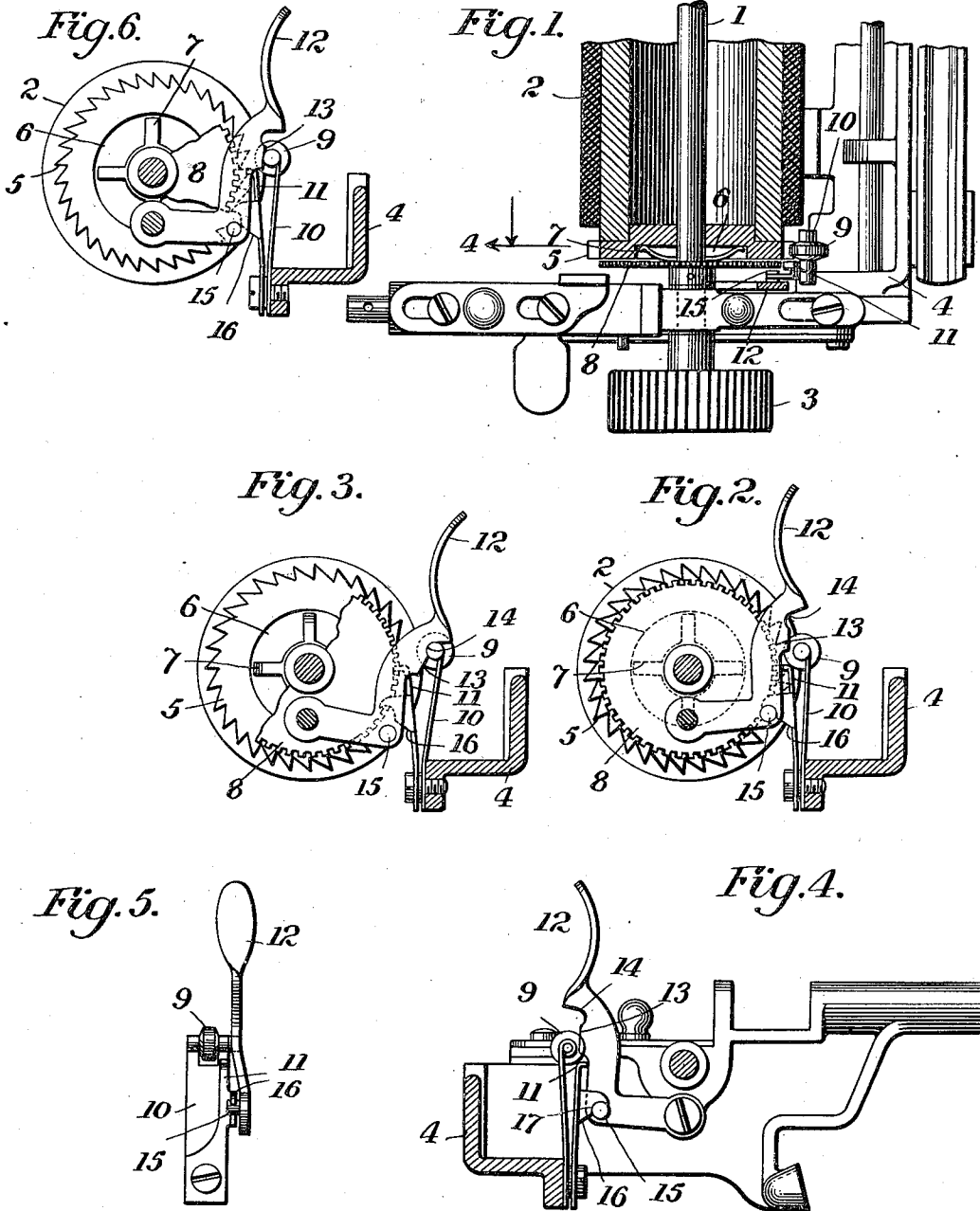


C. GABRIELSON & F. C. STANLEY.
 PLATEN BRAKE FOR TYPE WRITING MACHINES.
 APPLICATION FILED OCT. 15, 1906.

961,767.

