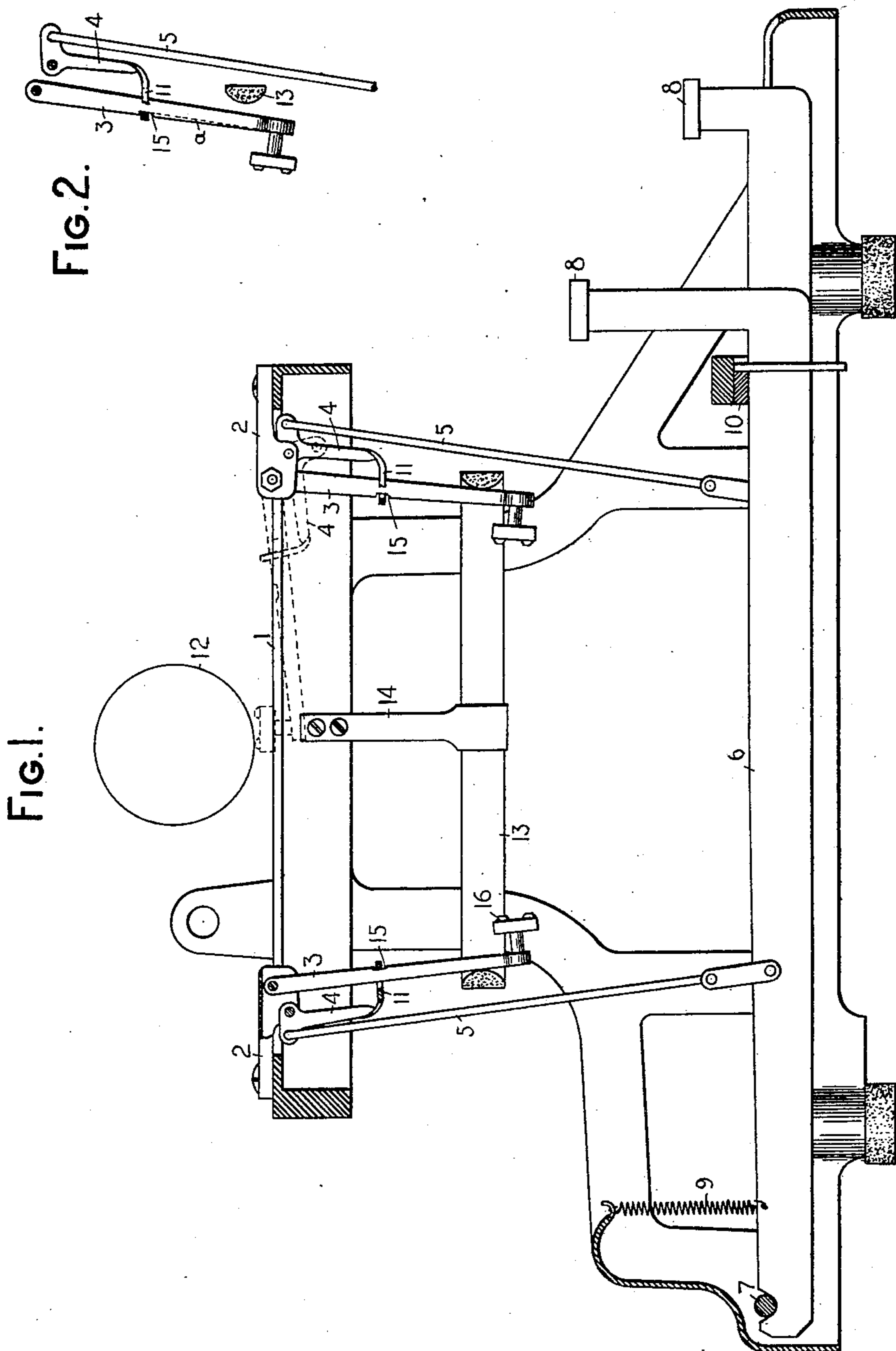


No. 677,623.

Patented July 2, 1901.

W. J. BARRON.  
TYPE WRITING MACHINE.  
(Application filed Mar. 22, 1901.)

(No Model.)



WITNESSES.  
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## TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 677,623, dated July 2, 1901.

Application filed March 22, 1901. Serial No. 52,284. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER J. BARRON, a citizen of the United States, and a resident of the borough of Brooklyn, city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to the type actions of writing-machines; and the object thereof is to prevent rebounding of the type-bars upon striking the rest or basket as they return from the platen, so as to avoid clashing of the bars, and hence permit a higher speed of operation.

To this end my invention consists in certain features of construction and combinations of devices, all as will be fully hereinafter set forth, and particularly pointed out in the concluding claims.

In the accompanying drawings, Figure 1 is a central vertical section, taken longitudinally, of a Densmore type-writing machine and showing my improvements applied thereto. Fig. 2 is a detail view illustrating the manner of preventing excessive rebound of the type-bar.

In the views similar parts are designated by similar characters of reference and portions of the machine not necessary to the invention are omitted.

