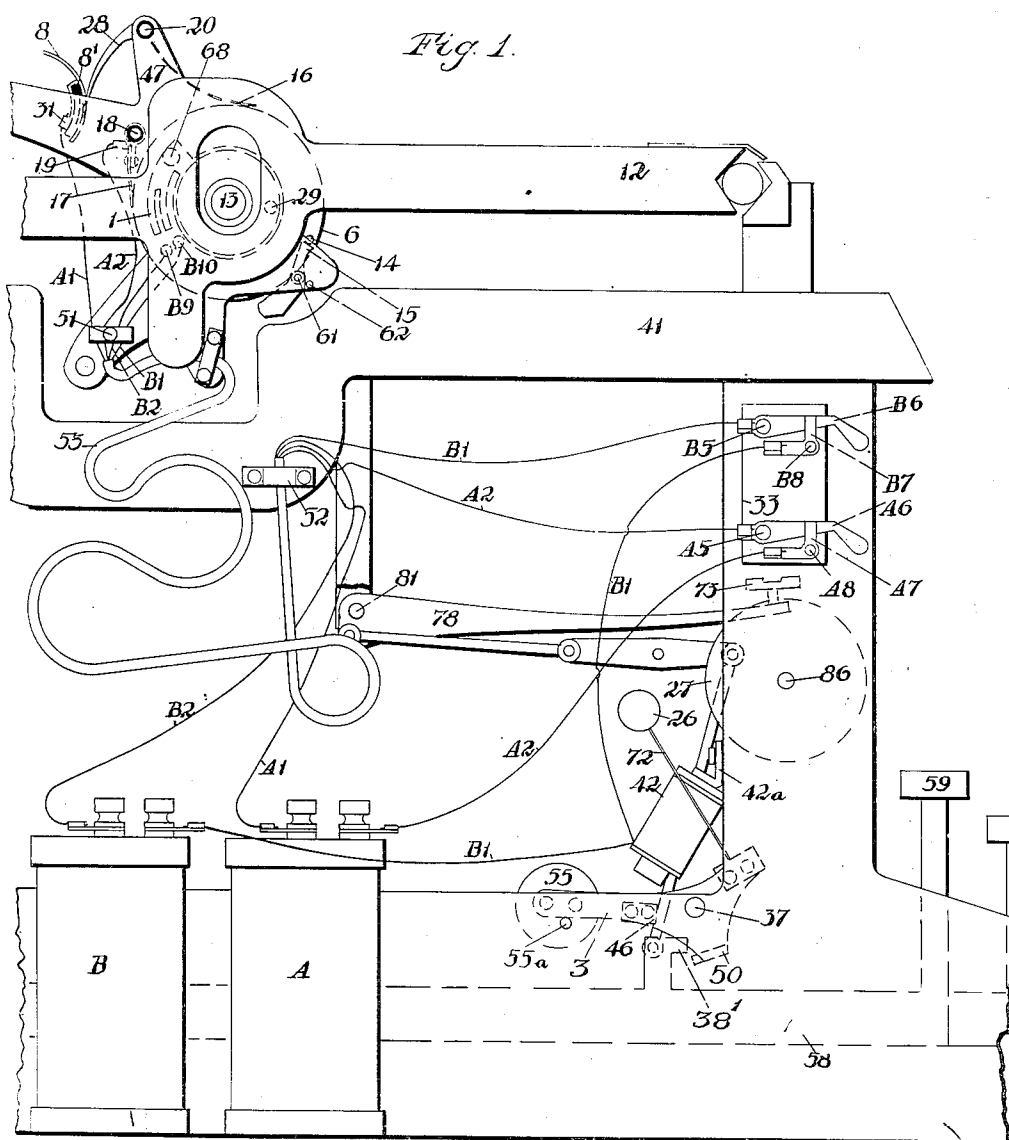


W. J. NEIDIG.
TYPE WRITING MACHINE.
APPLICATION FILED MAY 20, 1912.

1,053,930.

Patented Feb. 18, 1913.

