C. H. SHEPARD.

TYPE WRITING MACHINE.

APPLICATION FILED OCT. 11, 1912.

1,052,758.

Patented Feb. 11, 1913.

2 SHEETS—SHEET 1.

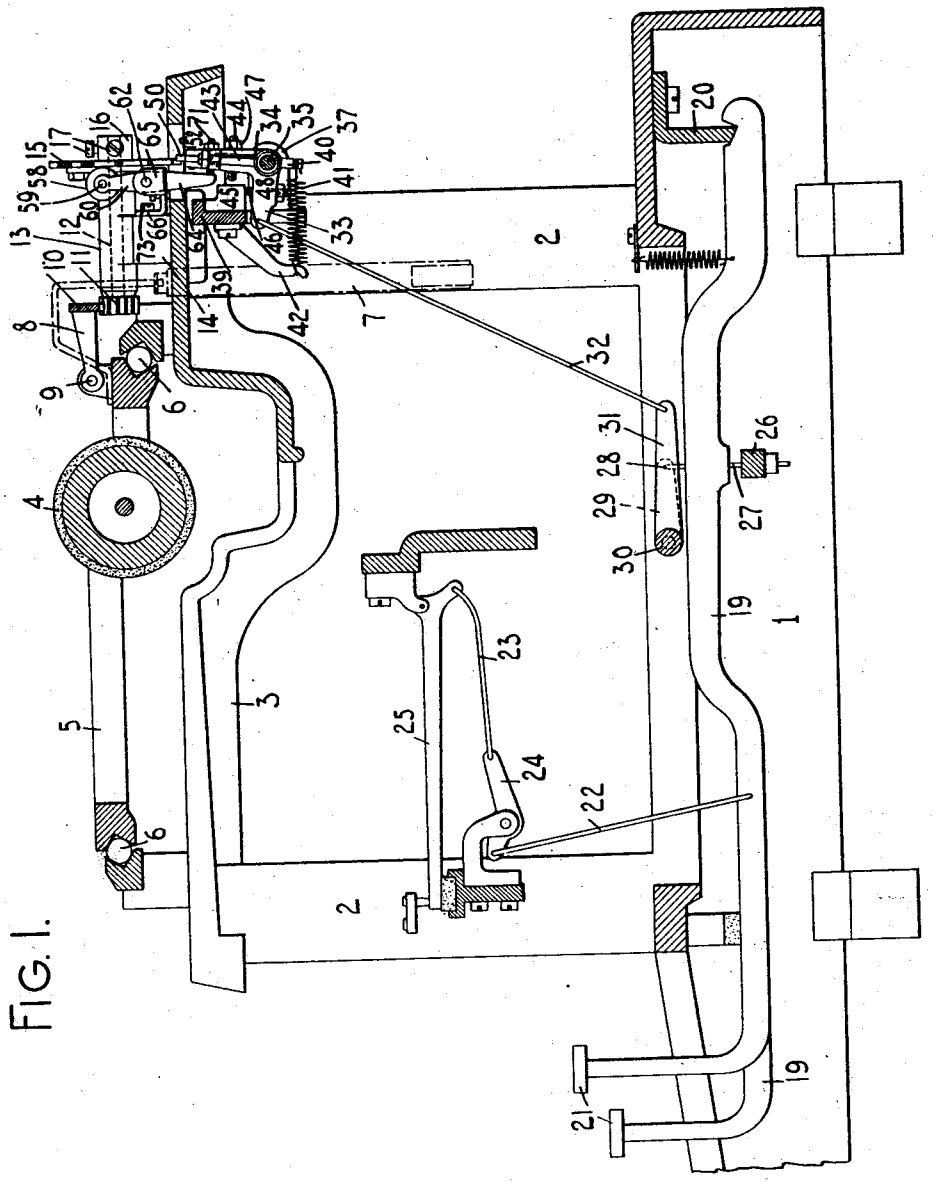

FIG. 1.

WITNESSES:

E. M. Wells.

Charles B. Smith

INVENTOR:

Charles H. Shepard

By Jacob Tabel

HIS ATTORNEY

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2 SHEETS—SHEET 2.

FIG. 5.

