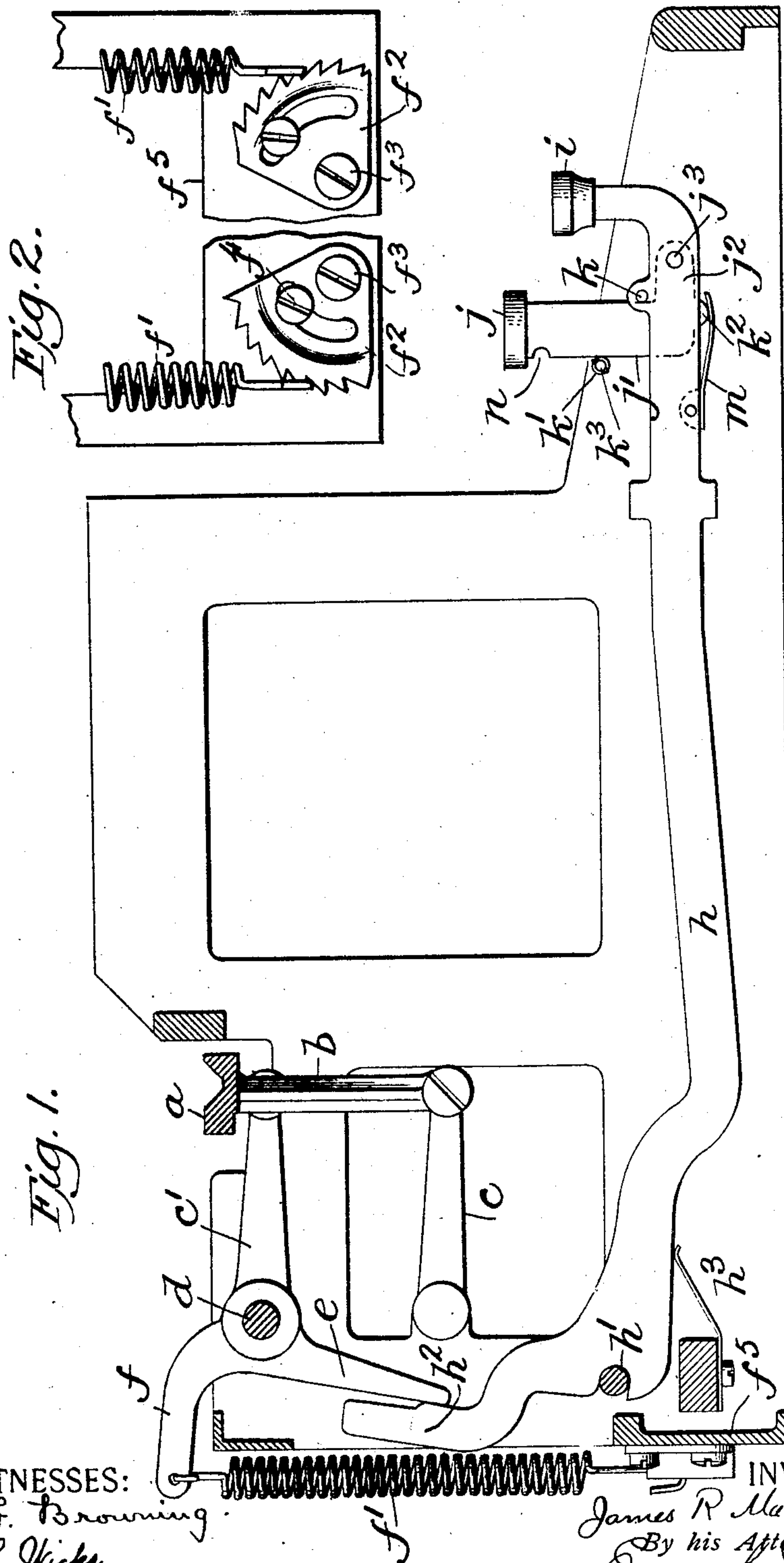


No. 896,925.

PATENTED AUG. 25, 1908.