2 SHEETS—SHEET 1.



Witnesses:
Oscar F. Hill
Ellen O. Spring

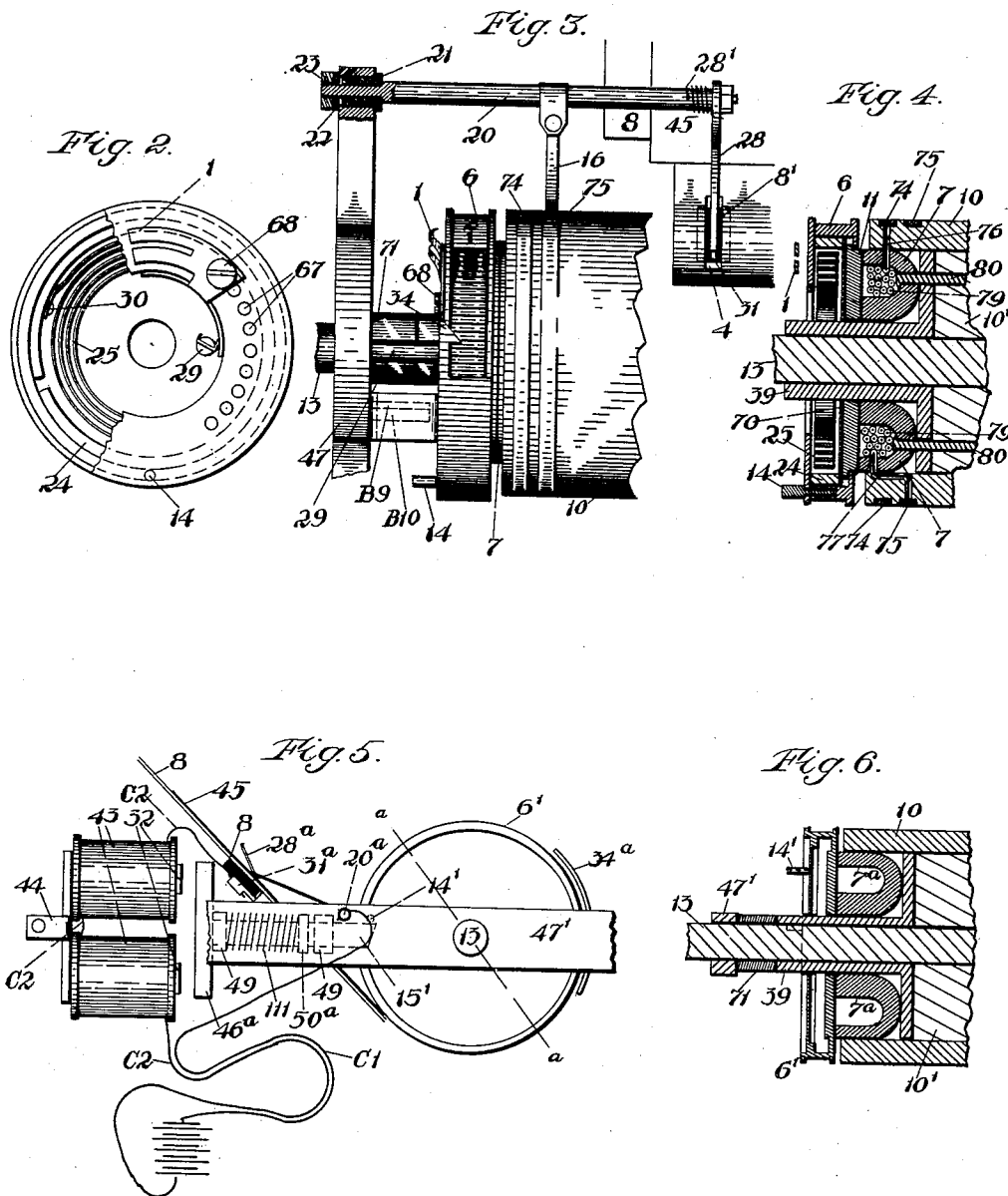
Inventor:
William J. Neidig
by Chas. F. Randall
Attorney.

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UNITED STATES PATENT OFFICE.

WILLIAM J. NEIDIG, OF MADISON, WISCONSIN, ASSIGNOR TO NEIDIG TYPEWRITER CO.,
OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TYPE-WRITING MACHINE.

1,053,930.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed May 20, 1912. Serial No. 698,440.

To all whom it may concern:

Be it known that I, WILLIAM J. NEIDIG, a citizen of the United States, residing at Madison, in the county of Dane, State of Wisconsin, have invented a certain new and useful Improvement in Type-Writing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

Certain principles and features of my invention as described herein are included within the generic invention which is described and claimed in my co-pending application filed April 20, 1908, Serial No. 428,212.

