C. GABRIELSON.

PLATEN POSITION INDICATOR.

APPLICATION FILED JULY 26, 1913.

1,184,736. Patented May 30, 1916.

Fig. 1.

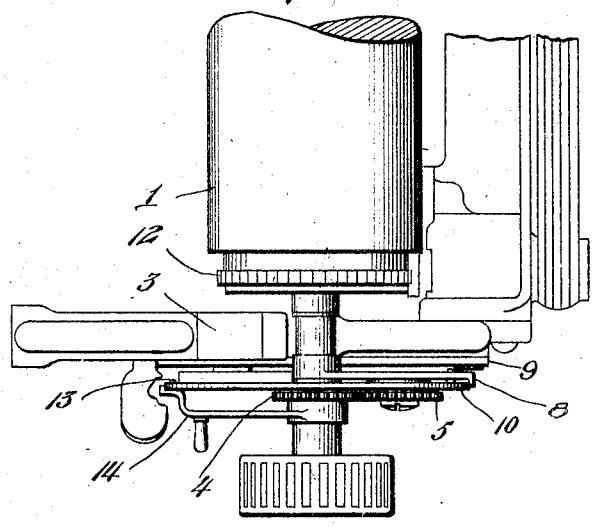


Fig. 2.

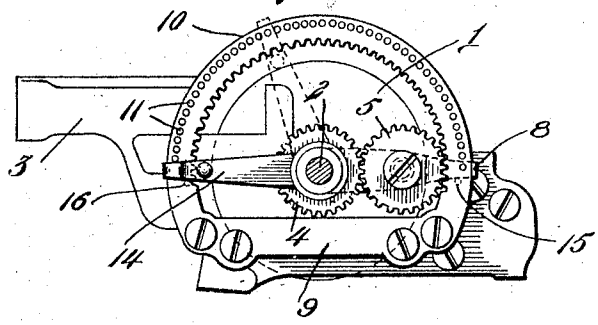


Fig. 3.

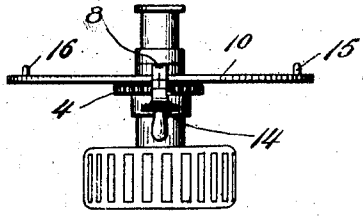
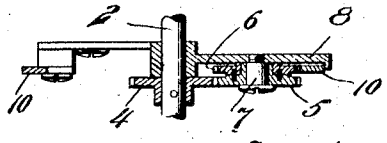


Fig. 4.



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UNITED STATES PATENT OFFICE.

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PLATEN-POSITION INDICATOR.

1,184,736. Specification of Letters Patent. Patented May 30, 1916.

Application filed July 26, 1913. Serial No. 781,444.

To all whom it may concern:

Be it known that I, CARL GABRIELSON, a citizen of the United States, and resident of Syracuse, county of Onondaga, State of New York, have invented certain new and useful Improvements in Platen-Position Indicators, of which the following is a specification.

The present invention relates to an improvement in typewriting machines and particularly to an attachment which may be termed a "platen position indicator" and which is particularly intended for use in so-called "condensed billing" and other special work.

The object of the invention is to provide a simple attachment for a typewriting machine by means of which an operator may, without special care or attention, properly position the first line of writing on each of a series of sheets at the same uniform distance from the upper edge of the sheet. The attachment, as above noted, is especially applicable for use in condensed billing work or the writing of addresses on circular letters, etc.

In the accompanying drawings: Figure 1 is a plan view of a portion of the carriage and platen of a typewriting machine having an embodiment of the invention applied thereto; Fig. 2 is an end elevation; Fig. 3 is a plan view of some of the parts shown in Fig. 1, the parts being in a different position from that illustrated in Figs. 1 and 2; and Fig. 4 is a sectional view of part of the improved attachment.

Referring to the drawings, 1 designates the platen of a typewriting machine which, as shown, is provided with a shaft 2 mounted in suitable bearings in the ends of a carriage, one of which is represented at 3. The platen is provided with a line space ratchet 12 adapted to be engaged by a suitable feed pawl, not shown, and on the shaft 2 beyond the carriage end piece 3 is secured a hand wheel by means of which the shaft and platen may be turned if desired.

A bracket 9 is attached to the end of the carriage and includes a segmental guide 10 that extends concentric with the axis of the platen, said curved member 10 having its inner edge toothed to form a curved rack.

Loosely mounted on the shaft 2 so as to turn thereon is an arm or pointer 8, the free end of which is deflected laterally to overlie the outer curved edge of the bracket 9. On a stud 7 carried by the pointer 8 are mounted two gears 6, 5 which respectively mesh with the aforesaid segmental rack and a pinion 4 secured to the platen shaft 2. The pinions 5, 6 are frictionally connected so that while the pointer 8 may be caused to move with the platen as the latter is rotated the pointer may be held stationary without interfering with the turning movement of the platen.

