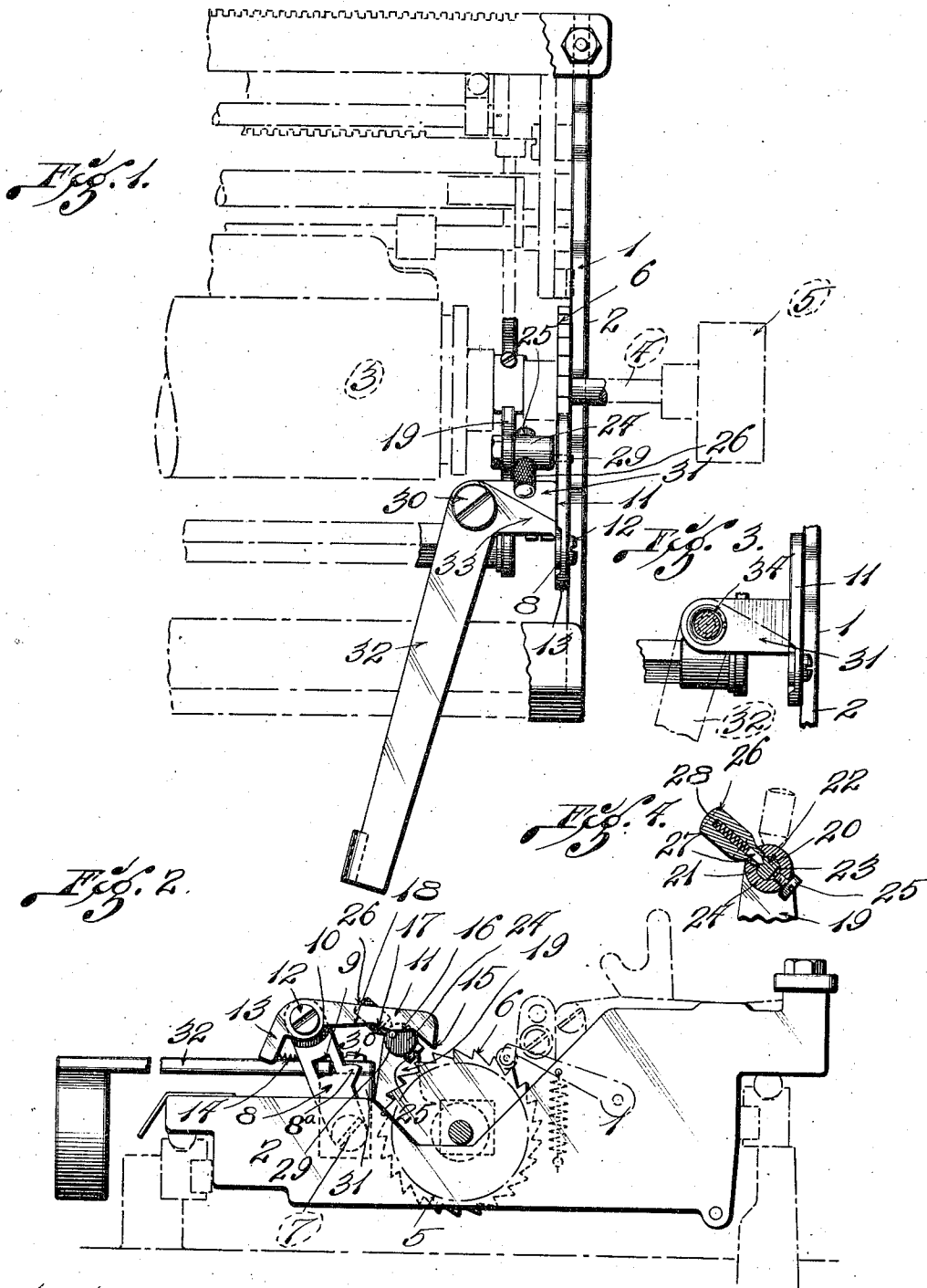


O. THIEME.
 PLATEN ROTATING MEANS FOR TYPE WRITING MACHINES.
 APPLICATION FILED SEPT. 23, 1910.

1,028,505.

