

No. 748,062.

PATENTED DEC. 29, 1903.

C. GABRIELSON.
TYPE WRITING MACHINE.
APPLICATION FILED AUG. 8, 1902.

NO MODEL.

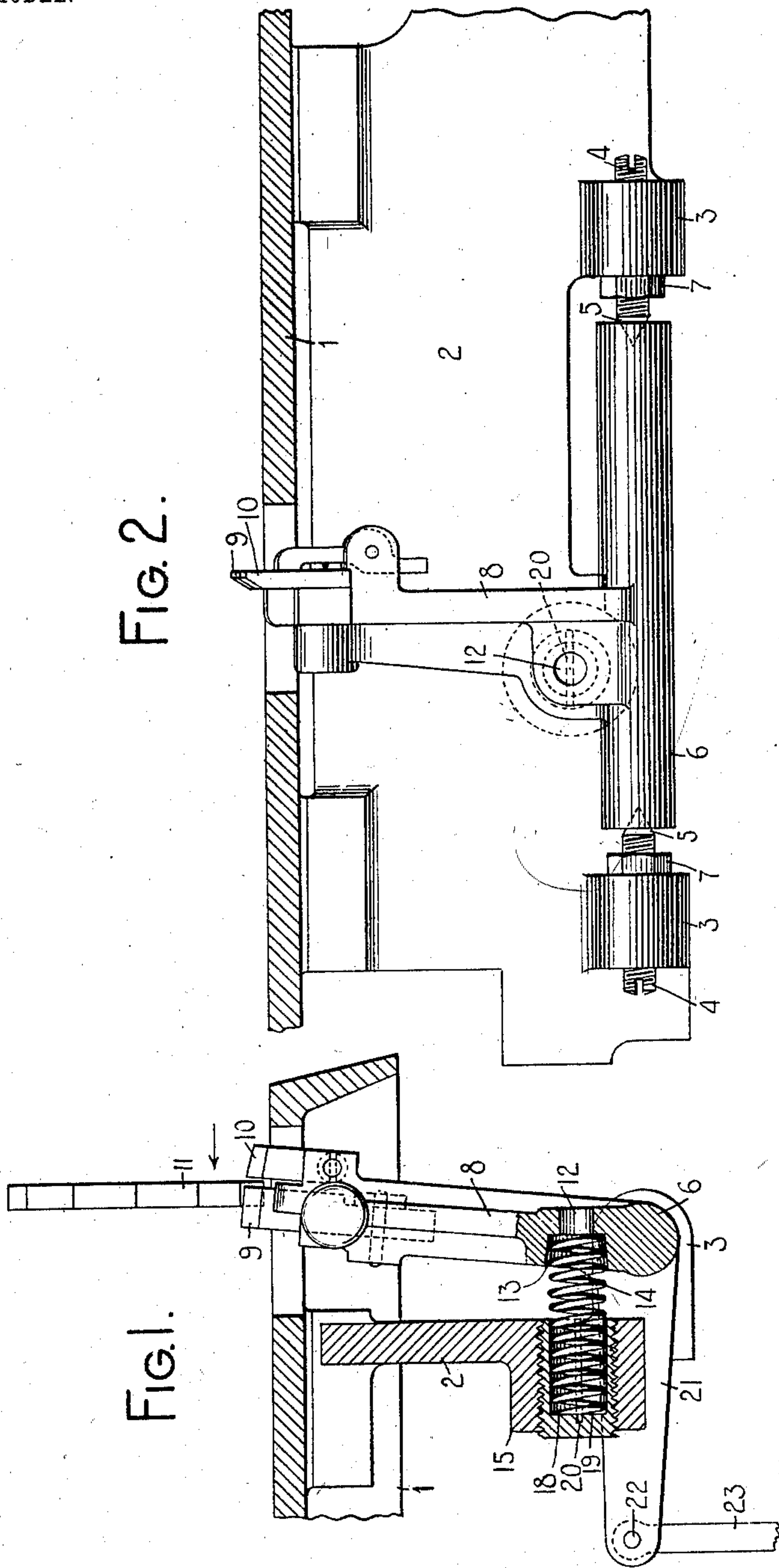


FIG. 2.

FIG. 1.

FIG. 4.

