

No. 852,100.

PATENTED APR. 30, 1907.

F. D. BULLARD.
FEEDING ATTACHMENT FOR TYPE WRITERS.
APPLICATION FILED MAY 26, 1904

2 SHEETS—SHEET 1.

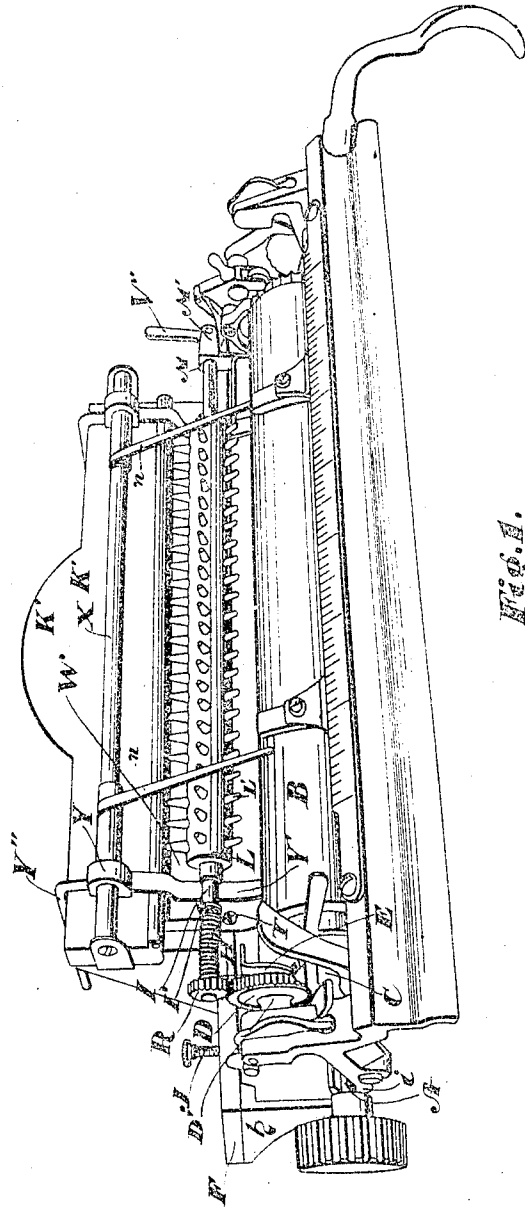


Fig. 1.

WITNESSES.

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2 SHEETS—SHEET 2.

Fig. 2.