Loosely mounted on the hub of the platen 1 is a second arm or pointer 14 which is provided adjacent its free end with a pin or stud 13 adapted to engage any one of a series of sockets 11 formed in the adjacent face of the curved member of the bracket 9. The arm or pointer 14 is provided with a suitable projection by means of which it may be turned to position its stud 13 in alinement with any selected socket 11 and by this means said arm or pointer can be held stationary in any adjusted position. The sockets 11 are suitably spaced and arranged to conform to line space distances on the platen feed ratchet 12 and the gearing intermediate of the platen and pointer 8 is so proportioned that when the platen and pointer are turning together the latter will travel only one-quarter as fast as the platen, so that a half revolution of the pointer about the axis of the platen will correspond to two complete revolutions of the platen.

Normally the parts will occupy the position shown in Fig. 2 in which the pointer 8 is resting upon an abutment or stud 15 secured to and projecting laterally from the bracket 9. With the parts in this position the turning of the platen in a forward direction or that in which a sheet thereon will be fed for line spacing will not be interfered with, the frictional engagement between the gears 5, 6 permitting the former to rotate about the stud 7 while the pointer 8 remains stationary. If, however, the platen is turned backward, or in a reverse direction, the pointer will be carried away from the abutment 15 by the engagement of the pinion 6 with the curved rack.

In using the attachment for condensed

billing the operator will, of course, first determine to what extent it is necessary to turn the platen forward to carry the bill to be written to correct position for printing and the amount of space which it is desired to have separating the successive bills on the sales sheet. If, for example, it should be necessary to give one complete revolution to the platen to properly position a bill for printing and it is determined that the successive bills on the sales sheet shall be separated by a space equal to three line spaces the operator will position the arm or pointer 14 in engagement with the proper socket of the bracket 9. After the first bill has been written and withdrawn from the machine the platen will be turned backward until the pointer 8 comes into alinement with the pointer 14 or the parts have the relative position shown in Fig. 3. The second bill will then be inserted in the machine and the platen turned forward until the pointer 8 is again bearing upon its abutment 15 when the second bill will be in correct position to receive the first written line. This operation will be repeated until the sales sheet is properly filled.

It will be seen that the pointer 8 is so connected with the platen that it will move therewith whenever the platen is turned backward and when said pointer is bearing upon the abutment 15 no appreciable check or obstruction to forward feeding of the platen is offered. The slight frictional engagement between the disks or gears 5 and 6 is not appreciable so that the practically free and unlimited rotation of the platen in either direction is not interfered with.

Preferably a second abutment 16 positioned diametrically opposite the stud 15 is provided on the bracket 9, extending into the path of movement of the pointer 8. This abutment is intended to coöperate with the pointer 8 when using the device for filling in names and addresses on circular letters. In using the device for this purpose the pointer 8 is turned about the platen shaft until it rests upon the abutment 16 and the parts are then operated as follows: The first sheet to be written is inserted in the usual manner and the platen turned forward until the proper line is in writing position. The pointer 14 is then adjusted so that it is in alinement with the pointer 8. After the name and address have been written the sheet is withdrawn, being pulled out backward if long enough, without releasing the paper feed rollers. Such backward turning of the platen will move the pointer 8 to a position of rest against the abutment 16 and when a subsequent sheet is inserted the operator turns the platen forward until the pointers 8 and 14 are in alinement, which will insure the proper positioning for receiving the first line of writing. In case the sheets employed are not long enough to permit them to be withdrawn backward as above described the pointer 8 will be manually restored to contact with the abutment 16, following the removal of one sheet and before a subsequent sheet is inserted in the machine.

Having thus described the invention what is claimed as new and desired to be secured by Letters Patent is:

1. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a relatively stationary indicator, a pointer mounted to turn with the platen to and from alinement with said indicator, and means independent of the stationary indicator for limiting movement of the pointer in one direction without limiting rotation of the platen in the same direction.

2. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a pointer connected with the platen to turn therewith and adapted to be held from movement in the direction in which the platen is turned to feed a sheet in writing without limiting such feeding movement of the platen, and a relatively stationary indicator with which the pointer is adapted to aline when the platen is turned a predetermined extent in the reverse direction.

3. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a pivotally mounted pointer, and gearing connecting the pointer and platen to cause them to turn together from normal position at different speeds until the pointer has traveled a predetermined distance and permitting further independent movement of the platen while the pointer remains stationary.

4. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a position indicating device comprising a pointer adjustable about the axis of the platen and adapted to be secured in any adjusted position, a second pointer adapted to move with the platen to and from alinement with the first said pointer, and means for limiting movement of the second pointer when the platen is rotated in one direction without preventing movement of the platen to a greater extent in the same direction.

5. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a position indicating device comprising a pointer supported by the platen shaft and rotatably adjustable thereon, means for holding said pointer stationary in any adjusted position, a second pointer geared to the platen to be adjusted by rotation thereof to and from alinement

with the first said pointer, and means positively limiting movement of the second pointer with the platen in one direction without appreciably checking rotation of the platen in the same direction.

6. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a pointer supported to turn about the axis of the platen, a stationary segmental rack, a pinion mounted to turn with the platen, and gearing connecting the pointer with said rack and pinion to cause the platen and pointer to simultaneously move in the same direction for a predetermined distance and permitting further independent movement of the platen while the pointer remains stationary.

7. In a typewriting machine, the combination with a rotary platen, and means for turning it, of means for insuring the uniform spacing of the first lines of writing from the top edges of a series of sheets comprising a pointer geared to the platen to move therewith during rotation in either direction, means for limiting movement of the pointer in the direction in which the platen is turned to feed a sheet in writing without preventing further movement of the platen in the same direction, and an adjustable device coöperating with the pointer to indicate the extent of rotation of the platen in the opposite direction.

8. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a pointer mounted to turn about the axis of the platen, a stationary segmental rack extending concentric with the platen axis, a gear carried by the pointer and meshing with said rack, connections between the gear and platen for turning the pointer in the same direction as and simultaneously with the platen and permitting the pointer to remain stationary without appreciably checking rotation of the platen, and a stop for positively limiting movement of the pointer in one direction.

9. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a pointer mounted to turn about the axis of the platen, a stationary segmental rack extending concentric with the platen axis, a pinion connected with the platen to rotate therewith, two frictionally connected gears mounted on the pointer and meshing respectively with said pinion and rack, and a stop for limiting movement of the pointer in one direction.

10. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a pointer mounted to turn about the axis of the platen, a stationary segmental rack extending concentric with the platen axis, a pinion connected with the platen to rotate therewith, two frictionally connected gears mounted on the pointer and meshing respectively with said pinion and rack, and two diametrically opposed stops for limiting movement of the pointer.

11. In a typewriting machine, the combination with a rotary platen, and means for turning it, of a stationary segmental guide concentric with the platen axis, two pointers positioned on opposite sides of the guide and both movable about the axis of the platen, means for engaging one of the pointers with said guide in any adjusted position, means adapted to cause the second pointer to move simultaneously with the platen toward and from the relatively stationary pointer and permit the second pointer to be stationary without appreciably checking the free rotation of the platen, and means for limiting movement of the second pointer.

12. In a typewriting machine, the combination with a rotary platen, of a pointer adapted to turn about the axis of the platen, connections between the platen and pointer for causing the latter to move simultaneously with and in the same direction as the platen, and permitting a practically unlimited independent movement of the platen in either direction, a fixed abutment adapted to limit movement of the pointer with the platen, when the latter is rotated in one direction, and means for indicating when the pointer and platen have been turned in the opposite direction a predetermined distance from the normal position of the pointer in contact with said abutment.

13. In a typewriting machine, the combination with a rotary platen, of a pointer adapted to turn about the axis of the platen, a fixed abutment against which the pointer normally rests, connections between the platen and pointer for moving the latter to and from the abutment as the platen is turned, and permitting the movement of the platen beyond the limits of the movements of the pointer, and means for indicating the extent of separation of the pointer and abutment, for the purpose described.

14. In a typewriting machine, the combination with a rotary platen, of a pointer adapted to turn about the axis of the platen, a fixed abutment against which the pointer normally rests, connections between the platen and pointer for moving the latter to and from the abutment as the platen is turned, and permitting the movement of the platen beyond the limits of the movements of the pointer, and adjustable means coöperating with the pointer to indicate when the platen has been turned to a predetermined extent in a direction to carry the pointer from the abutment.

15. In a typewriting machine, the combination with a rotary platen, of a pointer adapted to turn about the axis of the platen,

a fixed abutment against which the pointer normally rests, connections between the platen and pointer for moving the latter to and from the abutment as the platen is turned, and means adjustable about the axis of the platen and adapted to aline with the pointer to indicate when the platen has been turned to a predetermined extent in a direction to carry the pointer from the abutment.

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

CARL GABRIELSON.

Witnesses:
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G. RAYMOND REED.