Patented June 4, 1912.



WITNESSES:
 C. M. Harrington.
 J. W. Clift

INVENTOR:
 OTTO THIEME.
 BY F. R. Cermak. 4578.

UNITED STATES PATENT OFFICE.

OTTO THIEME, OF ST. LOUIS, MISSOURI, ASSIGNOR TO MOON-HOPKINS BILLING MACHINE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

PLATEN-ROTATING MEANS FOR TYPE-WRITING MACHINES.

1,028,505.

Specification of Letters Patent.

Patented June 4, 1912.

Application filed September 23, 1910. Serial No. 583,437.

To all whom it may concern:

Be it known that I, OTTO THIEME, a citizen of the United States, residing at 1901 Pine street, St. Louis, Missouri, have invented a certain new and useful Improvement in Platen-Rotating Means for Type-Writing Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a general plan view of my improved device shown diagrammatically. Fig. 2 is an elevational view. Figs. 3 and 4 are detail views.

This invention relates to improvements in the means for rotating a platen in a type-writing machine.

It is often necessary to double space the lines of printing on a sheet and my object has been to provide a simple device to be used in connection with the ordinary operating means for a platen, which determines as to the spacing or amount of rotation of the platen between the lines of the sheet to be printed. This result may be accomplished by simply changing position of one of the elements on the machine.

Referring to the drawings, 1 indicates generally the carriage of the machine, and 2 the end-piece of the carriage having the usual platen 3 journaled therein. The platen is mounted on shaft 4 extending beyond the carriage and having the usual hand wheel 5 attached. Fixed on the shaft 4 also inside the carriage is a ratchet wheel 6. Pivoted at 7 on a fixed part of the carriage is an arm 8 having a slot 9 in the body thereof, an overthrow stop or pawl 8^a and a groove 10 in the head for the reception of a pawl member 11. The pawl is pivoted to the arm 8 on the stud 12, and has a tail piece 13 with a spring 14 attached at one end to the tail piece, and at the other to the arm 8. The pawl 11 has a sharp pointed portion 15 at its end, and a flat surface 16 connected by an inclined portion 17 with another flat straight portion 18 of the pawl.

Suitably mounted on the carriage is a fixed bracket 19 having a pin member 20 projecting from the upper end thereof with V-shaped notches 21 and 22, in its periphery and opposite said notches a flattened portion

23. On this pin member is mounted a sleeve 24 which has a stud member 25 screwed therein to engage the flattened portion 23 of the pin 20. Screwed into the periphery of the sleeve opposite the stud 25 is a hand piece 26 internally bored for the reception of a pointed pin 27 acted upon by an expansive spring 28. By this construction the hand member 26 is operated and the spring actuated pin 21 is pressed out of position if it be in a notch in the pin 20 and the sleeve 24 can thereby be moved until the pin 27 drops into a second notch as, for example 22.

If for any reason it is desired to retain the sleeve member 24 in any fixed position the stud 25 may be screwed in to engage the flattened portion 23 of the pin 20. Projecting from one end of the sleeve 24 is a pin member 29 upon which the pawl 11 rests. The sleeve 24 may be retained on the fixed bracket 19 in any suitable manner, as for example, the flattened portion 23 of the pin may be discontinued to be formed on a small portion only of the pin so that the stud 25 may have a portion adapted to engage this notch or flattened portion of the pin as noted above.

Pivoted at 30 on a bracket 31 of the carriage is a hand lever 32 with a projecting portion 33 engaging in the slot 9 in the lever 8. If desired the pivoted pin 30 may be attached to a coil spring 34 which is also fixed to the bracket 31 and tends to hold the arm 32 in position to prevent the pawl 11 from engaging the ratchet wheel 6. The hand lever 32 is positioned so as to be used not only to operate the platen-feeding pawl, but is also to be used to return the carriage to right hand position. As this lever is constructed, it is first operated to actuate the pawl 11, and afterward may be pressed to return the carriage to right hand position.