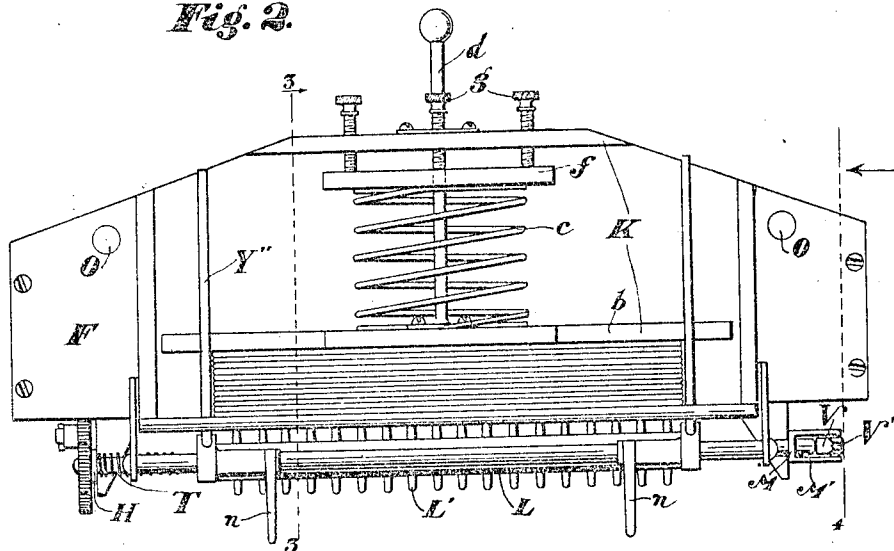
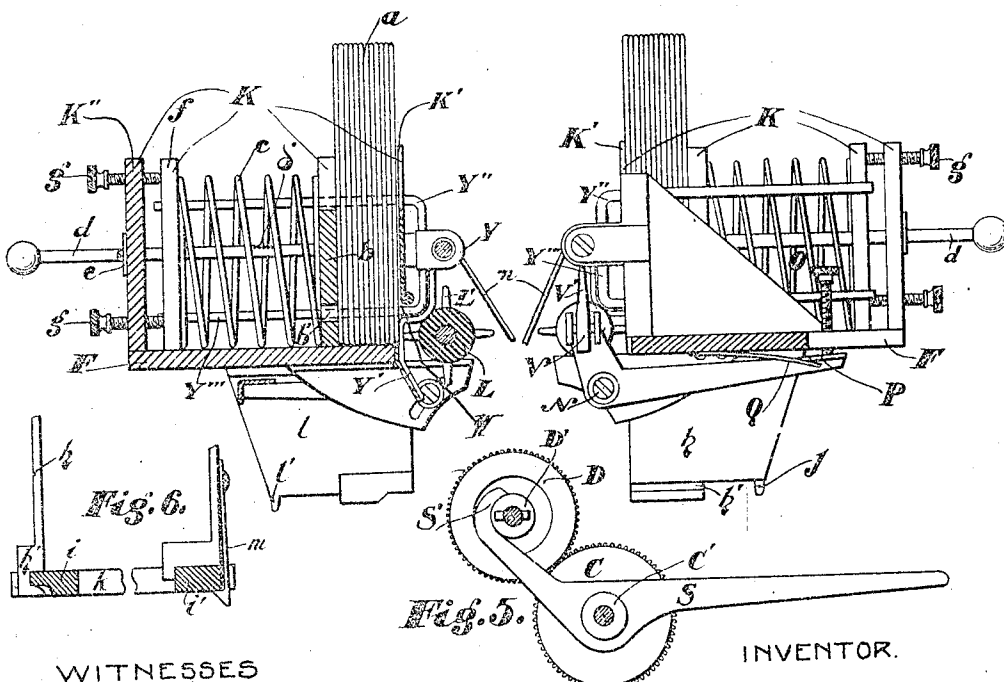


Fig. 3.

Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK D. BULLARD, OF LOS ANGELES, CALIFORNIA.

FEEDING ATTACHMENT FOR TYPE-WRITERS.

No. 852,100.

Specification of Letters Patent.

Patented April 30, 1907.

Application filed May 26, 1904. Serial No. 209,940.

To all whom it may concern:

Be it known that I, FRANK D. BULLARD, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Feeding Attachment for Type-Writers, of which the following is a specification.

My invention relates to a feeding device for attachment to typewriters by means of which material, such as envelopes or paper may be automatically fed into the machine; and the object thereof is to provide a simple and efficient device that may be attached to or detached from the carriage of the machine with but little trouble, which will automatically feed one envelop or one sheet of paper into the machine at a time and which will not interfere with the ordinary use of the machine. I accomplish this object by the feeding attachment described herein and illustrated in the accompanying drawings in which:—

Figure 1 is a perspective view of the front of my feeding attachment showing it in place upon the carriage of a Smith-Premier, the lower portion of the machine being omitted for clearness of illustration. Fig. 2 is a plan of my feeding device detached from the machine. Fig. 3 is a section of the same on the line 3—3 of Fig. 2 looking in the direction of the arrow. Fig. 4 is a section on the line 4—4 of Fig. 2 looking in the direction of the arrow. Fig. 5 is a detail of the locking mechanism by means of which the operating gear are locked together when in use. Fig. 6 is a detail showing how the attaching arms of the feeding device are secured to the carriage.