Patented June 21, 1910.



Witnesses
J. G. Stibel
 B. C. Rust.

Inventors
Carl Gabrielson & Frank C. Stanley
 by *Foster Keenan & Watson*
 Attorneys.

UNITED STATES PATENT OFFICE.

CARL GABRIELSON AND FRANK C. STANLEY, OF SYRACUSE, NEW YORK, ASSIGNORS
TO L. C. SMITH & BROS. TYPEWRITER COMPANY, OF SYRACUSE, NEW YORK, A
CORPORATION OF NEW YORK.

PLATEN-BRAKE FOR TYPE-WRITING MACHINES.

961,767.

Specification of Letters Patent. Patented June 21, 1910.

Application filed October 15, 1906. Serial No. 339,092.

To all whom it may concern:

Be it known that we, CARL GABRIELSON and FRANK C. STANLEY, citizens of the United States, residing at Syracuse, Onondaga county, State of New York, have invented certain new and useful Improvements in Platen-Brakes for Type-Writing Machines, of which the following is a specification.

This invention relates to improvements in typewriting machines, and particularly to an improved platen brake for fractional line spacing.

The invention will be described in connection with the accompanying drawing in which,—

Figure 1 is a plan view of the right end of a type-writer carriage, the platen and other parts being broken away; Fig. 2 is a right end view of the platen, showing the position of the parts when the brake is inoperative; Fig. 3 is a similar view showing the brake in operation and the holding pawl disengaged from the ratchet wheel; Fig. 4 is an elevation of the brake and holding pawls and their operating lever as viewed from line 4 of Fig. 1; Fig. 5 is a front view of the pawls and their operating lever; and Fig. 6 is a right end view showing both the brake and holding pawl disengaged and the platen free to turn.

Referring to the drawing, 1 indicates the platen shaft, 2 the platen, 3 one of the knobs for turning the platen shaft, and 4 the frame of the carriage in which the platen is mounted. The platen is provided with the usual ratchet wheel 5, by means of which it is turned step by step. The pawl for turning the platen is not shown, and may be of any known or desired type. The ratchet wheel 5, which forms the head of the platen, is preferably recessed at 6, and in this recess is located a brake spring 7, which is adapted to bear on the platen and also upon a disk 8, which rotates freely upon the platen shaft. When the disk 8 is not checked, it rotates with the platen by reason of the friction between the disk and the spring 7, but by checking this disk 8, friction is created between the disk and the platen which tends to hold the platen in any desired position. The spring 7, as shown, is mounted on the platen shaft, its hub bearing on the disk 8, and its arms bearing on the platen head. It

will be evident that this spring may be attached either to the platen or the disk 8 or free from both, it being only essential that it shall create friction between them when they are moved relatively.

The holding pawl or device for the platen, which secures regular spacing, consists of the usual roller 9, cooperating with the teeth of the ratchet wheel 5, the said roller being mounted on a spring 10. The checking device for the disk 8, as shown in the drawing, consists of a spring tooth or pawl 11 secured to the carriage frame and cooperating with teeth on the periphery of the disk. Means are provided for simultaneously shifting the roller out of operative position and the tooth 11 into operative position, or vice versa. As shown, this means comprises a hand lever 12, which is pivoted to the carriage frame. This lever has a cam surface 13, for throwing out the roller 11, and notch 14 into which a pin on the spring 10 drops, the roller 9 being thus locked in its inoperative position, or out of contact with the ratchet wheel 5. The lever 12 also carries a pin 15, which cooperates with a cam surface 16 connected with the spring tooth 11 to throw the said tooth out of engagement with the disk 8, and a notch 17 which engages the pin 15 to hold the tooth 11 out of engagement with the disk.

