2 Sheets--Sheet 1.

J. GALLOWAY.

Type Writing-Machines.

No. 144,450. Patented Nov. 11, 1873.

Fig. 1

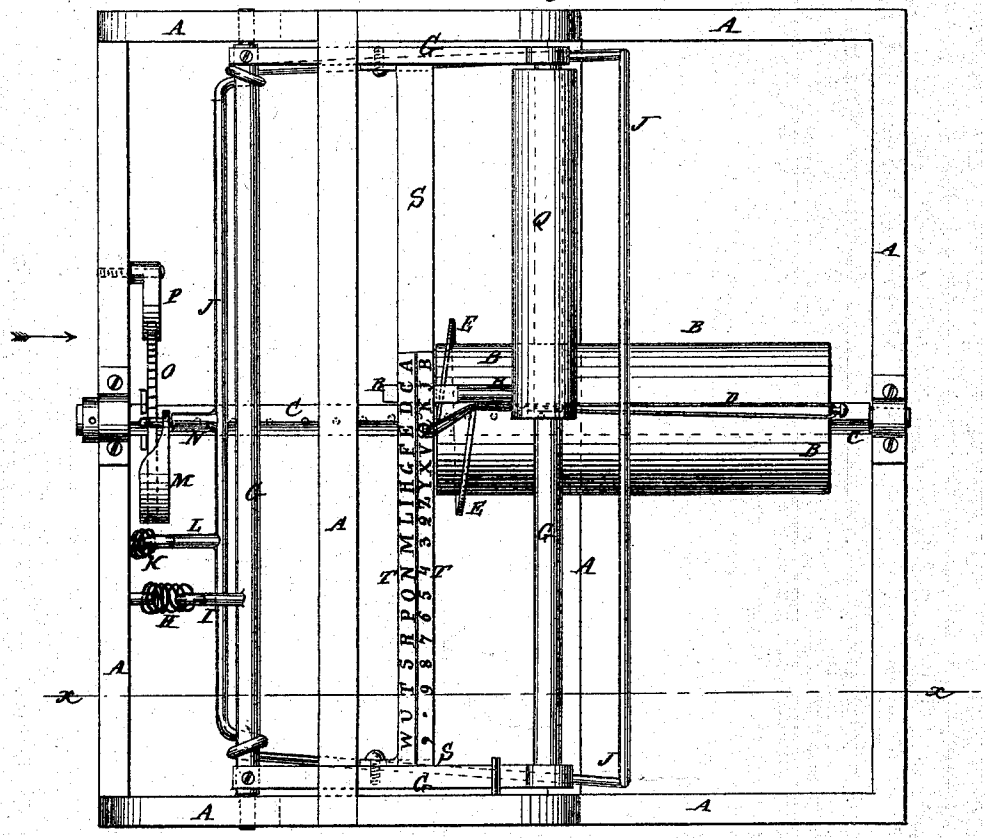
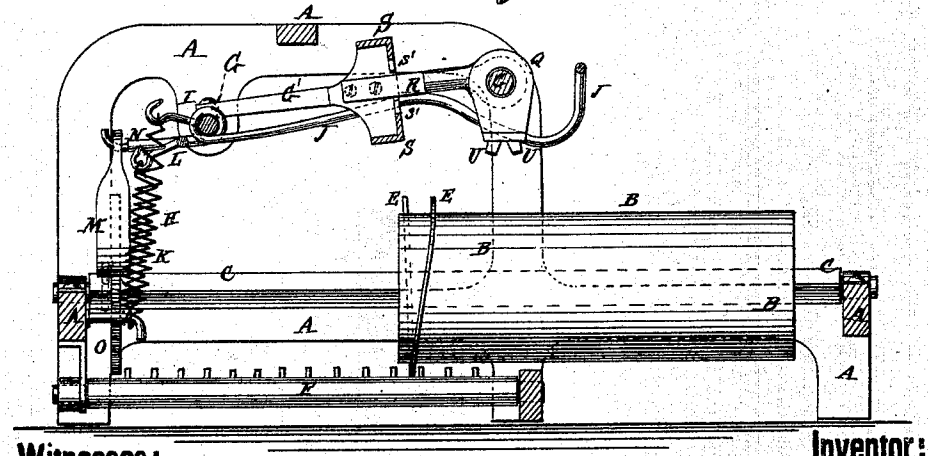


Fig. 2



Witnesses:

A. W. Almquist

Sedgwick

Inventor:

J. Galloway

Per Munn & Co

Attorneys.

