Feb. 19, 1935. W. A. PRINGLE 1,991,908

WEB SUPPLY CARRIER FOR TYPEWRITING MACHINES

Filed July 30, 1931 3 Sheets-Sheet 1

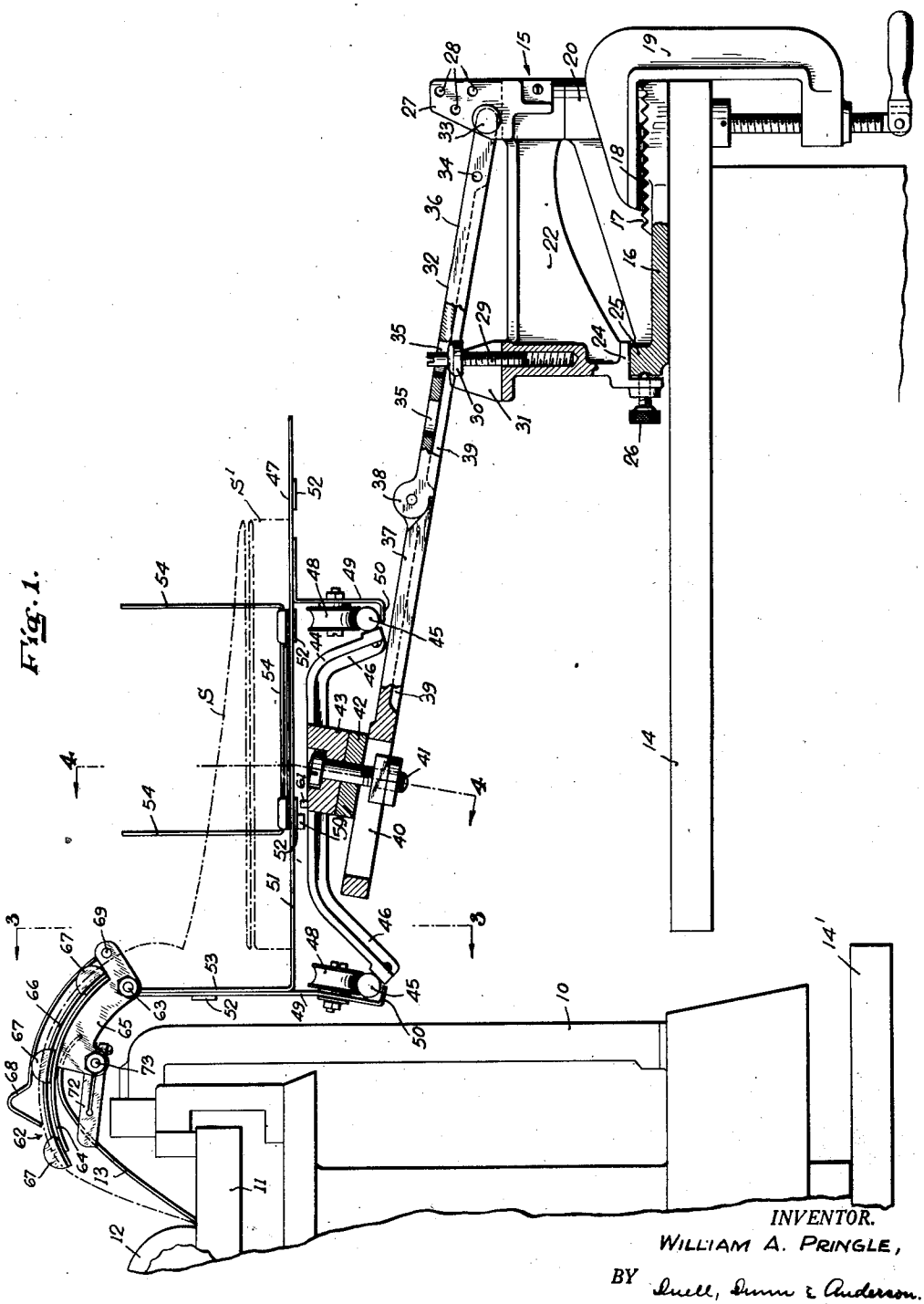

Fig. 1.

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Fig. 2.

