C. C. HARTING & J. F. FLOOD.

SPRING BARREL BRAKE FOR TYPE WRITING MACHINES.

APPLICATION FILED JUNE 27, 1910.

1,018,760. Patented Feb. 27, 1912.

Fig. 1.

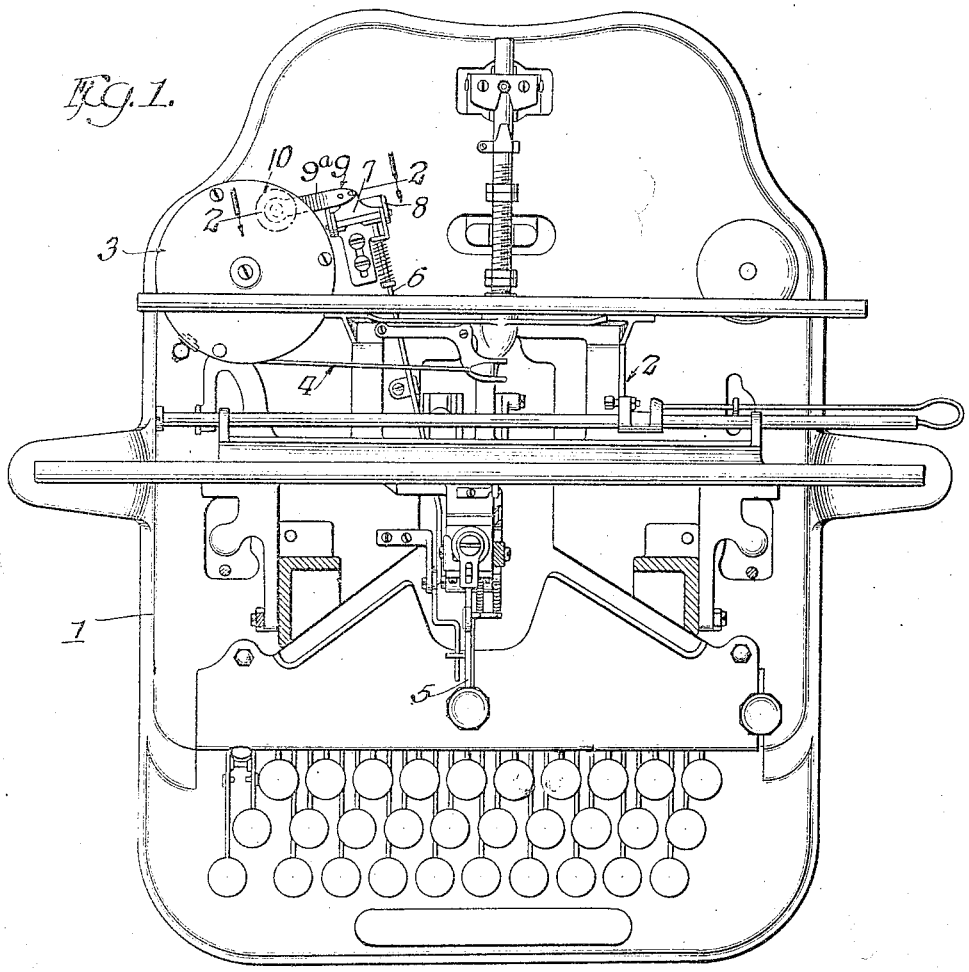
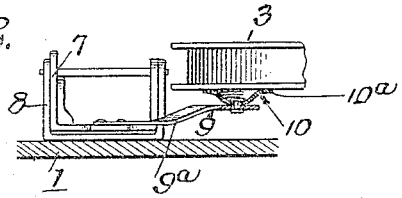


Fig. 2.



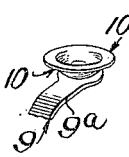


Fig. 3.

Witnesses:
F. W. Hyde
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UNITED STATES PATENT OFFICE.

CLAYTON C. HARTING AND JAMES F. FLOOD, OF WOODSTOCK, ILLINOIS, ASSIGNORS TO THE OLIVER TYPEWRITER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SPRING-BARREL BRAKE FOR TYPE-WRITING MACHINES.

1,018,760. Specification of Letters Patent. Patented Feb. 27, 1912.

Application filed June 27, 1910. Serial No. 569,132.

To all whom it may concern:

Be it known that we, CLAYTON C. HARTING and JAMES F. FLOOD, citizens of the United States, and residents of Woodstock, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Spring-Barrel Brakes for Type-Writing Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in typewriters provided with tabulating or column-stop mechanism designed to effect the release of the carriage from the control of the usual letter-spacing mechanism and to permit the carriage to move under the action of its actuating spring, to a predetermined point or points, at which the movement of the carriage is arrested for the purpose of printing a series of items or numbers in one or more vertical columns or lines upon the sheet.