One of the objects of my general invention is to indicate to the operator of a typewriting machine the decreasing distance from the current printing point to the bottom end of the sheet, or to another point on the sheet, during the progress of the sheet, and this without preliminary care on his part, automatically. This function I believe has never before been performed, but is novel to my general invention. In the drawings described hereinafter I show means for performing such function, and in addition, various other improved indicating means, namely, a visual signaling means, an audible signaling means, and a means for rendering the printing mechanism of the machine inoperative after the writing of a predetermined line, and for automatically restoring said printing mechanism to operativeness, and for releasing said printing mechanism without loss of line position.

Among the features of the form of the invention described herein is the special use made of various novel electrically controlled devices for controlling and actuating the several indicating means.

Other features thereof include a sheet-controlled controlling member having a spring for returning the same to starting position; frictional members having magnetically induced frictional engagement for giving the said member simultaneous movement with the platen; and a lightly-pressing quick-acting paper-feeler connected to control the action of the said controlling member.

In the drawings, Figure 1 is an end view of portions of a typewriting machine show-

ing my invention applied thereto; Fig. 2 is a detail view of the drum or carrier 6 with a portion of the face-plate broken away; Fig. 3 is a view, partly in section, from the front, of portions of my mechanism; Fig. 4 is a cross-section of a part of Fig. 3; Fig. 5 represents a modification as seen from the end, but with portions of the supporting carriage frame broken away; and Fig. 6 is a view in cross-section on the line *a-a* of portions of Fig. 5.

The embodiment of my invention as shown in Figs. 1 to 4 is described as follows: The usual carriage frame is indicated at 12, movable laterally upon the main frame 41 of the typewriting machine, and having mounted upon it the shifting platen frame 47, supplied with the usual supporting and controlling mechanism not shown herein. Journaled in the ends of frame 47 is platen arbor 13 bearing the platen 10, which may be regarded as connected with usual line spacing mechanism of any approved type. The paper-table for the support of the entering sheet is shown at 8, the same being carried in usual manner upon the platen frame 47. This structure is well-known to those skilled in the art and need not be more fully described. The platen 10 is supplied with a recess at the end thereof for the platen head 39 and the annular magnet 7, held in position by pins or screws 80. The trough of the magnet contains windings of insulated wire 79, connected at the one end 77 with the annular conductor 75 and at the other end 76 with the annular conductor 74, the said annular conductors being embedded in the usual rubber shell of the platen so as to be insulated. This structure may be taken to represent a convenient form of electromagnet for the purpose intended, though the form of the magnet is not important. This magnet is connected with the source of current on the one side through brush 16, which makes contact with conductor 75, the brush being conveniently attached to the inwardly projecting shouldered rod 20, which is insulated from the platen frame 47 by means of the bushing-insulation 21 and washer 22. Journaled on said rod at the one end thereof so as to turn freely thereon is paper-feeler 28, preferably pressed toward the paper-

path by a light spring 28¹ one end of said spring being fastened to rod 20 and the other engaging upon the paper-feeler. In the absence of the sheet the tip of the paper-feeler rests against a conductor 31 behind the opening or slot 4 in paper-table 8. I employ spring-pressure to give the paper-feeler action into the paper-path for the reason that it is desirable that the paper-feeler should have as nearly instantaneous actuation as possible, so that even when released by the sheet in the midst of a feed-movement it will coördinate the position of the structure controlled by it with that of the sheet. Partly for the same reason I provide that as small movement as possible be given the paper-feeler after its release by the sheet. Conductor 31 is held in place by means of the insulation 8¹ attached to the under side of paper-table 8. From conductor 31 the wire A¹, which is suitably insulated, leads into and through cable 53 to the source of current A. The magnet is connected with the source of current on the other side through brush 17, which makes contact with annular conductor 74, said brush being attached to the inwardly projecting insulated rod 18. From the conducting connection 19 the insulated wire A² leads into and through cable 53 to the switch-lever A⁶, pivoted at A⁵ upon the insulated switch-board 33, the said lever in one position making contact with conductor A⁷, attached at A⁸ to the said switch-board. From the piece A⁷ the insulated wire A² leads to the source of current A, thus completing the electrical circuit, which includes, as has been described, the magnet and the paper-feeler. I employ cable 53 in order to have a convenient connection between the usual laterally-movable carriage 12 and its parts and the source of current, the current in this case being more conveniently taken from a stationary source.

