

W. P. KIDDER.  
TYPE WRITER.

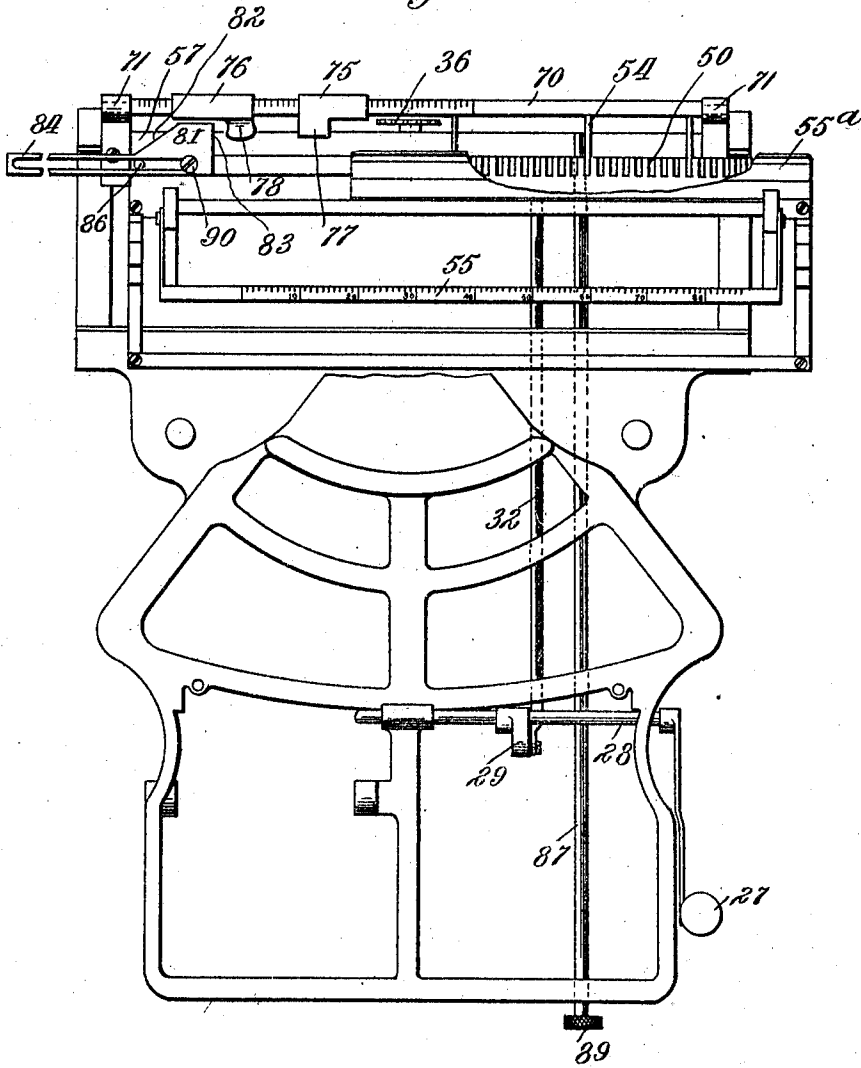
APPLICATION FILED FEB. 1, 1904. RENEWED JULY 9, 1910.

988,576.

Patented Apr. 4, 1911.

