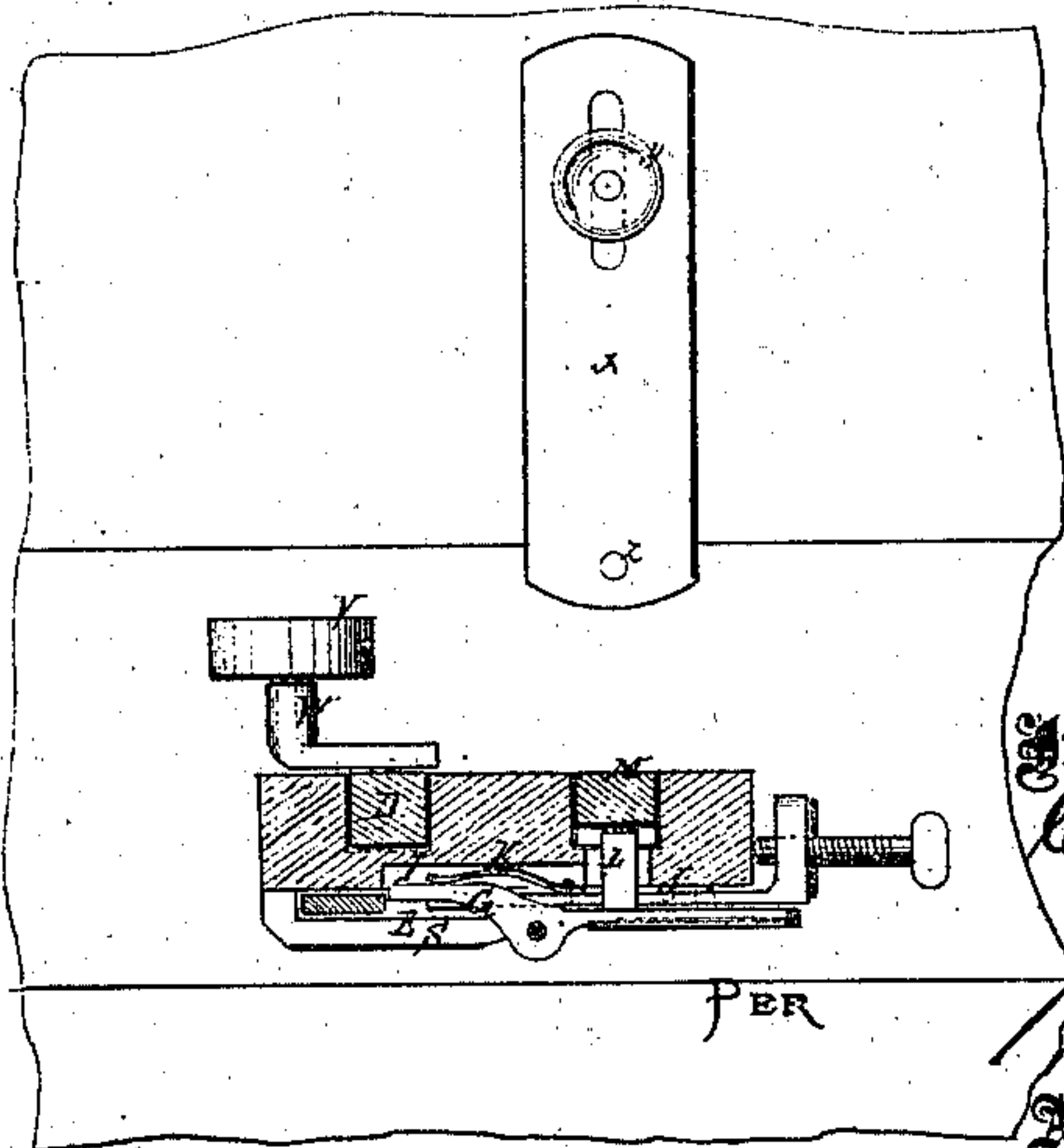
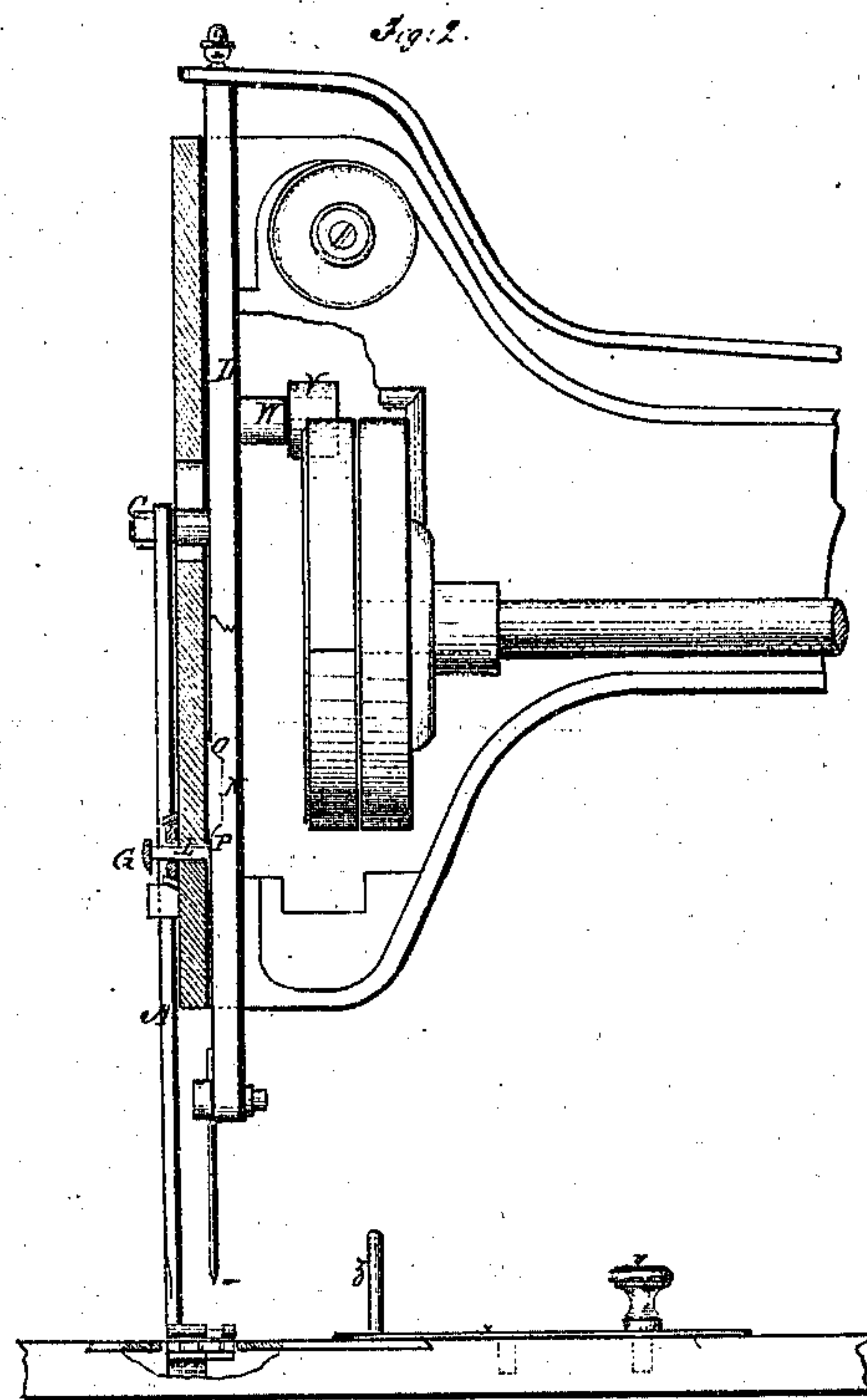