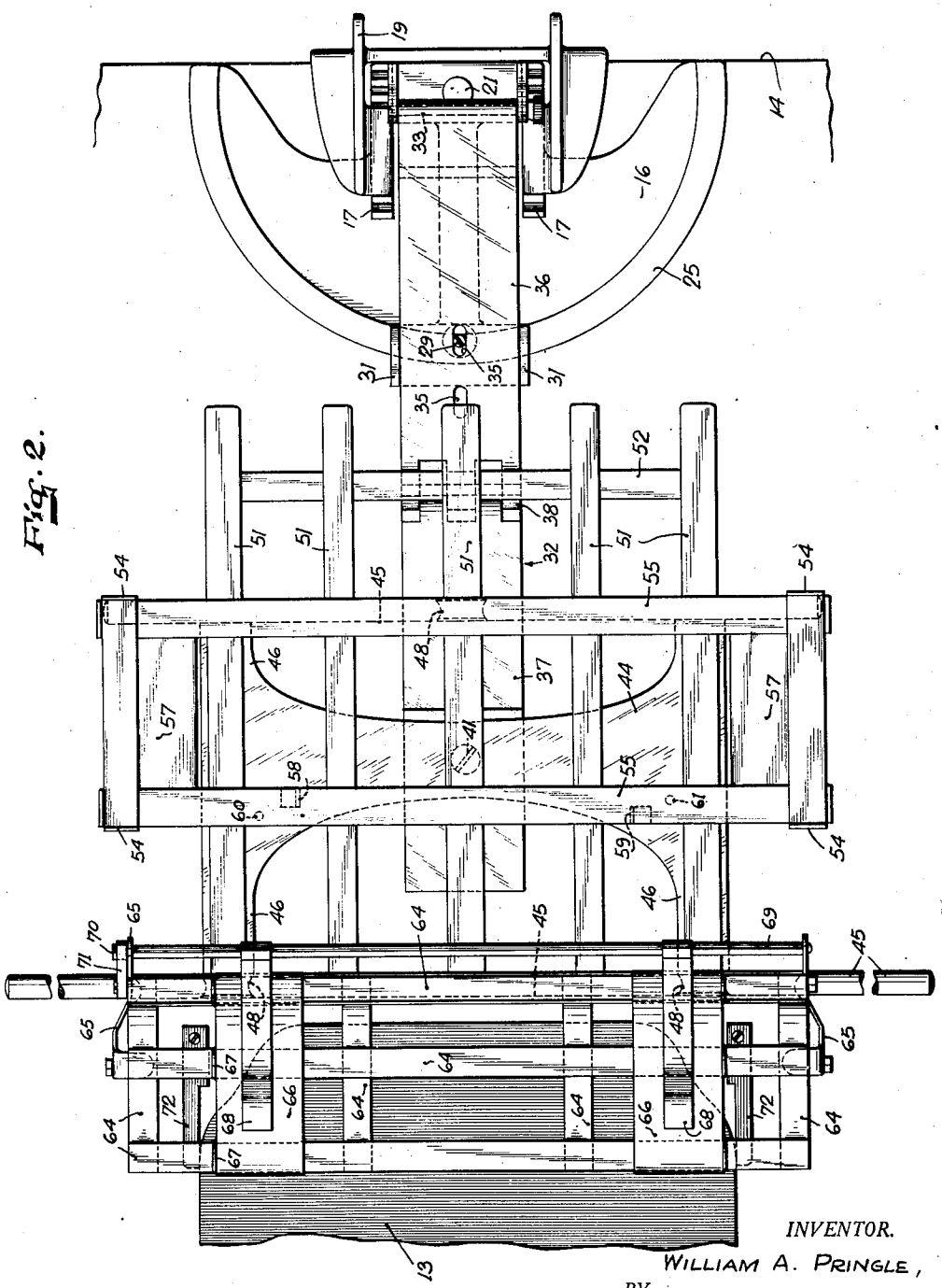

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Fig. 3.

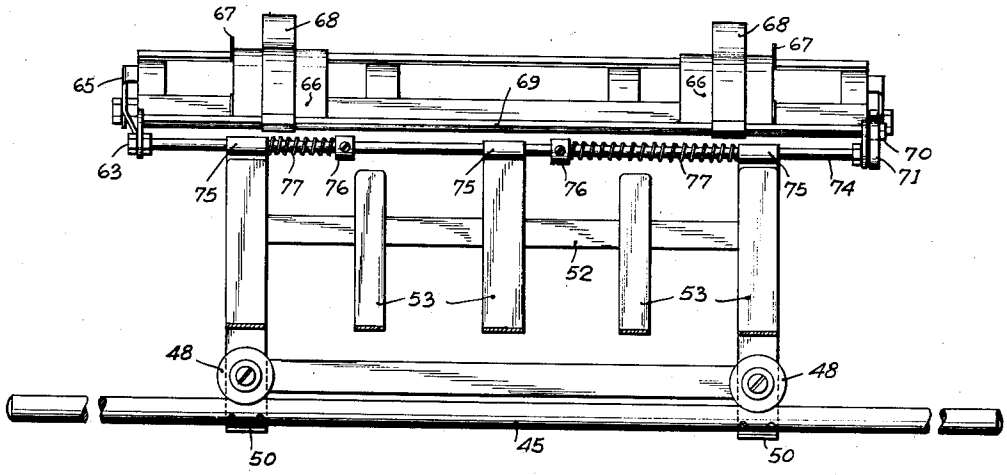


Fig. 4.

