J. C. LODOR.

TYPE WRITER ATTACHMENT.

APPLICATION FILED FEB. 19, 1912.

1,048,979.

Patented Dec. 31, 1912.

3 SHEETS—SHEET 1.

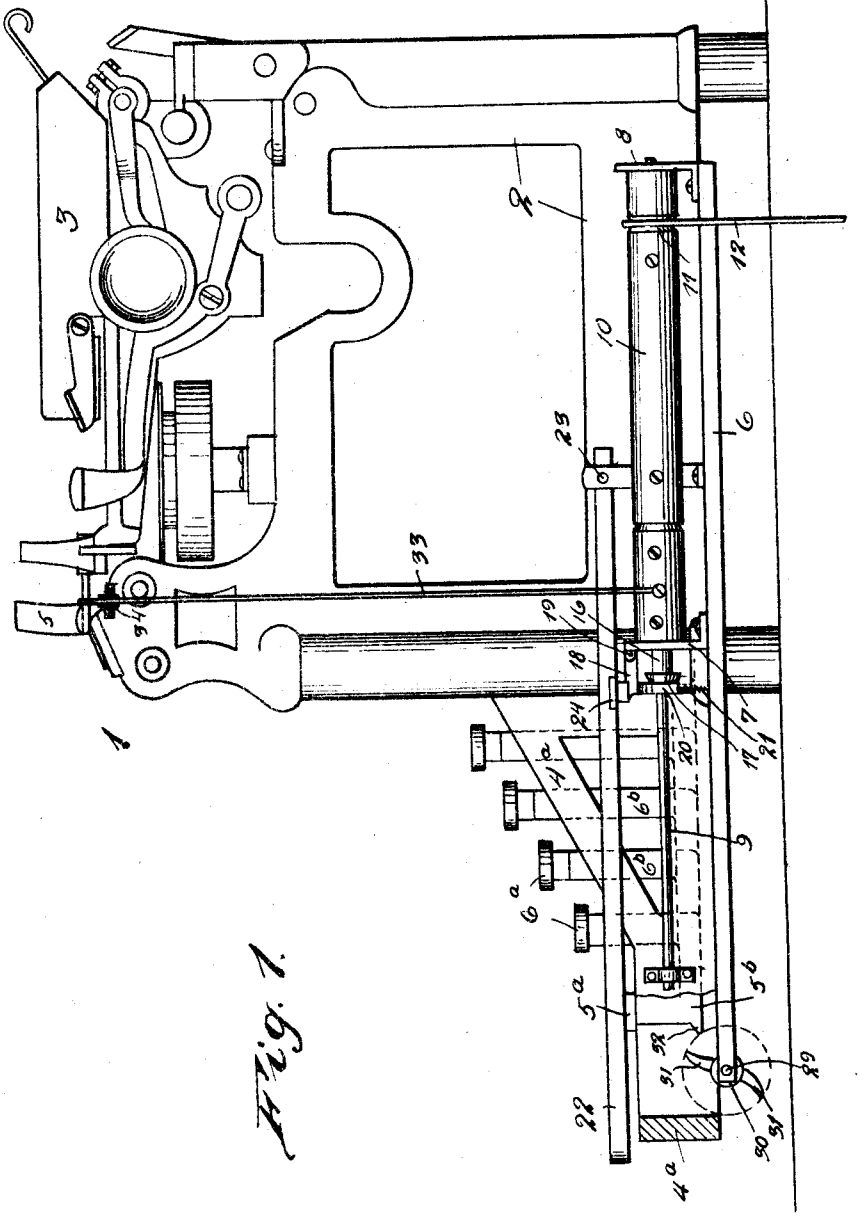

Fig. 1.

Inventor

James C. Lodor

Witnesses

J. Milton Foster

By

C. L. Parker

Attorney

J. C. LODOR.

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3 SHEETS—SHEET 2.

