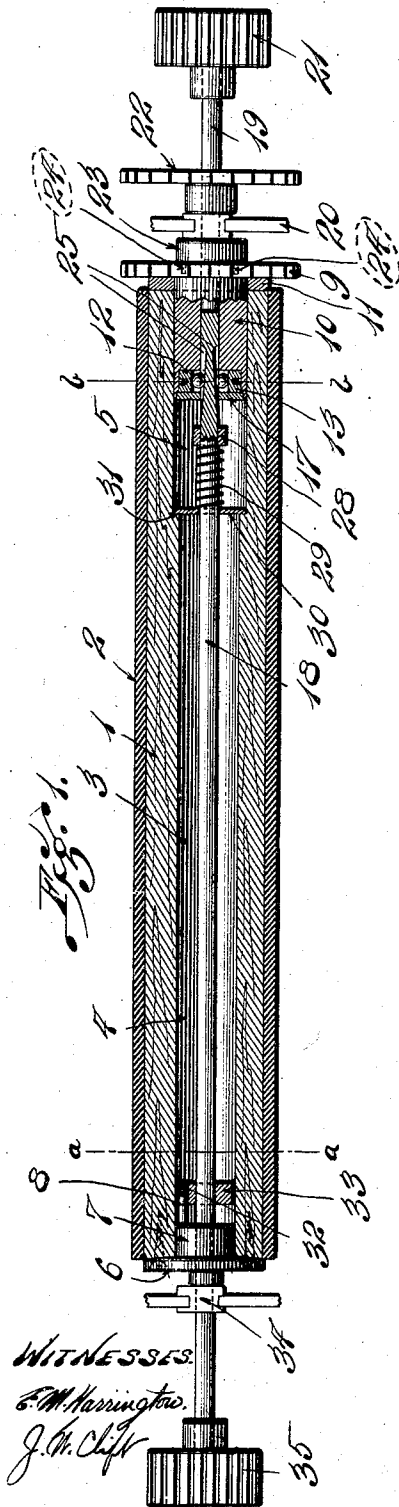


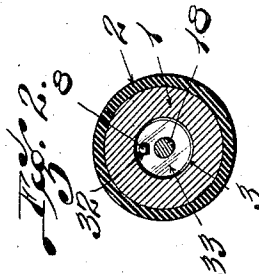
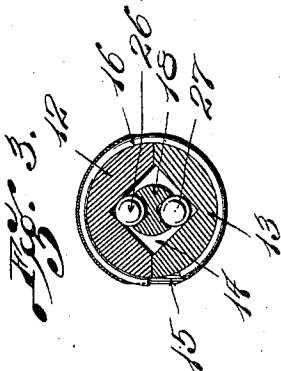
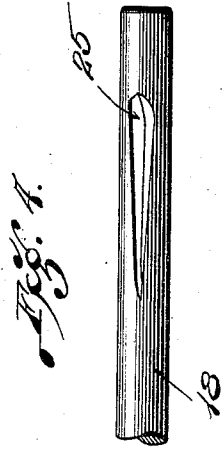
O. THIEME.
 PLATEN RELEASE FOR TYPE WRITING MACHINES.
 APPLICATION FILED SEPT. 23, 1910.

985,713.

Patented Feb. 28, 1911.



WITNESSES
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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-RELEASE FOR TYPE-WRITING MACHINES.

985,713.

Specification of Letters Patent.

Patented Feb. 28, 1911.

Application filed September 23, 1910. Serial No. 583,435.

To all whom it may concern:

Be it known that I, OTTO THIEME, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Platen-Releases 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 sectional view of my improved device. Fig. 2 is a sectional view taken on the line *a—b* of Fig. 1. Fig. 3 is a sectional view taken on the line *b—b* of Fig. 1. Fig. 4 is a detail of the platen shaft.

The invention relates to an improvement in a device for releasing the platen of a typewriting machine from its ordinary rotating means, so that it may be turned through a portional spacing or more than the ordinary interval between the lines of printing. For example, if it is desired to half space between certain lines of the composition or to increase the spacing four-fold this may be accomplished with the use of my improved device without effecting in any way the adjustments of the ordinary spacing mechanism.

Referring to the drawings, 1 indicates the body of the platen having the usual rubber impression surface 2, and open center 3. The opening or bore in the center of the platen is made of two different diameters, one extending nearly to the opposite end 4 of the platen, and the other with larger diameter 5 continuing to the end.

At one end of the platen is attached by suitable screws a collar portion 6 on the outside of the platen, and having a portion 7 extending into the bore 4 in the platen, with an elongated pin 8 projecting from the face thereof. At the other end of the platen is mounted a ratchet wheel 9 on an elongated hub portion 10 extending within the bore 5 of the platen. Between the end of the platen and the ratchet 9 is mounted a collar 11. At the end of the portion 10 opposite the ratchet wheel is mounted two segmental pieces 12 and 13, being cut away at the center to form a substantially square opening 14 and being grooved at 15 on its periphery for the reception of a split spring ring 16. A closure plate 17 is attached to the body 10

to hold the segmental pieces 12 and 13 in position.

