(No Model.)

W. F. KASSON.

TYPE WRITING MACHINE.

No. 529,274. Patented Nov. 13, 1894.

Fig 1.

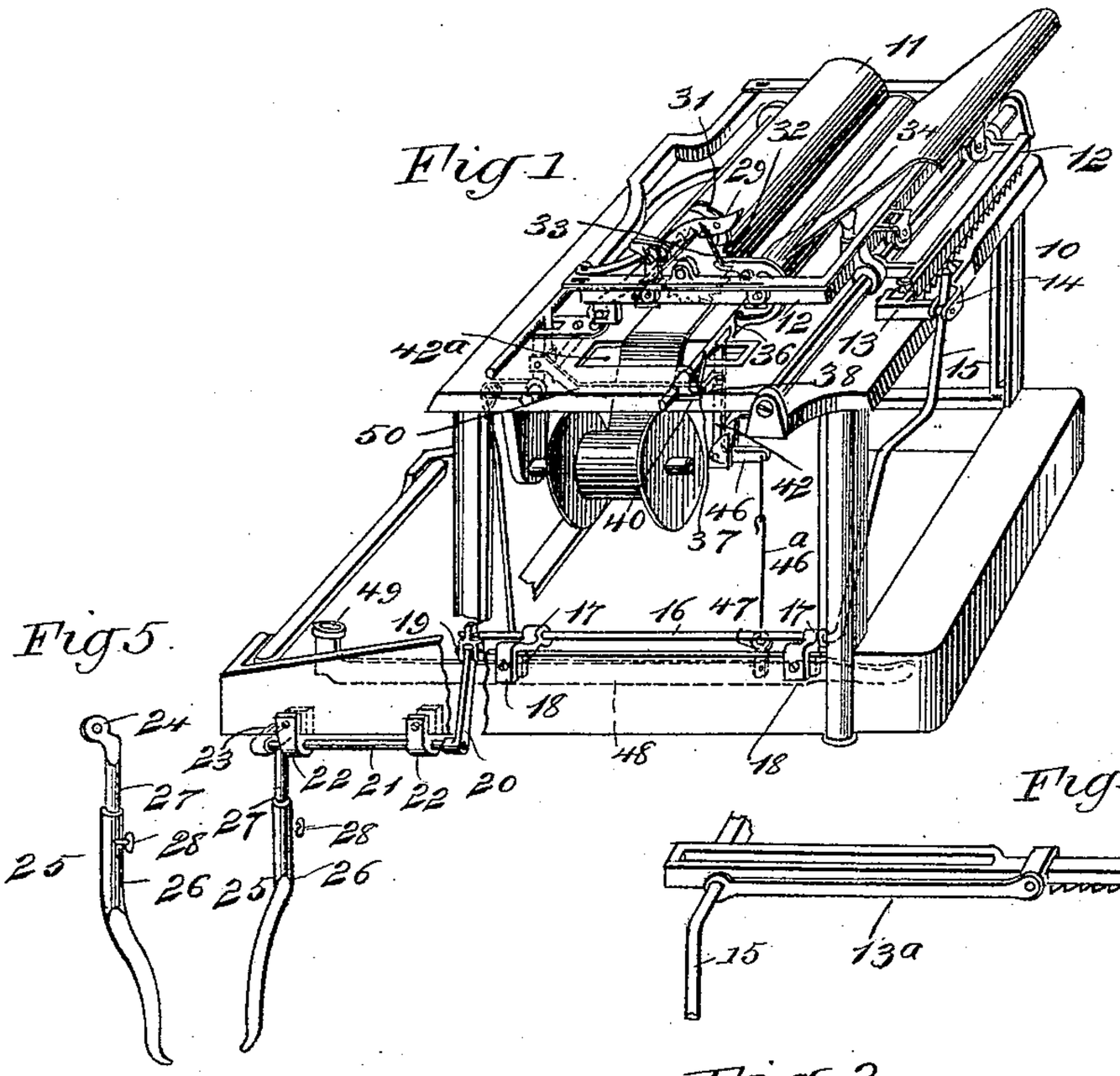


Fig 5.

Fig 6.

