

No. 861,314.

PATENTED JULY 30, 1907.

C. J. PAULSON.
TYPE WRITER CARRIAGE MECHANISM.
APPLICATION FILED MAY 8, 1906.

2 SHEETS—SHEET 1.

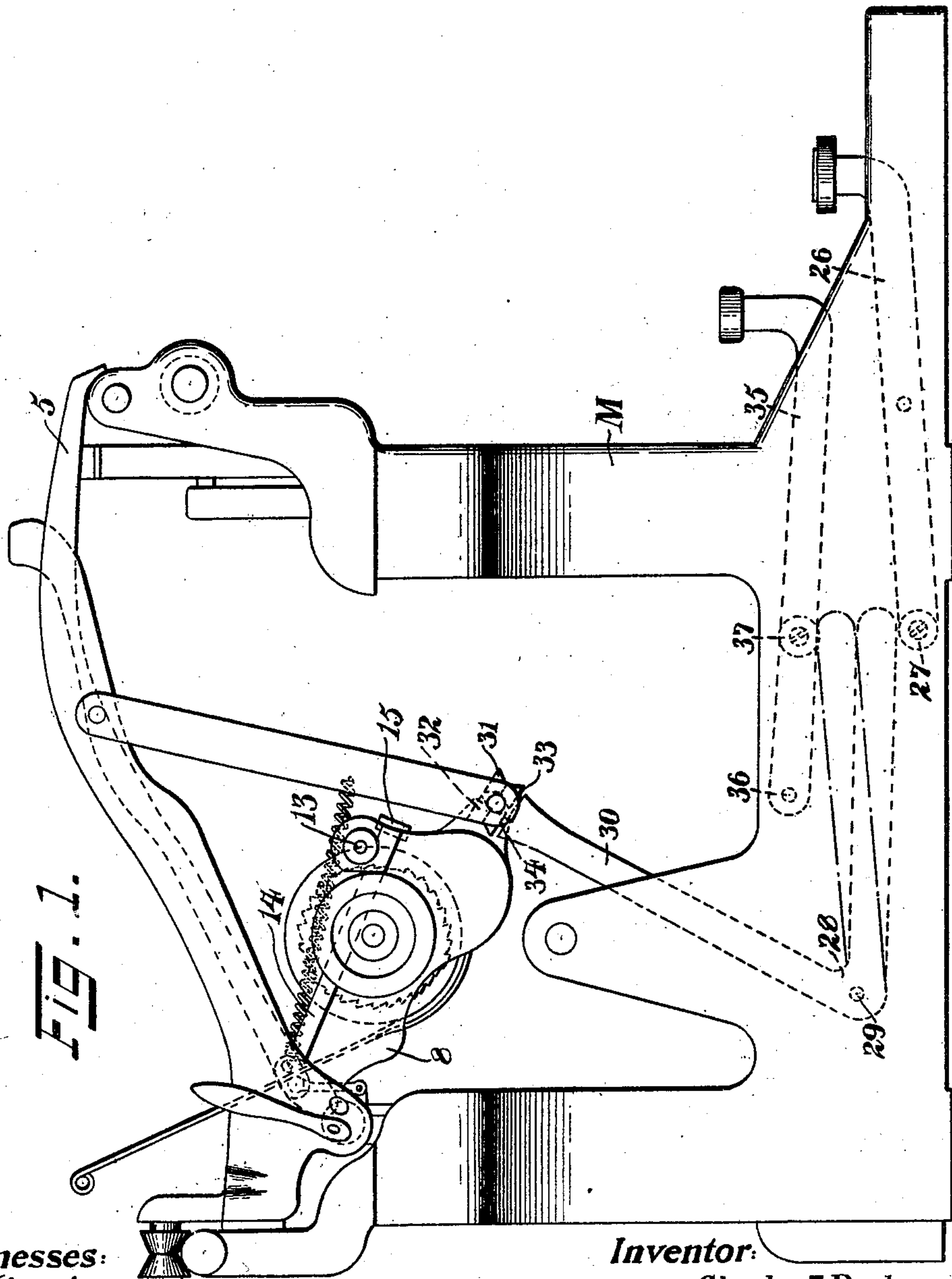


FIG. 1.

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H. D. Penney.