J. R. MACGUFFIE.  
WRITING MACHINE.

APPLICATION FILED NOV. 28, 1905.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

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## WRITING-MACHINE.

No. 896,925.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed November 28, 1905. Serial No. 289,388.

*To all whom it may concern:*

Be it known that I, JAMES R. MACGUFFIE, a citizen of the United States of America, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Writing-Machines, of which the following is a specification.

This invention relates primarily to front stroke writing machines wherein the carriage is shifted to print upper and lower case.

The invention comprises a new carriage shifting organization so arranged that the carriage may be shifted and be so held while the shift key is held down and will return to normal position when the shift key is released: or the carriage may, when shifted, be locked and so remain until released by the operator. To this end the carriage-shift key-lever, having the usual finger piece, has pivoted upon it a latch key also having a finger piece. When the key-lever finger piece is depressed, the carriage returns to normal position when the pressure is relieved. When the pivoted latch key finger piece is depressed, the carriage is locked in shifted position and so remains, when the finger of the operator is lifted, until released by the operator which may be accomplished either by slight vertical pressure upon the finger piece of the key-lever or slight lateral strain on the finger piece of the latch key.

In the accompanying drawing, Figure 1 is a view in longitudinal section showing so much of a writing machine as is sufficient to illustrate this invention: and Fig. 2, a detail view showing means for adjusting the carriage counter-balancing spring.

The platen is not shown.  $a$  is the lower front rail upon which the carriage of the machine is to run. It is supported by columns  $b$  carried in the ends of pairs of parallel arms  $c$ ,  $c'$  located at the sides of the machine the latter ones  $c'$  of which are connected to a rock shaft  $d$ . Projecting downwardly from the rock shaft at each side of the machine is an arm  $e$ . At one or more points there also extends from the rock shaft rearwardly and upwardly an arm  $f$  to which is attached a coiled spring  $f'$  acting to counter-balance the carriage and associated parts. The lower end of the spring is hooked into either one of a series of notches in a spring adjusting plate

$f^2$  pivoted eccentrically at  $f^3$  and slotted to receive a clamping thumb bolt  $f^4$  that screws plate  $f^5$  into the rear frame machine.

When two shift key-levers are used, one at each side of the machine, their construction and operation will be the same and therefore it is sufficient to illustrate and describe but one. The shift key-lever  $h$  is pivotally mounted upon a cross pivoted bar  $h'$  extending between the side plates of the frame at the rear of the machine and has an upward projection  $h^2$  extending in rear of, and adapted to make operative contact with, the projection  $e$  from the carriage shift rock shaft. The key-lever is held in normal elevated position by any appropriately arranged spring, a plate spring  $h^3$  for that purpose being shown. The key-lever is turned upwardly at its front end and equipped with a finger piece  $i$ . When pressure is exerted upon this finger piece, the carriage is shifted by contact of  $h^2$  with  $e$ , and, when pressure upon the finger piece  $i$  is relieved, the carriage automatically returns to normal position. Pivoted upon the key-lever  $h$  is a vertically disposed latch lever  $j'$  equipped with a finger piece  $j$  and having at its lower end a right angular projection  $j^2$  extending toward the front of the machine and at or near its end pivoted at  $j^3$  to the side of the shift key-lever. The latch lever is guided between a front stop  $k$  on the key-lever and a stop  $k'$  projecting from the side of the frame. It is shown as formed at the bottom with a slight projection  $k^2$  having a rounded face upon which bears a plate spring  $m$  attached to the key lever. In the upper rear edge of the vertical latch lever is a notch  $n$  adapted to engage the front stop  $k'$ . If shifting of the carriage be effected by pressure upon the finger piece  $j$  of the vertically disposed latch lever, the pressure overcomes the reaction of spring  $m$  and permits the vertical part of the latch lever to move slightly rearwardly so that notch  $n$  engages stop  $k'$ , these parts remaining in engagement and locking the carriage. When pressure is exerted upon finger piece  $i$  spring  $m$  acts to rock the latch lever toward the front of the machine and against the back stop  $k$ , thereby unlocking the carriage and permitting it to return to normal position. Instead of releasing the carriage in this way, it may be done by slight strain ex-



erted upon  $j$  toward the front of the machine acting to carry  $n$  and  $k'$  out of locking engagement.