Fig 2

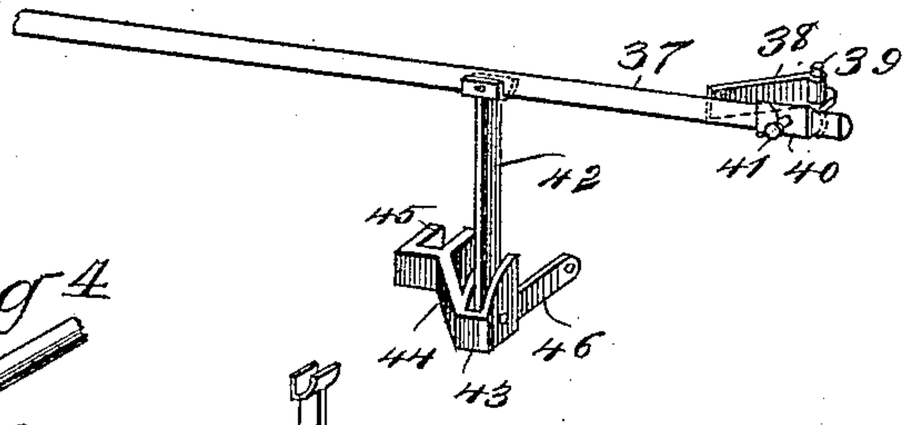


Fig 4

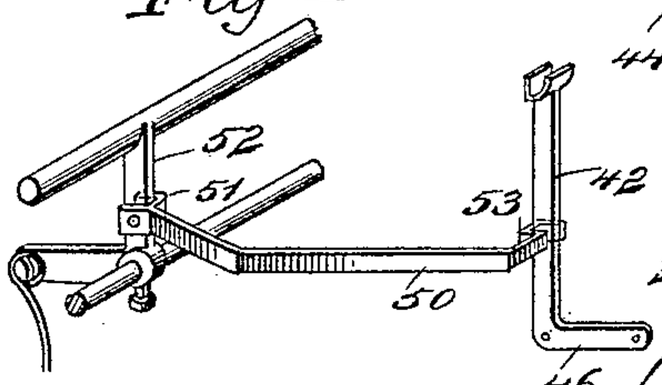
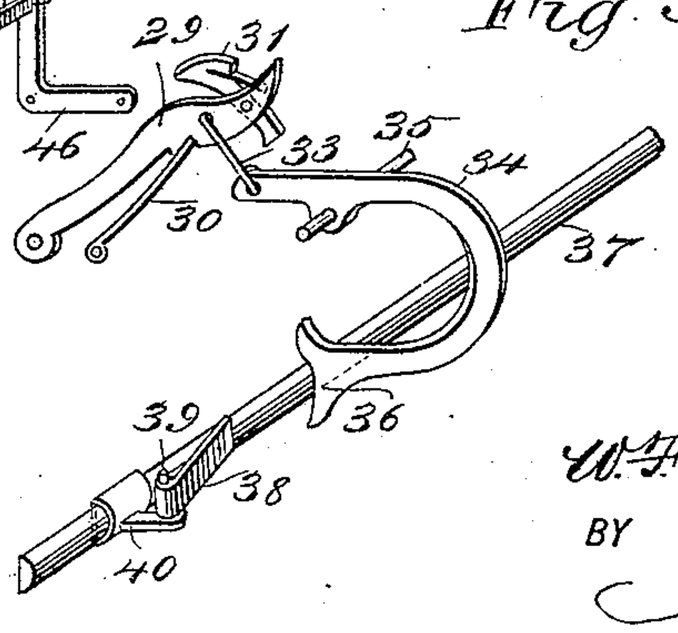


Fig 3.



WITNESSES:

Paul Jahoda

W. D. Hutchinson

INVENTOR

W. F. Kasson

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WALTER F. KASSON, OF BOISE CITY, IDAHO.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 529,274, dated November 13, 1894.

Application filed May 4, 1894. Serial No. 510,070. (No model.)

To all whom it may concern:

Be it known that I, WALTER F. KASSON, of Boise City, in the county of Ada and State of Idaho, have invented certain new and useful Improvements in Type-Writer Attachments, of which the following is a full, clear, and exact description.

My invention is an improvement in that class of type writers having a knee-lever attachment whereby the carriage may be shifted from left to right without manual assistance. The features of novelty are as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken perspective view of a type-writing machine, provided with my improved attachments. Fig. 2 is a detail perspective view of the platen turning lever and rod. Fig. 3 is a detail perspective view of the mechanism for automatically turning the platen. Fig. 4 is a broken detail perspective view of the mechanism for regulating the position of the attachments with relation to the platen when the latter is shifted from lower to upper case. Fig. 5 is a detail perspective view of the shifting lever which hangs below the machine and is moved by the knee; and Fig. 6 is a broken detail perspective view, of a preferred form of connection between the long crank arm and the carriage.

The machine 10 is the ordinary Remington typewriting machine, but my improved attachments may, with slight modification, be applied to machines of other kinds. The machine has the usual revoluble platen 11 and the customary carriage 12, to carry it, and to one end of the back rail of the carriage is secured a rearwardly-extending arm 13 which has at its outer end an eye or loop 14 to receive the upper end of the long crank arm 15 of the shaft or rod 16, which extends along one side of the machine, near the bottom, turning in bearings 17 on the clamps 18 which straddle one edge of the machine, as shown in Fig. 1, and are fastened in place by screws or equivalent devices. A better way of connecting the crank arm 15 with the carriage rail is by means of a long arm 13^a as shown in Fig. 6.