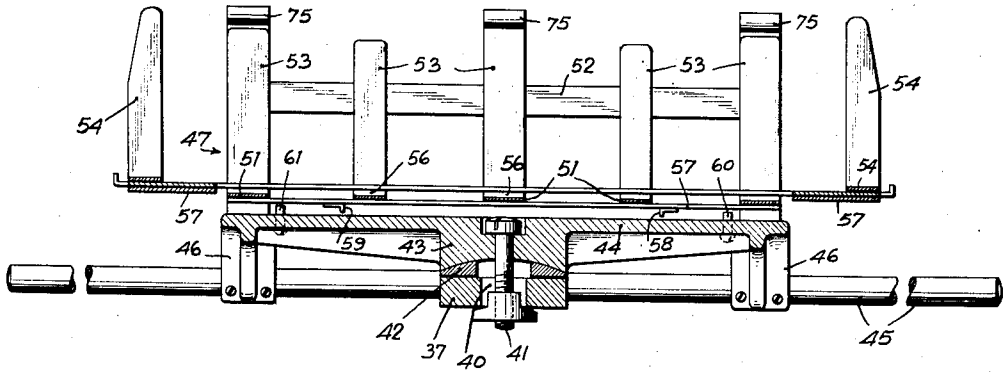
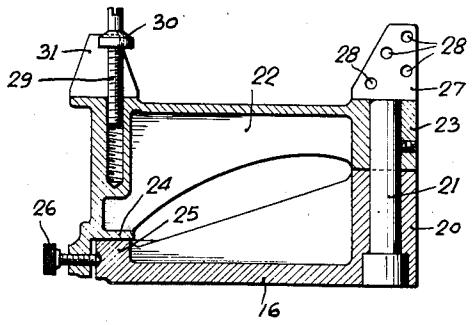


Fig. 5.



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UNITED STATES PATENT OFFICE

1,991,908

WEB SUPPLY CARRIER FOR TYPEWRITING MACHINES

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Application July 30, 1931, Serial No. 553,947

27 Claims. (Cl. 197—133)

This invention relates to improvements in devices for controlling, positioning and supporting work webs or record strips for various types of writing or recording machines, and with reference to some of its more particular features, it relates to improvements in record supporting and controlling means for use in connection with typewriting or similar writing machines employing movable record or platen carriages.

It is a general object of the invention to provide for machines of the class mentioned an improved record controlling mechanism which is particularly well adapted for positioning, aligning and otherwise controlling records of the long continuous traveler type. With this improved controlling device, relatively superposed record strips of the long continuous travel type either with or without continuous interleaved traveler carbon sheets may be conveniently supported and guided into correct writing position upon the typewriter platen, and are continuously maintained in correct alignment for best writing results during the operative movements of the platen carriage. Furthermore, the improved mechanism is well adapted for maintaining the records always in correct alignment at all stages of consumption of the long continuous traveler records so that intermediate or periodic manual adjustments of the record are unnecessary.

Another important feature of the invention resides in the improved supply support whereby the latter may be easily and quickly attached in operative position to writing machines of standard construction and can also be readily detached and retracted into a non-obstructing position so that the writing machine may be moved into concealed or non-operative position as, for example, when it is supported upon a desk of the drop head or similar type. The record support is itself also conveniently arranged whereby it may be moved out of the way into non-operative position.

Still another object of the invention is to provide a record supporting and controlling mechanism which is unusually flexible in its adaptability to machines of different make or size and in its adaptability for different styles or types of desks or mounting arrangements for typewriting machines.

Still another object of the invention is to provide an improved supporting and controlling mechanism having an improved connecting arrangement for connection thereof to the carriages of writing machines so that the record carrier is moved by and with the platen carriage and undue shocks or strains incident to such movements avoided.

According to another feature of the invention, the improved record supporting and controlling mechanism is provided with special advantageous arrangements whereby it is readily adapted by adjustments to maintain the record supply pack in the most advantageous position relative to the typewriter carriage irrespective of the particular location of the attachment of the support to the desk or table and irrespective of the size of the latter. To this end in the illustrative embodiment herein disclosed, an improved arrangement is provided whereby the supply carrier proper or supply receptacle may be adjusted in different angularly disposed planes relative to the writing machine, and a supporting arm therefor is provided having an improved arrangement for angular and up-and-down adjustments thereof.

Another object of the invention is to provide an improved supporting bracket for the supply carrier which may be readily attached in different positions upon a typewriter table or desk.