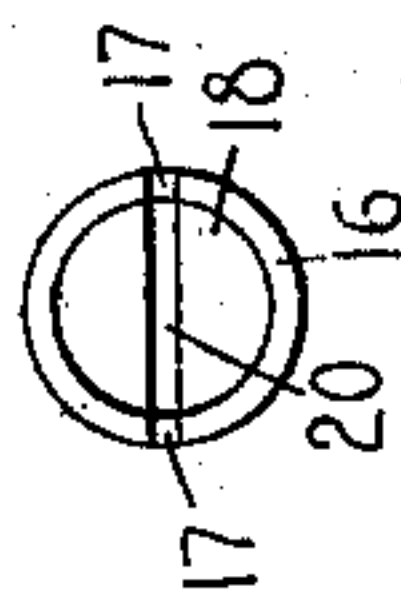
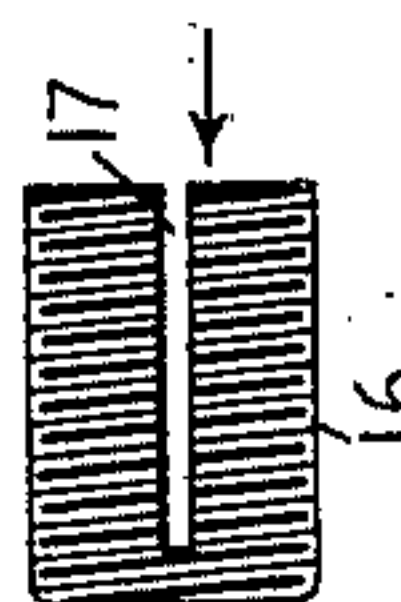


FIG. 3.



WITNESSES:

K. V. Donovan.
Charles Smith

INVENTOR:

Carl Gabrielson
by Jacob Felbel
HIS ATTORNEY

UNITED STATES PATENT OFFICE.

CARL GABRIELSON, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO
UNION TYPEWRITER COMPANY, OF JERSEY CITY, NEW JERSEY, A
CORPORATION OF NEW JERSEY.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 748,062, dated December 29, 1903.

Application filed August 8, 1902. Serial No. 118,874. (No model.)

To all whom it may concern:

Be it known that I, CARL GABRIELSON, a citizen of the United States, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My present invention relates to spring-restoring means for escapement or feed-dog rockers or carriers of type-writing machines; and the object of my invention is to provide simple, cheap, and efficient means of the character described which can be readily adjusted to vary the tension of the spring and which is not liable to become deranged or broken.

To the above and other ends which will hereinafter appear my invention consists in the novel features of construction, arrangements of parts, and combinations of elements to be hereinafter described and claimed.

In the accompanying drawings, wherein like reference characters indicate like parts in the various views, Figure 1 is a central front-to-rear sectional view of sufficient number of parts of one form of type-writing machine to illustrate my invention in its application thereto. Fig. 2 is a vertical transverse sectional view of the same, taken in the rear of the escapement or dog rocker and looking toward the front of the machine. Fig. 3 is a detail side view of the adjusting-plug. Fig. 4 is an end view of the same looking in the direction of the arrow in Fig. 3.

The top plate 1 of the machine is provided with a depending bracket 2, secured thereto in any suitable manner. This bracket is provided with rearwardly-extending lugs 3, which are tapped to receive bearing-screws 4, that extend through the lugs and are coned at their inner ends 5, where they constitute bearings for the rock-shaft 6 of the feed-dog or escapement rocker. The screws 4 may each be provided with a lock-nut 7 to prevent an accidental displacement thereof. The rock-shaft 6 constitutes a part of the escapement or dog rocker and has an upwardly-extending arm 8 projecting therefrom, which carries the usual feed and detent dogs 9 and

10, respectively, that cooperate with a suitable escapement element, such as the escapement-wheel 11. The arm 8 has an opening 12 extending therethrough from front to rear for the reception of a screw-driver or other tool for purposes which will hereinafter more clearly appear. The forward portion of the rocker-arm is recessed at 13 for the reception of one end of a coiled compression-spring 14. The walls of the recess 13 are preferably sloping, so that the spring will not bind against them during the oscillation of the rocker. From an examination of Fig. 1 it will be seen that the recess 13 is alined with the screw-driver-receiving opening 12, so as to maintain the opening in the spring 14 centered therewith.