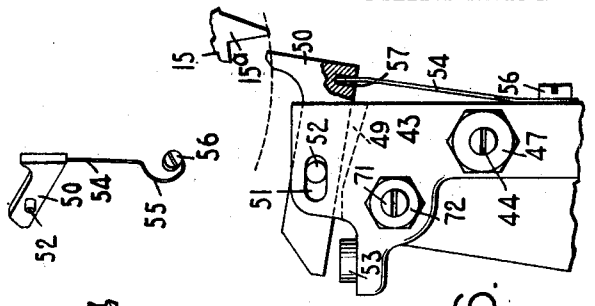


FIG. 6.

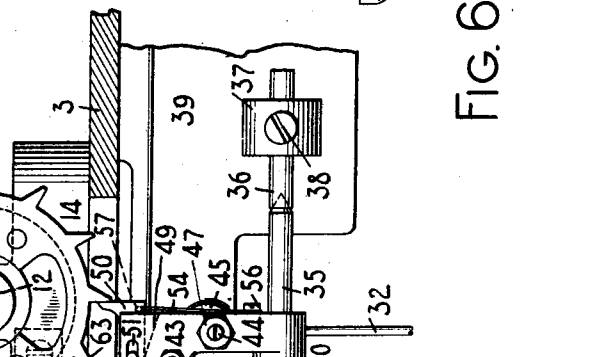


FIG. 2.

FIG. 3.

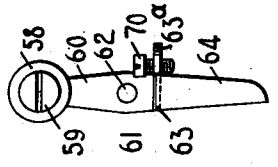
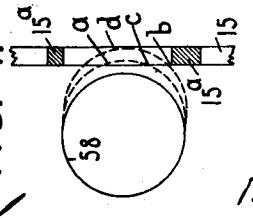


FIG. 4.



WITNESSES:

E. M. Wells.

Charles E. Smith

INVENTOR:

Charles H. Shepard

By Jacob Felbel

HIS ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES H. SHEPARD, OF NEW YORK, N. Y., ASSIGNOR TO UNION TYPEWRITER COMPANY, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

TYPE-WRITING MACHINE.

1,052,758. Specification of Letters Patent. Patented Feb. 11, 1913.

Application filed October 11, 1912. Serial No. 725,159.

To all whom it may concern:

Be it known that I, CHARLES H. SHEPARD, citizen of the United States, and resident of the borough of Manhattan, city of New York, in the county of New York 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 typewriting machines and more particularly to carriage escapement mechanism.

The main object of my invention, generally stated, is to provide a rapid escapement mechanism which is comparatively simple in construction and is efficient and reliable in use.

A further object of my invention is to provide an improved construction of the character specified in which parts may be readily adjusted to nicely regulate the operation of the escapement.

Another object of the invention is to provide an improved roller dog construction in which the action of the roller holding dog may be varied and nicely timed with reference to the release of the stepping dog.

A still further object of my invention is to provide an escapement in which but little noise is produced by its actuation and by the return movement of the carriage.

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 set forth in the following description and particularly pointed out in the appended claims.

In the accompanying drawings, in which like reference characters indicate like parts, Figure 1 is a fragmentary fore and aft vertical sectional view of one form of typewriting machine embodying my invention, only so much of the typewriting machine being shown as is necessary to illustrate my invention in its embodiment therein. Fig. 2 is an enlarged detail rear elevation, with parts in section, of a portion of the escapement mechanism. Fig. 3 is a detail side view of the roller dog and its carrier or dog rocker. Fig. 4 is a fragmentary diagrammatic view of the roller dog and escapement wheel, the view showing the parts as they appear when viewed from the direction of the arrow in Fig. 2, and as though the teeth of the escapement wheel were in section, such section being taken on the line x—x of Fig. 2. Fig. 5 is a detail side view of the returning spring for the stepping dog, the view showing the manner of supporting the spring and connecting it with the stepping dog. Fig. 6 is a detail fragmentary rear elevation of a portion of the escapement mechanism, showing the parts as they appear when the stepping dog is released from the escapement wheel.

I have shown my invention embodied in a No. 10 or No. 11 Remington machine, although some of the parts of that machine are only conventionally represented. It should be understood, however, that the invention may be embodied in various styles of typewriting machines.

