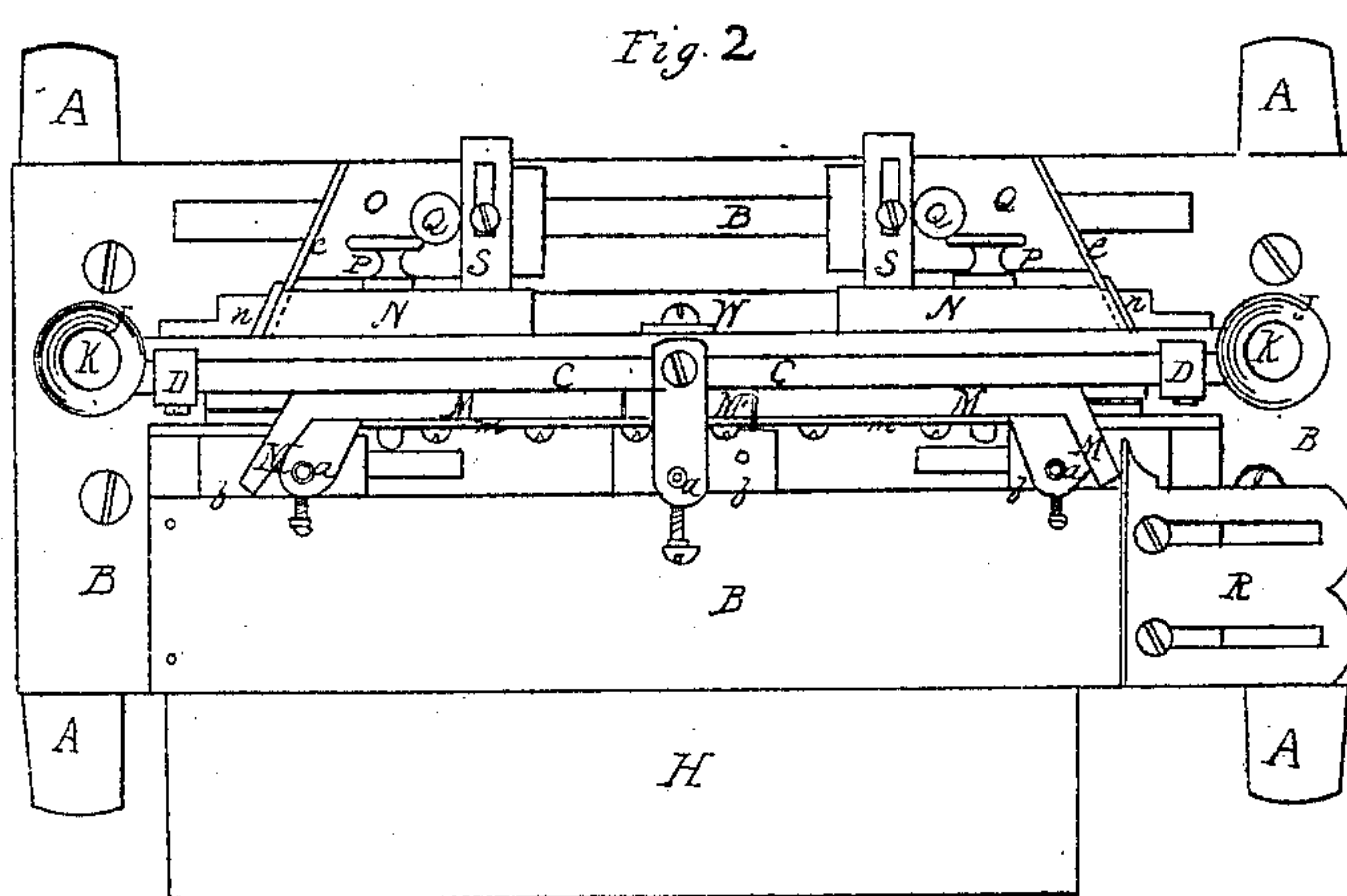
