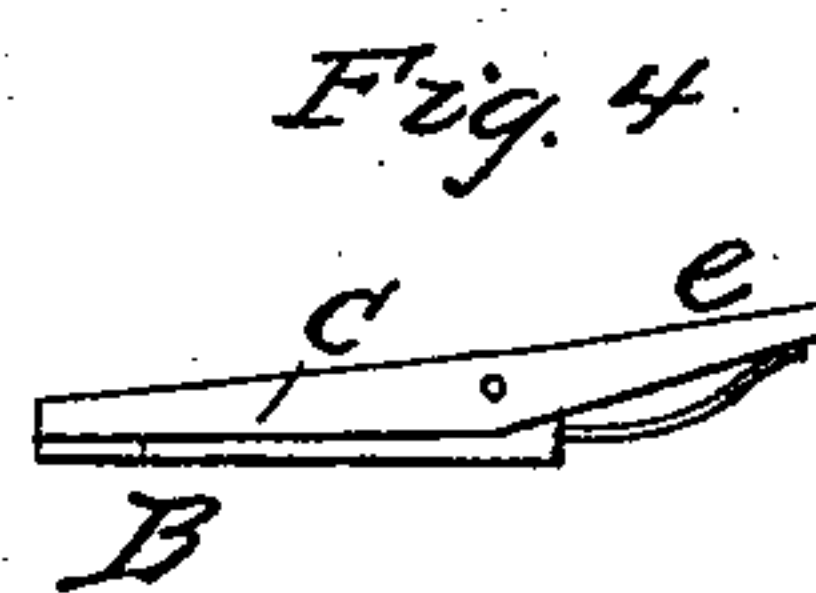