Another feature of improvement of the record controlling device resides in the mounting and arrangement of the rail frame carrying one or more rails upon which the supply carrier proper is mounted for reciprocating movement with that of the typewriter carriage. One improved feature of this support resides in the truck for mounting the supply carrier having a three-point supporting contact with the supporting rails thus eliminating objectionable binding action and opposition to free traveling movements while at the same time providing stability.

Other objects of the invention will be, in part, pointed out in the following detailed description of an illustrative but preferred embodiment of the invention and will be, in part, obvious in connection therewith.

The invention accordingly comprises the features of construction, combinations of elements, and arrangement of parts, which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the claims.

For a more complete understanding of the nature and objects of the invention, reference is made to the subjoined detailed description and to the accompanying drawings, in which

Fig. 1 is a partially diagrammatic side elevation of the improved record control as applied to a typewriting machine of standard construc-

tion, parts being broken away and in section for a more complete disclosure;

Fig. 2 is a plan view thereof;

Fig. 3 is a fragmentary sectional elevation taken substantially on the line 3—3 of Fig. 1, looking in the direction of the arrows;

Fig. 4 is a sectional elevation substantially on the line 4—4 of Fig. 1, looking in the direction of the arows, and

Fig. 5 is a fragmentary vertical section of the supporting bracket.

Referring to the drawings for a detailed description of the illustrative embodiment of the invention, it will be seen that the improved record supply device is shown as being applied to a writing machine 10 which may be of any preferred standard construction. This machine is of the type having a movable record or platen carriage 11 which is mounted in the usual manner for movement longitudinally of the frame of the machine in letter spacing direction. The platen 12 is shown as being of the cylindrical type rotatably mounted upon the platen carriage, and a guiding plate 13 is also supported upon the carriage for movement therewith and positioned for guiding the record sheets or work webs into writing position upon the platen. This carriage, as understood by those skilled in the art, is moved step by step for spacing the letters and being of standard construction, it need not be described in detail herein.

While the improved record control and supply device is readily adaptable for use on various types of writing machine supports, it is herein disclosed as applied to a typewriter desk 14 of the drop head type. In this type of desk the writing machine 10 is mounted upon an adjustable or movable supporting cover or head 14' which is mounted in a well known manner so that the typewriter may be moved into operative position, as shown in Fig. 1 or it may be adjusted so that the machine is moved into concealed position within the desk.

For supporting the improved record supply and control device adjacent to the typewriting machine upon the table 14 or other support, a supporting bracket indicated generally at 15 of improved construction has been devised. This supporting bracket includes a supporting base plate 16 adapted to rest upon the upper surface of the table and having two parallel toothed or serrated surfaces 17 for the reception of similar serrated surfaces 18 of an attaching and supporting clamp 19, by means of which the bracket is anchored in position upon the table 14. As will be observed in Fig. 2, the clamp 19 is bifurcated having spaced supporting arms, one of which is positioned for engagement with one of the serrated surfaces 17 and the other of which is positioned for engagement with the other serrated surface 17. Due to the arrangement of the clamping serrated surfaces, the base plate 16 may be adjusted or arranged in different positions with relation to the typewriter 10. That is, by means of this adjustment the supporting bracket may be clamped in position either nearer or farther away from the typewriter.

The base plate 16 is formed with a pedestal or standard 20 carrying a pivot pin 21 upon which the supporting member or arm 22 is carried for swinging movement in a horizontal plane, being provided with a hub 23 for the reception of the pivot pin. The supporting member 22 has at its outer swinging end a supporting bearing 24 positioned for contacting in sliding relation with the arcuate rail 25 upon the base plate 16. A set screw 26 may be provided for anchoring the supporting arm 22 in its different angularly adjusted positions. By means of this construction, the supporting arm 22 can be horizontally rotated into different adjusted positions and locked there by the set screw 26.

Extending upwardly from the supporting hub 23 are spaced supporting lugs or flanges 27, each provided with a plurality of bearing openings 28 arranged at different elevations and also at different radial distances with reference to the axis of the pivot pin 21. These bearing openings 28 are similarly arranged upon the different supporting flanges 27 for supporting in different positions an adjustable supporting arm for the record supply carrier, as later more fully described. Also at its outer or free end, the supporting arm 22 is provided with a vertically adjustable support 29 threaded into a socket in the arm and having a conical supporting bearing 30 for contacting with and supporting the carrier arm. Bearing and guiding flanges 31 are preferably also formed upon the supporting arm 22 at the outer end thereof for cooperation with the carrier arm, as shown in Fig. 2.