To coöperate with the magnet, I place upon the collar 39 of the platen head a freely revoluble drum, made up of the soft iron rear wall 11 and a shell portion, the whole forming the index-carrier or operative member 6. Against partition-plate 70 inside the said carrier is placed the cut friction-ring 24, made of a resilient material and tending to press radially into frictional contact with the carrier. To this ring 24 is attached, by means of rivet 30 conveniently, one end of the coiled spring 25, the other end of the spring being held in the inwardly-projecting split post 29 on the platen frame 47. The purpose of the friction-ring is to prevent overwinding the spring. The face-plate of carrier 6 has a circular central opening to provide for the introduction of said split post within the contour of the carrier. The said face-plate (shown partly broken away in Fig. 2) is fixedly attached to carrier 6. Partition-

plate 70 is not essential. The carrier 6 bears the outwardly projecting pin 14 and the conducting brush 1. Projection 14 is fixedly attached thereon, but brush 1 is angularly adjustable on said face-plate, a turned-in portion fitting the central opening of said plate, and screw 68, which fits any one of the threaded seats 67, holding said brush in desired angular position. A hinged stop (Fig. 1) pivoted on pin 61 on platen frame 47 is mounted in the plane of projection 14 so as to coöperate therewith, the stop being so balanced as to tend to lie against position-stop 62 on frame 47. The shield-pointer 34 is also attached to the platen frame 47. The operation of this portion of the mechanism is as follows: During the position of the parts as shown in Figs. 1 and 3, the electric circuit hereinbefore described is closed, with the result that the magnet 7 is rendered operative to attract against it the soft iron piece 11, thus holding the carrier 6 is a frictional connection therewith sufficient to revolve the carrier with the platen against the action of the coiled spring 25. When however the paper sheet 45 (Fig. 3) on the paper table 8 is inserted in the usual way into the machine for printing, the conducting paper-feeler 28 is raised out of contact with the conductor 31 against the action of spring 28¹ and the circuit is broken. The paper-sheet is itself a non-conductor, and in addition an air-gap separates the two conducting parts. The magnet 7 thereupon ceases to act as a magnet upon the piece 11, the frictional engagement between said magnet and said piece 11 becomes extremely light, the slight residual magnetism being too weak to have any effect upon the spring-controlled carrier, and the carrier 6 under the impulse of the spring 25 is returned backwardly until the projection 14 strikes upon the stop 15, bringing the parts to rest. The carrier 6 will remain in this position during the further operation of printing the sheet until the end of the sheet passes paper-feeler 28. The instant paper-feeler 28 is released by the sheet it makes contact with the conductor 31, the circuit is again closed, the magnet 7 is instantaneously rendered operative upon the piece 11, and the carrier 6 again begins revolving with the platen.

As will be seen, since the end of the paper-feeler 28 must lie at a fixed distance from the printing point, the carrier 6 must begin its movement when the bottom edge of the sheet is a fixed distance from the printing point, and as the carrier maintains always a line by line progress thereafter with the sheet, since it moves with the platen and the platen advances the sheet, it must bring always the same point on its periphery opposite the pointer 34 when the end of the sheet attains any given distance from the

printing point. This distance, whatever it be, can be determined, and indicated by an index on the carrier, so that the distance from the end of the sheet to the printing point will be indicated line by line from the time the paper-feeler 28 is released by the sheet until the sheet leaves the machine. Other units than the line unit may of course be used for the indices, and instead of giving the distance to the bottom edge of the sheet, the distance to a point a definite distance therefrom may be given. It is of course immaterial whether the stationary and the movable indices come to relative rest exactly opposite one another, or whether the indices in themselves signify distance-units at all. I prefer to use indices involving no mental calculation nor memorizing on the part of the operator.

My invention also serves to give the operator a visual signal when the end of the sheet is near. I usually use for a stationary index a shield-pointer that conceals one portion of the carrier from the operator, and the carrier itself is divided into two differently appearing segments, one of which is visible to the operator during the detained position of the carrier, and the other of which is not visible but lies behind the shield-pointer in that position of the carrier. In my drawings I show the first named of these segments as containing no indices, and by preference I color this segment black, and the second of these segments, which I cause to bear indices, I prefer to supply with a ground of white. When the sheet-end releases the carrier, and the white index-bearing segment comes into view, the change from black to white attracts the operator's attention and he knows that the end of the sheet is within a given distance from his printing point. It is of course not essential that the white segment should come into view at the very first feed-movement of the platen after the release of the carrier to move therewith—the black segment may be extended under the shield-pointer until several feed-movements will intervene before the white segment with its indices comes into view, so that this signal may be given when the sheet-end attains any required distance from the printing point. It is not essential that the white segment be supplied with indices, nor that the index-bearing portion of the carrier be supplied with other distinguishing means.