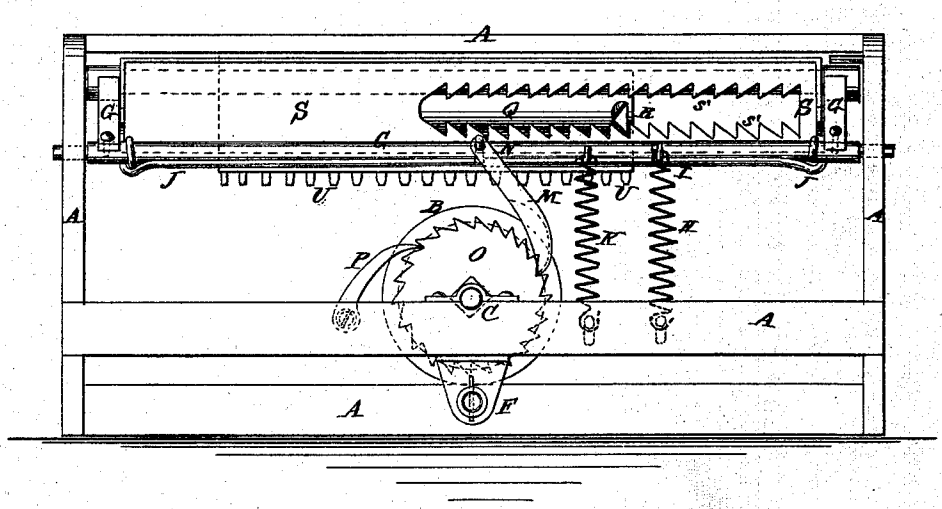
2 Sheets--Sheet 2.

J. GALLOWAY.

Type Writing-Machines.

No. 144,450. Patented Nov. 11, 1873.

Fig. 3



Witnesses:

A. W. Almquist

Edgecomb

Inventor:

J. Galloway

Per Munn & Co

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN GALLOWAY, OF NEW YORK, N. Y.

IMPROVEMENT IN TYPE-WRITING MACHINES.

Specification forming part of Letters Patent No. **144,450**, dated November 11, 1873; application filed September 27, 1873.

To all whom it may concern:

Be it known that I, JOHN GALLOWAY, of the city, county, and State of New York, have invented a new and useful Improvement in Type-Writing Machines, of which the following is a specification:

Figure 1, Sheet 1, is a top view of my improved machine. Fig. 2, Sheet 1, is a vertical cross-section of the same, taken through the line *x x*, Fig. 1; and Fig. 3, Sheet 2, is a rear view of the same.

My invention has for its object to furnish an improved machine for type-writing which shall be simple in construction, convenient and rapid in operation, not liable to get out of order, which will occupy but little space, and may be readily carried from place to place. The invention consists in the movable block, provided with two rows of raised type and a projecting arm, the slotted and notched plate, the two pivoted frames, the springs, the pawls, and the ratchet-wheel, in combination with each other and the shaft that carries the roller; and the toothed shaft and the spiral thread, in combination with the roller to move said roller longitudinally while being rotated by the shaft, as hereinafter fully described.