Inventor:
Charles J. Paulson.
By his Attorney,
F. H. Richardson

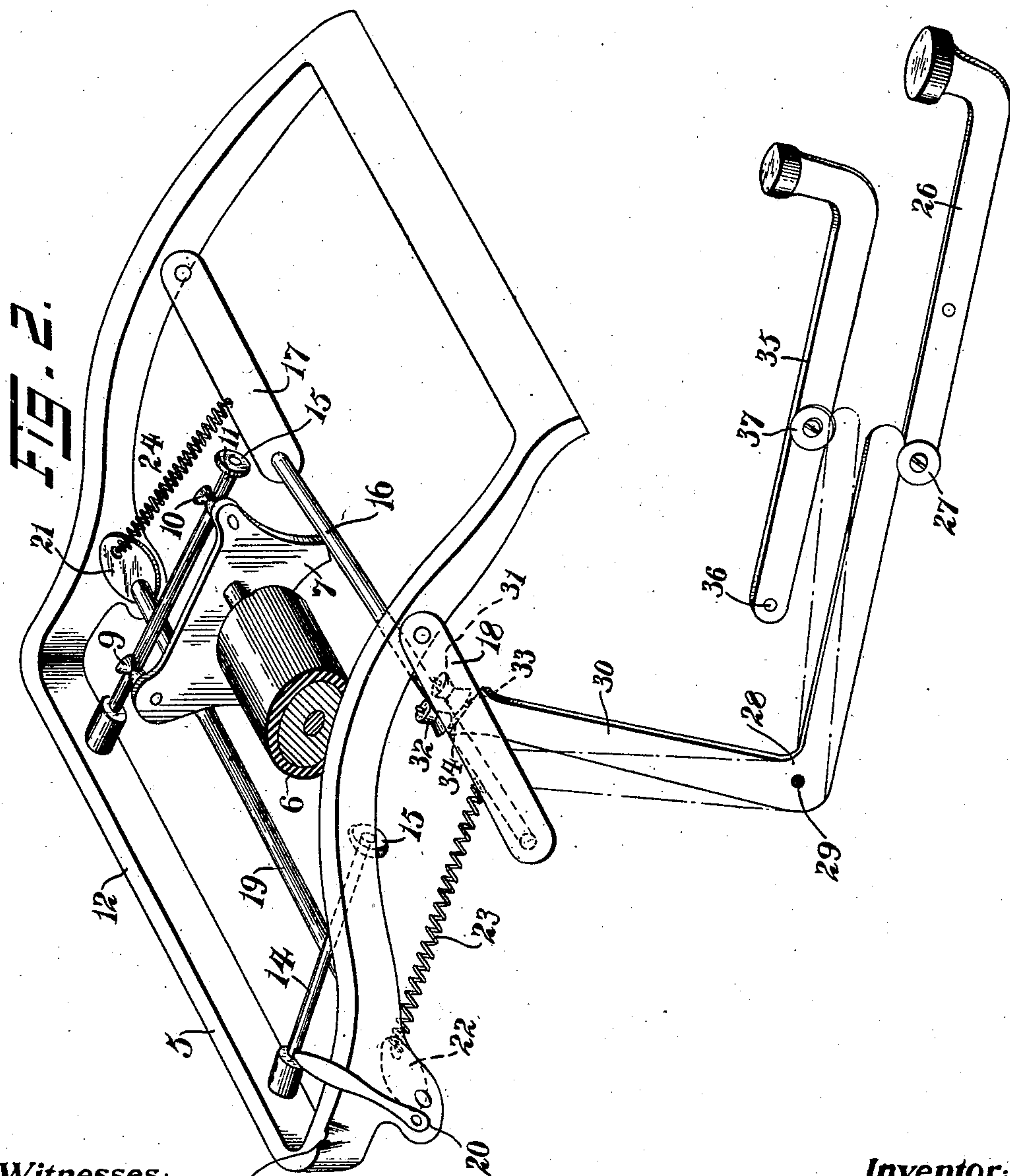
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UNITED STATES PATENT OFFICE.

CHARLES J. PAULSON, OF BROOKLYN, NEW YORK.

TYPE-WRITER CARRIAGE MECHANISM.

No. 861,314.

Specification of Letters Patent.

Patented July 30, 1907.

Application filed May 8, 1906. Serial No. 315,733.

To all whom it may concern:

Be it known that I, CHARLES J. PAULSON, a subject of the King of Sweden, residing in Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Type-Writer Carriage Mechanism, of which the following is a specification.

