

(No Model.)

M. M. BARTHOLOMEW.

TYPE WRITING MACHINE.

No. 335,736.

Patented Feb. 9, 1886.

Fig. 1.

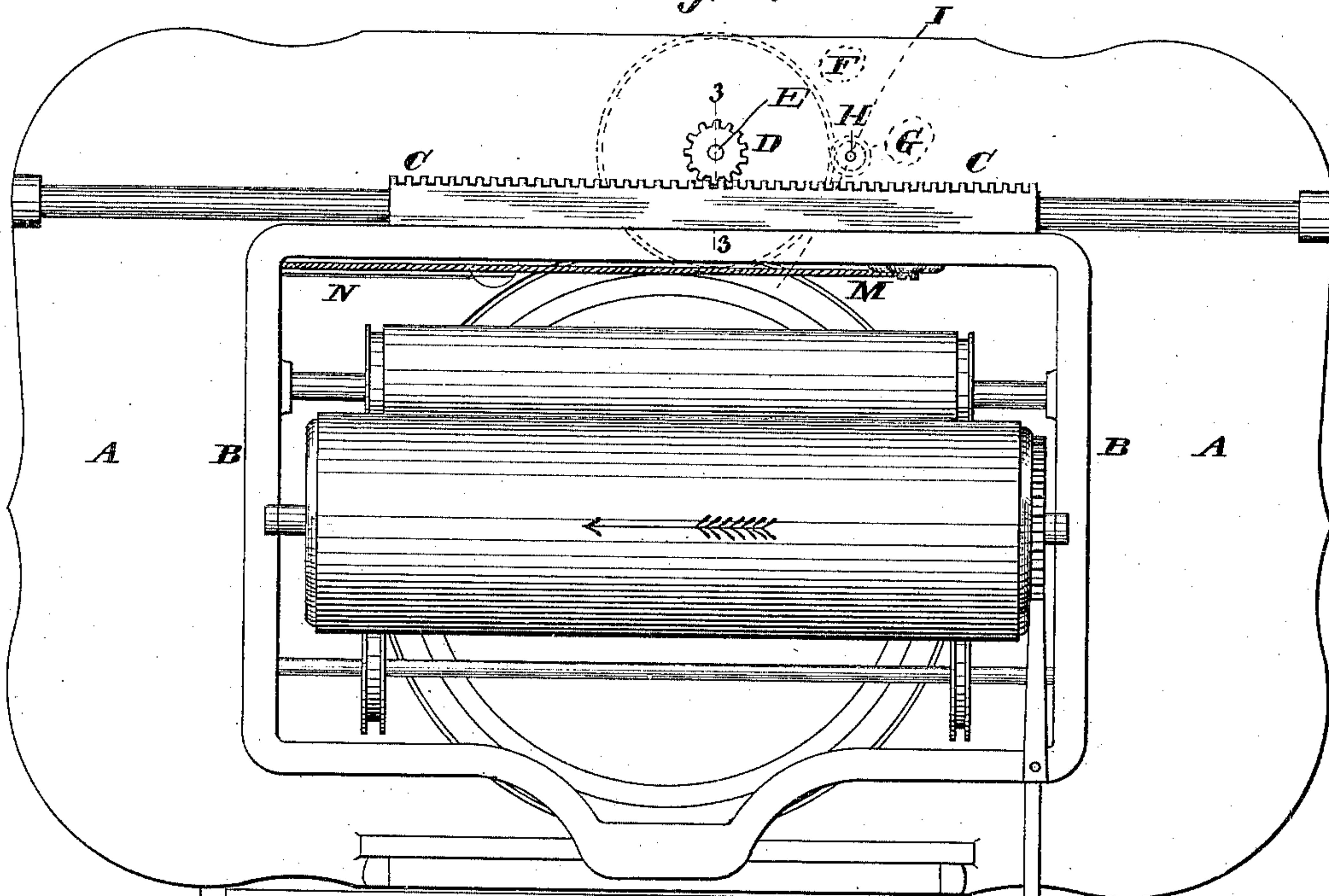


Fig. 4.

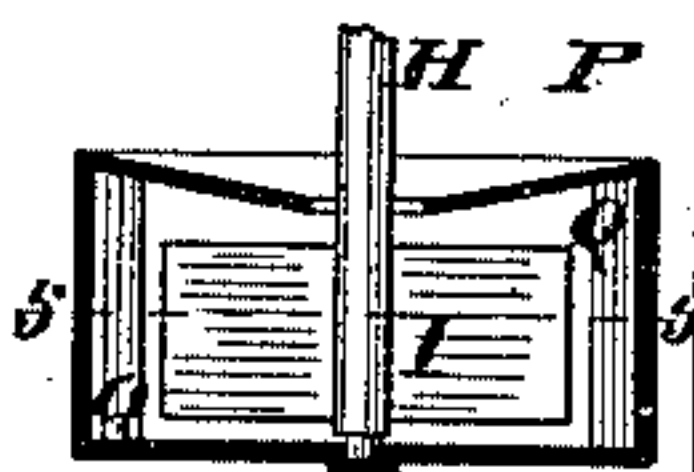


Fig. 5.