A represents the frame of the machine. B is a roller, of sufficient size to receive a sheet of the paper to be used, and covered with cloth, rubber, or other suitable material to form a padding sufficiently soft to prevent the types from being injured, and sufficiently firm to insure a good impression. Through the center of the roller B is formed a square hole to receive the square shaft C, the journals of which revolve in bearings attached to a front and rear cross-bar of the frame A. The paper, in connection with the colored paper or cloth from which the color is obtained for the impression, is rolled around the roller B, and its edges are secured by a rubber spring, D, or other convenient clamp. To the inner end of the roller C is attached a spiral thread, E, of one or more turns, and which works between the pins or teeth of the shaft F, so that the roller B may be moved longitudinally upon the shaft C at the same time that it is carried around by and with the shaft C. The journals of the shaft F work in bearings attached to cross-bars of frame A, and it is held stationary by a pin passed through its center journal and its bearing, so that by removing the said pin the teeth of the shaft F may be turned down out of gear with the thread E, so that the roller D may be pushed back at once, when required. G is a frame, placed within the inner part of the frame A, and the ends of its rear cross-bar project and work in bearings in the frame A. The frame G is held in a horizontal position, or with its forward part slightly inclined upward, by a spring, H, the lower end of which is attached to the lower part of the frame A, and its upper end is attached to an arm, I, projecting to the rearward from the rear bar of the frame G. To the rear part of the frame G is pivoted the rear part of the frame J, which projects forward beneath the frame G, and its front bar is a little in front of the front bar of the frame G, so that the downward movement of the forward part of the frame G may carry the forward part of the frame J with it; but the frame J may be operated independently, when desired. The forward part of the frame J is held up against the frame G by a spring, K, the lower end of which is connected with the lower part of the frame A, and its upper end is connected with an arm, L, attached to the rear part of the frame J. M is the push-pawl, the upper end of which is attached to an arm, N, attached to the rear bar of the frame J, and the lower or engaging end of which takes hold of the teeth of the ratchet-wheel O attached to the square shaft C. By this construction the roller B will be rotated by the upward movement of the forward parts of the frames G J, the downward movement of said parts raising the pawl M one tooth. P is a pawl, which is pivoted to the frame A, and its engaging end rests against the teeth of the wheel O, to prevent said wheel from being turned back by the friction of the pawl M as it is raised. Q is a long block or hand-piece, which is perforated longitudinally to receive the slide upon the forward bar of the frame G. Upon the inner side of the forward end of the sliding block Q is formed, or to it is attached, an arm, R, which projects through a slot in plate S, the ends of which are secured to the side bars of the frame G. In the plate S, at the upper and lower edges of said slot, are formed notches S′, and the free end of the arm R is so formed that it may fit

into the upper or lower notches, according as it is inclined upward or downward. Upon the top of the slotted part of the plate S are formed, or to it are attached, the letters of the alphabet, the nine digits, a comma, and a period, which characters, T, are arranged in two rows, one row corresponding with the upper, and the other with the lower, row of notches S′ of the slotted plate S. Upon the lower side of the sliding block Q are formed, or to it are attached, two rows of raised type, U, corresponding with the characters T, and which project at such an inclination that, when the arm R is in the notch of either the upper or lower row of notches S′, the corresponding row of types U will be in proper position for making the impression.

In using the machine, the paper is placed upon the roller B and the block Q is grasped with the hand, and is moved to bring the arm R successively into the notches corresponding to the letters of the word to be formed upon the paper. As the arm R is brought into each notch, the block Q is forced down, and the letter is printed upon the paper. At the end of each word the frame J is forced down with the thumb farther than the frame G, which causes the roller B to rotate twice the usual distance, and thus forms a space between the words.

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

1. The movable block Q, provided with two rows of raised type, U, and a projecting arm, R, the slotted and notched plate S S′, the two pivoted frames G J, the springs H K, the pawls M P, and the ratchet-wheel O, in combination with each other and the shaft C that carries the roller B, substantially as herein shown and described.

2. The toothed shaft F and the spiral thread E, in combination with the roller B, to move said roller longitudinally while being rotated by the shaft C, substantially as herein shown and described.

JOHN GALLOWAY.

Witnesses:
JAMES T. GRAHAM,
T. B. MOSHER.