(No Model.)

G. H. LASAR.

TYPE WRITING MACHINE.

No. 415,534. Patented Nov. 19, 1889.

Fig. III

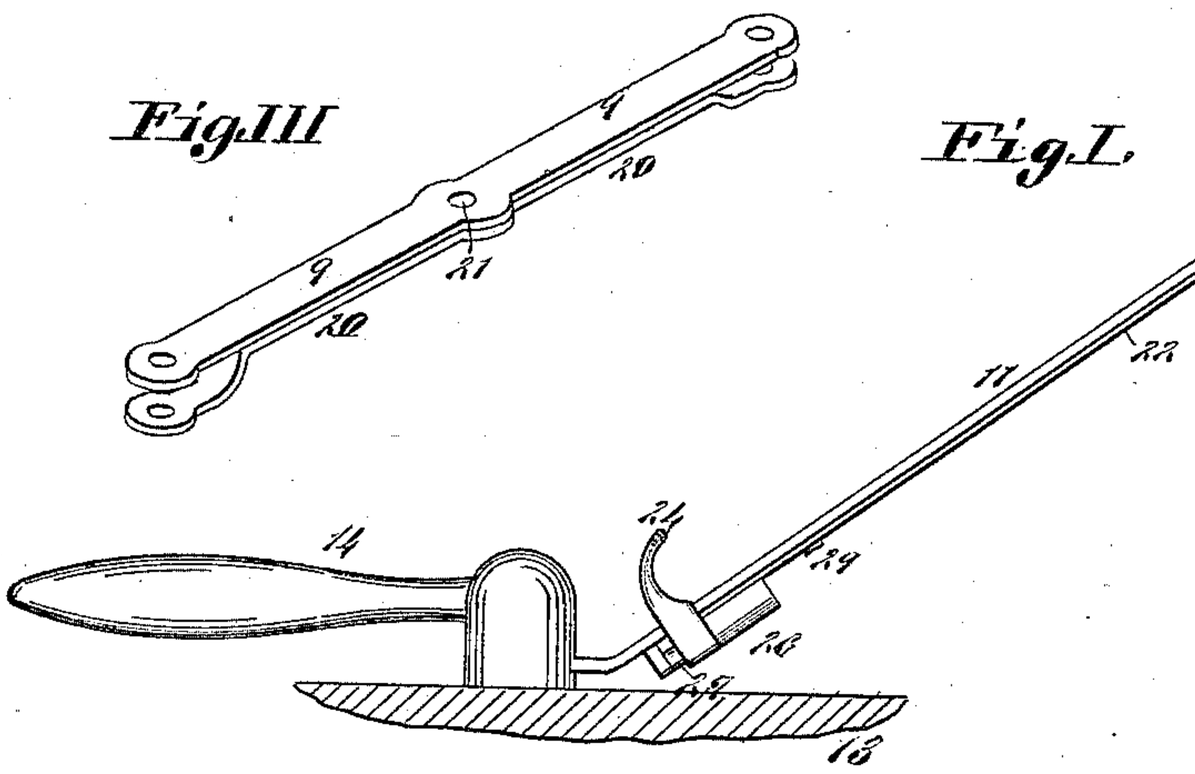


Fig. I.

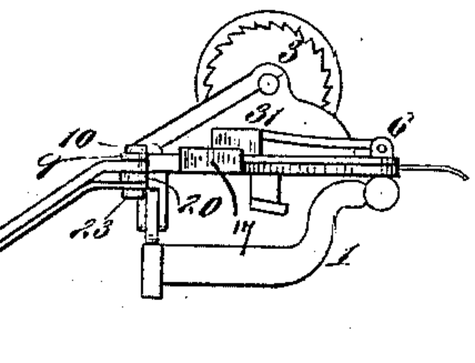


Fig. IV.