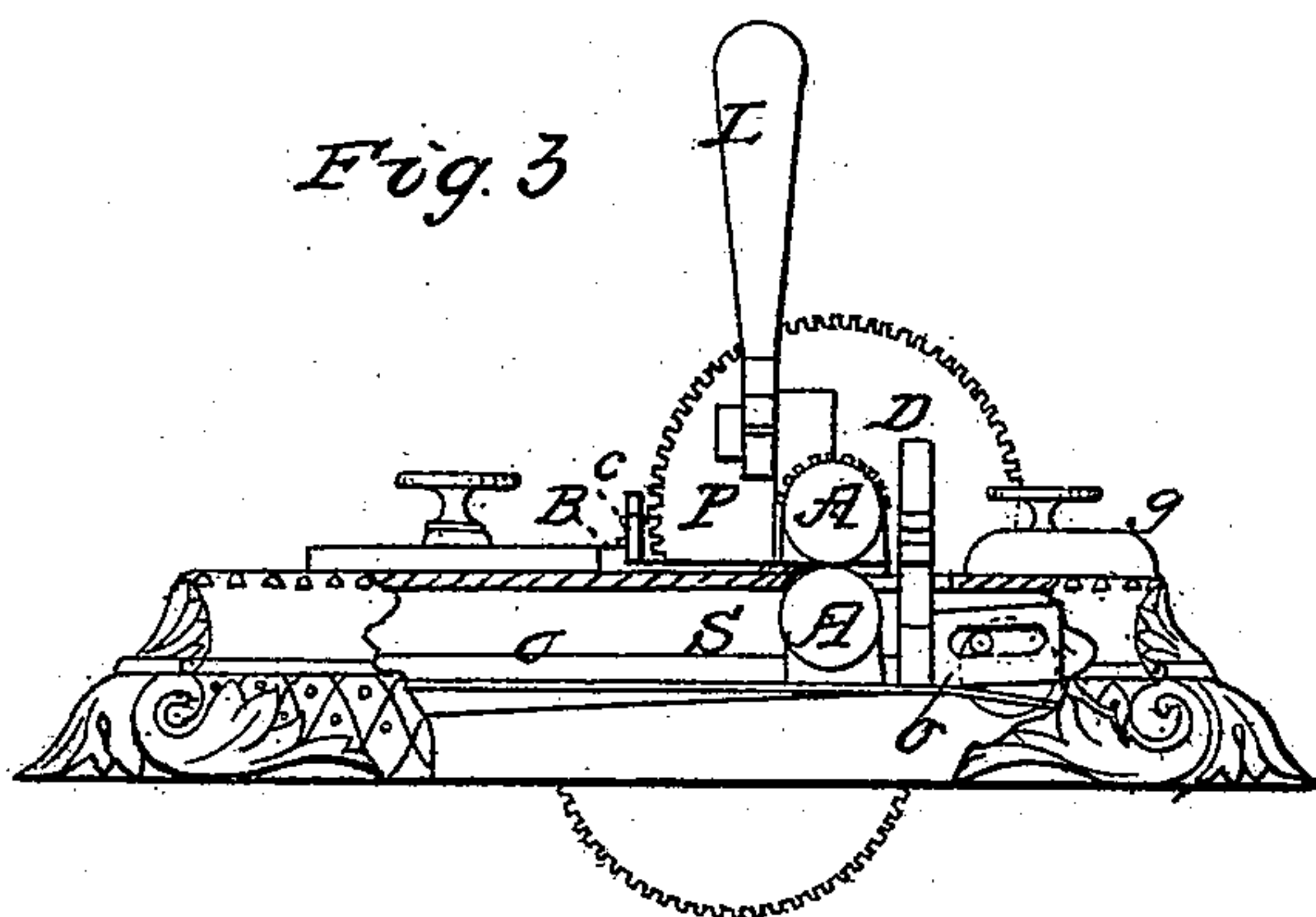
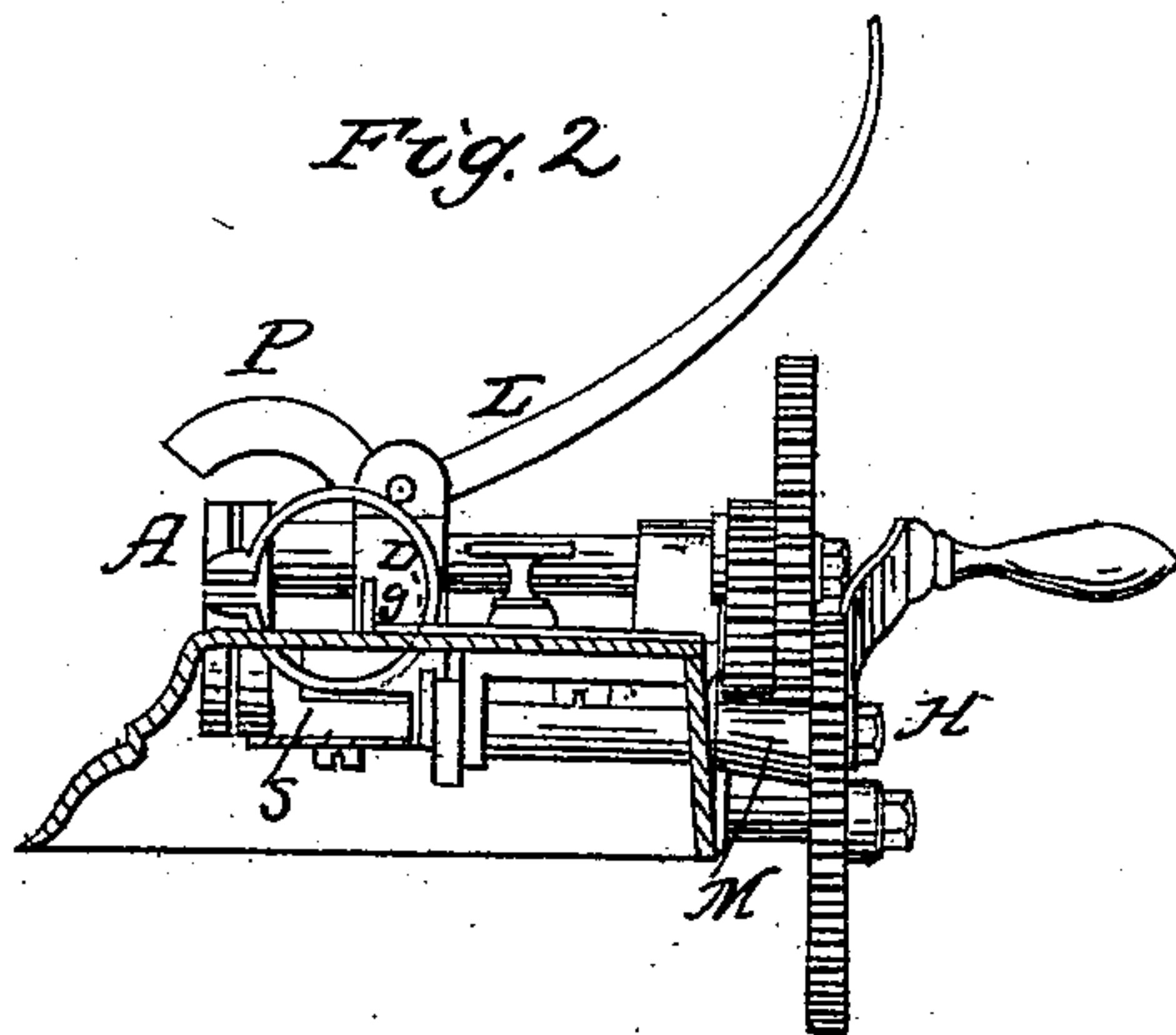