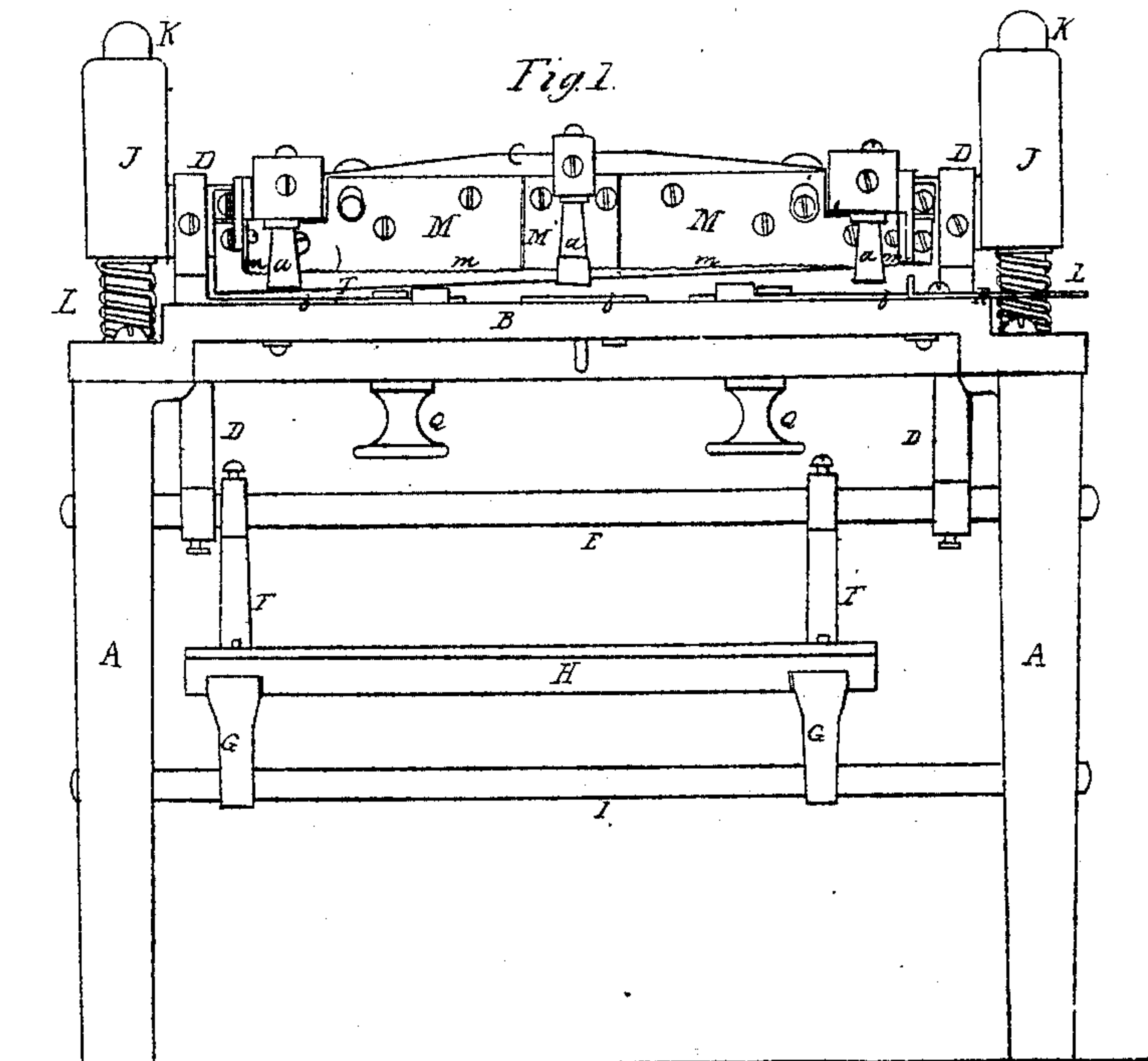