As best shown in Figs. 1 and 2, a carrier supporting arm indicated generally at 32 is attached to and supported by the supporting arm 22 being connected to the supporting flanges 27 and resting upon the adjustable conical bearing 30. The arm 32 is pivotally connected to the flanges 27 by means of a supporting pivot pin 33 adapted to extend through an aperture in the arm and to be seated in the bearing openings 28. This supporting pin is preferably threaded at one end to engage corresponding threads in the seat apertures 28 whereby it is retained in position. The carrier arm is also preferably formed with a plurality of supporting pin receiving apertures 34 spaced therealong whereby the effective length of said arm may be readily varied. Also the supporting pin 33 may be inserted in different supporting apertures 28, thus in this manner also providing for longitudinal extension or retraction of the carrier arm.

The upper end of the supporting screw 29 is positioned for extension through an elongated opening 35 in the carrier arm so that the conical bearing 30 contacts with the under side of the arm to provide a supporting fulcrum therefor. A plurality of these openings 35 are preferably provided, as shown, for accommodation of the arm in these different adjusted positions. By means of this special arrangement of mounting, the carrier arm may very easily be mounted in different adjusted positions so as to extend or retract it longitudinally and to adjust it angularly for elevation. The supporting screw 29 can also be readily adjusted for varying the elevation of the carrier arm.

For the purpose of further increasing the adjustability and adaptability of the carrier arm 32, it is herein disclosed as being constructed of a plurality of sections, two sections 36 and 37 being shown joined together by a pivotal knuckle joint 38 permitting the sections to move upwardly relatively to each other from the position of Fig. 1 but being provided with inter-engaging lugs to prevent movement thereof in the opposite direction, whereby the load is supported. Both arm sections may be flanged as at 39 for increasing their rigidity. The outer end of the arm section 37 has a longitudinally extending elongated slot 40 for the reception of an attaching

bolt 41 extending through supporting plates 42 and 43, providing a supporting connection for a supporting frame 44 with which the upper supporting plate 43 may be formed integrally as shown of cast metal.

As best seen in Fig. 4, the supporting plate 42 has a lower flat contact surface engaging the arm section 37 and a laterally curved upper or cylindrical supporting surface convexed upwardly for engagement with a similar cylindrical concave surface formed upon the under face of the supporting plate 43. The receiving apertures in the plates 42 and 43 for the supporting bolt 41 may, as shown, be slightly enlarged or elongated to permit slight lateral swinging of the bolt. It will therefore be seen that the supporting attachment permits rotation or angular adjusting movement of the supporting frame 44 by virtue of the bolt connection and the flat under surface of the plate 42, while rotational adjustment of the supporting frame in a different plane is provided for by virtue of the mutually engaging cylindrical surfaces of the supporting plates 42 and 43.

Supporting rails 45 are attached in parallel relation with each other to the rail supporting frame 44 which for this purpose is formed with cross frame members 46 to which the rails may be directly secured as shown. The record carrier element proper, indicated generally at 47 is directly supported upon the rails 45 for movement thereon parallel to the movement of the typewriter carriage 11.

For mounting the record carrier 47 upon the rails 45 appropriate anti-friction supporting means is provided. In the embodiment shown, this supporting means includes a three-point truck support having grooved wheels 48 attached to the record carrier by supporting standards 49 which are preferably formed with inwardly turned extensions 50 providing retaining guards for retaining the supporting wheels upon the rails and preventing accidental displacement thereof. The supporting wheels 48 are preferably three in number, arranged in triangular formation as shown in Fig. 2, two wheels bearing upon one rail and the third wheel upon the other rail, thus providing a three-point suspension for the supply carrier. This form of suspension minimizes friction and binding of the relatively movable parts, providing for a very free and unobstructed movement of the supply carrier whereby, as more fully explained below, said carrier may be readily moved by operation of the typewriter carriage. The supporting rails 45 are positioned both forwardly and rearwardly of the supporting plates 42 and 43, providing for a balanced support for the supply carrier.

The carrier 47 is of light and convenient construction embodying longitudinally extending metallic strips 51 and similar transversely extending strips 52 brazed or riveted together at their intersections. The forward ends of the longitudinal strips 51 are upwardly turned at 53 to form the forward side of the support while adjustable side frame members 54 are slidably connected to the carrier for lateral adjustment thereon. This sliding connection, as best shown in Figs. 2 and 4, is provided by transverse guide strips 55 brazed or riveted to the other frame members and spaced slightly therefrom by spacing shims 56, thus providing transversely extending grooves or channels in which the supporting plates 57 of the side frames 54 engage. This construction provides a light basket-like container for the record supply which may, as shown in Fig. 1, be in the form of a long continuous composite traveler record S folded in zigzag formation into the supply pack S' although other forms of record supply may be utilized. While the record S may comprise a plurality of superposed record strips with continuous interleaved carbon strips for transfer inscription, other forms of record may as well be used. The side frames 54 being adjustable, different sizes of supply pack can be provided for and maintained in a position upon the carrier so as not to shift laterally thereon during the writing operation.