This invention relates to carriage shifting mechanism for typewriters by which the platen is shifted transversely to the line of writing to permit several different type or characters on each type bar to alternately strike the platen.

It is an object of the invention to provide an improved form of means whereby the carriage and platen can be shifted to be retained in one of two positions by resilient means, and can be temporarily shifted from each position by depressing one or two keys corresponding to such positions, whereby the platen will be retained in such position only while said key is depressed, and upon release of such key will return to the position in which set.

A further object of the invention is to provide in such a mechanism, a construction whereby the carriage will gravitate to its normal position, and when shifted from such position, will at once return through the action of gravity to its normal position.

In the accompanying drawings, is shown one embodiment of my invention, in which

Figure 1 represents in side elevation a typewriter having my invention applied thereto; and Fig. 2 is a perspective view of the carriage operating mechanism shown in Fig. 1.

The frame of the machine is denoted generally by M and serves to support a carriage 5 that is substantially rectangular in outline, and moves transversely across the frame M by any suitable means, not shown. The platen 6 is suitably mounted between two plates 7 and 8. The plate 7 carries two rollers 9 and 10 pivoted thereon that run on a rod 11 secured to the rear bar 12 of the carriage 5. The other end member 8 carries similar rollers 13 that run on a companion rod 14 projecting from the rear member 12 parallel with the rod 11. These rods are inclined forwardly as indicated in Fig. 1, and the platen frame will naturally gravitate downward toward the front of the machine until the forward rollers engage suitable stop collars 15 on the rods. To elevate the platen frame, a bar 16 is suspended between two depending levers 17 and 18 pivoted on the side members of the carriage 5, and are inclined rearward. The bar 16 engages forward of the plates 7 and 8 supporting the platen and rearward movement of the bar will cause the platen frame to move rearward, and hence it will be elevated by sliding up the inclined bars 11 and 14. A rock shaft 19 is pivoted on the car-

riage 5 in the rear of the platen frame and an arm 20 is secured to one end thereof. On the rock shaft near its bearings are secured crank levers 21 and 22, that are substantially in alinement with the lever 17 and 18; and these levers respectively are connected by coil springs 23 and 24, as indicated in Fig. 2. When the operating arm 20 is swung forward to the position indicated in Fig. 2, the platen frame will gravitate to its lower position and on reaching such position will engage the stop collars on the rods. But upon swinging the operating arm 20 rearward until it is engaged by a lug 25 on the frame and thereby locked, sufficient tension will be put upon the springs 23 and 24 by the levers 21 and 22, to cause the lever 17 and 18 to move the bar 16 rearward and shift the platen frame to its rear position. When it is desired to return the platen frame to its normal position, the arm 20 is moved forward, and the stop bar being released, the platen frame will gravitate to its former position.

When it is desired to shift the platen frame for a comparatively short period without retaining it in such position, a key lever 26 is depressed. This lever is suitably pivoted in the frame of the machine and by a roller 27 on its rear end engages a bent lever 28 suitably pivoted at 29 to the frame work. The upwardly extending arm 30 of the bent lever carries two parallel rollers 31 and 32 loosely mounted on pins 33 and 34, and these rollers engage the rod 16 on opposite sides thereof. By this means, the swinging of the bent lever from the key lever 26 will serve to swing the rod 16 back and forth; and this latter motion will shift the carriage to its rear position and retain it in such position as long as the key lever 26 is held depressed. But upon release of this key lever, the platen frame will obviously return to its former position.

Upon shifting the platen frame to its rear position through the operation of the arm 20, the bent lever 28 will be shifted to the position indicated in broken lines in Fig. 2, through the engagement of its rollers by the rod 16. For the purpose of shifting the platen frame to its normal position for a short time without shifting the controlling arm 20, a key lever 35 is pivoted in the frame of the machine at 36 and carries a roller 37 that will engage the bent lever when in its shifted position, and depress it to move the stop bar 16 forward; thereby permitting the platen frame to return to its normal forward position by gravity. But upon release of the key bar 35 the tension of the springs 23 and 24 will at once return the bar 16 to its said position and move the platen frame rearward.

From the construction above set forth, it will be observed that the platen frame is retained in either position by resilient means, from which it can be moved to its other position by a controlling key, but will be re-

turned to the former position at once upon release of such key. At the same time, the platen frame can be locked to operate in either position as desired.