The framework of the machine includes a top plate or ring 1, upon which are fastened radial hangers 2, in which are pivoted type-bars 3. The latter are operated by levers 4, also pivoted in the hangers 2, and connected by links 5 to levers 6, which are pivoted at their rear ends upon a fulcrum-rod 7 and provided at their forward ends with keys 8. These key-levers are provided with lifting-springs 9, and their forward portions bear up normally against a transverse stop bar or pad 10. Each lever 4 engages its type-bar by an eye 11, which is bent at about right angles to the body of the lever. The pivot of the latter is lower than the type-bar pivot and more remote from the platen 12. The type-bars normally rest against a padded ring or basket 13, which is suspended by arms 14 from the top plate 1.

The parts thus far described are in common use upon said Densmore machine, in the op-

eration of which a key 8 is depressed, thereby forcing down the lever 6 and through the link 5 swinging the radial lever 4, which swings the type-bar up to the platen. The lever and type-bar swing in different arcs, and hence the eye 11 slides along the type-bar, so that the distance from said eye to the pivot of the type-bar is considerably less when the latter is in printing position, as shown in dotted lines at Fig. 1, than when it is in normal position.

In the inner edge of each type-bar I cut a stop-notch 15, which when the parts are in normal position stands in register with the eye 11. When the type-bar is operated by pressure upon the finger-key 8, this notch 15 performs no function, since the eye engages the outer edge of the type-bar and forces the latter upwardly without meeting any obstruction; but if a type-bar should rebound after striking the basket 13 upon its return stroke the inner end of the eye 11 catches the notch 15, thereby preventing the eye from sliding along the type-bar, and hence brings the type-bar to a full stop, as at Fig. 2, before the latter has moved far enough away from normal position to be in the path of a subsequently-operated type-bar.

It will be understood that upon the return of the parts to normal position there is no tendency of the lever 4 to rebound, but, on the contrary, said lever remains stationary when the type-bar starts to rebound, and hence is enabled to effectively cooperate with the stop-notch 15. If desired, however, the parts may be so adjusted that normally the eye 11 engages the notch 15, as shown at the left of Fig. 1. In this case there would be a slight lost motion at the initial portion of each key-stroke during the movement of the eye out of the notch and before the actuation of the type-bar by said eye.

It will be seen that the actuator 4 directly engages the type-operating lever or bar 3, said bar and actuator moving in different paths and cooperating to lock the bar against undue independent movement from normal position or such movement as would permit the type to clash with other types, that the actuating-lever 4 is pivoted eccentrically of the type-bar and engages the latter at the ob-

struction formed by cutting a notch in the edge of the type-bar, it being understood, of course, that only the upper end of the notch is called into use and that the type-bar may  
 5 be made plain or straight from said upper end or jog down to the type-socket, as illustrated at *a*, Fig. 2, that the type-bar is pivoted between the radial lever 4 and the printing-center, that the parts 3 and 4, which are  
 10 arranged intermediate the type 16 and the key 8, cooperate to form a lock for preventing undue rebound of the type, and, further, cooperate to communicate the movement of the key to the type, and in one form of the in-  
 15 vention that the eye 11 is normally seated in the depression 15, and that at the movement of the key the eye is moved out of said depression and thereafter actuates the type-bar.

Various changes may be made within the  
 20 scope of the invention.

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

1. In a type-writing machine, the combination of a pivoted type-bar, an obstruction  
 25 thereon, and a key-operated lever pivoted eccentrically of said type-bar and engaging the same at said obstruction so as to lock the type-bar.

2. In a type-writing machine, the combination of a type, a key, means, including two  
 30 levers, for transmitting the movement of the key to the type, said levers having a sliding engagement, and an obstruction upon one of said levers for cooperating with the other of  
 35 said levers to lock the type.

3. In a type-writing machine, the combination of a type-bar, a key-operated lever engaging said type-bar, and an obstruction upon  
 40 the type-bar for cooperating with said lever to lock the type-bar.

4. In a type-writing machine, the combina-

tion of a type-bar, an obstruction thereon, and an actuating-lever provided with an eye which engages said type-bar and is also arranged to cooperate with said obstruction to  
 45 lock the type-bar.

5. In a type-writing machine, the combination of a type-bar having a notch, an actuating-lever having an angularly-arranged eye  
 50 which engages said type-bar in register with said notch, and a key for operating said lever.

6. In a type-writing machine, the combination of a platen, a radial pivoted lever, a type-bar pivoted between the said lever and the  
 55 printing-center, an eye upon said lever for engaging the type-bar, and an obstruction upon said type-bar at said eye.

7. In a type-writing machine, the combination of a platen, type-bar 3 having an obstruction thereon, lever 4 having an eye for engag-  
 60 ing said type-bar and said obstruction, key-lever 6 connected to said lever 4, spring 9, and stop 10.

8. In a type-writing machine, the combination of a type-bar having a notch or depres-  
 65 sion, an actuating-lever 4 having an eye normally seated in said depression, and a key for moving the eye out of the depression and causing the eye to actuate the type-bar.

9. In a type-writing machine, the combina-  
 70 tion of a type-bar, an obstruction, and a key-operated device having an eye for swinging said type-bar and also cooperating with said obstruction to lock the type-bar.

Signed at the borough of Manhattan, city  
 75 of New York, in the county of New York and State of New York, this 21st day of March, A. D. 1901.

WALTER J. BARRON.

Witnesses:

K. V. DONOVAN,  
 E. M. WELLS.