In addition to the indicating means described, I usually employ the following indicating means: a bell striking means brought into action after the completion of a predetermined amount of matter on the page, and a locking means for preventing the use of the printing mechanism in printing. A convenient form of the bell and lock actuating means is shown in the drawings, although I

do not limit myself thereto in applying my invention to typewriting machines. Upon the platen frame 47 I place the insulated contact points B^9 and B^{10} , projecting them inwardly into the plane of the brush 1 on carrier 6. From these contact points extend the insulated wires B^1 and B^2 into and through the cable 53, the wire B^1 then leading through the conducting lever B^6 and co-operating conducting piece B^7 on the switch-board 33 to the coils upon the electro-magnet 42, and through them to the source of electricity B, while the wire B^2 leads directly from the cable to the source B. It will be at once perceived that this constitutes, when the brush 1 contacts with contact-points B^9 and B^{10} , a complete electrical circuit. It will be seen also that when the circuit is thus completed, the magnet 42 in the circuit will become operative as an electro-magnet. This magnet 42 is shown in Fig. 1 in side view, only one of the coils appearing, but it will be understood to be a magnet of the common and well-known type of a size convenient for the work to be done. It is preferably supported on the main frame 41 of the machine through the inwardly extending piece 42^a. Coöperating therewith is the following structure: The key-lever 58 has on it the usual key 59 and the hook-like projection 38¹. With respect to the said projection 38¹ all the key-levers may be regarded as being similar to the one shown. Upon the shaft 37 are placed arms 3 bearing the bail-piece 50, the said shaft extending through the machine from side frame to side frame and the said arm being fixed thereon at both ends so that the intermediate portion of the bail-piece will lie adjacent to projection 38¹ as shown. As will be seen, when bail-piece 50 is rocked upon its axis the laterally extending portion will lie under projection 38¹ and prevent the operation of the key-lever 58 and of the type-bar 78 connected therewith. The arm 3 has attached to it the inwardly projecting soft iron bar 46; and a small weight 55 tends to hold the bail-piece clear of projection 38¹ and the arm 3 against the stop 55^a on the main frame 41. The arm 3 has also attached to it the bell-clapper 26 on the flexible spring shaft 72. The bell 27 is supported in the path of the said clapper 26 by means of the central pin 86 from the main frame 41 of the machine. When now the brush 1 on the carrier 6 closes the electrical circuit through the contact points B^9 and B^{10} , the magnet 42 becomes operative to attract the soft iron bar 46, arm 3 is rocked on its axis, the clapper 26 strikes the bell, and the printing mechanism through the action of the bail-piece 50 upon the hook-like projection 57 can no longer be operated. The operator will thereupon remove his sheet, breaking the circuit and releasing the printing mech-

anism for the printing of the next sheet, since the weight 55 acts to restore the bail-piece 50 to inoperative position the moment the magnet 42 ceases to attract the bar 46, as it does when the circuit is broken. In case the operator does not wish to remove his sheet after the machine is locked, but wishes to do further printing upon it, he has but to lift the switch-lever B⁶ out of contact with the coöperating part B⁷ and the circuit is broken, with the same result, the lever maintaining its elevated position by friction. It is obvious that the machine can be locked against printing at any desired distance from the bottom edge of the sheet, the brush 1 as has been explained being angularly adjustable upon carrier 6.

In order that my mechanism should be highly effective under all conditions of practice, I make the following provision whereby the sheet can be backed up at any time, even after the paper-feeler 28 has been released by the sheet, namely, by providing that paper-feeler 28 shall be journaled upon rod 20 by means that will present no obstacle on the platen side of the paper-feeler to the backing-up bottom edge of the sheet, which will be guided out along the under side of the paper-feeler without disturbing the position of the feeler.

