No. 859,027. PATENTED JULY 2, 1907.

J. B. VIDAL.

# CARRIAGE ACTUATING MECHANISM FOR TYPE WRITERS.

APPLICATION FILED OCT. 17, 1906.

Fig. 1.

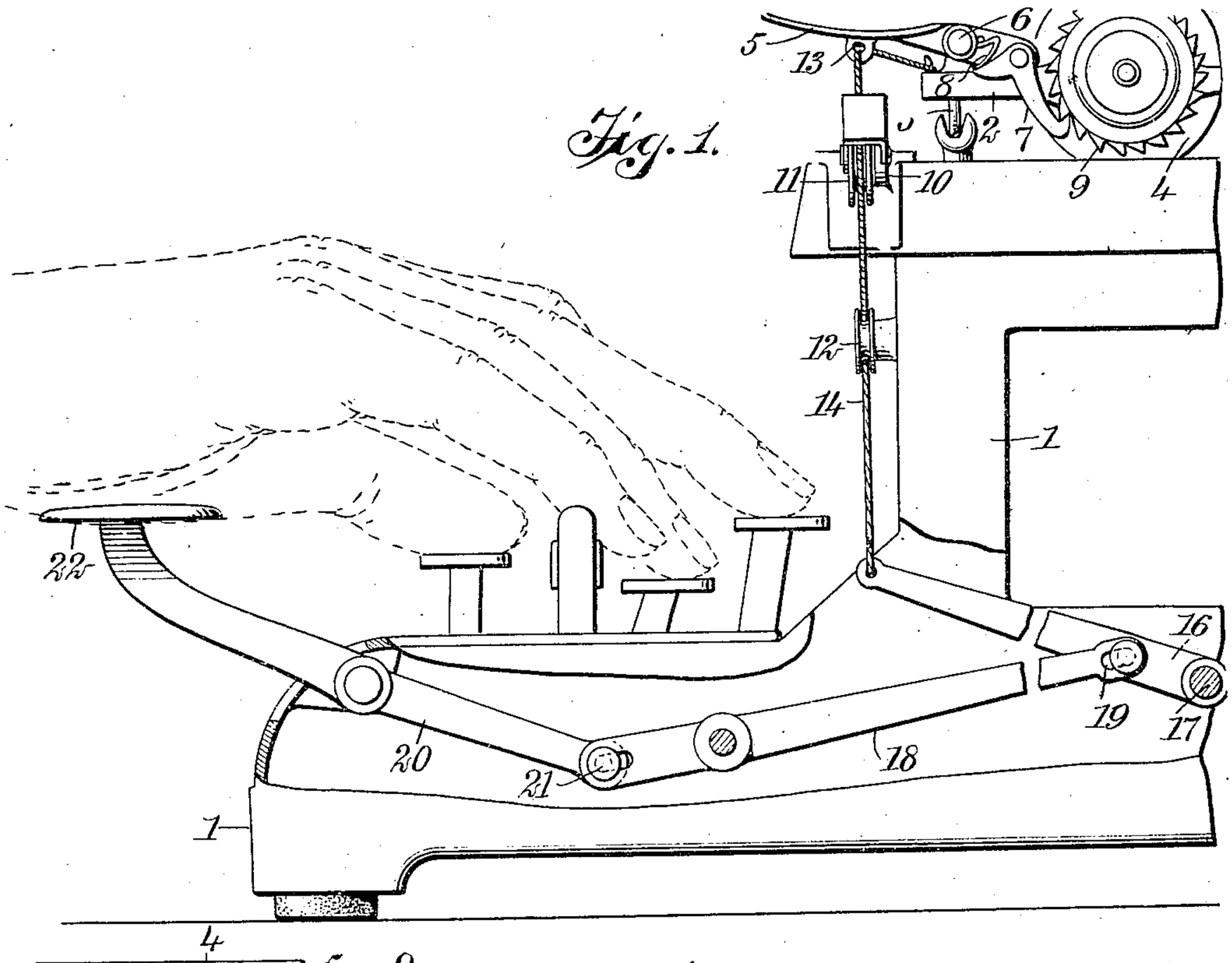


Fig. 2.