3 SHEETS-SHEET 1.

*Fig. 1.*



Witnesses

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By Attorney

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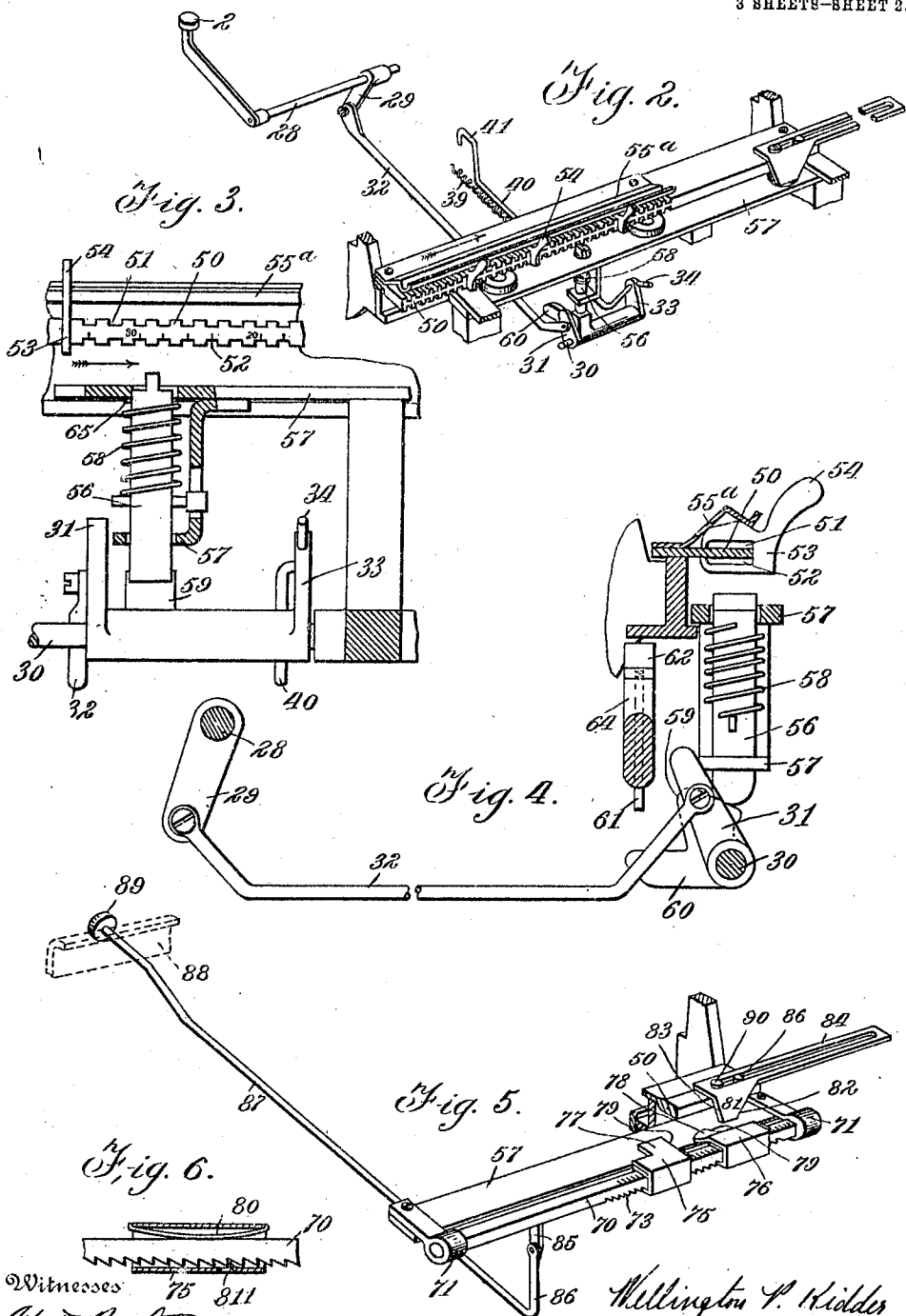
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3 SHEETS-SHEET 2.



Witnesses  
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3 SHEETS—SHEET 3.

FIG. 7.

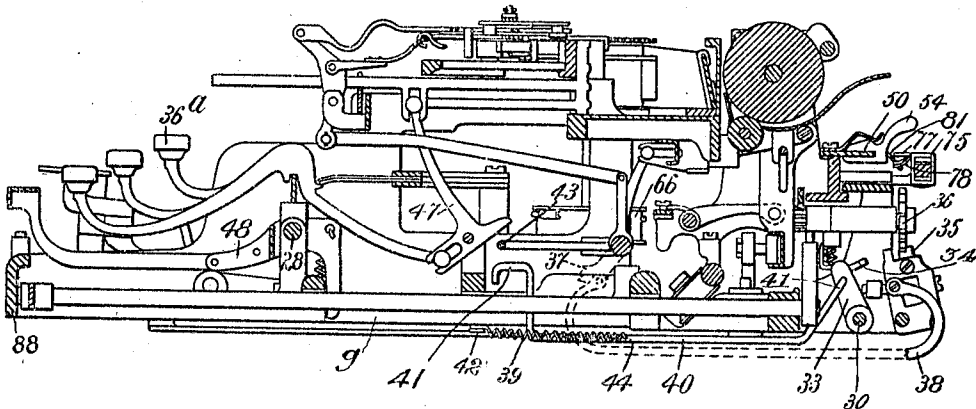
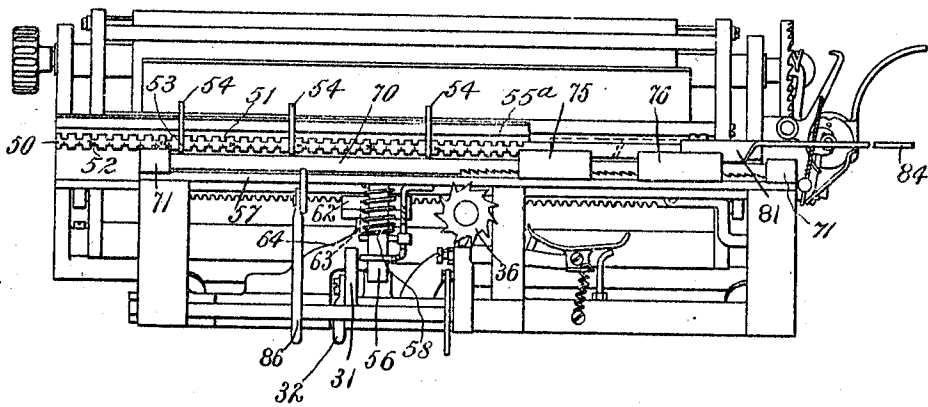


FIG. 8.



Witnesses  
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# UNITED STATES PATENT OFFICE.