The invention relates particularly to an improved form of brake adapted to be operated by the tabulating key to retard the speed of the spring-barrel which operates the carriage, and thus prevent excessive jar or shock to the carriage when the same is brought to rest against the stop.

The invention as herein shown is applied to a typewriting machine of the kind known as the "Oliver", but the features constituting the invention may be applied to machines of other kinds.

The invention as described herein is applied to the machine shown and described in United States Letters Patent Number 959,061, granted May 24th, to Theron L. Knapp and C. C. Harting.

The invention consists of the matters hereinafter described and more particularly pointed out in the appended claims.

As shown in the drawings:—Figure 1 is a top plan view of a typewriting machine provided with my invention with the paper-carriage and the type-bars removed, showing the supporting standards for the type-bars in section. Fig. 2 is a partial vertical section through Fig. 1 on the line 2—2 on an enlarged scale. Fig. 3 is a perspective view of the brake-shoe included in my invention.

Referring now to the drawings, 1 is the machine frame; 2, the shift-frame; and 3, the spring-barrel, containing the carriage actuating spring, and from which motion is communicated to the carriage by a flexible connecting member 4. 5 is a tabulating key adapted to release the carriage from the letter-spacing device in any usual or convenient manner. 6 is a spring-retracted, reciprocating rod adapted to be reciprocated rearwardly under the action of the tabulating key to swing the brake upward into engagement with the under face of the barrel to retard its speed when the carriage is traveling free from the letter-spacing devices. The end of said rod engages a swinging frame 7 which is pivotally hung on the standard 8 and which carries the brake 9. These parts are all as described in Patent Number 959,061, above referred to, and require no further description.

The brake embraces a spring arm 9^a rigidly secured to the swinging frame 7, and a brake-shoe 10 carried at the end of said spring arm. Said shoe is in the form of a saucer, having an annular flange 10^a adapted to engage against the under face of the spring-barrel 3. Said saucer-shaped shoe is riveted centrally to the end of the spring arm 9, said riveted connection being loose so as to permit of a slight play between the parts. By reason of this loose connection, when the brake is operated, the shoe is raised so as to contact with the under surface of the barrel and the spring pressure of the member 9 under the action of the reciprocating operating rod 6, will cause the flange of said saucer to engage at all points with the under face of the barrel, thus giving a firm, extended bearing of the brake-shoe against the barrel. No adjustment of the shoe is necessary to cause it to make full contact with the barrel, since it will immediately swing into full engagement under the continued pressure of the spring arm 9, even though it may at first engage the barrel at but a single point. The bottom of the saucer which engages against the upper surface of the end of the spring arm 9 is rounded so as to insure a free movement of the shoe with respect to said arm.

We claim as our invention:—

1. In a typewriter, the combination with a base-frame, a paper-carriage, a spring-barrel mounted on the base frame through the medium of which endwise movement is given to said paper-carriage, letter-spacing mechanism for controlling the movement of the carriage, and column-stop mechanism for releasing said carriage from the letter-spacing mechanism and arresting its movement at a desired point, including a key-lever, of brake mechanism actuated by said key-lever, said brake mechanism embracing a spring arm, and a saucer shaped shoe loosely mounted at the end of said spring arm and provided with a flange adapted to be brought into engagement with the end of said barrel by the pressure of said spring arm.

2. In a typewriter, the combination with a base-frame, a paper-carriage, a spring-barrel mounted on the base frame through the medium of which endwise movement is given to said paper-carriage, letter-spacing mechanism for controlling the movement of the carriage, and column-stop mechanism for releasing said carriage from the letter-spacing mechanism and arresting its movement at a desired point, including a key-lever, of brake mechanism actuated by said key-lever, said brake-mechanism embracing a spring arm and a saucer-shaped shoe loosely riveted at the end of the spring arm and provided with a flange adapted to be brought into engagement with the under face of said barrel by the upward pressure of said spring arm.

3. In a typewriter, the combination with a base-frame, a paper-carriage, a spring barrel mounted on the base frame through the medium of which endwise movement is given to said paper-carriage, letter-spacing mechanism for controlling the movement of the carriage, and column-stop mechanism for releasing said carriage from the letter-spacing mechanism and arresting its movement at a desired point, including a key-lever, of brake mechanism actuated by said key-lever, said brake-mechanism embracing a spring arm, and a saucer-shaped shoe loosely riveted at the end of said spring arm and provided with an annular flange adapted to be brought into engagement with the under face of said barrel by the upward pressure of said spring arm, said saucer-shaped shoe having a rounded base.

In testimony, that we claim the foregoing as our invention we affix our signatures in the presence of two witnesses, this 17th day of June A. D. 1910.

CLAYTON C. HARTING.
JAMES F. FLOOD.

Witnesses:
A. J. MULLEN,
LILLIAN SCHROEDER.