The operation of the devices above described is illustrated in Figs. 2, 3 and 4. In Fig. 2, the controlling lever 12 is in its forward position, in which the brake operating tooth 11 is held away from the disk 8, and the disk is permitted to rotate freely with the platen, the roller 9 at the same time being permitted to cooperate with the ratchet wheel to effect regular line spacing and to hold the platen securely during writing. In Fig. 3, the lever 12 is in its rearmost position, in which the tooth 11 is freed from the pin 15 and permitted to engage the disk 8 and hold the same against rotation. The effect of this is to create friction on the platen through the spring 7 sufficient to hold the platen in any desired position for writing on ruled paper or for fractional line spacing. In this rearmost position of the lever 12, the roller 9 is held away from the ratchet wheel 5, thus freeing the platen from the more or less positive action of the roller upon the ratchet wheel 5. In the mid-position of the lever

12, as shown in Fig. 6, both the roller 9 and the tooth 11 are maintained in inoperative position leaving the platen in condition to be rotated freely. The contacting surfaces 5 of the lever 12, the cam 16 and the pin carrying the roller 9 are so related that the lever will stand in the mid or neutral position as illustrated. It is found in practice that it is very convenient for some purposes 10 to be able to rotate the platen freely, especially when making corrections.

It will be evident that the construction of the various parts may be modified in various ways without departing from the spirit 15 and scope of the invention. The devices shown, however, are simple and efficient and illustrate the preferred form of the invention.

Having thus described our invention, what 20 we claim and desire to secure by Letters Patent, is,—

1. In a typewriting machine, the combination with the platen and platen shaft, and with the usual ratchet wheel connected with 25 the platen, of a disk arranged upon the platen shaft adjacent to the end of the platen and movable relatively to the platen, means for effecting a frictional engagement of the disk with the platen, and means for holding 30 the disk against rotation, whereby the platen may be held in any desired position frictionally.

2. In a typewriting machine, the combination with the platen and platen shaft, and 35 with the usual ratchet wheel connected with the platen, of a disk free upon the platen shaft adjacent to the end of the platen, a spring interposed between and bearing on the disk and the platen, and means movable 40 into and out of holding engagement with said disk, for the purpose set forth.

3. In a typewriting machine, the combination with the platen and platen shaft, of a ratchet wheel connected with the platen, a 45 disk upon the platen shaft adjacent to the ratchet wheel, a brake spring between said

disk and platen, holding devices for the ratchet wheel and disk respectively, and a lever for alternately throwing said holding devices out of operative position. 50

4. In a typewriting machine, the combination with the platen and platen shaft, of a disk freely mounted on the platen shaft adjacent to the end of the platen, said disk having a toothed periphery, a brake spring 55 interposed between the platen and said disk, a tooth adapted to engage the teeth of the disk to hold the said disk stationary, and means for engaging and disengaging said tooth with the disk, for the purpose set forth. 60

5. In a typewriting machine, the combination with the platen and platen shaft, of a ratchet wheel connected with the platen, a holding device cooperating with said ratchet wheel, a brake device for yieldably holding 65 the platen in any desired position, means for alternately throwing said holding device and brake device into operation, and means for maintaining said holding device and brake device inoperative simultaneously, 70 whereby the platen may be freely rotated.

6. In a typewriting machine, the combination with the platen and platen shaft, of a ratchet wheel connected with the platen, a holding device cooperating with said ratchet 75 wheel, a brake device for yieldably holding the platen in any desired position, means for alternately throwing said holding device and brake device into operation, and a common lever adapted to disengage the holding 80 device when moved in one direction, to disengage the brake device when moved in the opposite direction, and to maintain both of said devices disengaged when standing in mid position. 85

In testimony whereof we affix our signatures in presence of two witnesses.

CARL GABRIELSON.
FRANK C. STANLEY.

Witnesses:

CHAS. F. PARSONS,
W. L. SMITH.