The bracket 2 is provided with a lug 15, which has an internally-threaded opening extending therethrough from front to rear, and this threaded opening receives an externally-threaded plug or abutment 16, which is slitted longitudinally at 17 and is recessed at 18 for the reception of one end of the coiled spring 14, that is adapted to bear upon the bottom wall 19 of the recess in the plug, which constitutes an abutment for the spring. The bottom wall 19 of the plug is provided with a nick 20, that receives a screw-driver and by means of which the plug may be turned to adjust it on its threaded connection in the direction of the length of the spring. It will be observed that the coiled compression-spring extends longitudinally between the seat or recess 13 in the dog-rocker and the adjustable plug, which constitutes a relatively fixed abutment therefor, and that the tension of the spring holds it seated in the recess 13 and plug, and thus maintains it connected to the escapement-rocker and relatively fixed part. The opening 12 is so situated that it is alined with the central opening in the coiled spring, and the nick 20 in the plug is likewise alined with the openings in the spring and rocker, so that a screw-driver may be introduced from the rear of the machine through the opening 12 and through the central opening in the spring and engage in the nick 20 of the plug in order to turn the plug,

and thus adjust the tension of the spring 14. Extending forwardly from the rocker is an arm 21, which is pivotally connected at its forward end 22 to a depending link 23, that is
 5 operatively connected to the universal bar (not shown) in any suitable manner, so that a downward movement of the link 23 will cause the feed-dogs to be moved in the direction of the arrow in Fig. 1 or toward the front
 10 of the machine to compress the coiled spring 14, and when pressure on the finger-key is released the spring 14 will restore the rocker to its initial position. (Represented in Fig. 1.)

It will be seen that the pressure of the
 15 spring on the recessed plug or abutment 16 is exerted against the threads thereof and that this pressure tends to hold the plug in its adjusted position rather than to displace it therefrom during the actuation of the machine.
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By splitting the plug 16 in the manner shown a spring pressure or resiliency thereof is afforded which tends to bind and hold the adjustable plug in any position to which it
 25 may be turned in its threaded bearing.

Notwithstanding the fact that the means for affording an adjustment of the spring tension for the rocker is situated forwardly of the rocker it may be readily adjusted
 30 from the rear of the machine, where it is free from obstruction, by introducing a screw-driver or other suitable tool through the opening 12 and engaging it with the plug, thus affording easy access to the tension-ad-
 35 justing device. Furthermore, the spring and adjusting devices are housed and are so located that they are amply protected against accidental derangement or injury. At the same time it will be noted the construction is
 40 such that the operator without a suitable tool is unable to adjust the tension of the feed-rocker or carrier-spring, which is a desideratum, since much trouble and annoyance frequently result from the attempts of opera-
 45 tors lacking the necessary mechanical skill to adjust the dog-carrier spring, which ordinarily is arranged for convenient adjustment by a permanently-placed thumb-piece.

While I have shown my invention applied
 50 to a feed-dog rocker of the general character employed in the No. 6 Remington machine, it should be understood that it is immaterial from certain aspects of my invention what character of escapement carrier or rocker or
 55 what character of type-writing machine the spring-restoring device is applied to or whether the carrier or rocker is employed to move the feed-dogs or a feed-rack transversely to effect a letter-space feed of the car-
 60 riage.

While I have referred to the device which carries the feed-dogs 9 and 10 as a "rocker," it should be understood that this term is used in a generic sense and is intended to
 65 cover any reciprocating carrier for an escapement element which moves to and fro during the letter-spacing operations of the

machine (whether or not said carrier be pivoted to its support) excepting where the rocker is specifically referred to in the claims 70 as a pivoted one.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a type-writing machine, the combination with an escapement-rocker, of a relatively fixed abutment, a coiled compression-
 75 spring disposed longitudinally between said rocker and abutment, and means for adjusting the tension of said spring.

2. In a type-writing machine, the combination with an escapement-rocker, a relatively fixed adjustable abutment, and a compression-spring interposed between said escape-
 80 ment-rocker and adjustable abutment and seated in the rocker at one end and in the abutment at the other. 85

3. In a type-writing machine, the combination with an escapement-rocker having a seat or recess therein, a relatively fixed adjustable threaded abutment having a seat or recess
 90 therein, and a coiled compression-spring interposed between said escapement-rocker and the adjustable abutment and seated in the recess of the rocker at one end and in the recess of the abutment at the other. 95

4. In a type-writing machine, the combination with an escapement-rocker having a tool-receiving opening therein, an adjustable abutment fixed relatively of the rocker, and provided with means adapted to be engaged
 100 by a tool to effect an adjustment of said abutment, and a coiled spring which bears at one end against the rocker and at the other end against the abutment, whereby a tool may be inserted through the said opening in the
 105 rocker to adjust the abutment and thus vary the tension of the spring.