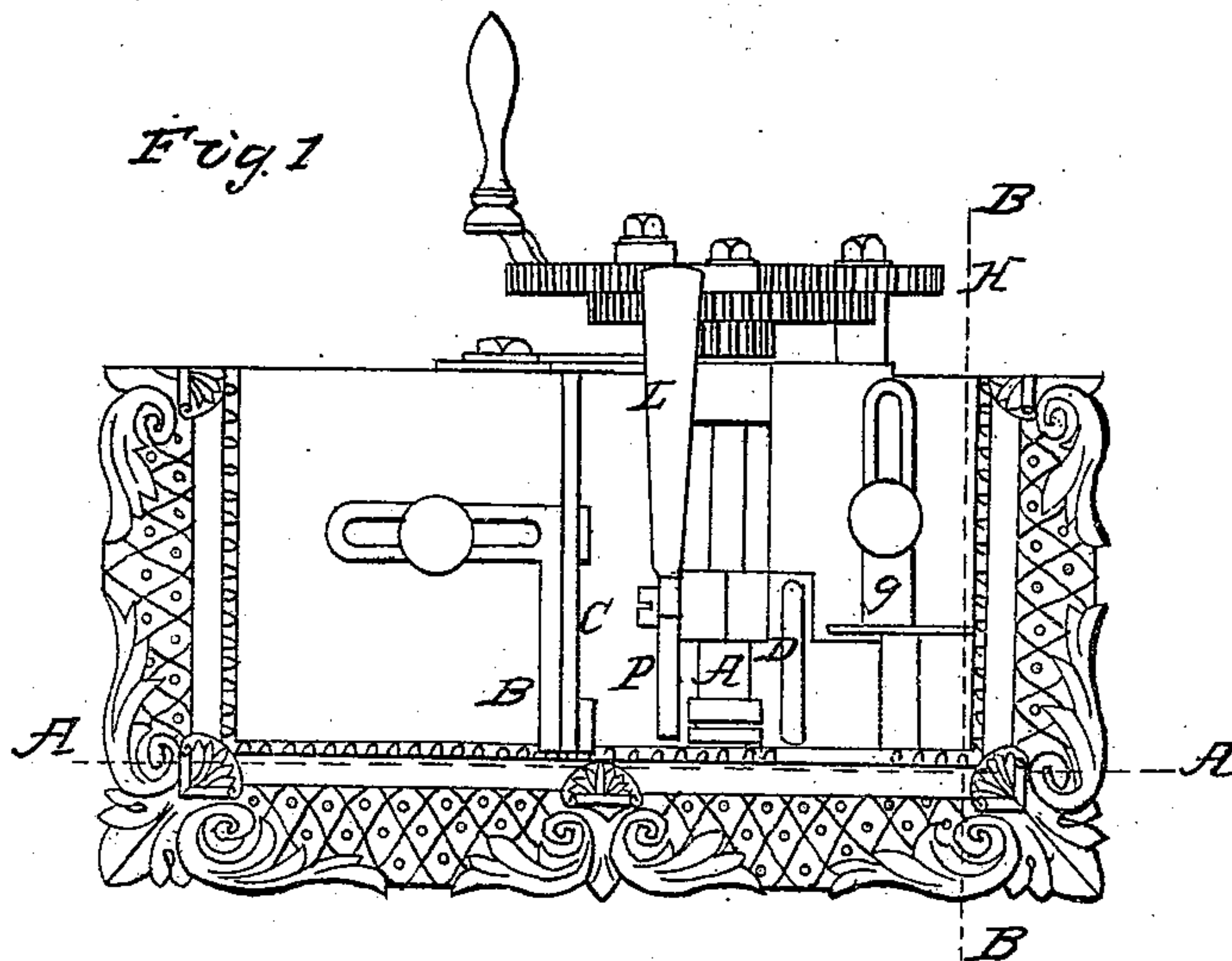