WELLINGTON PARKER KIDDER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO  
WELLINGTON TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION  
OF VIRGINIA.

TYPE-WRITER.

988,576.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed February 1, 1904, Serial No. 191,602. Renewed July 9, 1910. Serial No. 571,224.

*To all whom it may concern:*

Be it known that I, WELLINGTON PARKER KIDDER, of the city of Boston, State of Massachusetts, United States of America, have  
5 invented certain new and useful Improvements in Type-Writers; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates particularly to the  
10 tabulating and marginal stop mechanism and it may be said to consist of a removable stop which limits the extent of accidental excessive depression of the universal-bar while  
15 writing is being done, but is adapted to be shifted by the tabulating feed to permit of greater depression of such universal bar to allow the escapement mechanism to be entirely disengaged, a brake being adapted to  
20 act in conjunction with this mechanism to retard the movement of the carriage to a certain extent.

This invention also consists of a series of suitably supported stops adjustable relatively to the carriage and one another and  
25 adapted to enable the return of the carriage to be stopped when in one position, continued and again stopped in a different position, a feature of this last mentioned mechanism being that these adjustable stops are  
30 capable of being adjusted to an extent to stop the carriage at any point within the length of line written by the machine. Two of the stops of the series are preferably carried by the frame of the machine, and to  
35 this end they are mounted adjustably upon a movable carrier adapted upon being moved to bring either of such stops into position to be engaged by the carriage or a part projecting therefrom.

40 For full comprehension, however, of my invention reference must be had to the accompanying drawings forming a part of this specification in which similar reference characters indicate the same parts and wherein—

45 Figure 1 illustrates in plan view the frame of a typewriting machine with my improved tabulator and marginal stop mechanism mounted thereon; Fig. 2 is a detail perspective view of the tabulator mechanism; Fig. 3  
50 is a detail perspective view of the tabulating mechanism; Fig. 4 is a detail transverse sectional view of the latching plate, the portion of the carriage carrying same, and the frame adjacent to the carriage together with  
55 the displaceable stopping post and means for

operating same in elevation; Fig. 5 is a perspective view of my improved marginal-stop and write-over marginal-stop mechanism; Fig. 6 is a detail view of a portion of the  
60 ratchet bar upon which the marginal stop and write-over-marginal-stop are slidably mounted. Fig. 7 is a longitudinal vertical sectional view of type-writer with my invention applied thereto and illustrating particularly the position of my improved tabulating and marginal stop mechanisms relatively to the other parts of the machine; and  
65 Fig. 8 is a rear view thereof.

This invention relates to machines of the sliding type bar type, and the tabulator for  
70 a machine of this type comprises what is termed a latching plate which is located at the rear of the carriage and carries movable stops coacting with a stopping post whereby  
75 the carriage is stopped at different predetermined points to enable the tabulating to be done. A tabulating key upon being depressed actuates this stopping post and also actuates means for releasing the carriage  
80 escapement to allow the carriage full freedom to run from its initial starting point (determined as usual by the marginal stop) to the first of such movable stops, and upon a further depression of the key to run from  
85 the first to a second stop, if it is necessary to use a second stop, and upon a still further depression of the key to run from the second to a third stop. This is all as usual.

According to this invention the key, 27, is connected rigidly to a transverse rocker  
90 shaft 28 upon which a downwardly projecting arm 29 is rigidly mounted, and a second transverse rocker shaft 30 having an upwardly projecting arm 31 between which and the arm 29 a link 32 is connected. This  
95 latter transverse rocker shaft 30 has a second rigid arm 33 having a pin projection 34 adapted, when the key is fully depressed, to act upon the escapement pawl 35 and move it out of engagement with the ratchet wheel  
100 36 (co-acting therewith to constitute the escapement) and thereby completely release the carriage and give it full freedom to travel. The escapement pawl 35 is moved  
105 to release the escapement wheel one tooth only for every action of the writing keys 36<sup>a</sup> of the printing mechanism, and for every action of the space bar, by an arm 37 rigidly upon the universal-bar-rocker shaft (which, as is well known, is oscillated upon every  
110

action of the writing keys and space bar) and a link 38 connected at one end to such arm 37 and at its other end to the escapement pawl. The accidental excessive oscillation of the universal bar is prevented according to this invention, by a removable stop which, while preventing this accidental excessive oscillation during writing operations, (when only a single tooth escapement is required) is adapted to be removed, when the tabulating key is operated, to allow the universal bar to oscillate sufficiently to enable the escapement to be completely disengaged. This removable stop consists of a rod 40 having one end upwardly offset, as at 41, and its other end pivotally secured to the arm 33 of the transverse shaft 30, before mentioned, a retractile helical spring 39 connected at one end to a stud 42 upon the underside of the machine frame *g* and at its other end, as at 44, to the rod 40, yieldingly retains the latter in its position in the path of the universal-bar-rocker-shaft and consequently preventing the oscillation of the same and also yieldingly retains the key in its elevated position such excessive oscillation being prevented through the medium of the universal bar 43 which as is well known, is acted upon by each of the keys, by levers 47 and the lever of the space bar 48 of the machine.