The frame of the machine comprises a base 1, corner posts 2, and a top plate 3. A cylindrical platen 4 is mounted in a carriage 5, the latter being supported on antifriction balls or rollers 6 which are received in grooved fixed guide rails to support the carriage for movement over the top plate from side to side of the machine. It will be understood that the carriage is connected in the usual manner to a spring drum 7 by which the carriage is propelled in the direction of its feed.

Rearwardly extending arms 8 are pivoted at 9 to the carriage and are connected at their rear ends to a feed rack 10 which meshes with a feed pinion 11. This feed pinion is fixed to the forward end of a shaft 12 received in a bearing 13 provided with a base or foot piece 14 by which the bearing may be secured to the top plate of the machine. The rear end of the shaft 12 has fixedly connected thereto an escapement rack or wheel 15. Thus the escapement wheel has a rearwardly extending hub 16 tapped to receive set screws 17 which extend through the tapped openings and bear at their inner ends against flattened faces 18 on the shaft 12 in order to fixedly connect the escapement wheel to said shaft.

Key levers 19 are fulcrumed on a fulcrum bar 20 and extend to the keyboard of the machine where they are provided with finger keys 21. Each key lever is connected by links 22 and 23 and a sub-lever 24 to a type bar 25 pivoted to swing upwardly and rearwardly and to strike against the front face of the platen 4. Extending transversely be-

neath the series of key levers 19 is a universal bar 26 connected at its ends to upwardly extending links 27 which in turn are pivoted at their upper ends, as at 28, to rearwardly extending crank arms 29 fixed to a rock shaft 30. This shaft is supported at its ends by pivot screws received in tapped openings in the base of the machine. A centrally disposed rearwardly projecting crank arm 31 extends from the rock shaft and is connected to an upwardly extending link 32. The upper end of this link is pivoted to a forwardly projecting arm 33 of a dog rocker, designated as a whole by the reference numeral 34. A shaft 35, which is fixedly connected to the dog rocker, is supported at its ends in bearings 36 adjustably mounted in bearing openings in lugs 37 and secured in their adjusted positions by set screws 38. The lugs 37 project rearwardly from a bracket plate 39 secured to the frame of the machine. A depending pin 40 on the dog rocker is connected to one end of a contractile spring 41 which has its opposite end connected to a fixed bracket arm 42 secured to the bracket plate 39. The dog rocker 34 likewise has an upwardly extending dog carrying arm 43 which is tapped to receive a screw stop 44 which extends through to the forward side of the dog rocker where it is adapted to coöperate with a projection 45 on the bracket plate 39 to limit the pivotal movement of the dog rocker on the depression of a key. The return movement of the dog rocker is limited by a set screw 46 carried by the arm 33 of the dog rocker and cooperating with the projection 45 to arrest the dog rocker when pressure on the finger key is released and the rocker is returned to normal position under the power of the spring 41. A lock nut 47 may be employed to secure the screw stop 44 against accidental displacement from its adjusted position. In a like manner a lock nut 48 may be secured to coöperate with the set screw 46 to secure it in its adjusted position. The upper end of the upright arm 43 of the dog rocker is slotted, as at 49, to receive a stepping dog 50. The slotted portion of the rocker forms two arms, one on each side of the stepping dog and each of these arms is slotted at 51 for the reception of a pin 52 which projects laterally from the stepping dog. In this manner the normally engaged stepping dog is mounted for both sliding and pivotal movement in the plane thereof on the dog rocker and is limited in its pivotal movement in one direction by an abutment 53 projecting from the dog rocker. A spring 54 is looped at its lower end, as at 55, and is secured at its looped end to the dog rocker by a screw 56. The opposite end of the spring extends into an opening 57 in the loose or stepping dog. It will be seen that the construction of the spring is such that it exerts a force longitudinally of the spring as well as transversely thereof in order to return the stepping dog to normal position and to render the spring effective both to slide the dog and turn it on its pivotal support. However, the arrangement is such that in the normal position of the parts shown in Fig. 2, the bottom wall of the opening 57 does not contact with the upper end of the spring 54. The effect of this is that when the stepping dog 50 is released from the escapement wheel, it will receive a turning movement on its pivot 52, as well as a sliding movement in its guide slot; the dog moving from the position shown in Fig. 2 to that indicated in Fig. 6. This is due to the fact that the spring 54 exhausts its force before the pivot 52 reaches the right-hand end of the slot 51 (as the parts appear in Figs. 2 and 6), and the engaging end of the dog 50 being heavier than its opposite end turns the dog by gravity on its pivot 52 until the bottom of the opening 57 contacts with the upper end of the spring 54, thus arresting the dog in the position shown in Fig. 6. The purpose of this is two-fold. In the first place the stepping dog when released from the wheel is not snapped by its spring against a fixed abutment to limit the movement of the dog but such movement is limited by the spring itself and consequently there is little or no noise produced when the stepping dog is released and springs forwardly. In the second place there is a lost motion provided between the upper end of the spring 54 and the bottom wall of the opening 57 when the parts are in the normal position shown in Fig. 2, so that if at this time the carriage should be moved back to begin a new line of writing, the backward rotation of the escapement wheel results in the rear inclined faces of the teeth 15ª thereof co-acting with the rear inclined face of the stepping dog, forcing the latter down below the position shown in Fig. 6. The first part of this turning movement of the dog to the Fig. 6 position takes up the lost motion and the last part of the movement is slightly below the position shown in Fig. 6 to clear the teeth of the escapement wheel. It is the last part of the movement alone of the dog which is exerted longitudinally against the spring 54 so that only a very slight return movement of the dog under the power of the flexed spring is effected and but very little noise is produced during the backward movement of the escapement wheel, and yet there is a reliability of action of the parts. As soon as a tooth on the escapement wheel passes the stepping dog, the latter is immediately returned to the Fig. 6 position to co-act with the teeth of the escapement wheel to prevent a forward movement thereof. When the pressure of the carriage spring is exerted through the