J. D. DALE.
Sewing Machine.

No. 38,658.

Patented May 26, 1863.



Witnesses
John Rinn
Edw. Linn.

Inventor
John D. Dale.

UNITED STATES PATENT OFFICE.

J. D. DALE, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 38,658, dated May 26, 1863.

To all whom it may concern:

Be it known that I, J. D. DALE, of the city of Rochester, county of Monroe, and State of New York, have made and invented a certain new and Improved Machine for Sewing by what is called the "running stitch;" and I do hereby declare the following to be a full and accurate description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, the same letters referring to like parts in all the figures.

Of said drawings, Figure 1 is a plan of my improved machine. Fig. 2 is a cross-section on red line B B, (red,) Fig. 1. Fig. 3 is a longitudinal section on red line A A, (red,) Fig. 1. Fig. 4 is a figure of the spring-clip which holds the end of the needle steady.

The nature of my invention will be best understood from a description of the construction and mode of operation of the machine.

In the drawings, Fig. 1, A A are two rollers, held in close contact by means of the springs, Figs. 2 and 3, and between which the fabric to be sewed passes, the evenness or straightness of the seam being secured by means of the gage-plate *g*, Fig. 1. Between the rollers A A, and in the small groove (seen passing around them in Fig. 1,) is placed a common sewing-needle, whose point lies toward the right hand, (referring to Fig. 1,) while the eye end rests against the adjustable block B, being prevented from slipping therefrom by means of the spring-clip *c*, Fig. 4, which presses it down. In front of the point of the needle is placed the cloth-guide D, which is moved vertically by a reciprocating motion, so as alternately to raise the cloth above and depress it below the point of the needle. The rollers at the same time drawing the cloth steadily through between them, the needle is forced to penetrate the fabric from alternate sides, and thus produce the same result that is effected by the hands of a skillful needle-woman when operating by her fingers what is called the "running stitch."

It will be seen that by this process as much cloth as the needle will hold is in a short time worked onto it. When this takes place the point P of the lever L, Fig. 2, is depressed so

as firmly to grasp the needle, while at the same time, and by another finger of the same hand, the end *e* of the spring-clip is depressed, the needle kept free, and the other hand is at liberty to draw the cloth from behind the point where the needle is grasped by the lever L. This being done the needle is ready for a repetition of the filling process.

In similar machines it has been attempted to hold the needle by means of the rollers; but in this case the groove becomes so worn in a very short time as to hold none but the very largest-sized needles, while no other plan with which I am acquainted effects the desired end by means of so few movements.

In order to regulate and vary the length of the stitches and the consequent fineness and coarseness of the work, it is necessary that the gearing which drives the rollers and the cloth-guide should be so adjusted that while the cloth is passing between the rollers the length of a stitch the guide should make a complete elevation and depression. This, of course, is easily accomplished, as the cloth-guide is attached to the lever O, which is raised and depressed by means of the crank-pin on the end of the same shaft which carries the pinion H.

By fitting pinions of different sizes to the shaft M (which is easily accomplished by well-known mechanical arrangements) different lengths of stitch may be made—an object of some importance, and which it is impossible to secure only by having the feeding and stitching parts of the machine running at different speeds.

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

The arrangement of the lever L and spring-clip *c* in relation to the other parts of the machine, substantially in the manner described, whereby the needle is held and the cloth released by a simple motion of one hand, the other hand being left at liberty to draw off the cloth from the needle.

JOHN D. DALE.

Witnesses:

JOHN PHIN,
EDWD. LINE.