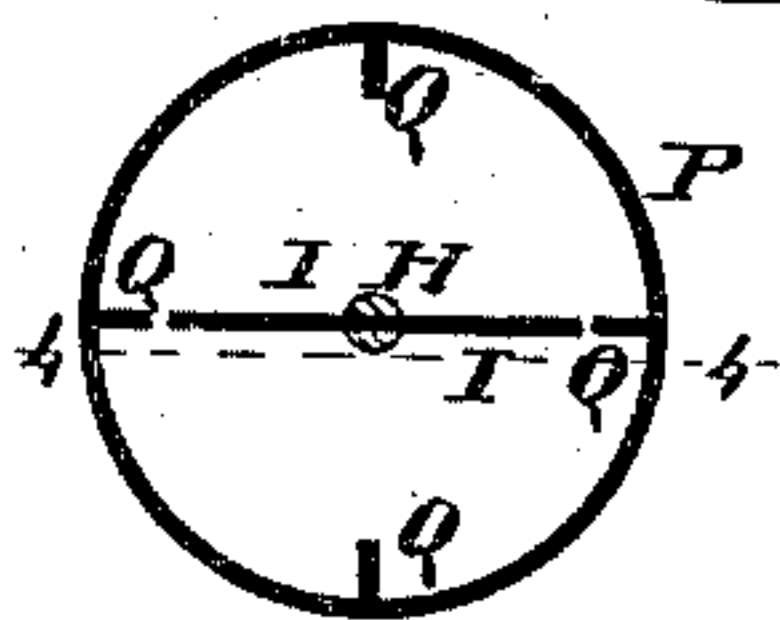


Fig. 3.

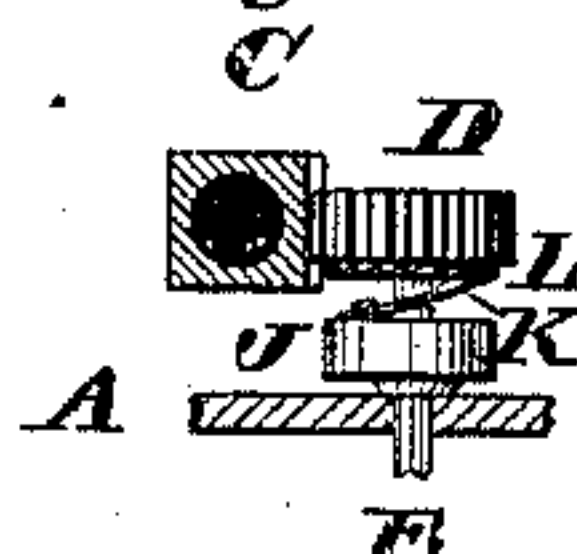
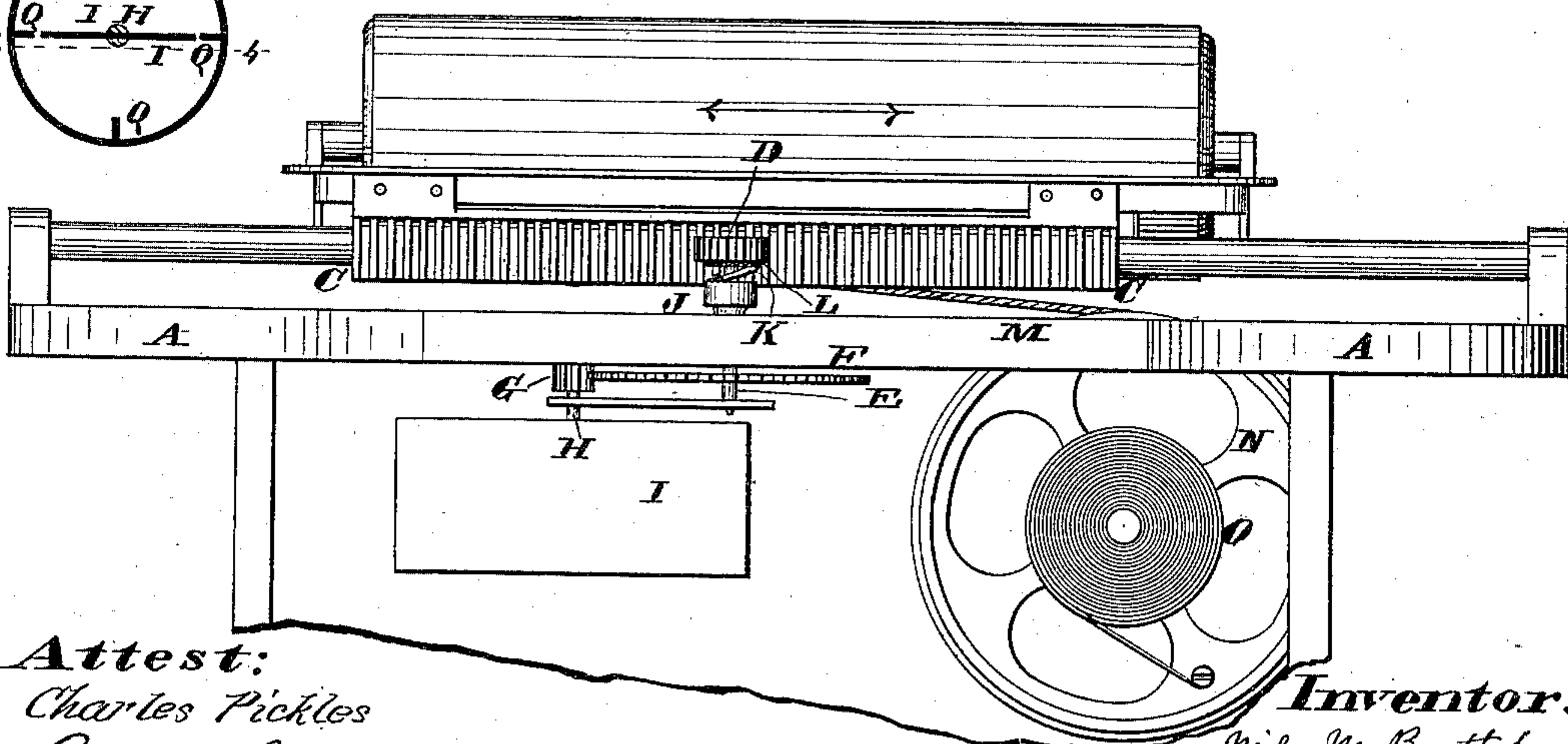