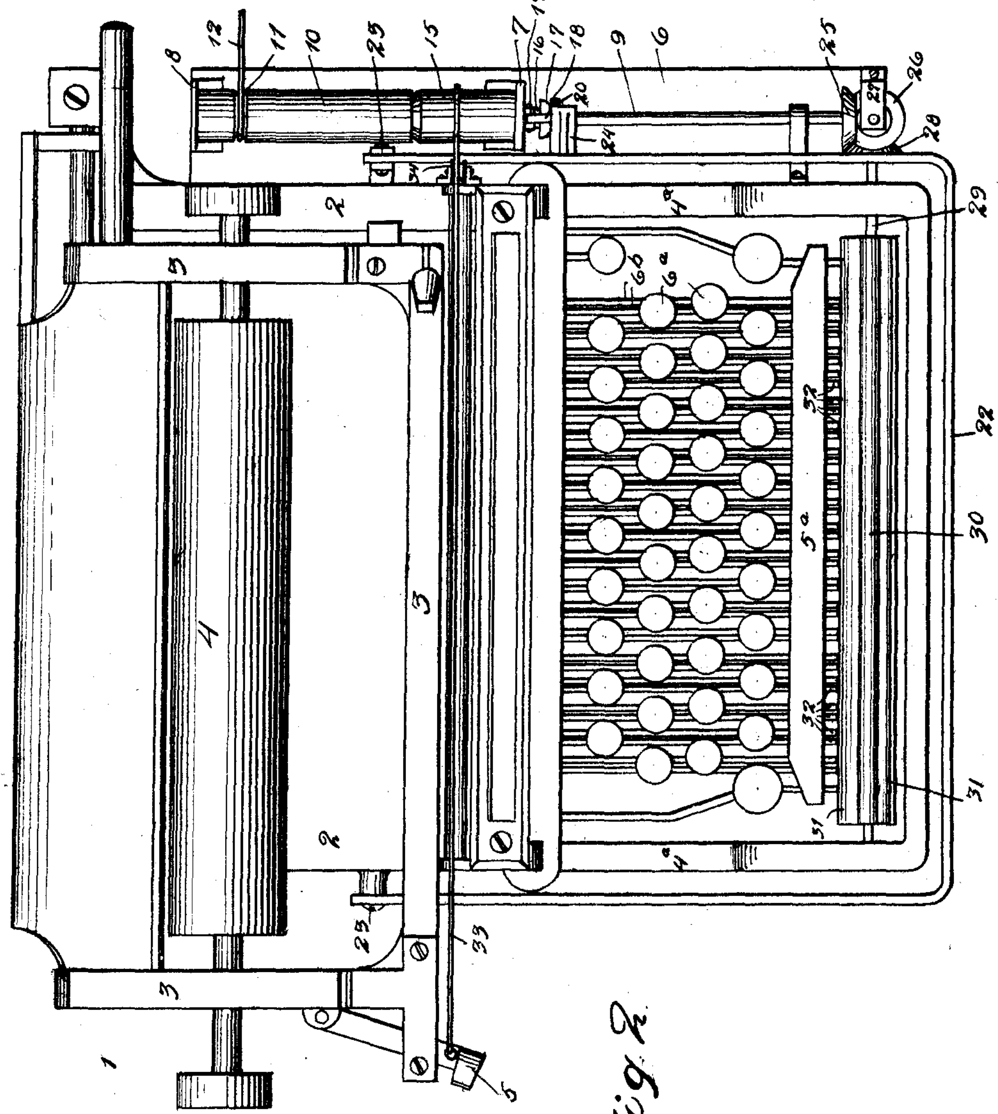

Fig 2

Inventor

James C. Lodor

Witnesses

J. Milton Jester

B. P. Fishburne

By C. L. Parker

Attorney

J. C. LODOR.

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3 SHEETS—SHEET 3.

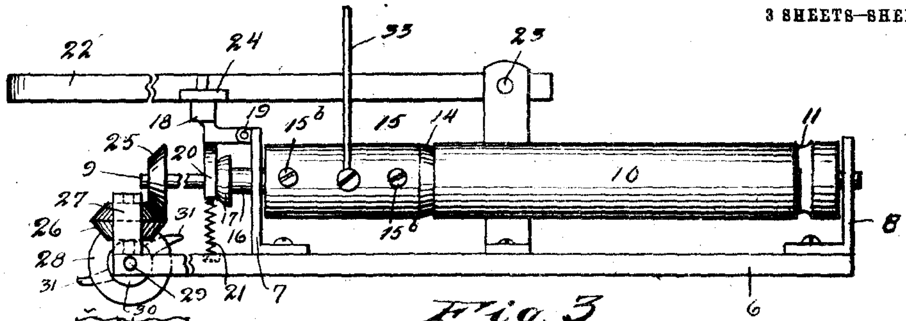

Fig. 3

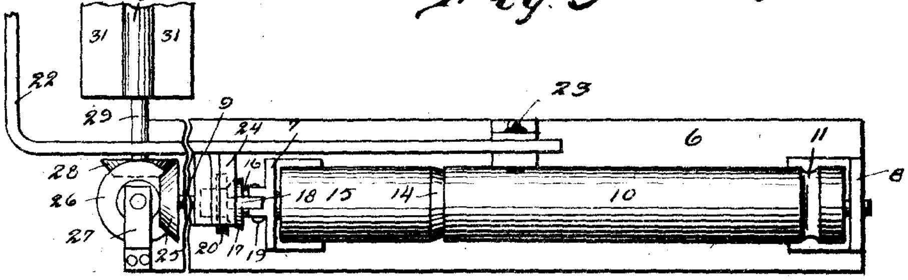

Fig. 4.