The latching plate 50 is, as usual mounted rigidly upon the rear of the carriage, and it is according to this invention, formed with two series of notches 51 and 52 one series being in the top of the plate and the other in the underside. The movable stops consist of forked plates 53 each formed with a handle 54 whereby they may be slid onto the latching plate with one prong in one of the notches of the upper series and the other prong in one of the notches of the under series, and are retained thereon by a spring plate 55<sup>a</sup>. It is obvious that these stops can be set at any desired point along the latching plate which is graduated, preferably as shown, to correspond to the graduations upon the usual paper scale 55 upon the carriage, to facilitate the placing of the stops in the positions necessary to locate the columns in which tabulation is to be done, in the required positions upon the sheet. The stopping post 56 is as usual localized between two of the frame plates 57 of the machine in line with and below the center of the latching plate and is normally yieldingly depressed (by an expansile spring 58) out of the path of the stops upon the carriage, while such post is raised, against spring 58, to a position to have such stops impinge upon its upper end by a cam 59 mounted rigidly and oscillating with the rear rocker shaft 30, and having the lower end of the post bearing thereon. This cam has a lever arm 60 formed integrally there-

with and adapted, when the shaft 30 is rocked to bear upon the lower end of a pin 61, and through such pin, move a brake shoe 62 into bearing relation with the carriage thereby retarding, to a certain extent the movement of the carriage between the stops. According to this invention the upper end of the stopping post 56 has lost motion longitudinally of the carriage and, in its normal position it rests yieldingly toward the end of the machine from which the carriage travels under the action of its actuating spring 66, because the spring 58 bears at its upper end upon the side of the post opposite to the side of the machine toward which the carriage travels and, owing to this arrangement, the spring 58 normally depresses the stop 56 so that when the tabulating key is released the upper end of the stop is out of line with the carriage stops 54 to permit of ordinary feed in writing. The spring thereby serves the double purpose of a cushion for the impact of the carriage and also for holding the stop 56 depressed out of line with the column stops 54 to enable the upper end of the post to get out of the way of the stop from which it has been released, when narrow tabulation is being done, and serves the double purpose of acting as a cushion for the impact of the stops when the carriage brings such stops into contact therewith. To enable the upper end of the post to perform these functions the upper plate 57 has the opening therethrough in which the said upper end of the post is located, enlarged to allow the said upper end freedom to be moved longitudinally of the carriage, and the spring 58, while resting at its lower end, as usual, upon a pin carried rigidly by the post, has its upper end 65 extended beneath and bearing upon the underside of the said upper plate 57 in a manner to cause the post to yieldingly bear toward the end of the machine, indicated by arrows, from which the carriage travels. The brake consists of the brake-shoe 62 mounted upon the upper end of the upright pin 61 guided in a portion 64 of the frame and having its lower end a short distance above the arm 60 forming a part of the port raising cam and adapted to be raised and the shoe brought into frictional contact with the carriage, when the said cam is moved, a dowel pin 63 serving to keep the brake shoe in alignment with the carriage.

Upon the tabulating key being depressed the rear rocker shaft 30 will be rocked, the removable stop (41) moved out of the path of the universal-bar-rocker shaft, and the cam 59 caused to bear upon and raise the stopping post to a position to be engaged by the stops 53 upon the carriage thereby stopping the carriage. A further depression of the key further oscillates the rocker shaft

30 and causes pin 34 to bear upon the escapement pawl 35 and move it completely out of engagement with the escapement wheel, thereby allowing the carriage to run (under the influence of its actuating spring) until it is brought to a stop by the post. Simultaneously with this further oscillation of shaft 30 and the consequent complete disengagement of the pawl, the movable stop 41 will be further removed to accommodate the maximum oscillatory movement of the universal bar, simultaneously with the complete disengagement of the pawl from the engagement where the brake-shoe is brought into frictional contact with the carriage.

In machines of this type the marginal-stop, which usually also embodies the features of a write-over-marginal-stop, is generally located at the rear of the machine and the means for moving it into or out of action is located also at the rear of the machine. The object of this feature of the present invention is to provide a combined marginal-stop and write-over-marginal-stop adapted to be manipulated from the front of the machine, and capable of enabling the margin to be adjusted to any desired extent within the full length of the line. To this end a bar 70, preferably square in cross-section and having its ends rounded is rotatably mounted in a pair of bearings 71 which support the rounded ends thereof, such bearings being rigidly carried by upper frame plate 57 of the machine. The underside of the bar has ratchet teeth 73 formed therein. A pair of sleeves 75 and 76 are slidably mounted upon this bar, the sleeve 75 being formed with a finger 77 extending therefrom at right angles to the side thereof toward the carriage and the same side of sleeve 76 being formed with a slightly curved finger 78 extending diagonally therefrom toward the carriage, said finger 78 being also downwardly inclined in the direction of travel of the carriage and toward the side of the machine from which it is automatically fed said fingers 77 and 78 constituting adjustable stops. The sleeves are sufficiently large in cross-section to accommodate a spring 80 adapted to normally hold the lower sides thereof yieldingly in bearing relation with the ratchet toothed underside of their carrying bar 70, such lower sides of the sleeves having lips 811 struck up therefrom to act as pawls and engage the ratchet teeth. A stop is rigidly and, preferably, adjustably secured to the latching plate 50 (of the tabulating mechanism) carried by the carriage, and consists of a plate having a portion 81, performing the function of and therefore constituting this stop. The part of the plate bent downwardly and diagonally toward the stops 77 and 78 is of sufficient length to (under normal conditions when the carriage is being returned) engage the stop 78, while