escapement wheel against the stepping dog, it assumes the position shown in Fig. 2.

A holding dog, which in the present instance is in the nature of a roller dog 58, is pivoted on a shouldered pivot screw 59 and so presented to the teeth of the escapement wheel that the periphery of the roller dog constitutes its working face. This holding dog is mounted and supported independently of the stepping dog and independently of the dog rocker 34. Thus the shouldered pivot screw 59 is received at its threaded end in a tapped opening in an upright arm 60 of a second dog rocker, which is indicated as a whole by the reference numeral 61. The dog rocker 61 comprises in addition to the upright arm 60 a pivot rod 62 to which the upright arm is riveted or otherwise fixedly connected. A horizontally disposed member or portion 63 projects from the upright arm 60 and carries a depending arm 64. The pivot rod 62 is received in bearing openings in arms 65 and 65ª of a bracket 66. A collar 67 surrounds the pivot rod 62 adjacent to the bearing arm 65ª and is fixed to the pivot rod by a set screw 68. It will thus be understood that a longitudinal movement of the pivot rod 62 in its bearings is prevented by the collar 67 bearing against one side of the bracket arm 65ª and the upright arm 60 of the rocker bearing against the opposite side of the bracket arm 65ª. A coiled spring 69 surrounds the pivot rod 62 and is connected at one end to the bracket 66 and at its opposite end to the collar 67. The power of this spring is exerted to maintain the dog rocker 61 in the normal position where the roller dog 58 is maintained out of the path of the teeth in the escapement wheel, as illustrated in Fig. 1. An adjustable screw stop 70 is received in a tapped opening in an offset portion 63ª of the part 63 of the dog rocker 61. The lower end of this screw stop co-acts with the top plate 3 of the machine to limit the return movement of the dog rocker 61 under the power of the spring 69. From an inspection of Fig. 3 it will be observed that the screw stop 70 is offset from the pivotal center of the dog rocker 61 in order to operate effectively to arrest the return movement of the rocker. It will also be observed from an inspection of Figs. 1 and 2 that the depending arm 64 of the rocker 61 extends in the path of movement of an adjustable abutment which is in the nature of a screw 71 received in a tapped opening in the dog rocker 34 and extending therethrough. This screw may likewise be provided with a lock nut 72 to prevent an accidental displacement of the screw. The bracket 66 by which the dog rocker 61 is supported is fixed to the frame of the machine in any suitable manner. In the present instance, it has been convenient to secure the bracket to the base 14 of the bearing for the escapement wheel shaft, by means of screws 73. From the foregoing description it will be understood that the rocker 61, and the roller dog 58 carried thereby, are supported entirely independently of the dog rocker 34, and the dog carried thereby, although the rocker 61 is under control of the rocker 34.