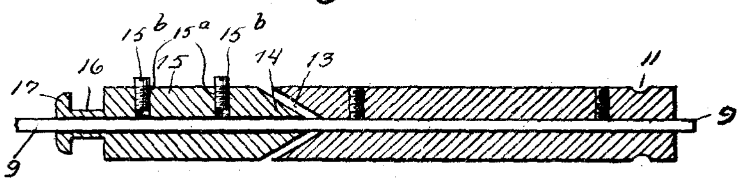

Fig. 6.

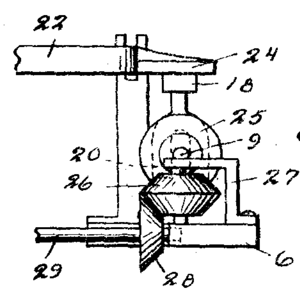

Fig. 5.

Inventor
James C. Lodor.

Witnesses
J. Milton Jester
B. P. Fishburne

By C. L. Parker
Attorney

UNITED STATES PATENT OFFICE.

JAMES C. LODOR, OF WILMINGTON, NORTH CAROLINA.

TYPE-WRITER ATTACHMENT.

1,048,979. Specification of Letters Patent. Patented Dec. 31, 1912.

Application filed February 19, 1912. Serial No. 678,453.

To all whom it may concern:

Be it known that I, JAMES C. LODOR, a citizen of the United States, residing at Wilmington, in the county of New Hanover and State of North Carolina, have invented certain new and useful Improvements in Type-Writer Attachments, of which the following is a specification.

The present invention relates to novel means for returning the carriage of a typewriter to its starting position.

An important object of my invention is to provide means of the above mentioned character which will expedite the operation of a typewriter, saving both the time and strength of the operator.

A further object of the invention is to provide means of the above mentioned character, which may be applied to almost any of the well known typewriters without materially altering their construction.

A further object of the invention is to provide means of the above mentioned character, which are simple in construction, positive in operation, and not liable to derangements.

Other objects and advantages of the present invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same, Figure 1 is an end view of a typwriter showing my device applied thereto, Fig. 2 is a plan view of the same, Fig. 3 is a side elevation of the device included in my invention, the same being enlarged and removed from the typewriter, Fig. 4 is a plan view of the same, Fig. 5 is an end view of the same and Fig. 6 is a central longitudinal view taken through the driving and driven rolls or cylinders.

In the drawings wherein is illustrated a preferred embodiment of my invention, the numeral 1 designates a typewriter as a whole. For the sake of illustration I have shown my invention as applied to an Underwood typewriter but it is to be understood that the invention is in no sense restricted to the use of this type of machine alone, as it may be just as advantageously employed in connection with other typewriters.

The typewriter comprises a main frame 2, upon which is mounted the ordinary longitudinally movable carriage 3, carrying a rotatable platen 4.

The numeral 5 designates the ordinary lever employed to turn the platen and return the carriage to its normal starting position.

The numeral 4^a designates a key-board frame, within which are disposed the space bar 5^a carried by levers 5^b and keys 6^a carried by levers 6^b.

It is believed that the above description of the typewriter will suffice to properly illustrate the application of the present invention to the same.

The numeral 6 designates a horizontal base, which is rigidly connected with the lower end portion of the frame 2 and carries upstanding supports or brackets 7 and 8, as shown. Journaled through these brackets is a rotatable shaft 9, having a driving cylinder or roll 10 rigidly mounted thereon. The roll 10 is provided near its rear end with an annular groove 11, to receive a belt 12, having suitable connection with the motor or other source of power. At its opposite end the cylinder or roll 10 is provided with a conical opening 13, to receive a reduced conical end 14 of a driven cylinder or roll 15. The cylinder or roll 15 is loosely mounted on the shaft 9 and is free to both turn and move longitudinally on this shaft. The cylinder or roll 15 is provided at its forward end with a short sleeve 16, carrying a head 17, as shown. The cylinder or roll 15 is moved longitudinally into locking engagement with the roll 10 by a swinging key or element 18, pivotally mounted upon the upper end of the bracket 7, as shown at 19. This key carries near its forward end a depending fork 20, straddling the shaft 9 and engaging the head 17, as shown. The element 18 is normally held in its elevated position by compressible coil spring or springs 21, which are connected with the base 6 and the fork 20.