Limiting stop lugs 58 and 59 are formed on the under side of the supply carrier while cooperating stop lugs 60 and 61 are mounted upon the rail frame 44. As the supply carrier moves to the right upon its supporting rails as viewed in Fig. 4, the lug 59 will engage with the cooperating lug 60 to check lateral movement in that direction while movement in the opposite direction is checked by engagement of the lug 58 with the lug 61. Both of the lugs 60 and 61 may be threaded to the rail frame 44 so as to be adjustable downwardly to permit passage of the supply carrier entirely from its supported position upon the rails.

A record guide 62 is pivotally connected at 63 to the record carrier frame as, for example, to the upper end or edge of the side 53 thereof. The record guide 62 may, as shown, be formed of transverse and longitudinal metallic plates or strips 64 riveted or welded together at their intersections, bent and arranged to form a longitudinal guiding surface for the record. Supporting end plates 65 are connected to the plates 64 to which the supporting pivot 63 is attached. Record guide plates 66 are mounted upon the longitudinal guide strips 64 for sliding movement laterally of the record guide and have lugs 67 for guiding engagement with the edges of the record. Adjustment may thus be readily made for the accommodation of records of different widths. Spring retaining fingers 68 overlie the guide plates 66 for retaining the record in position thereon being supported at the forward edge thereof upon a rotatable supporting bar 69 mounted upon the end frames 65. The spring fingers 68 as shown are non-rotatably attached to the bar 69 which for this purpose may be square or of other non-circular contour. At one end the supporting bar 69 extends beyond the plate 65 and is there provided with a squared head 70 positioned between two opposing spring plates 71 stressed into engagement with the squared head. By means of this arrangement, the spring fingers may be swung outwardly away from the guide in which position they are retained by engagement of the springs 71 with the head 70. The spring fingers are similarly retained in record engaging position by means of the spring.

An attaching device is provided whereby the record guide 62 may be readily and conveniently detachably attached to the carriage 11 of the typewriting machine. For this purpose attaching arms 72 are connected at opposite ends of the guide to the end plates 65 thereof. These arms are conveniently mounted upon a supporting rod 73 attached to the end plates 65. In the embodiment shown, the supporting rod 73 is spaced somewhat below the curved guiding surface and the attaching arms are laterally spaced apart so that the record guide plate or apron 13 of the typewriter carriage may conveniently be entered between the attaching arms and above the supporting rod 73. The arms may be conveniently

adjusted along its supporting rod to accommodate widths of record aprons 13. Also if desired, the arms 72 may be swung inwardly or outwardly into proper position for engagement with the apron, or they may be thus conveniently positioned to avoid obstruction when the parts are being assembled.

In the embodiment of the invention shown, the pivotal connection between the record supply carrier and the record guide 62 embodies a rod 74 connected to the forward wall 53 of the carrier by loops 75 through which the rod 74 extends to provide bearings therefor. Lugs 76 are adjustably attached upon the rod 74 and coiled springs 77 are confined between these lugs and the adjacent loops or knuckles 75. The rod 74 is freely slidable longitudinally through the loops 75. It will thus be seen that energy caused by movement of the typewriter carriage will be transmitted to the record supply carrier 47 through these springs 77, one spring being compressed during movement in one direction and the other being compressed during movement in the opposite direction. This construction thus provides a yielding buffer between the typewriter carriage and the record supply carrier so as to avoid objectionable shocks therebetween and providing for decreased stress upon the parts and for a more satisfactory operation generally. During the letter spacing movements of the typewriter carriage, the energy from such movements will be momentarily stored in the spring 77, whereby movement of the record supply carrier 47 may lag momentarily behind the movement of the typewriter carriage. The lag, however, will be very slight and the supply carrier will immediately be moved by action of the stored energy in the spring 77 into correctly aligned position with the typewriter carriage during the slight interval whereat the letter of the type bar is being impressed upon the record against the platen 12. The result is that the supply carrier movement may be more continuous in character than the intermittent letter spacing movements of the typewriter carriage. The spring 77 will be selected for strength for the best accomplishment of this result and may vary somewhat for different sizes and weights of apparatus or for the weight of the supply load normally carried thereby.