Mounted within the bore of the platen is the platen shaft divided into two parts 18 and 19, the portion 18 extending through the platen nearly to the end having the ratchet wheel 9 thereon, and the portion 19 abutting against 18 extends through a bearing 20 on the carriage to the outside of the carriage having a hand knurled wheel 21 fixed thereon. Outside the bearing 20 is also fixedly mounted on the shaft 19 a second ratchet wheel 22 and inside the bearing 20 is fixedly mounted on the shaft 19 a collar 23 having pins 24 engaging the proper openings in the ratchet 9. This allows of the portion 19 of the shaft, having been withdrawn from the bearing 20, of being removed from the end of the platen together with the ratchet wheel 22 and the hand wheel 21. The shaft 18 is grooved on opposite sides in the shape illustrated in Fig. 4 at 25 for the reception of steel balls 26 and 27, which balls are adapted to engage the interior of the segments 12 and 13. As indicated in Fig. 1 more especially it will be seen that the slots 25 are inclined, the inclination progressing toward the end of the shaft. Adjacent these grooves a sleeve 28 is fixed to the shaft having an expansible spring 29 bearing against one face thereof, said spring at its other end engaging a plate 30 abutting against the shoulder 31 formed by the connection between the two differentially bored portions of the platen 4 and 5. Adjacent the other end of the shaft and adapted to always engage the pin 8 by means of a slot 32 in a cut in the periphery thereof, is a disk 33.

34 indicates the bearing for the platen shaft opposite the bearing 20, and 35 is a knurl hand wheel attached to the shaft.

The ratchet wheels 9 and 22 are of ordinary construction in typewriter platens, and are acted upon by suitable devices to rotate the platen to properly space the lines.

The hub portion 10 on the ratchet 9 is normally clamped to the platen shaft 18 which through the fixed sleeve 33 and pin 8 will produce the rotation of the platen through the ratchets 9 and 22. This normal clamping action is due to the fact that the balls 26 and 27 roll upon the inclined slots 25 in the shaft 18 as this shaft is pushed to the right by means of the spring 29, and by

such movement the segmental pieces 12 and 13 are separated to produce a tension in the split ring 16 which acting upon the balls tends to clamp the hub portion 10 to the shaft 18. If, however, the shaft 18 be moved to the left in Fig. 1 the balls 26 and 27 roll down the incline in the slots 25, thereby lessening the tension in the split ring 16, and reducing to nothing the clamping action between the hub portion 10 and the shaft. This disconnects the ratchet driving mechanism from the shaft 18, and if the hand wheel 35 be rotated the platen 1 may be moved independent of such mechanism to any desired position, this being brought about through the interconnection of the pin 8 and the sleeve 33 fast to the shaft 18. The shaft 18 moves loosely through the portion 7.

It is to be understood that I do not wish to limit my improvement to its use in connection with a typewriter platen as it may be advantageously used in connection with any rotating device which is positively operated, and which it is desired to rotate independent of its operating means.

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

I claim:

1. In a device of the character described, a rotating member, a shaft mounted in the member, an operative part having a portion extending over the shaft, spring operated sections mounted in said latter portion, balls mounted between said spring operated members and the shaft, and means tending to clamp the operative member to the shaft through the clamping action of the balls acting upon the spring actuated members in the operative mechanism and the shaft.

2. In a device of the character described, a rotating platen, a grooved shaft mounted in the platen, an operating means having a

hub portion projecting over the grooves in the shaft, spring actuated sections mounted in the hub, balls mounted in the grooves of the shaft, and bearing against the spring actuated sections, spring actuated means tending to clamp the operating means to the shaft through the rolling action of the balls, and a member fast on the shaft adapted to engage a fixed portion on the platen.

3. In a device of the character described, a rotating platen, a grooved shaft mounted in the platen, operating means having a hub portion projecting over the grooves in the shaft, spring-actuated sections mounted in the hub, balls mounted in the grooves in the shaft and bearing against the spring-actuated sections, and spring-actuated means tending to clamp the operating means to the shaft through the rolling action of the balls.

4. In a device of the character described, a rotating member, a shaft mounted in the member, an operative part having a portion extending over the shaft, said part having two oppositely arranged sections loosely surrounding said sections, balls mounted between said spring-operated sections and the shaft, and means whereby the shaft may be moved to cause clamping action of the balls between the spring sections and the shaft.

5. In a device of the character described, a rotating member provided with a pin, a shaft mounted in the member, an operative part having a hub extending over the shaft, spring-operated sections mounted in said hub, balls located between said spring-operated members and the shaft, and a collar having an opening adapted to register with the pin on the rotating member.

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.