In the drawings I have illustrated my feeding attachment as applied to a Smith Premier typewriting machine and will describe it herein with reference to that machine.

My feeding attachment is adapted for use with any of the standard typewriting machines but requires slight modifications as to its attaching arms from that shown and described herein to adapt it for attachment to the different makes of machines.

In the drawings A is the axle of the platen B of an ordinary Smith-Premier typewriter. Near the outer end of this axle and rigidly secured thereto and preferably on the left hand side thereof is secured a gear C which is adapted to mesh with a gear D which gear is provided with a hub D' and is rotatively mounted upon a bearing E secured to the base plate

F of the magazine. The axle G upon which the gear D is rotatively mounted supports an L-shaped arm H whose upper end supports axle I and the other end passes rearwardly just below the base plate F and is adapted to be engaged by the regulating screw J which passes through the base plate in threaded engagement therewith so as to bring the axle I closer to the face K' of the magazine K which is open at the top.

To the axle I is rigidly secured the feeding roll L which is preferably made of rubber provided on the surface thereof with a plurality of rows of flexible feeding arms L' which are adapted to engage with the envelopes a in the magazine upon the rotation of the roller and draw one at a time out of such magazine and feed it in behind the platen where it passes through the machine in the usual manner. The other end of axle I passes through the upper end of arm M, which is secured to a bearing N fastened to the base plate. The arm M is L-shaped like the arm H and passes rearwardly under the base plate and is engaged by a regulating screw O which passes therethrough in threaded engagement therewith to bring the end of the axle closer to the front of the magazine. The inner ends of the arms H and M are fastened together by strip P so as to steady the same. A spring Q secured to the base bears against this binding strip P near the arm M so as to keep said arm spring pressed against the regulating screw O.

The axle I has a pinion R rigidly secured thereto, which pinion meshes with the gear D and rotates the feeding roll when the gear D is rotated. Gear C is provided with a hub C' upon which is mounted a locking lever S having a hooked end S' which is adapted to engage the hub D' and lock the gears D and C from separating when the front end thereof is thrown downwardly in its operative position as shown in Fig. 1. Axle I is longitudinally movable through arms H and M and is provided with a collar I' between which and arm H is a coiled spring T which holds the axle normally in a position in which pinion R meshes with gear D. Pivotally mounted in bearings M' which bearings are secured to or are integral with arm M is cam V having a handle V' which cam is adapted to be brought into engagement with the end of axle I and force the same longitudinally in its bearings far enough to cause the disengagement of

pinion R from gear D, thereby stopping the movement of the feeding roll whenever it is desired to have the same stopped.

The face of the magazine is preferably a thin sheet of metal which does not extend entirely to the base plate but leaves a feeding slot W through which the feeding arms engage the envelopes to draw them out of the magazine. To the front of the magazine is secured a guide rod X on which are slidably mounted guiding arms having a hub Y, one branch Y' of which extends downwardly to guide the envelopes behind the platen and the other arms Y'' and Y''' extend rearwardly into the magazine to keep the envelopes therein in proper alinement. The upper arms Y''' pass over the top of the front of the magazine and the arms Y'' pass below the front of the magazine and through slots b' in the traveling follower b which is within the magazine, which follower is pressed by spring c against the envelopes to keep them in an upright position against the front of the magazine. The follower is provided with a rod d which passes through the back K'' of the magazine and through a plate e secured thereto. It is provided with notches d' which are adapted to engage with the plate e when the follower is pulled toward the back and hold the follower against the pressure of the spring c so that a new lot of envelopes may be put into the magazine after the same becomes empty. Spring c is secured to a plate f which is adapted to be engaged by screws g which pass through the back of the magazine in threaded contact therewith so as to regulate the tension of spring c. There the three of these screws spaced apart, two at the bottom and one at the top so that if desired a greater pressure may be placed upon the bottom of the envelopes than at the top. At each end of the base plate are attaching arms by means of which the device is secured to the frame of the carriage. The attaching arm h has a groove h' therein which groove fits upon the end bar i of the carriage of the machine. Pin j passes down back of the back bar k of the carriage and thereby prevents the feeding device from moving too far forward. At the other end of the base plate the supporting arm l rests upon the other end rail i' of the carriage and has a pin l' which passes down back of the end rail to prevent the forward movement of the feeding device and has a spring catch m which passes down under the end rail of the carriage and holds the feeding attachment firmly secured thereto.