J. W. Griswold & J. Sigwalt Jr
Collar Mach

N^o 58,812.

Patented Oct. 16. 1866.



Witnesses:

W. C. Mang
J. M. Herrick.

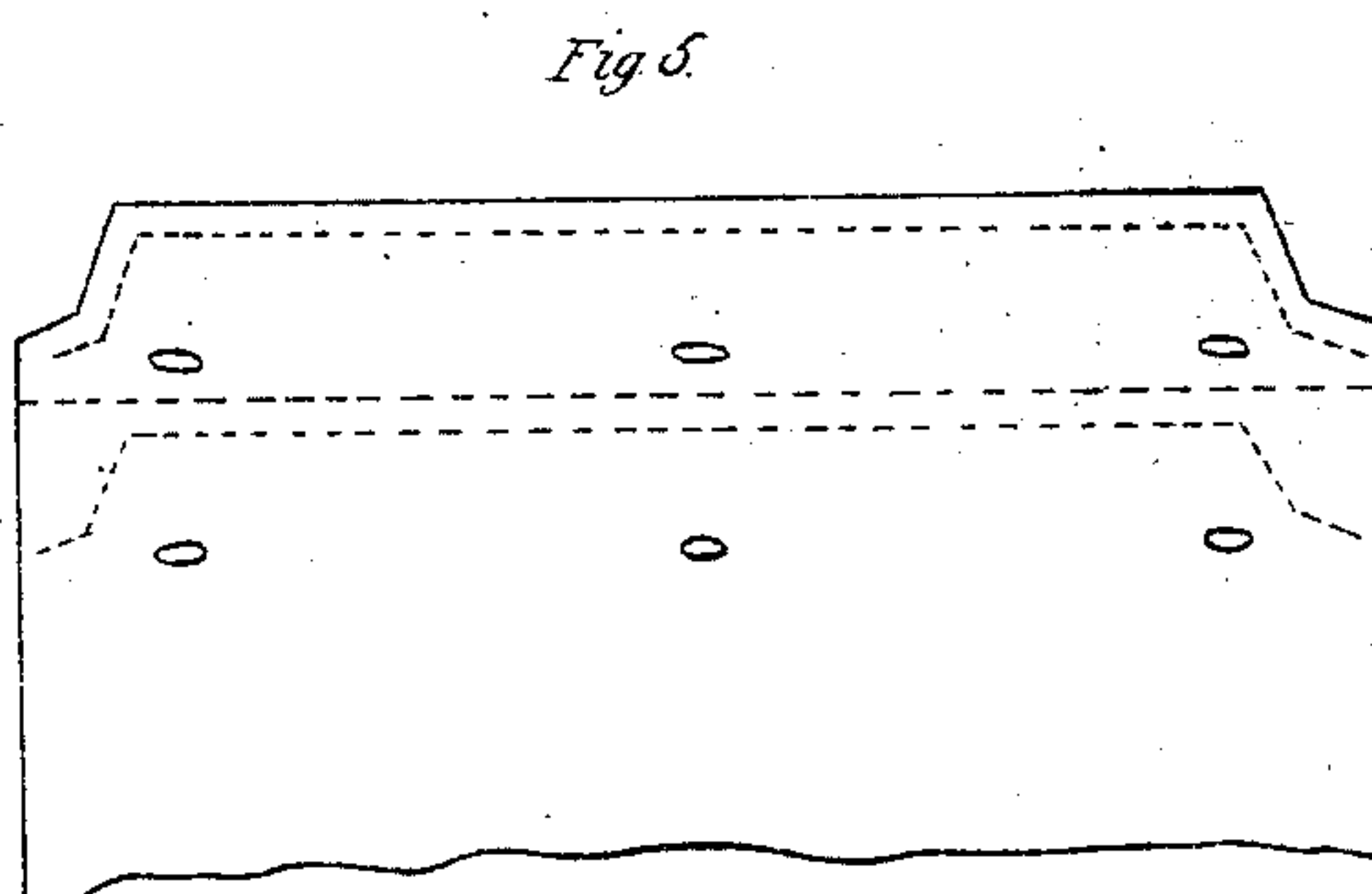
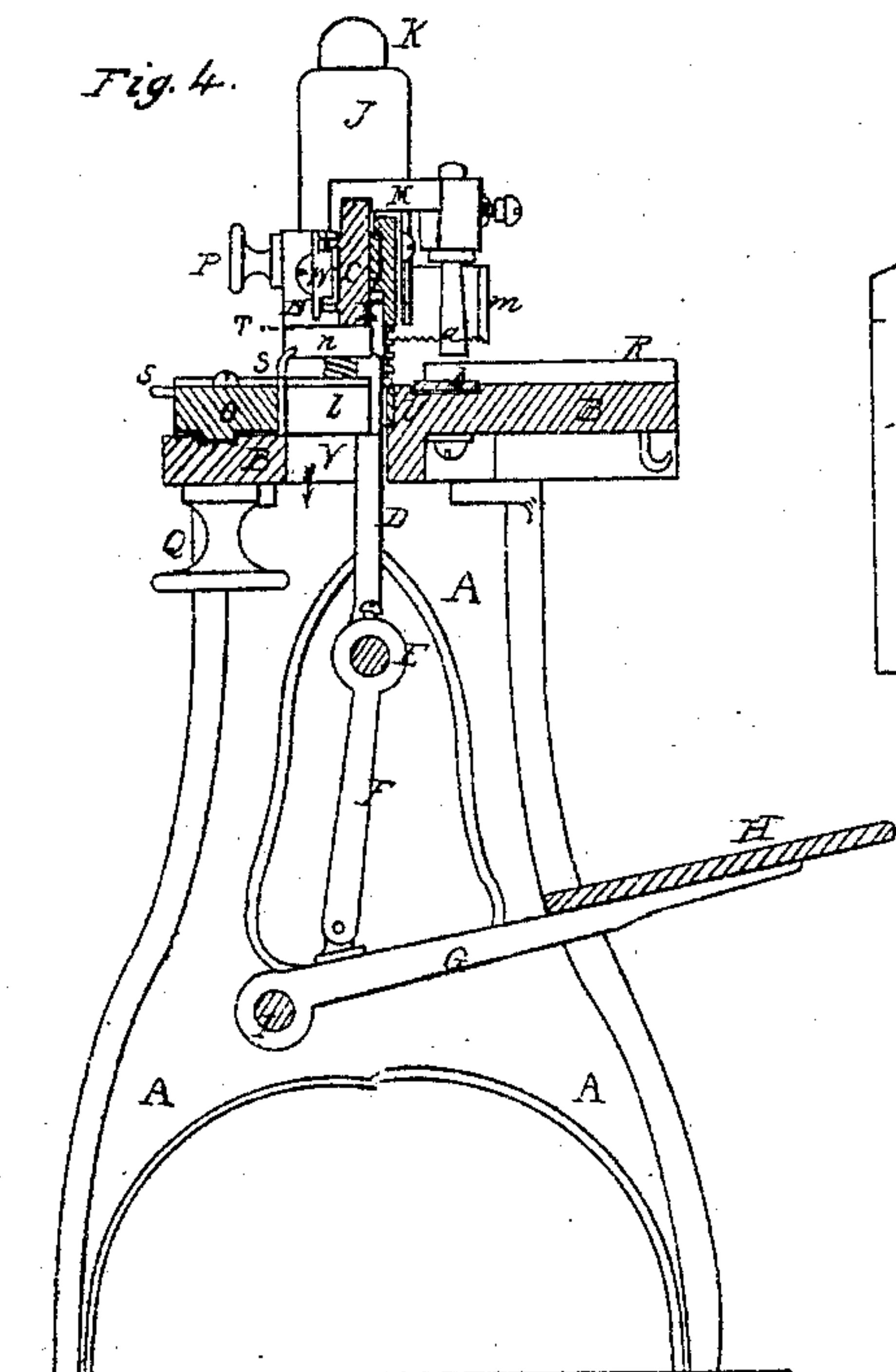