5. In a type-writing machine, the combination with an escapement-rocker having a screw-driver-receiving opening therein, an
 110 adjustable threaded plug fixed relatively of the rocker and forward thereof and provided with a nick adapted to be engaged by a screw-driver to effect an adjustment of said plug, and a coiled compression-spring which bears
 115 at one end against the rocker and at the other end against the abutment, whereby a screw-driver may be inserted through the said opening in the rocker to adjust the plug and thus vary the tension of the spring. 120

6. In a type-writing machine, the combination of a fixed bracket, an escapement-rocker pivoted to said bracket, a threaded plug seated in a threaded opening in the bracket forward of the rocker, a coiled compression-
 125 spring interposed between the plug and the rocker, and means for affording an adjustment of the plug to vary the tension of the spring.

7. In a type-writing machine, the combination of an escapement-rocker having a tool-receiving opening therein, an adjustable relatively fixed abutment, a coiled spring interposed between the adjustable abutment and
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the rocker, and having the opening therein alined with the tool-receiving opening in the abutment, and means adapted to be engaged by a tool when inserted through said opening for affording an adjustment of the abutment.

8. In a type-writing machine, the combination of a fixed bracket, an escapement-rocker pivoted to said bracket and having a tool-receiving opening therein, a threaded plug seated in a threaded opening in the bracket forward of the rocker, a coiled compression-spring interposed between the plug and the rocker, the opening in the spring being alined with the tool-receiving opening in the rocker, and engaging means on the plug to cooperate with a tool inserted through the openings in the rocker and spring.

9. In a type-writing machine, the combination of a fixed bracket, an escapement-rocker pivoted to said bracket and having a spring-receiving recess or pocket and a screw-driver-receiving opening therein, a threaded recessed plug that is received in a threaded opening in the bracket forward of the rocker and which has a screw-driver nick in the recessed portion thereof, and a coiled spring that is seated at one end in the recess in the rocker and at the other end in the recess in the plug, said recesses and openings in the rocker and spring being alined, whereby a screw-driver may be inserted through the openings in the rocker and spring and the plug may be adjusted to vary the tension of the spring.

10. In a type-writing machine, the combination of an escapement-rocker, a coiled compression-spring for restoring said rocker to its normal position, and a longitudinally-adjustable plug that bears on one end of said spring and is adapted to adjust the tension thereof.

11. In a type-writing machine, the combination of an escapement-rocker, a coiled compression-spring which extends longitudinally between the rocker and a relatively fixed bearing-point, and a threaded plug which is adjustable in the direction of the length of

the spring and bears on one end thereof to vary the tension.

12. In a type-writing machine, the combination of an escapement-rocker, a coiled compression-spring which extends longitudinally between the rocker and a relatively fixed bearing-point, and a recessed threaded longitudinally-split plug in which one end of the spring is seated and which is adjustable in the direction of the length of the spring to vary the tension thereof.

13. In a type-writing machine, the combination of a reciprocating member carrying one of the escapement devices, an abutment, a coiled compression-spring arranged longitudinally between said reciprocating member and said abutment, and means for adjusting the tension of said spring.

14. In a type-writing machine, the combination of an escapement-rocker, a relatively fixed bearing, a removable coiled compression-spring interposed and extending longitudinally between said rocker and said relatively fixed bearing, means for preventing a displacement of the spring from said rocker and from said bearing, and adjustable means associated with one end of the spring for affording an expansion or contraction of the spring to vary the tension thereof.

15. In a type-writing machine, the combination of an escapement-rocker, a relatively fixed bearing, a coiled compression-spring interposed and extending longitudinally between said rocker and said relatively fixed bearing, means for connecting one end of the spring to the rocker and the other to said relatively fixed means, the tension of the spring maintaining the spring connected to said parts, and means for adjusting the tension of said spring.

Signed at Springfield, in the county of Hampden and State of Massachusetts, this 6th day of August, A. D. 1902.

CARL GABRIELSON.

Witnesses:

J. G. DUNNING,
C. S. HAWKINS.