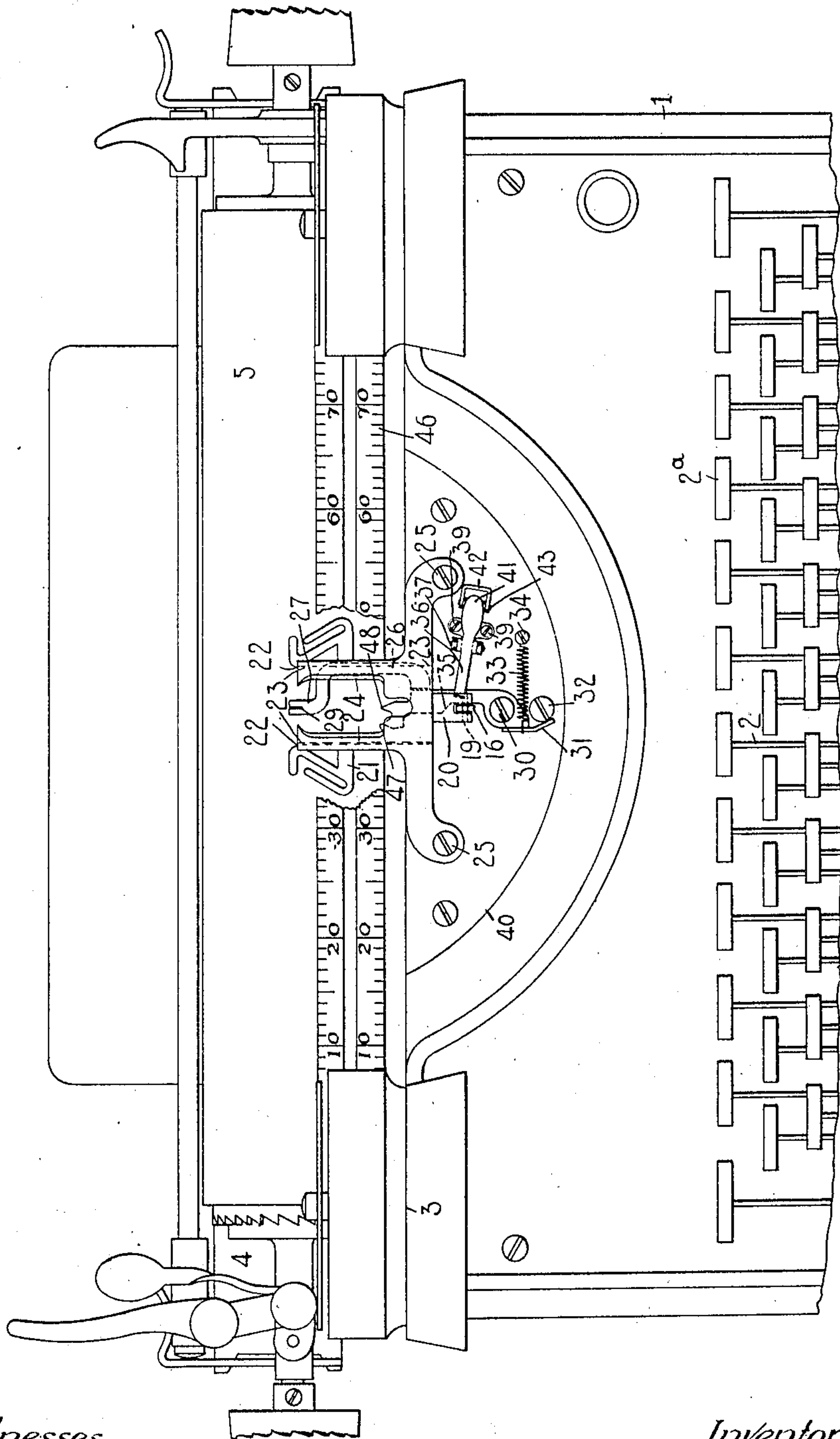


W. J. BARRON.
TYPE WRITING MACHINE.
APPLICATION FILED JULY 21, 1905.

913,093.

Patented Feb. 23, 1909.
2 SHEETS—SHEET 1.

FIG. 1.