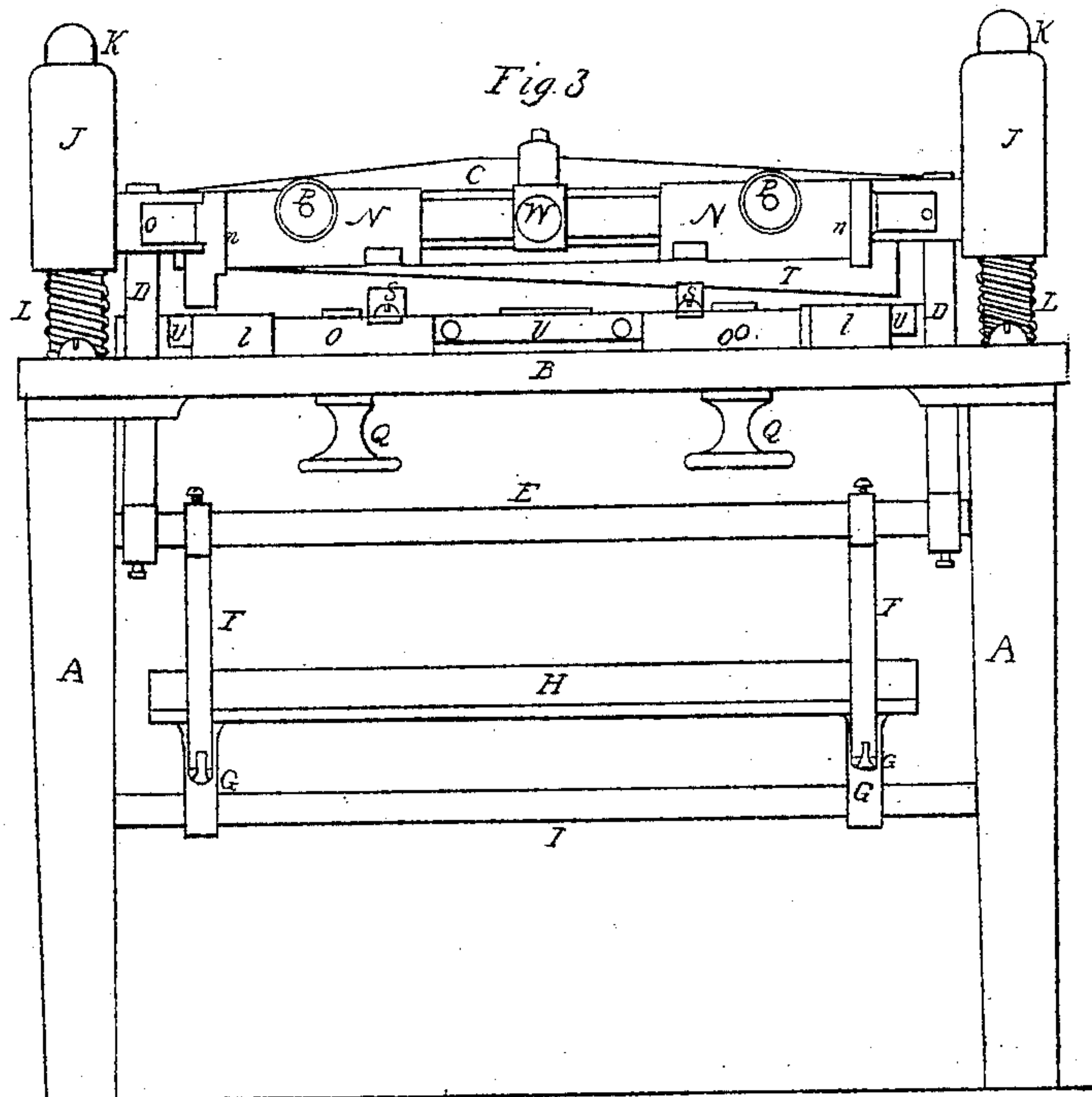
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UNITED STATES PATENT OFFICE.