its angular position allows it to clear stop 77. One side of this stop is beveled as at 82 and its opposite side 83 is formed to extend at right angles to the rocker bar 70, to, at times, as will be presently pointed out, engage the side edges 79 of the stops 77 and 78, which are also formed to extend at right angles to the bar 70. This stop 81 also comprises a slotted arm 84 whereby such stop is adjustably secured, by a dowel pin 86 and a set screw 90, to the latching plate. A downwardly projecting arm 85 is formed integral with the underside of the bar 70, and has the upwardly bent end 86 of a slide rod 87 pivotally connected thereto, the opposite end of such slide rod projecting through the front plate 88 of the machine and has a thumb and finger key 89 thereon.

When the key is drawn out the rocker bar 70 is in the position with stop 78 in the path of stop 81 upon the carriage and the stop 77 out of such path. This is the normal relative positions of these stops such as is required when plain writing with a constant margin is being done, and for this purpose alone the bar 70 need not be made tiltable and the key, slide rod, sleeve 75 and stop 77 may be dispensed with, sleeve 76 and stop 78 alone being utilized in the usual way; or the bar may be tiltable as shown with stop 78 only thereon, in which case the writing can be done with or without the margin determined by stop 78, as may be desired. The stop 77 is auxiliary to the stop 78 and constitutes the write-over-marginal-stop and the movement of its support (the bar 70 which may be tilted) brings it into the path of the stop 81 upon the carriage, the function thereof being to enable each line of writing to be started either from a margin determined by the stop 78, or, upon the tilting of the bar 70 (by pushing in the button 89) from a margin determined by stop 77. In order to increase the margin beyond the capacity of bar 70, the stop 81 may be adjusted as shown in dotted lines (Fig. 8) to any desired position within the length of line.

I do not herein claim the particular construction of ribbon mechanism, as it forms the subject matter of a separate application filed by me February 15, 1906, under Serial No. 301278.

What I claim is as follows:—

1. In a typewriter, the combination with writing mechanism, a feed device whereby the carriage bearing the sheet being written upon is moved past the point of writing, tabulating mechanism including means for limiting the maximum feed to the distance required between the columns in tabulation; and a member having a movement with each action of the writing mechanism and feed device, of a displaceable member for limiting the movement of such first mentioned

member to steps of minimum extent and the displacement whereof allows of an action of the feed device to move the carriage the distance set by the tabulating mechanism, and means whereby said second member is displaced.

2. In a typewriter, the combination with a carriage bearing a platen adapted to support a sheet to be written upon, a plurality of type bars carrying type and each adapted to print upon such sheet, a plurality of keys operatively connected with said type bars, a space bar, a feed device whereby the carriage is moved past the point of writing, tabulating mechanism including means for limiting the maximum feed to the distance required between the columns in tabulation, and a member having a movement with each action of the type bars and space bar and limiting the movement of the escapement member carried by the frame, of a displaceable member for limiting the movement of such first mentioned member to steps of minimum extent and the displacement whereof allows of an action of the feed device to move the carriage the distance set by the tabulating mechanism, and means whereby said second member is displaced.

3. In a typewriter, the combination with a platen adapted to carry a sheet to be written upon, a plurality of type bars carrying type and each adapted to print upon such sheet; a plurality of keys operatively connected with said type bars; a space bar; a feed device whereby the platen is moved past the point of writing, tabulating mechanism including means for limiting the maximum feed to the distance required between the columns in tabulation; a universal-bar; a universal-bar-rocker-shaft having such universal-bar rigidly connected thereto to oscillate therewith; an operative connection between said type and space bars and said universal-bar, whereby said universal-bar is depressed upon each action of said type and space bars, and means operatively connecting said rocker-shaft to the feed device whereby said feed device is actuated upon each action of said type bars and space bar, of a displaceable member for limiting the extent of depression of such universal-bar and the displacement whereof allows of an action of the feed device to move the platen the distance set by the tabulating mechanism, and means whereby said displaceable member is displaced.

4. In a typewriter, the combination with writing mechanism; a feed device whereby the sheet being written upon is moved past the point of writing, tabulating mechanism including means for limiting the maximum feed to the distance required between the columns in tabulation; and a member having a movement with each action of the writing mechanism and feed device; of a

depressible key; a member limiting the movement of such first mentioned member; and means operatively connecting the depressible key to said second mentioned member for the purpose of causing said second mentioned member to be displaced upon the depression of the key.