Witnesses.

J. B. Reeves,
Charles E. Smith

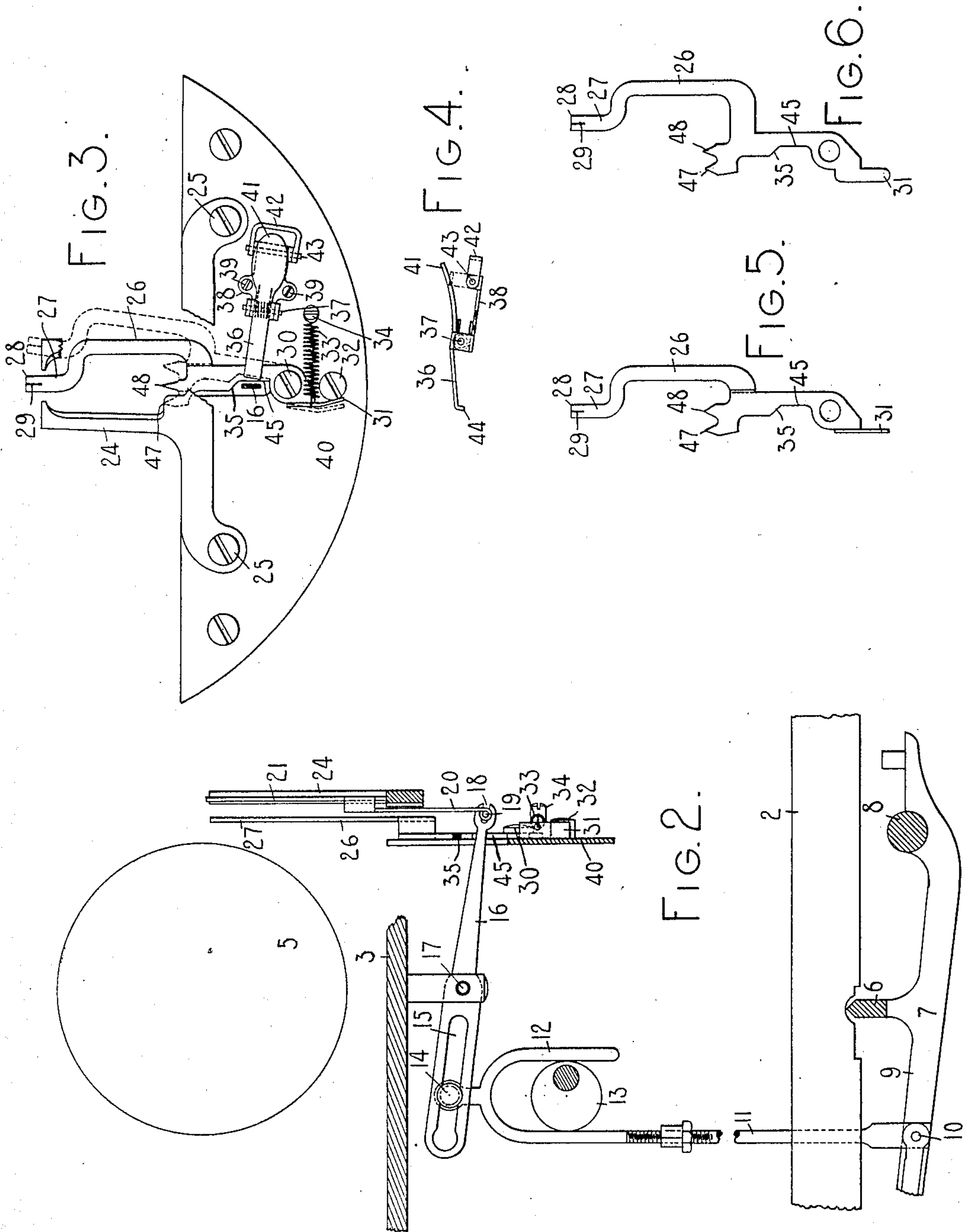
Inventor

Walter J. Barron
By Jacob Felbel
His Attorney

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Witnesses
J. B. Reeves.
Charles E. Smith

Inventor:
Walter J. Barron
By Jacob F. Fabel
His Attorney

UNITED STATES PATENT OFFICE.