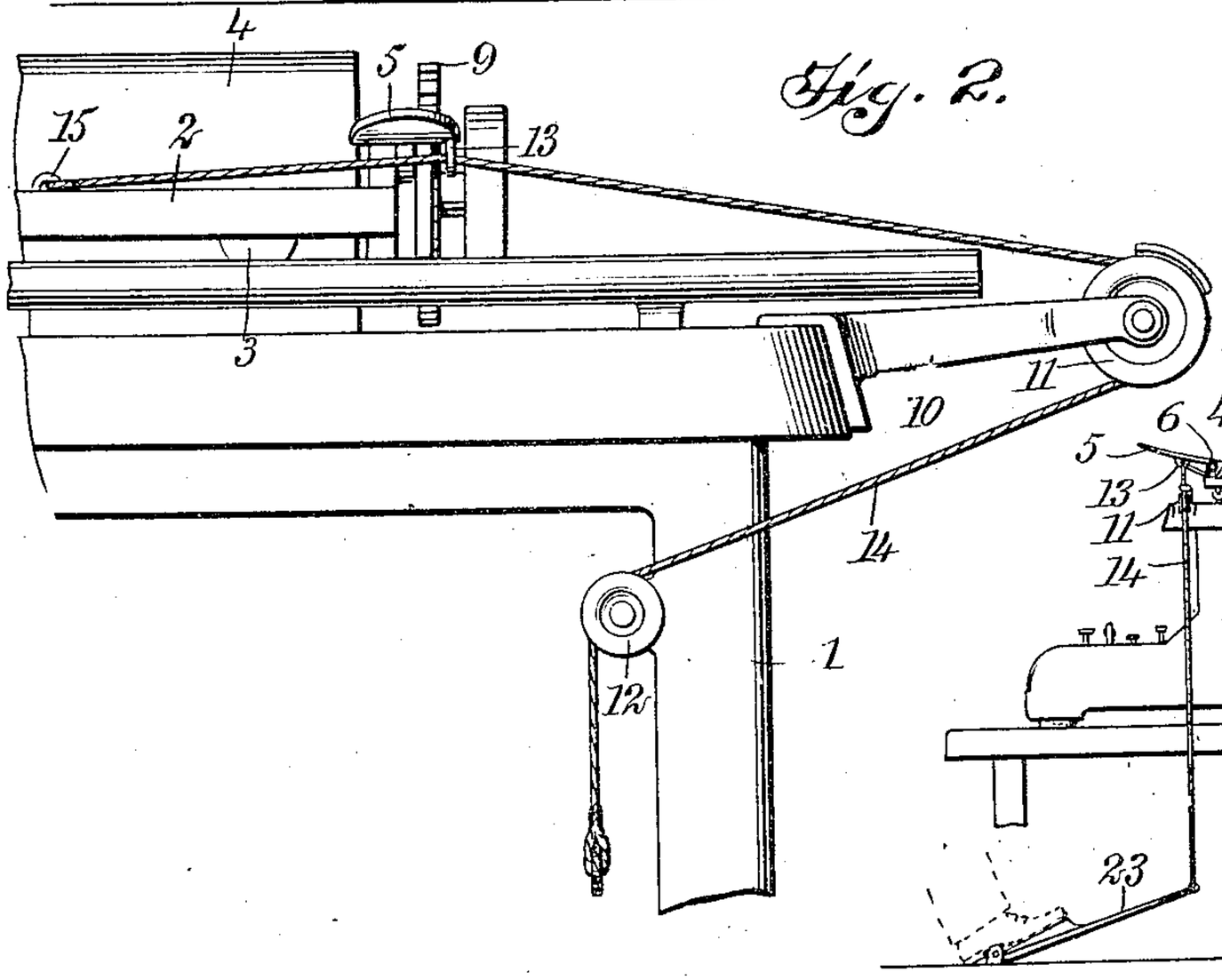


Fig. 3.




WITNESSES

L. Crawford Handley

C. W. Fairbanks

INVENTOR

Juan B. Vidal

BY Munn & Co

ATTORNEYS

# UNITED STATES PATENT OFFICE.

JUAN B. VIDAL, OF HABANA, CUBA.

## CARRIAGE-ACTUATING MECHANISM FOR TYPE-WRITERS.

No. 859,027. Specification of Letters Patent. Patented July 2, 1907.

Application filed October 17, 1906. Serial No. 339,338.

*To all whom it may concern:*

Be it known that I, JUAN B. VIDAL, a citizen of the Republic of Cuba, and a resident of Habana, Cuba, have invented a new and Improved Carriage-Actuating Mechanism for Type-Writers, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in typewriters and more particularly to the means employed for returning the carriage to its original position at the right-hand side of the machine after each line is written, and for rotating the roller to bring a fresh portion of the paper into operative engagement with the type.

The object of the invention is to provide means whereby the carriage may be moved longitudinally and the roller simultaneously rotated without removing either hand from the key-board.

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

Figure 1 is an end elevation of a portion of a typewriting machine provided with my improved attachment; Fig. 2 is a front elevation of a portion thereof; and Fig. 3 is an end elevation of a slightly modified form of construction.

