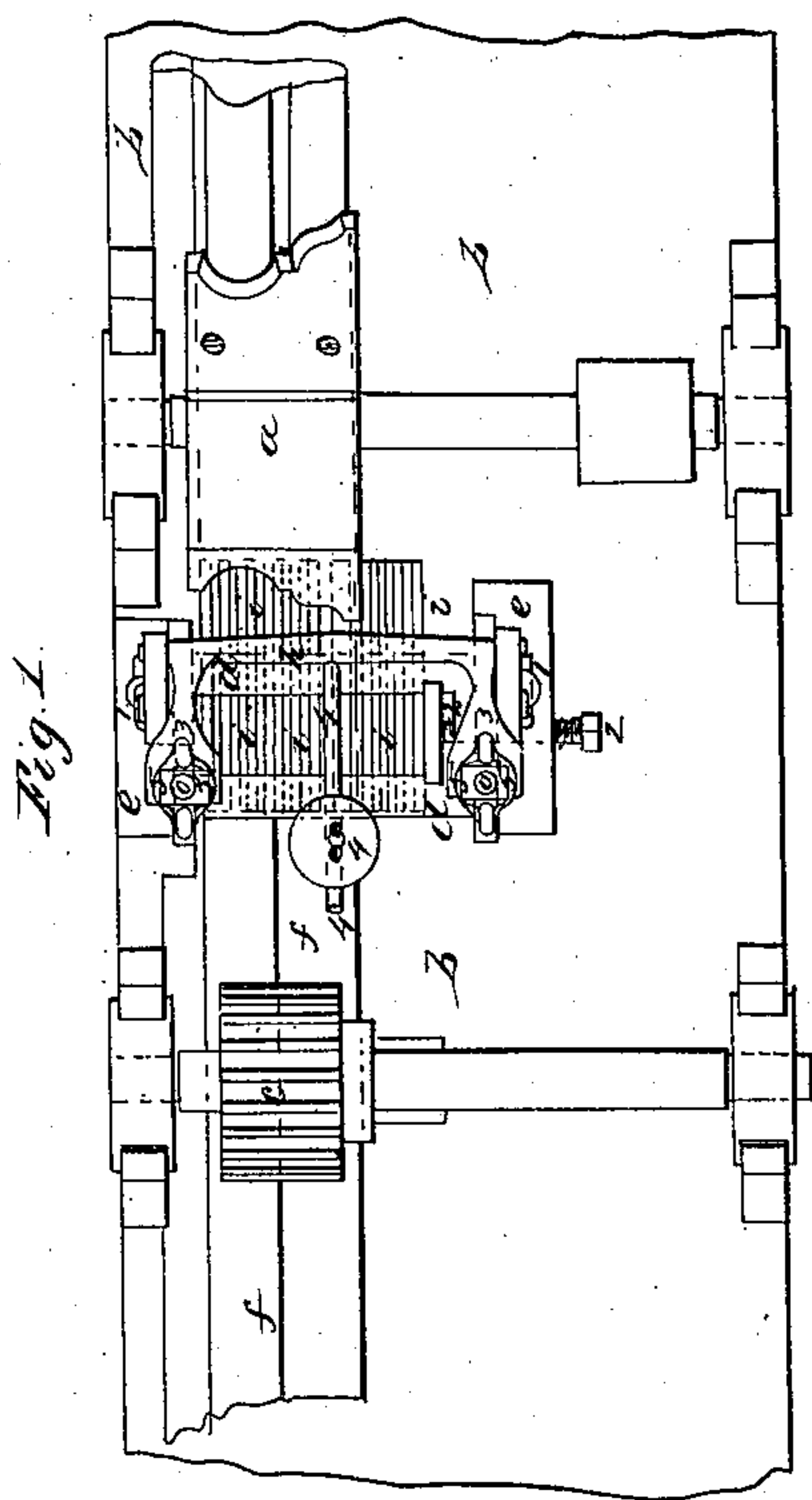