5. In a typewriter, the combination with a platen adapted to carry a sheet to be written upon; a plurality of type bars carrying type and each adapted to print upon such sheet; a plurality of keys operatively connected with said type bars; a space bar; a feed device whereby the platen is moved past the point of writing, tabulating mechanism including means for limiting the maximum feed to the distance required between the columns in tabulation; a universal-bar, a universal bar-rocker-shaft having such universal-bar rigidly connected thereto to oscillate therewith; an operative connection between said type bars and space bar and said universal-bar whereby said universal-bar is depressed upon each action of said type bars and space bar; and means operatively connecting said rocker-shaft to the feed device whereby said feed device is actuated upon each action of said type bars and space bar; of a displaceable member for limiting the extent of depression of such universal-bar and the displacement of which allows of an action of the feed device to move the platen the distance set by the tabulating mechanism; a depressible key; and means operatively connecting said depressible key to said displaceable member whereby said displaceable member is displaced for the purpose set forth.

6. In a typewriter, the combination with a platen, adapted to carry a sheet to be written upon; a plurality of type bars carrying type and each adapted to print upon such sheet; a plurality of keys operatively connected with said type bars; a space bar; a feed device whereby the platen is moved past the point of writing, tabulating mechanism including means for limiting the maximum feed to the distance required between the columns in tabulation; a universal-bar; a universal-bar-rocker-shaft having such universal-bar rigidly connected thereto to oscillate therewith; an operative connection between said type bars and space bar and said universal-bar whereby said universal-bar is depressed and its rocker-shaft oscillated upon each action of said type bars and space bar; and means operatively connecting said rocker-shaft to the feed device whereby said feed device is actuated upon each action of said type bars and space bar; of a displaceable member for limiting the extent of depression of such universal-bar and the displacement of which allows of an action of the feed device to move the platen the distance set by the tabulating mechanism.

nism; a rocker-shaft; means connecting said displaceable member to said rocker-shaft to be displaced when said rocker-shaft oscillates; a depressible key; and means operatively connecting such depressible key to the last mentioned rocker shaft for the purpose of causing said rocker-shaft to be oscillated upon the depression of the key.

7. In a typewriter, the combination with the machine frame, a platen adapted to carry a sheet to be written upon; a plurality of type bars carrying type and each adapted to print upon such sheet; a plurality of keys operatively connected with said type bars; a space bar; a feed device whereby the platen is moved past the point of writing, tabulating mechanism including means for limiting the maximum feed to the distance required between the columns in tabulation; and means operatively connecting said rocker-shaft to the feed device whereby said feed device is actuated upon each action of said type bars and space bar; of a displaceable member for limiting the extent of depression of such universal-bar and the displacement of which allows of an action of the feed device to move the platen the distance set by the tabulating mechanism, said displaceable member consisting of a slide rod having an upset portion, such rod being normally located with said upset portion beneath and in close proximity to said universal-bar; a yielding resistance connected to one end of said rod and retaining same in its normal position; a rocker shaft; an arm mounted rigidly upon said last mentioned rocker-shaft; means pivotally connecting the opposite end of said rod to said arm to move therewith; and means for oscillating said last mentioned rocker-shaft for the purpose of displacing said rod.

8. In a typewriter, the combination with the machine frame, a platen adapted to carry a sheet to be written upon; a plurality of type bars carrying type and each adapted to print upon such sheet; a plurality of keys operatively connected with said type bars; a space bar; a feed device whereby the platen is moved past the point of writing; tabulating mechanism including means for limiting the maximum feed to the distance required between the columns in tabulation; and means whereby said feed device is actuated upon each action of said type bars and space bar; of a displaceable member for limiting the extent of depression of such universal-bar and the displacement of which allows of an action of the feed device to move the platen the distance set by the tabulating mechanism; said displaceable member consisting of a slide rod having an upset portion, such rod being normally located with said upset portion beneath and in close proximity to said universal-bar; a yielding resistance connected to one end of said rod

and retaining same in its normal position; a rocker-shaft; means operatively connecting said rocker-shaft to the feed device; a second rocker-shaft; an arm mounted rigidly upon said last mentioned rocker-shaft; means pivotally connecting the opposite end of said rod to said arm to move therewith; a depressible key; and means operatively connecting such key to said last mentioned rocker-shaft for the purpose set forth.

9. In a typewriter, the combination with the machine frame, a platen adapted to carry a sheet to be written upon; a plurality of type bars carrying type and each adapted to print upon such sheet; a plurality of keys operatively connected with said type bars; a space bar; a feed device whereby the platen is moved past the point of writing, tabulating mechanism including means for limiting the maximum feed to the distance required between the columns in tabulation; and means whereby said feed device is actuated upon each action of said type bars and space bar; of a displaceable member for limiting the extent of depression of such universal-bar and the displacement of which allows of an action of the feed device to move the platen the distance set by the tabulating mechanism; said displaceable member consisting of a slide rod having an upset portion, such rod being normally located with said upset portion beneath and in close proximity to said universal-bar; a yielding resistance connected to one end of said rod and retaining same in its normal position; a rocker-shaft; means operatively connecting said rocker-shaft to the feed device; a second rocker-shaft; an arm mounted rigidly upon and projecting upwardly from said last mentioned rocker-shaft; means pivotally connecting the opposite end of said rod to said arm to move therewith; a depressible key; a third rocker-shaft between said depressible key and the second mentioned rocker-shaft and having said depressible key rigidly mounted thereon; an arm mounted rigidly upon and projecting downwardly from the said third mentioned rocker-shaft; and a link pivotally connected at the ends of said upwardly and downwardly projecting arms for the purpose set forth.