In the operation of the escapement a depression of a printing key is effective to depress the universal bar 26, thereby turning the dog rocker 34 to move the upright arm thereof forwardly transversely of the plane of the feed rack or escapement wheel. The effect of this movement it to disengage the stepping dog 50 from the escapement wheel and the dog receives a forward movement, aided by its spring 54, to the position shown in Fig. 6, so as to be in a position to cooperate with the next advancing tooth of the escapement wheel when the dog rocker 34 returns to its normal position. During the movement of the dog rocker 34 just described the adjustable contact 71 will engage the depending arm 64 of the independently supported dog rocker 61 and effect a rearward movement of the roller dog transversely of the plane of the escapement wheel. This movement of the rocker 61 is against the pressure of the spring 69 and results in moving the roller dog into the path of the next advancing tooth of the escapement wheel. The pressure exerted on the finger key is effective to hold the dog rocker 61 in its actuated position and to hold the escapement wheel against letter feed movement after it has been released by the stepping dog. As soon, however, as pressure is released on the depressed finger key, the escapement wheel will cam the roller dog out of the path of the engaged tooth thereof and movement thus transmitted to the dog rocker 61 will likewise be transmitted to the dog rocker 35 to speedily return both of these dog rockers to normal position. It will be understood of course that the respective springs 69 and 41 for the dog rockers are also effective to aid in the restoration of the rockers to normal position.

By the construction and arrangement of the parts, the adjustable means between the two dog rockers, and the mounting and supporting of the roller dog independently of the stepping dog, I am enabled to regulate the parts so that if desired an initial movement of the dog rocker may be effected independently of the rocker 61 and the latter may be taken up at any portion of the stroke of the dog rocker 34 to nicely regulate or time the interpositioning of the roller dog in the path of the advancing tooth of the escapement wheel, and with reference to the instant when the escapement wheel is freed from control of the stepping dog. By this arrangement I am

enabled to adjust the parts so as to provide various extents of "drop" at the down stroke of the key and otherwise nicely regulate and control the action of the escapement mechanism. Thus, for example, it will be understood that the further forward the contact screw 71 is adjusted, the greater will be the extent of rearward throw of the roller dog, and the less will be the extent of the "drop" when the carriage is let off or released from control of the stepping dog This will be more clearly understood from an inspection of Fig. 4. If, for example, it be assumed that the roller dog 58 is normally maintained in the full line position and that the adjustment of the contact screw 71 is such that upon a depression of a printing key the roller dog will be shifted to the dotted line position *a* when the stepping dog is released, it will be understood that the working face *b* of the advancing tooth of the escapement wheel will drop from the position shown in Fig. 4 to the point on the periphery of the roller dog indicated at *c*. This affords considerable "drop" of the wheel during the down stroke of the key. If, on the other hand, the adjustment of the screw 71 is such that the roller dog will be shifted from the full line position in Fig. 4 to the dotted line position *d* at the down stroke of the key, then the periphery of the roller dog will be brought to a point where it will almost contact with the working face *b* of the advancing tooth of the escapement wheel so that little or no "drop" of the escapement wheel is afforded. These are merely taken as two examples of the numerous adjustments that may be effected. It will be understood, therefore, that the parts may be nicely adjusted to control or regulate the action of the escapement, and that although an "ordinary" feed is provided the escapement is very rapid and efficient.