WALTER J. BARRON, OF NEW YORK, N. Y., ASSIGNOR TO DENSMORE TYPEWRITER COMPANY,
OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

TYPE-WRITING MACHINE.

No. 913,093.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed July 21, 1905. Serial No. 270,645.

To all whom it may concern:

Be it known that I, WALTER J. BARRON, a citizen of the United States, and 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.

My invention relates to printing point indicators for typewriting machines and one object of the invention is to provide a simple and efficient indicating means including a printing point indicator which is automatically moved away from the indicating position at each printing operation.

A further object of my invention is to provide means for throwing the printing point indicator out of operation at will.

A still further object of my invention is to provide an automatically actuated printing point indicator with means coöperating with a scale to indicate the position of the carriage with reference to the printing point.

To the above and other ends which will hereinafter appear, my invention consists in the features of construction, arrangements of parts and combinations of devices to be hereinafter described and more particularly pointed out in the appended claims.

In the accompanying drawings, wherein like reference characters indicate corresponding parts in the various views, Figure 1 is a fragmentary front elevation of sufficient number of parts of one form of typewriting machines to illustrate my invention in its application thereto. Fig. 2 is an enlarged detail vertical sectional view showing the printing point indicator and the associated mechanism. Fig. 3 is an enlarged detail front elevation of a portion of the same. Fig. 4 is a detail side elevation of the retaining device or latch for locking the printing point indicator out of operation. Fig. 5 is a detail front elevation of the printing point indicator. Fig. 6 is a detail plan or face view of the blank from which the printing point indicator is formed.

I have shown my invention applied to a Monarch machine but it should be understood that the invention may be applied to various forms of typewriting machines.

The frame 1 of the machine has key levers 2 fulcrumed therein in the usual manner and coöperating with the printing instrumentalities to actuate them. Above the

top plate 3 of the machine is a carriage 4 which is adapted to travel from side to side of the machine and carries a platen 5. Extending beneath the various key levers 2 is a universal bar 6 which is carried by a universal bar frame 7 pivoted in the base of the machine at the pivotal center 8. A rearwardly extending arm 9 on the universal bar frame is pivoted at 10 to an upwardly extending link 11 which is forked at its upper end 12 for coöperation with an automatically actuated eccentric 13 that effects a fore and aft movement of the link 11 to move a laterally projecting pin 14 thereon in a slot 15 that extends longitudinally of the vibrator actuating lever 16 so that the pin 14 may be automatically moved nearer to or further from the fulcrum 17 of the vibrator actuating lever, thus giving different extents of throw from the normal position to the vibrator, to effect a transverse feed of the ribbon while it is fed longitudinally. This mechanism is essentially the same as that illustrated in the patent to Felbel & Gabrielson No. 703,339, dated June 24, 1902, and further description thereof is deemed unnecessary. The forward end of the vibrator actuating lever is forked or bifurcated at 18 where it coöperates with a pivot pin 19 carried by a depending arm 20 on a ribbon vibrator 21. The ribbon vibrator has inwardly bent parallel side edges 22 which are received in grooves 23 in the outer edges of upright arms 24 on a fixed vibrator guide which is secured in place by screws 25. A printing point indicator 26 is provided with an inwardly bent indicating arm 27 which is, at its indicating end 28, substantially the width of a character to be written on the machine and has an upright line or indicating mark 29 which indicates the exact vertical center of a character written at the printing point. The printing point indicator is pivoted at 30 to a fixed portion of the machine by a headed pivot screw and an ear or finger 31 projects from the indicator and coöperates with the head of a fixed screw or stop 32 to limit the movement of the indicator to the normal or indicating position. A contractile spring 33 is secured at one end to the finger 31 on the indicator and at its opposite end to a screw 34 on a fixed portion of the machine to restore the indicator to the normal position. A cam 35 is provided on one side edge of the indi-

cator for coöperation with the forward end of the ribbon vibrator actuating lever 16, as illustrated in full lines in Fig. 3.