10. In a typewriter, the combination with a carriage, and the frame for supporting the carriage, of tabulating mechanism comprising a series of movable stops mounted upon the carriage, and means for causing said carriage to travel, a stopping member projecting through an opening in the said frame, means holding the said member yieldingly against movement in the direction of travel of the carriage, and means whereby such member is moved to and from a position in the path of the stops upon the carriage, for the purpose set forth.

11. In a typewriter, the combination with



a carriage and the frame for supporting the carriage, of tabulating mechanism comprising a movable stop mounted upon the carriage, a stopping member projecting through an opening in the said frame, means holding the said member yieldingly against movement in the direction of travel of the carriage, and means whereby such member is moved to and from a position in the path of the stop upon the carriage, for the purpose set forth.

12. In a typewriter, the combination with a carriage, and the frame for supporting the carriage, of tabulating mechanism comprising a movable stop rigidly mounted upon such carriage, and means for causing said carriage to travel, a stopping post projecting through an opening in the said frame, the upper end whereof is adapted to be displaced in the direction of the travel of the carriage, means yieldingly retaining such post against displacement, and means whereby such post is moved vertically to and from a position with its displaceable end in the path of the stop upon the carriage, for the purpose set forth.

13. In a typewriter, the combination with a carriage, and the frame for supporting the carriage, of tabulating mechanism comprising a series of movable stops rigidly mounted upon such carriage, and means for causing said carriage to travel, a stopping post projecting through an opening in the said frame, the upper end whereof is adapted to be displaced in the direction of the travel of the carriage, means for yieldingly retaining such post against displacement, and means whereby such post is moved vertically to and from a position with its displaceable end in the path of the stops upon the carriage, for the purpose set forth.

14. In a typewriter, the combination with the frame thereof, a carriage supported thereon, and means tending to move such carriage from one side to the other of such frame, of tabulating mechanism comprising a movable stop rigidly mounted upon such carriage, a stopping member in the form of a post; a spring encircling said post and bearing at one end downwardly upon a projection upon said post and at its upper end upon the frame and adapted to yieldingly retain the upper end of said post toward the end of the machine from which the carriage travels, said post being displaceable toward the opposite end of the machine; means whereby said post is moved vertically to and from a position with its displaceable end in the path of the stop upon the carriage; means for retaining said carriage against movement and whereby it is released, for the purpose set forth.

15. In a typewriter, the combination with the frame thereof, a carriage supported

thereon and adapted to carry the sheet to be written upon, and means tending to cause said carriage to travel from one side to the other of the frame, of tabulating mechanism comprising a stop; means for rigidly securing such stop to the carriage at different points along same; a stopping post beneath said carriage, the upper end of said post being displaceable in the direction of the travel of the carriage; said post having a rigid lateral projection; a coiled spring encircling said post and bearing downwardly at one end upon said projection and having its upper end bearing beneath a part of the frame to yieldingly retain the upper end of the post toward the side of the machine from which the carriage travels; and means whereby such post is moved vertically to and from a position with its upper end in the path of the stop upon the carriage, for the purpose set forth.

16. In a typewriter, the combination with the frame thereof, a carriage supported thereon and adapted to carry the sheet to be written upon, and means tending to move the carriage from one side to the other of the frame, of tabulating mechanism comprising a stop; means for rigidly securing such stop to the carriage at different points along same; a stopping post beneath said carriage, the upper end of said post being displaceable in the direction of the travel of the carriage; said post having a rigid lateral projection; a coiled spring encircling said post and bearing downwardly at one end upon said projection and having its upper end bearing beneath a part of the frame to yieldingly retain the upper end of the post toward the side of the machine from which the carriage travels; a rocker-shaft adjacent to said post, a cam upon said rocker-shaft and acting upon said post, a depressible key, and means operatively connecting said depressible key to the rocker-shaft whereby the latter will be oscillated upon the depression of the key, for the purpose set forth.

17. In a typewriter, the combination with the frame thereof having a stop thereon, and a carriage supported upon such frame and presenting a rearward extension, of a marginal stop mounted upon such extension and consisting of a plate presenting a portion constituting the marginal stop proper and a longitudinally slotted arm extending parallel to the direction of travel of the carriage; and a set screw passed through the slot of the said arm and screwed into the said extension of the carriage for the purpose of enabling the margin to be adjusted to any desired extent within the full length of the line.