The power of the carriage spring exerted through the escapement wheel on the roller dog is effective to cam the rocker 61 back to normal position as pressure is released on the depressed printing key and the pressure thus exerted on the rocker 61 is likewise effective to return the dog rocker 34 to normal position. From this it will be understood that the power employed to move the carriage is exerted through the escapement wheel to return both of the dog rockers to normal position. Moreover, it will be understood that by the present construction the roller dog may be maintained normally in a position where it just clears the path of the teeth of the escapement wheel, as shown in Fig. 1, so that a very slight rearward movement of the roller dog is effective to bring it into the path of the teeth of the escapement wheel and that this is true no matter how much movement may be necessary or found desirable to release the stepping dog from engagement with the escapement wheel. If desired the parts may be so arranged that the adjustable contact 71 will not take up the dog rocker 61 until about the last part of the movement of the dog rocker 34. The power of the spring 69 and the weight of the dog rocker 61 and the parts carried thereby will, under these circumstances, offer no resistance to the depression of the key at the initial part of the stroke and a rapid, light and efficient escapement mechanism is provided wherein the wear on the holding dog is distributed throughout the periphery thereof, it being understood that the periphery constitutes the working face of the roller dog and is constantly changing, due to the engagement of the teeth of the escapement wheel therewith. Thus as pressure is released on a printing key, the advancing tooth of the escapement wheel, contacting with the roller dog, tends to turn the latter as it moves back to normal position with its carrier or rocker, thus presenting a new surface to the action of the escapement wheel at the next printing operation.

Various changes may be made 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 carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker, a feed dog carried by said dog rocker and moved thereby transversely of the plane of the feed rack, a second feed dog supported independently of the dog rocker, and adjustable means intermediate the dog rocker and said independently supported dog for controlling the actuation of the latter by the dog rocker.

2. In a typewriting machine, the combination of a carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker, a feed dog carried by said dog rocker, and a roller dog coöperative with said feed rack and supported independently of said dog rocker but under control thereof.

3. In a typewriting machine, the combination of a carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker, a feed dog carried by said dog rocker, a roller dog coöperative with said feed rack and supported independently of said dog rocker, and adjustable means intermediate said dog rocker and said independently supported roller dog and through which control of the roller dog by the dog rocker is effected.

4. In a typewriting machine, the combination of a carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker, a feed dog carried by said rocker and moved thereby transversely of the plane of

the feed rack, a second feed dog supported independently of said dog rocker and mounted for movement transversely of the plane of the feed rack, means by which said dog rocker is effective to control the transverse movement of the independently supported dog, and adjustable means independent of said dog rocker for limiting the return movement of the independently supported dog.

5. In a typewriting machine, the combination of a carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker, a feed dog carried by said rocker and moved thereby transversely of the plane of the feed rack, a second feed dog supported independently of said dog rocker and mounted for movement transversely of the plane of the feed rack, and adjustable means intermediate said dog rocker and independently supported dog and by which the former is effective to control the transverse movement of the latter.

6. In a typewriting machine, the combination of a carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker, a feed dog carried by said rocker and moved thereby transversely of the plane of the feed rack, a second feed dog supported independently of said dog rocker and mounted for movement transversely of the plane of the feed rack, adjustable means intermediate said dog rocker and independently supported dog and by which the former is effective to control the transverse movement of the latter, and adjustable means independent of said dog rocker for limiting the return movement of said independently supported dog.

7. In a typewriting machine, the combination of a carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker, a feed dog carried by said rocker and moved thereby transversely of the plane of the feed rack, a roller dog supported independently of said dog rocker and mounted for movement transversely of the plane of the feed rack, and means by which said dog rocker is effective to control the transverse movement of the roller dog.

8. In a typewriting machine, the combination of a carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker, a feed dog carried by said rocker and moved thereby transversely of the plane of the feed rack, a roller dog, the periphery of which constitutes it working face and which roller dog is supported independently of said dog rocker and mounted for movement transversely of the plane of the feed rack into and out of the path of the teeth thereof, and means by which said dog rocker is effective to control the transverse movement of the roller dog.

9. In a typewriting machine, the combination of a carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker, a feed dog carried by said rocker and moved thereby transversely of the plane of the feed rack, a spring returned roller dog, the periphery of which constitutes its working face and which roller dog is supported independently of said dog rocker and mounted for movement transversely of the plane of the feed rack into and out of the path of the teeth thereof, and adjustable means intermediate the dog rocker and roller dog and through which said dog rocker is effective to control the roller dog in its transverse movements.

10. In a typewriting machine, the combination of a carriage, and escapement mechanism therefor comprising a feed rack, a dog rocker mounted for movement transversely of the plane of the feed rack, a feed dog carried by said rocker, a second independently supported dog rocker mounted for movement transversely of the plane of the feed rack but controlled in such movement by said first mentioned dog rocker, and a feed dog carried by said second dog rocker.