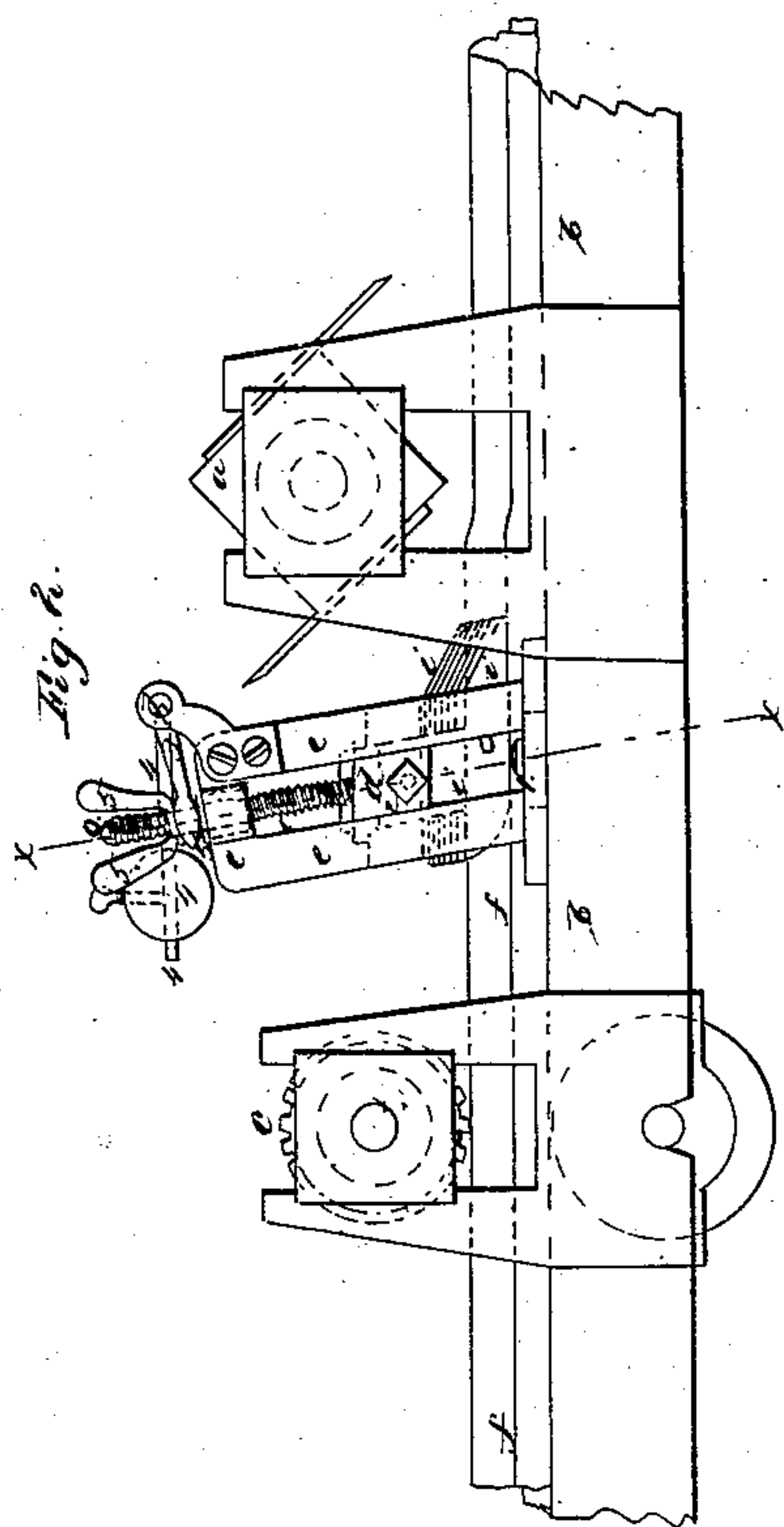