18. In a typewriter, the combination with the frame thereof, a carriage supported upon said frame, a stop upon the carriage, means

for automatically feeding said carriage from one side of said frame to the other, of a rocking-bar carried by the frame parallel to the line of travel of and adjacent to said carriage, a marginal-stop and a write-over-marginal-stop both carried by said bar, means for adjusting said two last mentioned stops relatively to one another and longitudinally of said bar, a movable key, means connecting the movable key to the bar whereby the latter is rocked to move said marginal-stop and write-over-marginal-stop relatively to the path of the stop upon the carriage, for the purpose set forth.

19. In a typewriter, the combination with the frame thereof, a carriage supported upon said frame, a stop upon the carriage, means for automatically feeding said carriage from one side of said frame to the other, of a rocking-bar carried by the frame parallel to the line of travel of and adjacent to said carriage, a marginal-stop and a write-over-marginal-stop both carried by said bar, means for adjusting said two last mentioned stops relatively to one another and longitudinally of said bar, a movable key, means pivotally connecting the movable key to the bar whereby the latter is rocked to move said marginal-stop and write-over-marginal-stop relatively to the path of the stop upon the carriage, for the purpose set forth.

20. In a typewriter, the combination with the frame, thereof, a carriage supported upon said frame, a stop upon the carriage, means for automatically feeding said carriage from one side of said frame to the other, of a rocking-bar carried by the frame parallel to the line of travel of and adjacent to said carriage, a series of teeth upon one side of said bar, a pair of sleeves upon said bar and slidable along same, a pair of fingers one carried by each of said sleeves and extending from the bar at different angles thereto, means whereby said sleeves are connected to the bar at any point along same to which they may be moved, and means whereby said bar is rocked to move said fingers relatively to the path of the stop upon the carriage for the purpose set forth.

21. In a typewriter, the combination with the frame thereof, a carriage supported upon said frame, a stop upon the carriage, means for automatically feeding said carriage from one side of said frame to the other, of a rocking-bar carried by the frame parallel to the line of travel of and adjacent to said carriage, a series of teeth upon one side of said bar, a pair of sleeves upon said bar and slidable along same, a pair of fingers one carried by each of said sleeves and extending from the bar at different angles thereto, a pawl carried by each sleeve and adapted to engage the teeth upon the bar,

means yieldingly retaining said pawls in engagement with the teeth, and means whereby said bar is rocked to move said fingers relatively to the path of the stop upon the carriage, for the purpose set forth.

22. In a typewriter, the combination with a frame thereof, a carriage supported upon said frame, a stop upon the carriage, means for adjusting said stop longitudinally of the carriage, means for automatically feeding said carriage from one side of said frame to the other, of a rocking-bar carried by the frame parallel to the line of travel of and adjacent to said carriage, a series of teeth upon one side of said bar, a pair of sleeves upon said bar and slidable along same, a pair of fingers one carried by each of said sleeves and extending from the bar at different angles thereto, a pawl carried by each sleeve and adapted to engage the teeth upon the bar, means yieldingly retaining said pawls in engagement with the teeth, and means whereby said bar is rocked to move said fingers relatively to the path of the stop upon the carriage, for the purpose set forth.

23. In a typewriter, the combination with the frame thereof, a carriage supported upon said frame, a stop upon the carriage, means for automatically feeding said carriage from one side of said frame to the other, of a rocking-bar carried by the frame parallel to the line of travel of and adjacent to said carriage, a series of teeth upon one side of said bar, a pair of sleeves upon said bar and slidable along same, a pair of fingers one carried by each of said sleeves and extending from the bar at different angles thereto, a pawl carried by each sleeve and adapted to engage the teeth upon the bar, means yieldingly retaining said pawls in engagement with the teeth, a movable key, and an operative connection between said movable key and the bar whereby the latter is rocked to move said fingers, marginal-stop, and write-over-marginal-stop relatively to the path of the stop upon the carriage, for the purpose set forth.

24. In a typewriter, the combination with the frame thereof, a carriage supported upon said frame, means for automatically feeding said carriage from one side of said frame to the other, and a stop upon the carriage, of a rocking-bar carried by the frame parallel to the line of travel of and adjacent to said carriage and having one side graduated, a series of teeth upon the opposite side of said bar, a sleeve upon said bar and slidable along same, such sleeve being of greater transverse area than the cross-section of such bar, a finger formed integrally with the side of said sleeve opposite to the teeth and projecting toward the carriage, a pawl struck out of the side of said

sleeve coincident with the teeth and adapted to engage same, a spring carried by the side of the sleeve opposite to the pawl and bearing upon the graduated side adjacent thereto of the bar, a movable key, and an operative connection between said movable key and the bar whereby said bar is rocked to move said finger into or out of the path of the stop upon the carriage for the purpose

of establishing a margin upon the sheet being written or allowing said margin to be overwritten. 10

In testimony whereof, I have affixed my signature, in presence of two witnesses.

WELLINGTON PARKER KIDDER.

Witnesses:

FRED J. SEARS,

ARTHUR H. EVANS.