JOSEPH W. GRISWOLD AND JOHN SIGWALT, JR., OF CHICAGO, ILLINOIS.

IMPROVEMENT IN MACHINES FOR MAKING PAPER COLLARS.

Specification forming part of Letters Patent No. 58,812, dated October 16, 1866.

To all whom it may concern:

Be it known that we, JOSEPH W. GRISWOLD and JOHN SIGWALT, Jr., of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Machines for Making Paper Collars; and we do hereby declare and make known that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form part of this specification.

Our said invention consists in a novel machine for manufacturing paper collars, comprising all the necessary devices, so that a complete collar is produced at one and each stroke or operation of the machine, as hereinafter described, while the collars are delivered or discharged from the machine, and dropped or deposited in a suitable receptacle therefor automatically, thus dispensing with the services of an attendant for that purpose, which would otherwise be necessary.

Our invention further consists in so constructing our said machine that it may readily be adjusted so as to manufacture collars of different sizes or widths, as may be desired, thus enabling a single machine to produce collars of all required sizes.

To enable those skilled in the art to understand how to construct and use our said invention, we will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawings, in which—

Figure 1 represents a front elevation of our invention. Fig. 2 is a plan or top view of the same. Fig. 3 represents a rear elevation thereof. Fig. 4 is a transverse vertical section at the line *x* in Fig. 2, and Fig. 5 represents the manner in which the collars are struck off from the paper by the machine.

Similar letters of reference in the different figures represent the same parts of our invention.

A represents a suitable upright frame or support, upon which is arranged a suitable top or bed plate, B, as shown. C represents a vertically-reciprocating gate, to which are secured, as hereinafter described, the operating dies and cutters of the machine.

The ends of said gate are attached to sleeves

J, sliding upon cylindrical supports K, being sustained by springs L, as shown.

To said gate are attached the vertical hangers, (marked D,) connected by a cross-bar, E, upon which are arranged the jointed arms F, whose lower ends are secured to the levers G, fulcrumed upon I, while H, upon the ends of said arms G, constitutes a foot-rest, so that by pressing down upon said treadle H the dies and cutters attached to the gate C, as aforesaid, are brought down upon the bed-plate B, while by releasing said pressure the springs L throw the same back into place.

Upon the front face of said gate C is attached a form, M, of the proper configuration, to which is secured a thin metallic sheet, (marked *m*,) whose lower edge is cut in fine points, and projects slightly below the lower edge of its form M, for the purpose of impressing upon the collar an imitation of the usual stitching around the edge thereof.

The said stitching-plate form M and the stitching-plate upon the same is constructed in three parts, that part marked M¹ at the center being removable, and the two end parts being adjustable, so that by inserting center pieces of different lengths, and adjusting the ends in conformity thereto, the said stitching-plate may be adapted to collars of different sizes, as may be required.

At each end of the stitching-plate form, there are suitable die-holders, in which are secured the button-hole punches, (marked *a*,) the central punch having its holder permanently attached to the gate C, as shown. Beneath each of said punches *a* there are arranged, in a suitable groove in the bed-plate B, adjustable beds or female dies, (marked *b*,) to receive the punches *a*, above described.

Upon the rear face of the gate C are attached the adjustable blocks N, provided at their outer ends with end clips or cutters *n*, for shaping the ends of the collars, as desired.