Fig. 2.



Attest:

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UNITED STATES PATENT OFFICE.

MILES M. BARTHOLOMEW, OF BELLEVILLE, ILLINOIS.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 335,736, dated February 9, 1886.

Application filed December 4, 1884. Serial No. 149,437. (No model.)

To all whom it may concern:

Be it known that I, MILES M. BARTHOLOMEW, of Belleville, in the county of St. Clair and State of Illinois, have invented a certain
5 new and useful Improvement in Type-Writing Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 Figure 1 is a top view of a type-writer with a rotary fly applied thereto for the purpose stated, and Fig. 2 a back view of same. Fig. 3 is a detail section at 3 3, Fig. 1. Fig. 4 is a detail section at 4 4, Fig. 5, showing a modification of the device. Fig. 5 is a detail section
15 at 5 5, Fig. 4.

A is the top plate of a type-writer. B is the paper-carriage, having secured to it a cog-rack, C. The rack C engages a pinion, D,
20 which turns on the vertical shaft E, that passes through the plate A, and carries at its lower end a cog-wheel, F, which engages a pinion, G, upon the fly-shaft H. The fly I has wings which are preferably made of curved
25 form, concave upon the front side, so as to increase the resistance of the air to their rotation. The relative speed of rotation of the fly-shaft to the movement of the carriage may be still further increased by the addition of
30 more gear-wheels or their equivalent.

To cause the rotation of the shaft E while the writing is being done, the shaft carries a hub, J, on which is a spring-pawl, K, that engages an annular series, L, of ratchet-teeth
35 upon the under side of the pinion D. The construction is such that when the carriage is moving backward after the writing of a line, the pinion D turns on the shaft E, the ratchet-teeth at such time slipping past the end of the
40 spring-pawl. The carriage may be drawn forward while the writing is proceeding by a cord, M, secured to the carriage and to the periphery of a spring-wheel, N O, as usual, or by any other suitable means.

45 As an evident modification and involving

precisely the same principle and substantially the same device, the rack may be fixed and the pinion-shaft E and the rest of the governor mechanism be connected to the paper-carriage instead of to the frame of the machine. 50

In the modification of the device shown in Figs. 4 and 5 the fly turns in liquid within a cup, P, having interior wings, to prevent the rotation of the liquid therein, and this movement of the liquid may be prevented or
55 checked by any suitable means. In this form of the device the wings would be much reduced in size, and the fly may, if preferred, be upon the first shaft, E, as the great resistance of the liquid enables the fly to be run at comparatively slow speed. This speed may be regulated by the quantity of liquid in the vessel P. 60

I claim as my invention—

1. The combination, with the paper-carriage of a writing-machine, of a governing device rotated by the carriage and having arms
65 or wings limiting the speed of movement of the carriage.

2. The combination, with the paper-carriage having means to impart forward movement thereto, of a governing device for retarding the forward movement of said carriage, and connections, substantially as described, between said governing device and
70 said carriage.

3. The combination, with the paper-carriage of a writing-machine, of rotating arms or wings limiting the speed of movement of the carriage, and connections, substantially as described, between the carriage and the arms. 75

4. The combination, in a writing-machine, of a cog-rack on the carriage, and a shaft rotated by cog-connection with the cog-rack, and wings or arms on the rotating shaft, for the purpose set forth. 80

MILES M. BARTHOLOMEW.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.