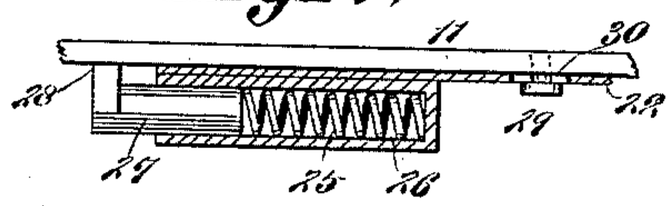
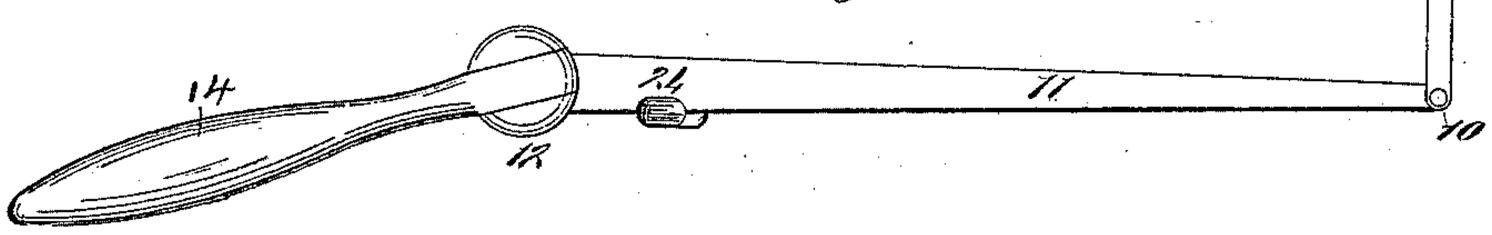


Fig. II.



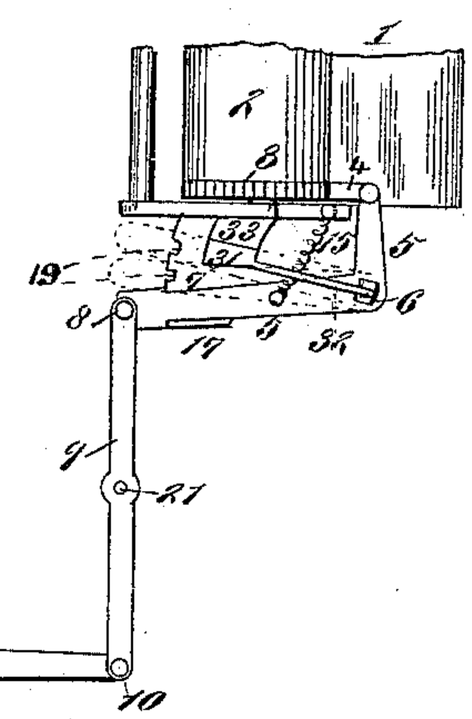


Fig. V.

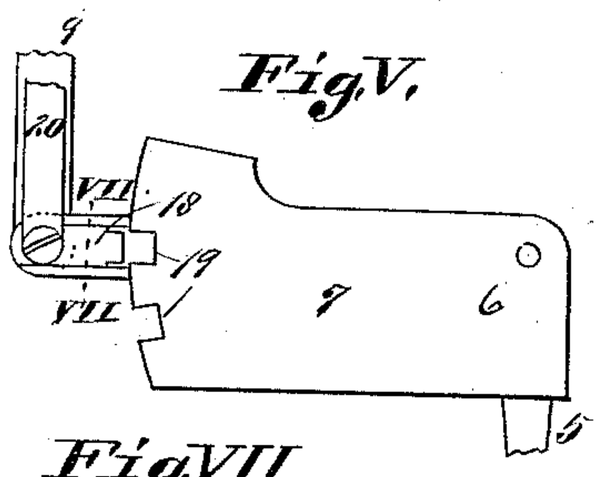


Fig. VI.