Having thus described my invention, I claim:

- 5 1. In a typewriter, the combination of a carriage, means for supporting the carriage for longitudinal movement, a sliding platen supported on the carriage for transverse movement, and arranged to gravitate to its normal position relative to the carriage, inclined tracks for said carriage, and a lever mechanism arranged to elevate the carriage from said position.
- 10 2. In a typewriter, the combination of a carriage, means for supporting the carriage for longitudinal movement, a sliding platen supported on the carriage for transverse movement, and arranged to gravitate to its normal position relative to the carriage, inclined tracks for said carriage, a lever mechanism arranged to elevate the platen from said position, and means for retaining the platen in the elevated position.
- 15 3. In a typewriter, the combination of a carriage, means for supporting the carriage for longitudinal movement, a sliding platen supported on the carriage for transverse movement, and arranged to gravitate to its normal position relative to the carriage, inclined tracks for said carriage, a lever mechanism arranged to elevate the platen from said position, and resilient means for retaining the platen in the elevated position.
- 20 4. In a typewriter, the combination of a carriage, means for supporting the carriage for longitudinal movement, a platen supported on the carriage for transverse movement, and arranged to gravitate when released to its normal position relative to the carriage, means arranged to elevate the platen from said position, resilient means for retaining the platen in the elevated position and prevent such gravitation, and means arranged to move the platen from said elevated position against the force of said resilient retaining means.
- 25 5. In a typewriter, the combination of a carriage, means for supporting the carriage for longitudinal movement, a platen supported on the carriage for transverse movement, and arranged to gravitate when released to its normal position relative to the carriage, a lever mechanism arranged to elevate the platen from said position, resilient means for retaining the platen in the elevated position and prevent such gravitation, and lever mechanism arranged to move the platen from said elevated position against the force of said resilient retaining means.
- 30 6. In a typewriter, the combination with a frame work, of a carriage movable on the frame work, a platen movable transversely on the carriage and supported to gravitate to its normal position when released, a lever mechanism pivoted on the carriage, key mechanism arranged to shift said lever mechanism to thereby elevate the platen from its normal position, a second lever mechanism pivotally mounted on the frame work, resilient means connecting
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said lever mechanisms, said mechanisms being so organized that the shifting of the second lever mechanism will cause the first lever mechanism to elevate the platen and retain the platen in such position, and means for releasing the first lever mechanism to permit the platen to gravitate to its normal position. 60

7. In a typewriter, the combination with a frame work, of a carriage movable on the frame work, a platen movable transversely on the carriage and supported to gravitate to its normal position when released, a lever mechanism pivoted on the carriage, key mechanism arranged to shift said lever mechanism to thereby elevate the platen from its normal position, a second lever mechanism pivotally mounted on the frame work, means for retaining the latter mechanism in its abnormal position, springs connecting said lever mechanisms, said mechanisms being so organized that the shifting of the second lever mechanism will cause the first lever mechanism to elevate the platen and retain the platen in such position, and means for operating the first lever mechanism to permit the platen to gravitate to its normal position. 65 70 75

8. In a typewriter, the combination with a frame work, of a carriage movable on the frame work, a platen movable on the carriage, means tending to normally retain the platen in a certain position on the carriage, a lever mechanism pivoted on the carriage, key mechanism arranged to shift said lever mechanism to move the platen from said normal position, a second lever mechanism pivotally mounted on the frame work, resilient means connecting said lever mechanisms, said mechanisms being so organized that the shifting of the second lever mechanism will cause the first lever mechanism to shift the platen from its normal position and retain it in such shifted position, and means for operating the first lever mechanism to permit the platen to be returned to its said normal position by its retaining means. 80 85 90

9. In a typewriter, the combination of a carriage, means for supporting the carriage for longitudinal movement, a pair of inclined transversely located tracks mounted on said carriage, a platen sliding on said tracks, and means for elevating the platen on the tracks and for holding it in such elevated position, the platen gravitating to its normal position on the release of such elevating means. 95

10. In a typewriter, the combination of a carriage, means for supporting the carriage for longitudinal movement, a pair of inclined transversely located tracks mounted on said carriage, a platen sliding on said tracks, and means including springs for elevating the platen on the tracks and for holding it in such elevated position, the platen gravitating to its normal position on the release of such elevating means. 100 105

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Witnesses:

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