A spring pressed latch 36 is pivoted at 37 to a bracket plate 38 secured by screws 39 to the segment 40. This spring pressed lock or latch has a finger piece 41 extending therefrom, and a pivoted locking member 42, which is in the form of a yoke, is pivoted at 43 to the bracket plate 38 so that it may be turned from the full to the dotted line position shown in Fig. 4. The bent end 44 of the latch or locking device is adapted to coöperate with the printing point indicator at 45 as clearly represented in Fig. 3 in order to lock the indicator in the dotted line position shown in Fig. 3 and to maintain said indicator in the non-indicating position and in a position where the cam 35 thereon is held out of the path of the vibrator actuating lever 16 so as not to be affected thereby and so as not to affect the operation of the actuating lever 16 and the ribbon vibrator controlled thereby. When the operator desires to use the printing point indicator it is merely necessary to swing the locking device or bail 42 over the finger piece 41 while the same is maintained depressed, thereby locking the latch 36 against the tension of its spring and maintaining it in a position where the hook-like end 44 thereof cannot engage the indicator.

A platen or carriage scale 46 is carried by and travels with the carriage and is exposed to the view of the operator between the arms 24 and the fixed vibrator guide. The printing point indicator carries an index which comprises two pointers 47 and 48. When the printing point indicator is in the normal or indicating position the pointer 48 will register with an index on the scale to designate the position of the carriage relatively to the printing point, whereas when the printing point indicator is in the non-indicating position the pointer 47 will be moved to a point where it will occupy the same position as that formerly occupied by the pointer 48 and will operate with the scale 46 to indicate the position of the carriage with reference to the printing point. From this it will be seen that the position of the carriage may be readily determined by the pointers 47 and 48, whether the printing point indicator be in the indicating or the non-indicating position.

In the operation of the device a depression of a finger key 2^a will effect a depression of the associate key lever 2, thereby moving the type bar controlled by said key lever to the printing position. This same depression of the key lever effects a downward movement of the universal bar and through the link 11 and lever 16, will cause the ribbon vibrator to be elevated, thus interposing the ribbon in the path of the

type bar which is approaching the printing position. As the forward end of the ribbon vibrator actuating lever 16 is elevated, it is brought into coöperation with the cam 35 on the printing point indicator, thus moving it from the full to the dotted line position shown in Fig. 3. When pressure on the finger key is released the type bar will be restored to its normal position in the usual manner and the universal bar will be elevated by its restoring spring (not shown), thereby causing the ribbon vibrator to move back to the normal position and the printing point indicator will be restored to its normal or indicating position shown in full lines in Fig. 3 where it will register with the printing point. Should the operator desire to dispense with the use of the printing point indicator, it is merely necessary to move the indicator from the full to the dotted line position shown in Fig. 3, by hand or otherwise, and effect an engagement between the locking device 36 and the printing point indicator to lock it in the abnormal or non-indicating position.

Various changes may be made in the construction without departing from the spirit of my invention.

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

1. In a typewriting machine, the combination of a printing point indicator, means for automatically moving the indicator at each printing operation, and means for rendering said printing point indicator inoperative.

2. In a typewriting machine, the combination of a printing point indicator, means for automatically moving the indicator to and from the indicating position at each printing operation, and a latch for locking the indicator out of operation.

3. In a typewriting machine, the combination of means for automatically moving the ribbon to cover the printing point at each printing operation, an automatically actuated printing point indicator that is moved to the non-indicating position when the ribbon is moved to cover the printing point, and means for throwing the indicator out of operation at will without affecting the operation of said ribbon moving means.

4. In a typewriting machine, the combination of a printing point indicator, means for automatically moving the indicator to and from the printing point at each printing operation, and a hand actuated latch for locking the indicator out of coöperation with its actuating means.

5. In a typewriting machine, the combination of a ribbon vibrator, means for automatically actuating said ribbon vibrator at each printing operation, a printing point indicator adapted to be automatically moved to and from the printing point at each op-

eration of the ribbon vibrator, and means for throwing the indicator out of operation at will, without affecting the operation of the vibrator.

5 6. In a typewriting machine, the combination of a ribbon vibrator, means for automatically actuating said ribbon vibrator at each printing operation, a printing point indicator adapted to be automatically actuated at each operation of the ribbon vibrator, and a hand actuated latch for locking the indicator out of operation at will without affecting the automatic operation of the vibrator.