O represent two corresponding adjustable blocks, moving in a suitable groove in the bed-plate B, to the outer ends of which are fixed the lower and stationary jaws *l*, in connection with which the clips *n* operate to shape the ends of the collars, as aforesaid.

The said blocks O O are adjusted, as de-

sired, by means of the set-screws Q, which pass through suitable longitudinal slots in the bed-plate for that purpose, and the adjustable parts of the stitching-plate and the blocks N are adjusted, in like manner, by means of set-screws P passing through like slots in the gate C.

S S represent movable gages upon the blocks O, for the purpose of regulating the width of the collars, there being an opening through the bed-plate, (marked V,) through which the collars drop when completed.

R represents an adjustable guide, which is adjusted to correspond with the other adjustments of the machine, against which one edge of the paper rests and is guided in passing it into the machine.

Upon the front lip of the slot through the bed-plate, through which the collars drop, is fixed a stationary cutter, (marked U,) while upon the front of the gate C is fixed a corresponding inclined cutter or shears, (marked T,) which operates with U to cut the collars off, as hereinafter described.

Having described the nature and construction of our machine, we will now describe its operation. The various operating parts having been adjusted in the proper manner to adapt the machine to collars of the required size, as aforesaid, and the sheets of paper having been cut into strips whose width equals the required length of the collars, the said strips, one at a time, are moved forward or fed into the machine. The first end of the strip is pushed far enough forward so that the aforesaid longitudinal shears may just trim off the edge upon being pressed down upon the same by means of the treadle H.

The same operation impresses the imitation of the stitching, and also punches the button-holes in the collar in the proper manner.

After this first stroke of the machine the paper is pushed forward until the edge strikes against the width-gages S, when the gate C is again brought down, as aforesaid, which operation at once clips off or shapes the ends of the collar and severs it from the paper strip, and at the same time punches the button-holes and impresses the stitching for the next collar, the collar already completed dropping through the aforesaid opening V in the bed-plate, into any suitable basket or receiver.

The next stroke completes another collar and partially forms the succeeding one, as described, the operation being thus continued as long as desired.

To adjust the machine for collars of a different size, the screw W is loosened, and the part M' of the stitching-plate is removed and another, either longer or shorter, is substituted

in its place, the screws P being loosened to allow a corresponding adjustment of the end pieces, M, and the clip-blocks, N, as required.

The blocks O are then adjusted so as to bring the jaws l in the proper position with respect to the end clips, n, and the gages S S adjusted to give the required width to the collars.

The guide R upon the feeding-plate B is then properly adjusted, and the machine is ready for operation, as before.

It will be observed that the adjustable parts of the stitching-plate, the end punches, and end clips, n, are all so connected with each other that they may be adjusted simultaneously and by the same operation.

The machines may be operated by steam or other power, instead of the mode herein indicated.

In practice a strip of leather or other suitable elastic material may be arranged beneath the stitching-plate, upon the bed-plate, to insure a perfect impression thereof upon the collar.

Having described the construction and operation of our invention, we will now specify what we claim and desire to secure by Letters Patent.

1. The combination in one machine of the adjustable stitching-plate M, punches or their equivalents a, and adjustable end clips, l n, arranged and operating substantially as and for the purposes specified.

2. In combination with the above, the employment of the longitudinal shears T U, arranged and operating as and for the purposes set forth.

3. Constructing the stitching-plate M in three parts, one, M', removable, and one or more adjustable, substantially as herein specified, and for the purposes set forth.

4. The combination of the adjustable stitching-plate, button-hole punches, and end clips, arranged and operating as and for the purposes specified.

5. The arrangement of the adjustable-width-gages S S with the shears T U, as and for the purposes set forth.

6. In combination with the adjustable stitching-plate, punches, and end clips, the employment of the adjustable feeding-guide R, as and for the purposes described.

7. Providing the bed-plate B with the longitudinal opening V, arranged as and for the purposes specified and shown.

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Witnesses:

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