*J. Lawrence,
Wood Molding Machine.*

N^o 39,996.

Patented Sep. 15, 1863.



Witnesses.

Lemuel W. Powell

Geo. Harold

Inventor.

John Lawrence

UNITED STATES PATENT OFFICE.

JOHN LAWRENCE, OF EAST MORRISANIA, ASSIGNOR TO ALFRED T. SERRELL, OF NEW YORK, N. Y.

IMPROVEMENT IN PRESSURE-BLOCKS FOR PLANING-MACHINES.

Specification forming part of Letters Patent No. **39,996**, dated September 15, 1863; antedated December 14, 1862.

To all whom it may concern:

Be it known that I, JOHN LAWRENCE, of East Morrisania, in the county of Westchester and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Pressure-Blocks for Planing-Machines; and I do hereby declare that the following is a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a plan of my said improvement. Fig. 2 is a side elevation of the same, and Fig. 3 is a cross-section at the line *x x*.

Similar marks of reference denote the same parts in all the figures.

In planing moldings of any character the cutters pass into the wood deeper at some places than at others, and at such points especially the lifting operation of the cutters tends to splinter the wood, particularly when the stuff is not straight-grained. The wood usually employed is sawed in an angular form for making moldings; hence a straight roller would not come in contact with the entire surface; besides which, the point of contact of said roller with the stuff being some little distance from the rotary cutter does not prevent the splintering as aforesaid. It is necessary, therefore, to hold the stuff down as close up to the cutters as possible, particularly in planing thin moldings. To effect this object a block of wood has been employed, but the same had to be varied with every change of pattern in the material being operated on; besides this, said wood pressure-block is not durable or fully operative in preventing the material splintering.

The nature of my said invention consists in the employment of a sectional pressure-block that can be set to correspond with any form of material to be operated on by loosening a screw or clamp to allow said sections to conform themselves to the shape of the stuff, and when again clamped said pressure-block performs the duty required of keeping the material down to the bed of the machine and preventing splintering.

In the drawings, *a* is the rotary cutter, fitted with the shape of cutter required and driven by competent power.

b is the bed of the machine, and *c* is a feed-roller that causes the material to progress regularly through the machine.

e e are slides, which should be inclined, as shown, and they can be adjusted nearer to or farther from the rotary cutter by the screws *1 1*, passing through slots in the bottom flange of the said slides *e*.

d is a frame fitted to slide in *e*, and carrying a series of pressure-plates, *i*, forming a sectional pressure-block, and said plates are confined in the frame *d* by means of a screw, *2*, so that the lower surface of this pressure-block, formed by the edges of the plates *i*, can be made to correspond with the shape of the material being planed, for the purposes aforesaid. In order to keep this sectional pressure-block down to the strip of material *f*, I make use of the rock-shaft *h*, arms *3 3*, and weighted lever *4*. The arms *3 3* are forked at their ends, taking grooves in nuts *5 5* on the screws *o o*, that are attached to the ends of the frame *h*. These nuts *5 5* pass into openings in the upper ends of the slides *e e*, and are each provided with a collar taking the upper end of said slides *e e*. By adjusting these nuts *5 5* the downward movement of the sectional pressure-block is adjusted and the weight *4* prevented from driving the said pressure-block too far down, in case the strip *f* is drawn away from beneath, thereby always leaving the space required for the introduction of another strip of material.

The advantages resulting from the use of my sectional pressure-block in preventing splintering by the action of the rotary cutter in planing moldings will be apparent from the foregoing.

The aforesaid sectional pressure-block may be kept down by springs, levers, or other suitable mechanism.

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

1. The sectional pressure-block, constructed, substantially as specified, to hold the material against the action of the rotary cutter, for the purposes set forth.

2. The arrangement of the shaft *h*, arm *3*, nuts *5*, and screws *o*, to give the required pressure and control the motion of the pressure-block, as set forth.

In witness whereof I have hereunto set my signature this 10th day of April, 1861.

JOHN LAWRENCE.

Witnesses:

LEMUEL W. SERRELL,
THOS. GEO. HAROLD.