From the above detailed disclosure, it will be readily seen that a record supply carrier and control has been devised that has very great practical advantages in its flexibility and adaptability to writing machines of different makes and sizes and to different forms of writing machine desks or supports. The effective supporting length of the carrier arm 32 can readily be adjusted by the adjusting connections described and the supply carrier can also be adjusted along this arm whereby the propinquity or nearness of the carrier with reference to the writing machine may be readily adjusted for the accommodation of different types or character of writing machine mounting. Also adjustment may be readily made in different angularly disposed planes for maintaining the supporting rails 45 always in parallelism with the travel of the typewriter carriage. These adjustments, as before mentioned, can be made by turning the rail frame 44 on its pivot bolt 41 or by sliding the supporting plate 43 upon the cylindrical supporting surfaces described. Moreover the supporting arm as a whole, together with the rail frame 44, can be moved angularly in a horizontal plane by adjustment of the support 22 to different positions upon the arcuate rail 25. Adjustment for elevation of the supply carrier can readily be made by means of the adjustable supporting screw 29 or by means of the connecting pin 33 and the bearing apertures 28.

When it is desired to disconnect the supply carrier and controller from the typewriting machine, this can be quickly accomplished by means of the attaching arms 72. This detachment, having been made, the supply carrier may be swung backwardly to non-obstructing position by virtue of the knuckle joint 38 between the carrier supporting arm sections, or if desired the arm as a whole may be swung rearwardly upon the pivot 33. The typewriting machine will then be free to be moved into its closed position into its supporting desk.

Since certain changes may be made in the above construction and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A record supply device for writing machines including, in combination, a record supply carrier, a support, and a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes.

2. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes, and means for mounting said carrier for translational reciprocating movements.

3. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes, and a supporting rail carried by said support upon which said carrier is mounted for translational reciprocating movements.

4. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes, and supporting rails carried by said connection upon which said carrier is mounted for translational reciprocating movements, said rails being positioned both forwardly and rearwardly of said connection.

5. A record supply device for writing machines including, in combination, a record supply carrier, a support, and a connection for carrying said carrier on said support, said connection including supporting elements having both flat and curved mutually engaging supporting surfaces connected for movements for adjusting the supply carrier in angularly disposed planes.

6. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for carrying said carrier on said support, said connection including supporting elements having both flat and curved mutually engaging supporting surfaces connected for movements for adjusting the supply carrier in angularly disposed planes, and a rail frame carried by said connection and carrying supporting rails upon which the supply carrier is mounted for translational reciprocating movements.

7. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for carrying said carrier on said support, said connection including supporting elements having both flat and curved mutually engaging supporting surfaces connected for movements for adjusting the supply carrier in angularly disposed planes, a rail frame carried by said connection and carrying supporting rails upon which the supply carrier is mounted for translational reciprocating movements, a record guide pivotally connected to said supply carrier and having a curved record guiding surface, and connections carried by said record guide for connecting it to a writing machine carriage.

8. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for carrying said carrier on said support, said connection including supporting elements having both flat and curved mutually engaging supporting surfaces connected for movements for adjusting the supply carrier in angularly disposed planes, a rail frame carried by said connection and carrying supporting rails upon which the supply carrier is mounted for translational reciprocating movements, a record guide pivotally connected to said supply carrier and having a curved record guiding surface, a bar connected to said record guide, and a connecting arm attached to said bar and positioned for contact engagement with a part of a writing machine carriage whereby said supply carrier is caused to move with the writing machine carriage.

9. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for carrying said carrier on said support, said connection including supporting elements having both flat and curved mutually engaging supporting surfaces connected for movements for adjusting the supply carrier in angularly disposed planes, a rail frame carried by said connection and carrying supporting rails upon which the supply carrier is mounted for translational reciprocating movements, a record guide pivotally connected to said supply carrier and having a curved record guiding surface, connections carried by said record guide for connecting it to a writing machine carriage, and a yielding buffer positioned between said supply carrier and said carriage.

10. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes, a record guide pivotally connected to said supply carrier and having a curved record guiding surface, and connections carried by said record guide for connecting it to a writing machine carriage.

11. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes, a supporting rail carried by said support upon which said carrier is mounted for translational reciprocating movements, a record guide pivotally connected to said supply carrier and having a curved record guiding surface, and connections carried by said record guide for connecting it to a writing machine carriage.

12. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes, a record guide pivotally connected to said supply carrier and having a curved record guiding surface, connections carried by said record guide for connecting it to a writing machine carriage, and a yielding buffer positioned between said supply carrier and said carriage.

13. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes, a supporting rail carried by said support upon which said carrier is mounted for translational reciprocating movements, a record guide pivotally connected to said supply carrier and having a curved record guiding surface, connections carried by said record guide for connecting it to a writing machine carriage, and a yielding buffer positioned between said supply carrier and said carriage.

14. A record supply device for writing machines including, in combination, a record supply carrier, a support, and a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes, said support including a supporting arm having joined sections whereby the supply carrier may be retracted into non-obstructing and inoperative position.