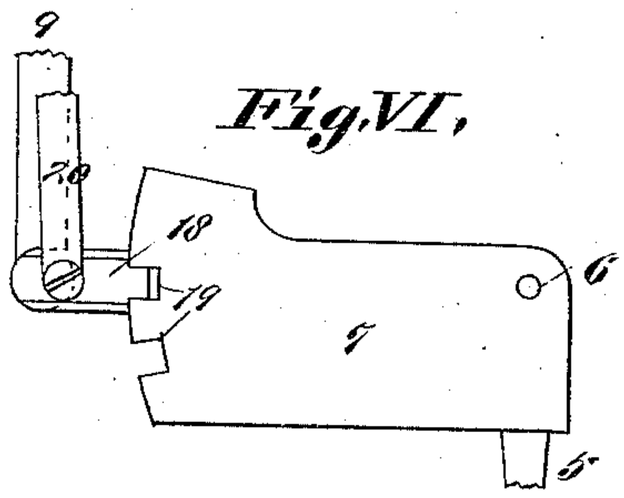


Fig. VII

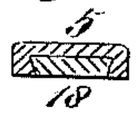
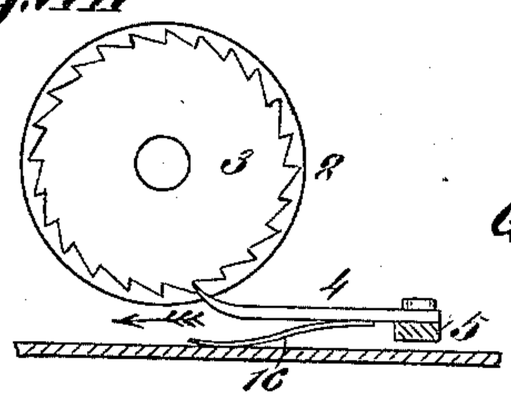


Fig. VIII



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UNITED STATES PATENT OFFICE.

GODFREY H. LASAR, OF ST. LOUIS, MISSOURI.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 415,534, dated November 19, 1889.

Application filed April 2, 1887. Renewed July 5, 1889. Serial No. 316,495. (No model.)

To all whom it may concern:

Be it known that I, GODFREY H. LASAR, of the city of St. Louis, in the State of Missouri, have invented a certain 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, and in which—

Figure I is a side elevation illustrating my improvement, showing the end of the carriage of a type-writer, the operating-lever for moving the carriage back after a line or part of a line has been written, and the device for preventing the roller from being turned as the carriage is moved by the lever or permitting the roller to be turned, as may be desired. Fig. II is a top view. Fig. III is an enlarged perspective view of the link and the connecting-lever pivoted thereto. Fig. IV is an enlarged section. Figs. V and VI are enlarged detail views illustrating the engagement of the dog with the carriage-plate. Fig. VII is an enlarged section taken on line VII VII, Fig. V. Fig. VIII is an enlarged view showing the end of the roller of the carriage and showing the pawl that engages the ratchet-wheel on the carriage to rotate the roller.

My invention relates to an improvement in type-writers, and relates particularly to a device whereby the roller of the carriage may be rotated as the latter is moved back after a line or part of a line is written, or whereby the carriage may be moved back without rotating the roller.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, 1 represents part of a carriage of a type-writer, of which 2 is the roller. The roller is provided with a ratchet-wheel 3, engaged by a pawl 4 on the end of a crank-lever 5, pivoted at 6 to a plate or extension 7 of the carriage. The other end of the crank-lever is connected at 8 to one end of a link 9, the other end of which is connected at 10 to an operating-lever 11, pivoted at 12 to the base 13 of the machine and provided with a handle 14. By means of this lever 11 the lever 5 is moved in one direction, and it is moved in the opposite direction by means of a spring 15, connecting it to the end of the carriage, as shown in Fig. II. When the lever 5 is operated by means of the lever 11, the pawl 4, which is held against the ratchet-wheel 3 by a spring 16, is moved in the direction indicated by arrow, Fig. VIII, turning the roller the desired distance for another line, and the movement is limited by the lever 5 coming against a stop 17 on the plate 7. When the crank-lever and pawl have thus been operated and pressure is removed from the handle, the spring 15 acts to bring the parts back to their former position. After the roller has been turned by power from the handle and the lever 5 comes against the stop 17, further pressure on the handle 14 will cause the carriage to be run back for a new line. It will thus be seen that each time the handle 14 is moved to run the carriage back for a new line the roller 2 will first be turned, and then the lever 5, coming against the projection 17 of the carriage, will be moved with the carriage without turning the roller forward.