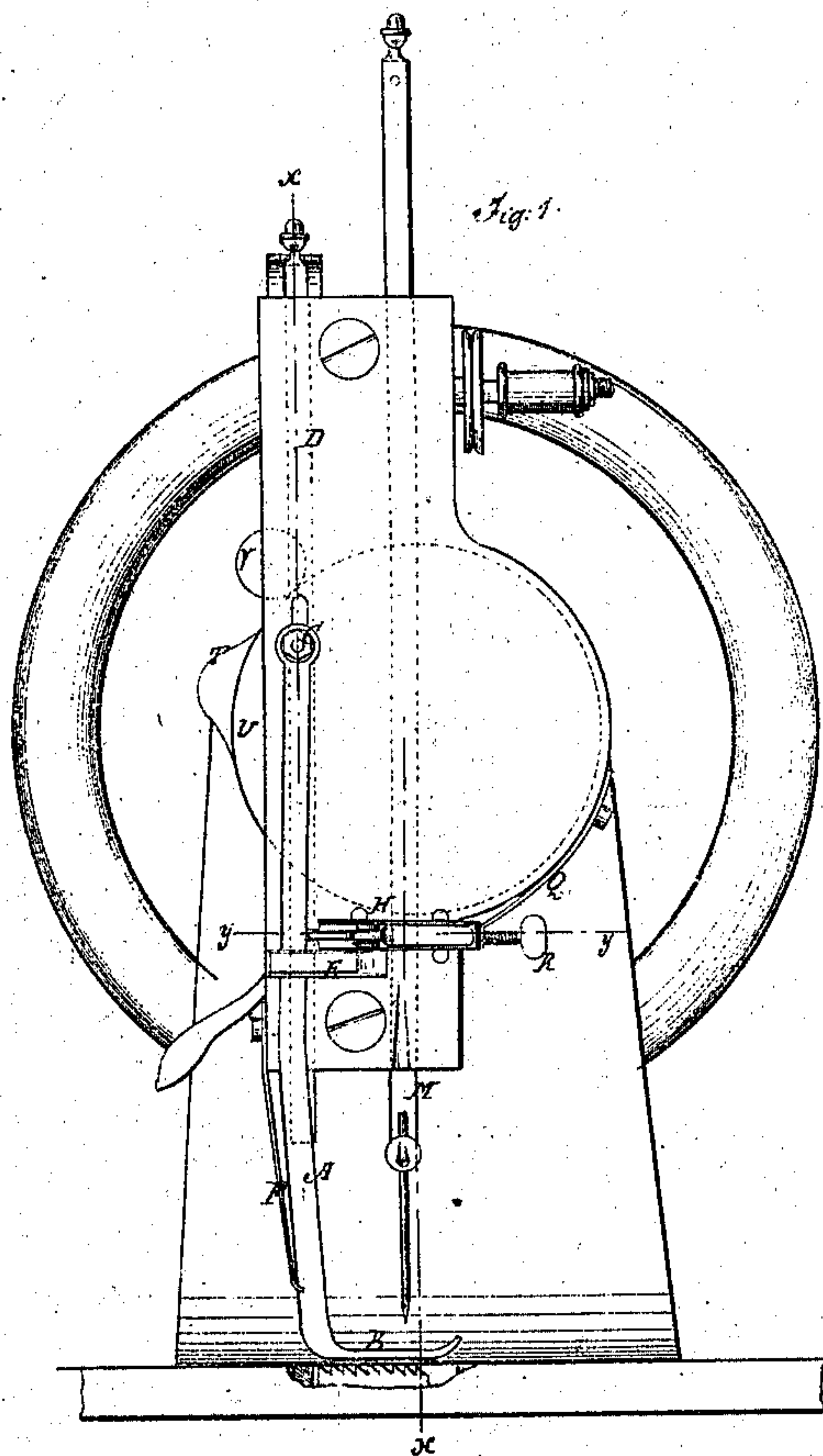