With the parts in position shown in Fig. 2 upon operation of the hand lever 32 the end of the pawl 15 will engage every tooth on the ratchet, and the ratchet will be rotated through the distance of two teeth or more in each operation of the lever. If, however, the hand piece 26 be moved into the dotted line position in Fig. 4 so that the spring actuated pin 21 engages the notch 22, the pin 29 is moved forward or toward the ratchet wheel and when the hand lever 32 is operated the inclined portion 17 of the

pawl will not strike this pin until later in the stroke of the lever 14, and therefore, the point of the pawl 15 will not be lowered as soon as in the other position. For this reason the ratchet wheel will be moved by the pawl a less distance than in the former position of the parts, that is, say, a distance of one tooth.

It is obvious that any number of notches 21 and 22 may be applied to the periphery of the pin 20 so that the amount of movement of the ratchet, and therefore, of the platen may be changed any number of times.

The overthrow stop or pawl 8^a upon the completion of a forward movement of the arm 8 is moved into engagement with one of the notches of the ratchet wheel 5 where it acts as a stop to prevent overthrowing of the ratchet by the pawl 15.

I do not wish to be understood as limiting my invention to its use in connection with the platen of a typewriting machine, as it will be equally as useful in many other constructions.

I am fully aware that changes in the construction, arrangement and combination of elements may be made in my device without departing from the spirit of my invention, the scope of which is indicated in the accompanying claims.

I claim:

1. In a device of the character described, a roller having a ratchet wheel attached and operating means therefor, comprising a pawl, a spring tending to move said pawl toward the ratchet wheel, a pin supporting said pawl, a sleeve upon which said pin is mounted, and means for shifting the sleeve to change the relation of the supporting pin to the pawl.

2. In a device of the character described, a roller having a ratchet wheel attached and operating means therefor, comprising a pawl, a spring tending to move said pawl toward the ratchet wheel, a pin supporting said pawl, a sleeve upon which said pin is mounted, means for shifting the sleeve to change the relation of the supporting pin to the pawl, and means on the sleeve for retaining the pin in adjusted position.

3. In a device of the character described, a roller having a ratchet wheel attached, means for operating said ratchet wheel comprising a pivoted pawl, a pin supporting said pawl above the ratchet wheel, a sleeve member upon which said pin is fixed, a notched support for said sleeve member, and a spring actuated pin mounted in the sleeve

member and adapted to engage either of the notches in the support.

4. In a device of the character described, a roller having a ratchet wheel attached, a vertically slotted lever, a spring-actuated pawl pivoted thereto adjacent the ratchet wheel, an independent support for the pawl, and a horizontally movable hand lever engaging the slot of the first lever.

5. In a device of the character described, a roller having a ratchet wheel attached, a slotted lever, a spring-actuated pawl pivoted thereto adjacent the ratchet wheel, an adjustable support for the pawl, and a second lever engaging the slot of the first lever.

6. In a device of the character described, a roller, a ratchet wheel mounted to rotate with said roller, a slotted lever, an overthrow pawl carried by said slotted lever and arranged to contact with said ratchet wheel when said lever is swung to its limit in advanced position, a pawl pivoted to said slotted lever above the ratchet wheel, and a hand lever engaging the slot in the slotted lever, said hand lever being mounted on a vertical pivot to move in a horizontal direction.

7. In a device of the character described, a roller having a ratchet wheel attached, a vertical lever, a pawl mounted upon said vertical lever, an overthrow stop carried by said vertical lever and adapted to contact with said ratchet wheel when said pawl is moved to its limit of movement in a forward direction, an operating lever movable in a horizontal plane adapted to engage said vertical lever to operate said parts, a vertical pivot about which said operating lever oscillates, and a coiled spring around said vertical pivot, substantially as described.

8. In a device of the class described, a roller having a ratchet wheel attached, operating means therefor comprising a pawl having on its under side a straight portion and an inclined portion, a pin bearing on said straight portion to support said pawl in position above the ratchet wheel, a spring for maintaining said straight portion in contact with said pin, and means for oscillating and positioning said pin to raise and lower the normal position of said pawl.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 12th day of September, 1910.

OTTO THIEME.

Witnesses:

J. W. CLIFT,
M. P. SMITH.