It is sometimes desired that the carriage be run back without turning the roller 2. For this reason I have provided a dog or catch 18, that is dovetailed into the under side of the outer end of the lever 5, as shown in the bottom views, V and VI, and which engages in notches or teeth 19 in the plate 7. This dog or catch 18 is connected to a connecting-lever 20, running parallel with and connected to the link 9 at 21, and which is made fast at its outer end to a pull-rod or sliding plate 22 at 23. The rod or plate runs parallel to and in contact with the lever 11, and has at its lower end a finger-piece 24, by which it is moved in one direction, it being moved in the other direction by a spring 25, located in a socket 26, secured to the under side of the plate and bearing against a projection 27, secured at 28 to the under side of the lever 11. Thus this spring 25 acts to keep the dog or catch 18 out of engagement with the notches 19, and when it is thus not engaged the crank-lever, when the carriage is moved back, rotates the roller, there being thus no connection between the dog or catch of the lever 5 and the plate 7, and when it is desired to have the roller not turn as the carriage is pulled

back it is only necessary to pull downward on the plate 22 by applying a finger to the horn or projection 24, and the dog 18 will be moved into the notch 19 and the roller will not be turned.

The plate 22 is connected to the lever 11 by means of a screw 29 passing through a slot 30 in the plate.

The manner of dovetailing the dog or catch 18 into the lever 5 is indicated by Figs. V, VI, and VII.

31 represents a block having an arm 32 and pivoted at 6 to the carriage. By throwing this block in front of the lever 5 the latter will move toward the roller each time it is released the distance required to move the pawl 4 one notch of the ratchet-wheel 3.

If a greater space is desired between the lines, the roller may be turned farther out by throwing the block 31 back, so that it will not be engaged by the lever 5, which will then come against a stationary block 33, moving the pawl 4 the distance of two notches on the ratchet-wheel.

I provide the plate 7 with two notches 19—one for the dog when the block 31 is in the path of the lever 5 and one for the engagement of the dog when the block is thrown back.

In another application, Serial No. 215,911, filed October 11, 1886, I have described, shown, and claimed the combination of a paper-carriage and a lever for shifting the paper-carriage, said lever extending from its point of connection with the paper-carriage forward, to bring its handle alongside the key-board, and being fulcrumed on a fixed bearing; also the combination of the paper-carriage, the bell-crank, the shoulder, the bar, and the lever. Such construction, therefore, I do not claim in this application.

I claim as my invention—

1. The combination of a carriage having a notched plate and provided with a roller having a ratchet-wheel, a crank-lever pivoted to the plate, provided with an operating-lever, and a pawl for engaging the ratchet-wheel, a sliding dog carried by the crank-lever, and means, substantially as described, for operating the dog.

2. The combination of a carriage having a plate formed with notches and provided with a roller having a ratchet-wheel, a crank-lever pivoted to the plate, having a pawl for engaging the ratchet-wheel, a stop on the plate, the operating-lever, a link connecting the levers, the sliding plate, the sliding dog for engaging the notches, and a connecting-lever between the dog and plate, pivoted to the link, substantially as described.

3. The combination of the carriage, a lever for moving the carriage, the sliding plate, the connecting-lever, and connections, substantially as described, between the connecting-lever and carriage.

GODFREY H. LASAR.

In presence of—
GEO. H. KNIGHT,
JOSEPH WAHLE.