C. W. Goddard,
Sewing Machine.
No. 107,677. *Patented Sept. 27, 1870.*



Witnesses:
Chas. Nicks
J. S. Mabee

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UNITED STATES PATENT OFFICE.

CHARLES W. GODOWN, OF LAMBERTVILLE, NEW JERSEY.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **107,677**, dated September 27, 1870.

To all whom it may concern:

Be it known that I, CHARLES W. GODOWN, of Lambertville, in the county of Hunterdon and State of New Jersey, have invented a new and Improved Sewing-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.

My invention relates to sewing-machines, and has for its object to introduce to the public certain improvements thereon, which will be first described in connection with all that is necessary to a full understanding thereof, and then clearly specified in the claims.

Figure 1 is an end elevation of the presser-foot and needle-bar support of a sewing-machine. Fig. 2 is a section of the same through the line *x x*, and Fig. 3 is a section on the line *y y*.

Similar letters of reference indicate corresponding parts.

The bar A of the presser-foot B is pivoted at O to the vertically-sliding bar D. It is arranged in a slot between the feed-plate and a guide-plate, E, which is arranged so that it may move in one direction with the feed-plate and be returned by the spring F.

G is a holding and tripping lever for holding the foot-bar back until it has raised high enough to clear the cloth, and for tripping it to let it go forward. It is pivoted to a sliding plate, J, at H, in front of a recess, I, in the front plate, in which the end acting against the bar swings to trip and let the said bar move forward.

K is a spring, placed in the recess behind the lever, to throw it out to catch and hold the bar.

The lever G is provided with a stud, L, at the other side of the pivot, projecting through the front plate and bearing against the side of the needle-bar M. The latter is provided with a long notch, N, with curved or cam-shaped walls O P at the ends, into which the stud falls when the spring throws the end of the lever G out in front of the bar A at the time the latter arrives at the end of the backward movement imparted to it by the feed-plate, or previous to the rising of the said bar. The upper end wall, O, of this notch comes

down against the stud L at the time it is required to release the arm A to let the foot move forward, and pushes the end of the lever to which the stud is attached out and forces the other end in, thereby tripping the bar and allowing the spring to throw it forward. The wall O of the notch is designed to be in such relation to the stud L that the bar A will be tripped soon after the needle enters the cloth.

The plate J, to which the trip-lever is pivoted, is arranged in guides on the front plate of the machine to move to and from the bar A, and is moved toward it by a spring, Q, and from it by the temper-screw R. The end S of this plate next the bar A arrests the forward movement of the latter. By adjusting this plate forward and back by the spring Q and screw R the end of the lever G is adjusted to agree with the position of the bar A, which varies with the variations of the feed, so that, whether the feed be for long or short stitches, the presser will be caused to rise vertically from the cloth.

It is obvious that this apparatus for holding and tripping the bar A may be applied to any sewing-machine in which the presser is provided with means for raising it off the feed-shoe and the presser-bar is arranged to vibrate.

In order to raise the presser to admit of this vibration, I have in this machine applied a cam, T, to the disk N, and attached a friction-roller, V, to a stud, W, on the bar D, so arranged relatively to the stud that the cam will strike the wheel V at the proper time and raise the bar in a simple and easy manner.

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

1. The combination, with the presser-foot bar A, arranged to swing back and forth, and the notched needle-bar, of the holding and tripping lever and the spring K, the said tripping-lever being provided with a stud, L, substantially as specified.

2. The arrangement, with the presser-bar, of the holding and tripping lever G, pivoted on adjustable plate J, as and for the purpose described.

CHARLES W. GODOWN.

Witnesses:

GEO. W. MABEE,
L. S. MABEE.