The stop  $k'$  is shown as a roller or rotatable sleeve turning upon a pin  $k^3$  fixed in the side of the frame. This construction I find efficient. It relieves friction and yet the roller is capable of forming a lock, with the latch lever, capable of withstanding the tension or strains exerted when the carriage is locked in shifted position.

I claim as my invention:

1. In a writing machine, the combination with a shifting carriage and shift key-lever having a finger piece applied directly to it, of a latch-lever, also having a finger piece, pivoted on the key-lever and acting when depressed to actuate the key-lever to shift the carriage, a stop with which the latch engages to lock the carriage in shifted position when the carriage is shifted by pressure applied to the latch-lever, and means for preventing locking of the carriage when shifted by pressure applied directly to the shift key lever.
2. In a writing machine, the combination with a shifting carriage and shift key-lever having a rigid finger piece, of a latch-lever also having a finger piece pivoted on the key-lever and acting when depressed to actuate the key-lever to shift the carriage, a stop with which the latch engages to lock the carriage in shifted position and a spring, mounted on the key-lever, whose reaction tends to hold the latch-lever out of engagement with said stop when the key-lever is operated by pressure applied directly to it.
3. In a writing machine, the combination with a shifting carriage, of a shift key-lever having a finger-piece applied directly to it, a latch-lever pivoted thereon and also having a finger piece, a spring interposed between the key-lever and latch-lever, a fixed stop with which the latch-lever engages to lock the carriage when the key-lever is actuated by depression of the latch and out of engagement with which the reaction of the spring holds the latch-lever when the key lever is depressed by its own finger piece.
4. In a writing machine, the combination with a shifting carriage, of a shift key-lever having a finger-piece, an angular latch-lever having a vertical stem equipped with a finger piece and the angular extension of which is pivoted to the key-lever in front of the stem, a spring interposed between the key-lever and latch lever and the reaction of which tends to throw the stem of the latter toward the front of the machine and a fixed stop out of engagement with which the stem of the

latch-lever is held by the spring when the key-lever is depressed by its finger piece and into engagement with which it is carried to lock the carriage when the key-lever is depressed by means of the latch-lever finger piece.

5. In a writing machine, the combination of a shifting carriage, a longitudinally arranged shift lever pivoted, at its rear end and having a finger piece in the key board, a latch lever pivoted on the shift lever and having an upwardly extending stem with a finger piece, a stop with which the stem engages to lock the carriage in shifted position and a spring interposed between the shift lever and latch lever and whose reaction tends to carry the stem away from the stop.

6. In a writing machine, the combination of a shifting carriage, a longitudinally arranged shift lever pivoted at its rear end and having a finger piece in the key board, a latch lever pivoted on the shift lever and having an upwardly extending stem with a finger piece, a roller stop with which the stem engages to lock the carriage in shifted position and a spring interposed between the shift lever and latch lever and whose reaction tends to carry the stem away from the stop.

7. In a writing machine, the combination with a shifting carriage and shift key levers having a rigid finger piece of a latch-lever, also having a finger piece, pivoted on the key-lever and acting when depressed to actuate the key lever to shift the carriage, a roller stop with which the latch engages to lock the carriage in shifted position and a spring, mounted on the key-lever, whose reaction tends to hold the latch-lever out of engagement with said stop when the key lever is operated by pressure applied directly to it.

8. In a writing machine, the combination of a shifting carriage, a longitudinally arranged shift lever pivoted, at its rear end and having a finger piece in the key board, a rearwardly rocking latch lever pivoted on the shift lever and having an upwardly extending stem with a finger piece, a stop with which the rear face of the stem engages to lock the carriage in shifted position and a spring interposed between the shift lever and latch lever and whose reaction tends to carry the stem away from the stop.

In testimony whereof, I have hereunto subscribed my name.

JAMES R. MACGUFFIE.

Witnesses:

EDWIN B. HESS,  
L. F. BROWNING.