The frame 1 of the machine may be of any suitable form commonly employed, and the carriage 2 is provided with anti-friction rollers 3 and a large roller 4 for receiving the paper. The carriage is free to move longitudinally of the machine and is drawn toward the left-hand by means of any suitable tension mechanism and escapement operated by the type keys but not illustrated. As the roller reaches the limit of its movement toward the left-hand end of the machine, it is customary to remove one hand from the key-board and return the carriage to its original position, meanwhile rotating the roller by movement of the lever. In my improved construction the lever 5 is pivoted by a pin 6 to the front portion of the carriage and a pawl 7 is carried by one end of this lever, the pawl being held by a spring 8 in operative engagement with a ratchet wheel 9 carried by the roller 4. By depressing the outer end of the lever 5, the pawl engages with the ratchet to rotate the roller the desired amount.

In order to return the carriage and simultaneously rotate the roller, I provide a bracket 10 secured to the frame of the machine and carrying a small pulley 11, while a second bracket carries a roller 12. Passing over these two rollers and through an opening in a lug 13 on the lever 5, is a cord or wire 14 of any suitable material, and having one end thereof attached to the carriage at a point 15 and the other end attached to means for drawing downward on the end of the cord or wire and operating the carriage. As the lower end of the cord is pulled downward the carriage is moved toward the roller 11, and, at the time that it reaches the limit of its movement, the lever 5 is directly above the roller 11 and further pulling on the end of the cord 14 serves to depress the lever 5 and rotate the roller. Any suitable means may be employed for pulling downward on the cord 14, and this means may be operated by the hand or the foot of the operator.

In my preferred construction, namely, that illustrated in Figs. 1 and 2, I employ a lever 16 having one end pivoted to the frame of the machine adjacent the rear portion thereof by means of a pivot pin 17, and having the free end of the lever secured to the lower end of the cord 14. A second lever 18 is connected to the lever 16 adjacent the pivot pin 17, and a slot 19 is provided in one of these levers at the point of connection, whereby certain freedom of motion is permitted. A third lever 20 is pivoted at the front portion of the machine and its inner end is connected to the lever 18 by a pin 21. A slot is provided in one of these levers to permit the longitudinal movement of the pivot pin carried by the other lever. The outer end of the lever 20 extends to a point outside of the frame of the machine, and preferably terminates at a distance somewhat in front of the key-board and at a slightly higher level. A plate 22 is carried by the outer end of the lever and located in a position adjacent the ball or palm of the hand of the operator. Upon depressing the plate 22, the inner end of the lever 20 is raised and the rear end of the lever 18 is depressed to depress the lever 16 and draw downward the end of the cord 14.

By the use of the improved construction above described, it is entirely unnecessary for the operator after having written a complete line, to withdraw his hand from the key-board and move the carriage back to its original position and rotate the roller. All that is necessary is to depress the plate or key 22 normally located adjacent the hand of the operator, and the carriage is not only returned to its original position, but the roller is simultaneously rotated. A great deal of time is thus saved and no unnecessary movements of any kind are required, the desired object being accomplished by a simple depression of the wrist, rather than a movement of the entire hand to a separate portion of the machine and then moving it across the entire width of the machine.

If desired, instead of the lever construction above described, the cord 14 may be extended downward to a position adjacent the floor and connected to a treadle 23, adapted to be depressed by the foot of the operator. In this form the operator need not remove the fingers from the key-board, but when a line is com-

pleted all that is necessary is to press down on the treadle 23 and the carriage will be returned to its original position and the roller rotated the desired amount.

Various changes may be made in the construction and operation of the means for drawing downward the lower end of the cord 14, as it is evident that various other constructions and arrangements of levers may be designed for accomplishing the objects above set forth and without departing from the spirit of my invention.

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

1. In a device of the class described, a suitable frame, a carriage mounted thereon, a roller carried by said carriage, a lever pivotally connected to said carriage and adapted to rotate the roller, a bracket secured to said frame and extending outwardly therefrom, a pulley mounted at the outer end of said bracket, a cord connected to said carriage intermediate the ends thereof and extending in engagement with the lever and the pulley, a plurality of type keys adapted to be operated by the fingers, and an auxiliary key connected to the opposite end of said cord and adapted to be operated by the ball of the hand while all of the fingers remain in operative engagement with the type keys.

2. In a device of the class described, a suitable frame, a plurality of type keys, a carriage mounted on said frame, a roller carried by said carriage, a lever pivotally connected to said carriage and adapted to rotate the roller, a bracket secured to said frame and extending outwardly therefrom, a pulley mounted at the outer end of said bracket, a second pulley mounted within said frame, a cord secured to said carriage intermediate its ends and passing in engagement with said lever and pulleys, a lever pivoted adjacent the front side of the frame, means connecting said lever with the opposite end of said cord, and a plate upon the outer end of the lever and at a distance in front of the type keys, whereby the carriage may be moved longitudinally of the frame, and the roller rotated simultaneously by depressing the plate with the ball of the hand and without removing any of the fingers from the type keys.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JUAN B. VIDAL.

Witnesses:
JNO. M. RITTER,
PHILIP D. ROLLHAUS