15 7. In a typewriting machine, the combination of a ribbon vibrator, means for automatically actuating the vibrator at each printing operation, an indicator, a cam on the indicator, and means cooperating with said cam to move the indicator when the vibrator is actuated.

25 8. In a typewriting machine, the combination of a ribbon vibrator, means for actuating said vibrator, a printing point indicator, and a cam between the indicator and the ribbon vibrator actuating means and by which motion is transmitted from the ribbon vibrator actuating means to the indicator.

30 9. In a typewriting machine, the combination of a ribbon vibrator, a lever for automatically actuating the vibrator at each printing operation, an indicator, and a cam on one of the indicator and lever elements for automatically actuating the indicator when the lever is moved to actuate the vibrator.

40 10. In a typewriting machine, the combination of a ribbon vibrator, means for automatically actuating the vibrator at each printing operation, an indicator, a cam on the indicator, means cooperating with said cam to move the indicator when the vibrator is actuated, and means for locking said indicator out of operation at will without affecting the operation of the vibrator.

50 11. In a typewriting machine, the combination of a ribbon vibrator, a lever for automatically actuating the vibrator at each printing operation, an indicator, a cam on the indicator with which said lever cooperates when the lever is moved to actuate the vibrator, and means for locking said indicator out of operation at will without affecting the operation of the vibrator.

60 12. In a typewriting machine, the combination of a ribbon vibrator, means for automatically actuating said vibrator, a spring restored printing point indicator pivoted to a fixed portion of the machine and normally in the indicating position, a cam on said indicator, a stop to limit the indicator in its movement to the normal position, and automatically actuated means cooperating with the cam to effect an operation of the indicator when the vibrator is actuated.

tion of the indicator when the vibrator is actuated.

13. In a typewriting machine, the combination of a ribbon vibrator, means for automatically actuating said vibrator, a spring restored printing point indicator pivoted to a fixed portion of the machine and normally in the indicating position, a cam on said indicator, a stop to limit the indicator in its movement to the normal position, automatically actuated means cooperating with the cam to effect an operation of the indicator when the vibrator is actuated, and means for rendering the indicator inoperative without affecting the operation of the vibrator.

14. In a typewriting machine, the combination of a ribbon vibrator, automatically actuated ribbon vibrator operating means, and a spring restored lever pivoted to a fixed portion of the machine and adapted to register with the printing point and having a cam that extends into the path of the vibrator operating means so as to be actuated thereby.

15. In a typewriting machine, the combination of a ribbon vibrator, automatically actuated ribbon vibrator operating means, a spring restored lever pivoted to a fixed portion of the machine and adapted to register with the printing point and having a cam that extends into the path of the vibrator operating means so as to be actuated thereby, and means for locking the lever to one side with the cam thereon out of the path of said operating means.

16. In a typewriting machine, the combination of a printing point indicator, means for automatically actuating said indicator at each printing operation, a platen scale, and a separate index on the printing point indicator that registers with said scale.

17. In a typewriting machine, the combination of a printing point indicator, means for automatically actuating said indicator at each printing operation, a platen scale, and an index on the printing point indicator that registers with said scale in both the indicating and non-indicating positions of the printing point indicator.

18. In a typewriting machine, the combination of a printing point indicator, means for automatically actuating said indicator at each printing operation, a platen scale, and two pointers on said printing point indicator, one of which registers with the index on the scale when the indicator is in the indicating position and the other of which registers with an index on the scale when the indicator is in the non-indicating position.

19. In a front-strike typewriting machine, the combination of a vertically movable ribbon vibrator, a horizontally disposed lever which extends fore and aft of the machine

for actuating said ribbon vibrator, and a
printing point indicator pivoted to a fixed
portion of the machine to vibrate substan-
tially in a vertical plane and having a cam
5 with which said lever coöperates to actuate
the indicator.

Signed at the borough of Manhattan, city

of New York, in the county of New York
and State of New York, this 20th day of
July, A. D. 1905.

WALTER J. BARRON.

Witnesses:

E. M. WELLS,

R. H. STROTHER.