Disposed outwardly of the key board frame 4^a is an operating bar 22, which is substantially U-shaped and has its inner ends pivotally connected with the frame 2, as shown at 23. Upon one side, the U-shaped bar 22 carries a wing or extension 24, adapted to engage the key or element 18 and swing the same downwardly when the bar 22 is moved downwardly.

At its forward end the rotatable shaft 9

has a friction gear 25 rigidly connected therewith, engaging an intermediate double friction gear 26, which is suitably journaled in a fixed bracket 27. The friction gear 26 engages a friction gear 28, which is rigidly mounted upon a horizontal shaft 29, having one end preferably journaled through the base 6 and the other end through a bearing (not shown) attached to the key board frame. Rigidly mounted upon the shaft 29 is a sleeve 30 carrying preferably diametrically arranged slightly curved blades 31. The levers 5^b of the space bar 5^a and the levers 6^b of the keys 6^a are each provided at their forward end with a tooth or extension 32, which is disposed out of the path of travel of the blades 31 when the levers are in their most elevated positions. When the operator first slightly depresses the lever, the extension 32 is swung downwardly and assumes a position in the path of travel of the rotating blades 31, to be engaged thereby and further depressed by the same.

Connected with the lever 5 is a cable 33, trained about a guide pulley 34 and extending downwardly and attached to the cylinder 15, as shown.

The operation of the device is as follows: The roll 10 is being continuously rotated which rotation is imparted to the shaft 29 and the sleeve 30 carrying the blades 31. The operator firstly slightly depresses a selected key 6^a or the space bar 5^a, which brings the tooth or extension 32 into the path of travel of the blades 31. The blade now engages the tooth or extension 32 and carries the lever attached to the same downwardly for the full extent of its travel. In this manner the strength of the operator is saved and the machine operated more quickly. As soon as the blade 31 rotates out of engagement with the extension 32, the key lever at once returns to its normal elevated position, to bring the extension 32 out of the path of travel of the blades. When it is desired to move the carriage to the right to its normal starting position the operating bar 22 is depressed, whereby the cylinder or roll 15 is moved into locking engagement with the roll, 10, causing the cable 33 to be wound upon the roll 15. This cable pulls on the lever 5, causing the platen 4 to be turned for spacing the line and subsequently effecting the longitudinal travel of the carriage 3. When the carriage has reached the end of its travel to the right, the bar 22 is released and operative connection broken between the rolls 10 and 15.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that certain changes in the shapes, sizes, and arrangements of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:—

1. The combination with the carriage of a typewriter, of a rotatable shaft, a roll mounted thereon, means to rotate the roll, a second roll loosely mounted on the shaft and adapted upon being moved longitudinally in one direction to have locking engagement with the first named roll, means to effect the longitudinal movement of the second roll, and means connecting the second roll with the carriage.

2. The combination with the carriage of a typewriter, of a rotatable shaft, a roll mounted thereon, means to rotate the roll, a second roll loosely mounted on the shaft and movable toward and away from the first named roll, means to move the second roll longitudinally, connecting means between the second roll and the carriage, and key-lever operating means connected with the rotatable shaft.

3. The combination with the carriage of a typewriter, of a rotatable shaft, a roll rigidly mounted thereon, a second roll loosely mounted on said shaft and movable toward and away from the first named roll, connecting means between the second roll and the carriage, means including a swinging element to shift the second roll, and a pivoted lever to operate the last named means.

4. The combination with the carriage of a typewriter, of a roll, means to rotate the same, a second roll longitudinally movably mounted into and out of engagement with the first named roll, a cable connecting the second roll and carriage, a movable element to longitudinally shift the second roll, and a manually operated element to move the first named element.

5. The combination with the carriage of a typewriter, of a driving element provided at one end with an approximately conical opening, a driven element provided at one end with a reduced approximately conical extension to engage in said conical opening, connecting means between the driven element and carriage, means to longitudinally shift the driven element, and means to rotate the driving element.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES C. LODOR.

Witnesses:
H. V. CONLY,
H. H. FORD.