The shaft 16 has at one end a bifurcated crank 19 to which is pivoted the crank 20 of a second shaft 21, which is journaled in clips 22 fastened to the lower edge of the machine on the same side as the clamps 18, and the shaft 21 has, at one end, a short crank 23 which is bolted to the upper end 24 of the extensible knee lever 25 which comprises a lower section 26, hollow at the top and curved to fit the knee, and an upper section 27, which enters the lower section and is held in place by a thumb screw 28. It will thus be seen that by tilting the lever 25 to the right the shaft 21 is turned so as to move the cranks 20 and 19, thus tilting the shaft 16 and moving the crank arm 15 so as to throw the carriage and platen back to the right and, by a little practice the operator gets so as to move the carriage just the desired distance.

At one end of the platen 11 is a tilting arm 29 which is pivoted on the carriage and is substantially like the usual lever at this place, except that it is shorter and the arm is pressed upward by the usual spring 30. The arm 29 carries a spring-pressed pawl 31 which is adapted to engage the ratchet wheel 32 on the end of the platen 11, this being the ordinary ratchet wheel, and consequently when the arm 29 is pulled down it will turn the ratchet wheel and platen so as to carry forward the paper on the platen and make the usual line space. The arm 29 connects by a link 33 with the curved slide lever 34, which is provided with pivot pins 35 which enable it to be pivoted on the carriage, and it has its lower end widened and curved, as shown at 36, to enable it to slide easily on the trip rod 37 which extends parallel with the platen and has on it an inclined tripping spring 38, one end of which bears against the rod, while the other is secured to a stud 39 on the clip 40 which is adjustable on the rod 37 and is held in place by a set screw 41, as shown clearly in Fig. 2.

The clip 40 is arranged on the rod 37 so that the spring 38 will strike the lower end 36 of the slide lever 34, and when the carriage has advanced to its extreme right-hand position so that the end of a line is reached, and when the slide lever strikes the tripping spring, the lever is tilted on its pivot, thus pulling down its upper end and depressing the arm 29 so as to turn the platen as above specified.

The trip rod 37 is carried by the vertical arm 42 of a bell crank, which is pivoted below the top of the typewriter frame and projects through the ribbon slot 42ª, as shown in Fig. 1. The bell crank is pivoted at its elbow in a clip 43 formed on an end of an arm 44 which terminates in a clamp 45 adapted to be fastened to an adjacent portion of the typewriter frame, and the bell crank has a rearwardly-extending arm 46 which connects by a wire 46ª or equivalent connection with a lug 47 on the platen key 48, which is fulcrumed in the usual manner parallel with the other keys of the machine and terminates in the customary finger piece 49. By depressing the finger piece 49 the key is tilted, the wire 46ª pulled down, the bell crank comprising the arms 42 and 46 tilted on its elbow, and the trip rod 37 moved backward so as to strike the slide lever 34 and tilt the same and this pulls down on the arm 29 and actuates the platen in the manner above described.

To provide for holding the attachments above described in a constant position with relation to the platen, the arm 50 shown clearly in Fig. 4 and in dotted lines in Fig. 1, is used. This arm has at one end a clamp 51 which is secured to the usual bell crank 52 adapted to shift the carriage and platen from lower to upper case, and the rear end of the arm 50 is bent and terminates in a clip 53 which bears against the arm 42 of the shifting bell crank and consequently, when the carriage is moved backward for upper case work, the bell crank is tilted and the trip rod correspondingly moved.

From the foregoing description it will be seen that the position of the carriage may be easily shifted by simply touching the lever 25 with the knee, that the platen is automatically turned at the end of each line to make the line space, and that, if desired, it may be similarly turned by simply striking on the finger piece 49 of the platen key 48.

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

1. The combination, with the typewriting machine and the sliding carriage having the usual revoluble platen and tilting arm to turn the platen, of the slide lever pivoted on the carriage and connected with the tilting arm, the trip rod parallel with the platen and opposite one end of the slide lever, and an inclined tripping device on said rod to engage and move the slide lever, substantially as described.

2. The combination, with the typewriting machine and the sliding carriage having the usual platen and tilting lever to turn it, of the tilting bell crank and key connected with the bell crank, the trip rod secured to the bell crank, the inclined tripping device on said rod, and the tilting slide lever pivoted on the carriage and connected with the platen arm, one end of the slide lever being arranged to slide on the trip rod, substantially as described.

3. The combination, with the typewriting machine, the sliding carriage having the usual platen and the tilting bell crank operatively connected with the platen to turn it, of the case shifting lever, and an arm connecting the case shifting lever with the tilting bell crank, substantially as described.

WALTER F. KASSON.

Witnesses:
WILLIAM L. CUDDY,
MYRON LESTER.