In the drawings I have shown the feeding roll provided with resilient feeding arms as I deem that to be best construction; but by making the surface of the feeding roll sufficiently resilient and providing it with a proper engaging surface these arms may be dispensed with.

In the operation of my feeding device

after it is placed on the carriage and the gear thereon locked so as to engage with the gear on the platen, the follower in the magazine is drawn to the back thereof and held there while the envelopes or other articles are placed therein, when the follower is loosened and spring presses them against the front of the magazine so that the lower edge of the article in front is in contact with the feeding roll. Now by causing the rotation of the platen in the usual manner the envelop or other article at the front of the magazine is fed therefrom by the feeding roll behind the platen, when it passes through the machine in the usual manner. As soon as an article has been caught by the platen the further revolution of the feeding roll can be stopped by throwing the cam V so that it will engage with the axle of the feeding roll and move the same longitudinally to cause the disengagement of the pinion on the end thereof with the gear with which it meshes. This is sometimes desirable as it removes the friction on the operation of the platen which is caused by the operation of the feeding device. As soon as it is desired to have another article fed into the machine the cam is thrown out of engagement with the axle of the feeding roll, when the spring thereon returns the pinion into engagement with the gear. When the feeding device is not required the magazine can easily be detached from the carriage and put aside and all the parts that remain attached to the carriage are the locking lever and the gear on the platen which do not in any way interfere with the use of the machine.

Having described my invention what I claim as new and desire to secure by Letters Patent is:—

1. In a typewriter the combination of a carriage having a platen; a magazine removably secured thereto; said magazine having a feeding-slot therein; a feeding roll revolvably mounted adjacent to said feeding-slot in bearings secured to said magazine; a pinion secured upon the feeding roll, a gear secured to the platen; a gear revolvably mounted in bearings secured to the magazine and meshing with the pinion on the feeding roll and the gear on the platen; a lever having a curved end pivotally mounted on the platen; said curved end being adapted to lock the gear on the platen to the gear on the magazine.

2. A feeding attachment for typewriters such as described herein a revoluble feeding roll longitudinally movable in its bearings; a cam lever mounted in bearings secured to the bearings of the feeding roll, said cam lever being adapted to move said feeding roll longitudinally in its bearings in one direction; a spring bearing against said feeding roll and adapted to return it to its normal position upon the release of said cam.

3. In a typewriter the combination of a

carriage having a platen; a gear secured to
said platen; a magazine removably secured
to said carriage, said magazine having a feed-
ing-slot therein; a feeding roll revolubly
5 mounted adjacent to said feeding slot in
bearings secured to said magazine; a pinion
secured upon said feeding roll; a gear revolubly
mounted in bearings secured to the
magazine and meshing with the pinion on the
10 feeding roll and the gear on the platen; a lever
having a curved end pivotally mounted
on the platen; said curved end being adapted
to lock the gear on the magazine from
separation from the gear on the platen; a
15 spring pressed follower in said magazine;
guiding arms slidingly secured to said maga-
zine and adapted to guide the material there-

in; adjusting screws passing in threaded con-
tact through the rear of the magazine and
adapted to regulate the tension of the spring 20
on the follower on the magazine; arms se-
cured to the base of the magazine one of said
arms having a groove therein and the other a
spring operated catch, said arms forming
means whereby said magazine is secured 25
upon said carriage.

In witness that I claim the foregoing I
have hereunto subscribed my name this 19th
day of May, 1904.

FRANK D. BULLARD.

Witnesses:

G. E. HARRPHAM,

HENRY T. HAZARD.