15. A record supply device for writing machines including, in combination, a record supply carrier, a support, a connection for supporting said carrier upon said support for rotational adjusting movements in angularly disposed planes, said support including a supporting arm having joined sections whereby the supply carrier may be retracted into non-obstructing and inoperative position, and an attaching bracket having a horizontally swingable bracket arm to which said supporting arm is connected for movement therewith.

16. The combination with a writing machine having a movable platen carriage, of a record supply carrier, a support for said carrier having connections for carrier adjustments in angularly disposed planes, supporting rails carried by said support upon which said supply carrier is mounted for translational reciprocating movements, a record guide pivotally connected to said carrier, and connections between said carrier and said machine carriage for operating the former by the latter.

17. The combination with a writing machine having a movable platen carriage, of a record supply carrier, a supporting rail, a support mounting said carriage upon said rail for movement therealong, detachable means for connecting said supply carrier to the platen carriage so as to be moved thereby along said rail, and an adjustably mounted supporting arm upon which said rail is mounted for angular movements in different planes so as to maintain parallelism with the platen carriage when said supporting arm is adjusted into different positions.

18. The combination with a writing machine having a movable platen carriage, of a record supply carrier, a plurality of supporting rails, a three-point truck support mounting said carrier upon said rails for movement therealong, detachable connecting means for connecting said supply carrier to the platen carriage so as to be moved thereby along said rails, a supporting arm upon which said rails are mounted for swinging

movement, means for mounting said supporting arm for angular adjustment, and adjusting means embodied in said supporting arm for maintaining relative propinquity between said platen carriage and said supply carrier.

19. The combination with a writing machine having a movable platen carriage, of a record supply carrier, a supporting rail, a support mounting said carriage upon said rail for movement therealong, detachable means for connecting said supply carrier to the platen carriage so as to be moved thereby along said rail, a supporting arm upon which said rail is pivotally mounted so as to maintain parallelism with the platen carriage, means for mounting said supporting arm for angular adjustment, and adjusting means embodied in said supporting arm for maintaining relative propinquity between said platen carriage and said supply carrier.

20. A supporting bracket including in combination, an arcuate supporting rail, a swinging support having a supporting bearing upon said rail, a supporting arm having an adjustable pivotal connection with said support, and an adjustable supporting connection between said arm and said swinging support spaced from said pivotal connection, said supporting connection including a threaded supporting rod having a conical bearing engaging in contact relation with said supporting arm.

21. A record supply device for writing machines, including in combination, an arcuate supporting rail, a swinging support having a supporting bearing upon said rail, a supporting arm connected to and supported by said swinging support for swinging movement therewith, and a record supply carrier carried by the free end of said supporting arm.

22. A record supply device for writing machines, including in combination, an arcuate supporting rail, a swinging support having a supporting bearing upon said rail, a supporting arm connected to and supported by said swinging support for swinging movement therewith, and a record supply carrier carried by the free end of said supporting arm, and having a supporting connection therewith for adjusting movement in angularly disposed planes.

23. A record supply device for writing machines, including in combination, an arcuate supporting rail, a swinging support having a supporting bearing upon said rail, a supporting arm connected to and supported by said swinging support for swinging movement therewith, a record supply carrier carried by the free end of said supporting arm, and a rail support for said supply carrier providing for linear movement thereof with a writing machine carriage.

24. A record supply device for writing machines, including in combination, an arcuate supporting rail, a swinging support having a supporting bearing upon said rail, a supporting arm connected to and supported by said swinging support for swinging movement therewith, and a horizontal three point rail support for said supply carrier providing for linear movement thereof with a writing machine carriage.

25. The combination with a writing machine having a movable platen carriage, of a record supply carrier, a supporting rail, a support mounting said carrier upon said rail for movement therealong, detachable means for connecting said supply carrier to the platen carriage so as to be moved thereby along said rail, a movable supporting arm upon which said rail is pivotally mounted for adjusting pivotal movements in angularly disposed planes so as to maintain parallelism with the platen carriage in different supporting positions of said arm, and a mounting structure mounting said supporting arm for adjustment of the supporting rail laterally of the writing machine and for varying its elevation with reference thereto.

26. A record supply device for writing machines, including in combination, a record supply carrier, a three point truck support for said supply carrier providing for linear movement thereof, and supporting connections providing for angular adjustment of said truck support in angularly disposed planes.

27. A record supply device for writing machines, including in combination, a record supply carrier, a three point truck support for said supply carrier providing for linear movement thereof, a supporting arm for supporting said truck support, and supporting connections between said arm and said truck support for adjustment of the latter in three different directions.

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