11. In a typewriting machine, the combination of a carriage; and escapement mechanism therefor comprising a feed rack, a dog rocker mounted for movement transversely of the plane of the feed rack, a feed dog carried by said rocker, a second independently supported dog rocker mounted for movement transversely of the plane of the feed rack, a feed dog carried by said second dog rocker, and adjustable means intermediate said dog rockers and through which one dog rocker is effective to control the movement of the other.

12. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising an escapement wheel, a key controlled spring returned dog rocker mounted to move transversely of the plane of the escapement wheel, a stepping dog carried thereby, a second dog rocker supported independently of said first mentioned dog rocker, an independent spring for returning said second dog rocker, a roller dog carried by said independently supported dog rocker and movable therewith transversely of the plane of the escapement wheel, and means by which the first mentioned dog rocker is effective to control the movement of the second dog rocker.

13. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising an escapement wheel, a key controlled spring returned dog rocker mounted to move transversely of the plane of the escapement wheel, a stepping dog carried thereby, a second dog rocker supported independently of said first mentioned dog rocker, an independent

spring for returning said second dog rocker, a roller dog carried by said independently supported dog rocker and movable therewith transversely of the plane of the escapement wheel, the periphery of the roller dog constituting its working face, and adjustable means intermediate the dog rockers and through which the rocker for the roller dog is controlled in its movements by the key controlled dog rocker.

14. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising an escapement wheel, a key controlled spring returned dog rocker, a pivoted and sliding stepping dog carried by said dog rocker and movable therewith transversely of the plane of the escapement wheel, a second dog rocker supported independently of said first mentioned dog rocker, an independent spring for returning said second dog rocker, a roller dog carried by said independently supported dog rocker and movable therewith transversely of the plane of the escapement wheel under control of the key controlled dog rocker, and a means independent of the key controlled dog rocker for limiting the return movement of the second dog rocker.

15. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising an escapement wheel, a key controlled spring returned dog rocker, a pivoted and sliding stepping dog carried by said dog rocker and movable therewith transversely of the plane of the escapement wheel, a second dog rocker supported independently of said first mentioned dog rocker, an independent spring for returning said second dog rocker, a roller dog carried by said independently supported dog rocker and movable therewith transversely of the plane of the escapement wheel, the periphery of the roller dog constituting its working face, and adjustable means intermediate the dog rockers and through which the rocker for the roller dog is controlled in its movements by the key controlled dog rocker.

16. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising a feed rack, a feed dog coöperating therewith, and a spring for said dog, there being a lost motion between the spring and dog in the normal position of the parts.

17. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising a feed rack, a feed dog coöperating therewith, said dog being mounted for sliding and pivotal movement, and a single spring for effecting both a sliding and a pivotal movement of the dog, there being a lost motion between said dog and spring during one of said movements of the dog.

18. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising a feed rack, a stepping dog, and a spring for advancing said stepping dog, the spring itself limiting the advance movement of the dog.

19. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising a feed rack, a stepping dog, and a spring for advancing said stepping dog, the power of the spring exhausting itself at the termination of the advance movement of the dog to thus arrest the advance of the dog by the spring itself.

20. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising a feed rack, a stepping dog mounted for pivotal and sliding movement, a single spring for effecting both a pivotal and a sliding movement of the dog, there being a lost motion between the dog and spring in the pivotal movement of the dog.

21. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising a feed rack, a stepping dog mounted for pivotal and sliding movement, a single spring for effecting both a pivotal and a sliding movement of the dog, the advance-movement of the dog being limited by the spring itself.

22. In a typewriting machine, the combination of a power driven carriage; and escapement mechanism therefor comprising a feed rack, a stepping dog mounted for pivotal and sliding movement, a single spring for effecting both a pivotal and a sliding, advancing movement of the dog, the power of the spring exhausting itself at the termination of the advance movement of the dog to thus arrest the advance of the dog by the spring itself.

Signed at the borough of Manhattan, city of New York, in the county of New York, and State of New York, this 10th day of October A. D. 1912.

CHARLES H. SHEPARD.

Witnesses:

CHARLES E. SMITH,

E. M. WELLS.