Figs. 5 and 6 represent a modification in my mechanism, the essential structure of which is as follows: The carriage frame 47¹ has journaled in its ends the platen arbor 13 bearing the platen head 39 and platen 10. Recessed into the end of the platen and attached to revolve therewith is a constantly acting magnet, preferably the permanent magnet 7^a of the annular form shown. The independently revoluble index-carrier 6¹ made of soft iron is placed upon the sleeve of the platen head 39 so as to turn freely thereon, but it is held against the magnet by magnetic attraction so as to have a frictional connection with the magnet. The carrier 6¹ has on it the outwardly projecting pin 14¹; and it is supplied with the shield-pointer 34^a and with indices like the indices shown in Fig. 3. It is not essential that the parts be of the exact form shown. The frame 47¹ bears the inwardly projecting guides 49, in which slides the retractible stop 15¹ supplied with the shoulder 50^a and the compressed coiled spring 11¹, the said stop in one position lying in the path of the pin 14¹. Attached to the stop is the soft iron bar 46^a, adapted to coöperate with the electromagnet 43, which may be regarded as supported upon the frame 47¹ by means of the piece 44. The paper table 8, supported in the usual way upon the frame 47¹, has in it a slot or opening like that shown in Fig. 3, behind which, attached to the under side of the paper-table, is the insulation 8^a having embedded therein the con-

ductor 31^a. An insulated projecting rod 20^a extends inwardly from the frame 47¹, substantially as described in connection with rod 20 in Fig. 3, attached to which is the paper-feeler 28^a in the form of a light spring, one end of which lies over the conductor 31^a in the slot in the paper-table before described. An insulated wire C¹ leads from the rod 20^a to the source of current C, and an insulated wire C² from the conductor 31^a through the coils of the magnet 43 also to the source of current C. I show a paper sheet 45 as lying on the paper-table 8 under paper-feeler 28^a. In this position of parts the electrical circuit through the magnet 43 is complete except for the break caused by the paper sheet, which is a non-conductor, and for the air gap under the sheet and between the feeler 28^a and the conductor 31^a.

The mechanism operates as follows: The sheet is inserted in the machine in the usual way, and is advanced as usual by the revolving platen. The index-carrier 6¹, frictionally connected with the platen by means of the magnet 7^a, revolves therewith until detained by the action of the stop 15¹ upon the projection 14¹. Eventually the end of the sheet passes from under the paper-feeler 28^a, the feeler makes a contact with the conductor 31^a, and the circuit being completed the electro-magnet 43 acts upon the bar 46^a and through it removes the stop 15¹ from the path of the projection 14¹; whereupon the carrier 6¹, no longer detained, begins moving with the platen. As the carrier must begin this movement when the bottom edge of the sheet is a fixed distance from the printing point, and maintains always thereafter a line by line progress with the sheet, it can be supplied with indices as before explained adapted to indicate the remaining distance line by line from the bottom edge of the sheet to the printing point.

The modification shown is merely intended to illustrate something of the range of use to which my magnetically induced friction can be put in an indicating mechanism of this character, and something of the range of means possible in the application of electricity to the control of indices having the novel use described.

The devices shown in the drawings and described herein are part of a series of closely related inventions or improvements which are presented in a number of co-pending applications for Letters Patent filed by me. The said devices have a number of general objects in common with those forming the subject matter of different applications in the said series, and to a certain extent embody and utilize various principles and features which are common to devices shown and described in one or another of the said applications. Some of the said common principles and features are claimed

broadly in my application filed April 20, 1908, aforesaid, and in my applications filed Dec. 13, 1909, Serial No. 532,928; Dec. 15, 1909, Serial No. 533,309; April 25, 1910, Serial No. 557,330; Mar. 30, 1912, Serial No. 687,463; and April 9, 1912, Serial No. 689,560.

The branch of the general invention that is covered hereby is distinguished by the characteristic features specified in the following claims.

I claim as new and desire to secure by Letters Patent—

1. In a typewriting machine, in combination, a platen, a plurality of indices, and electrically controlled means adapted to bring the respective indices into indicating prominence as the sheet is advanced by the platen into the several corresponding predetermined sheet-positions.

2. In a typewriting machine, in combination, a platen, and electrically controlled indicating means adapted to indicate successive positions of the sheet, under the control of the sheet, as the same is advanced through the machine by the platen.

3. In a typewriting machine, in combination, a platen, a plurality of indices, and means including sheet-controlled electrical devices for bringing the respective indices into indicating prominence as an end of the sheet arrives at constant distances from the printing point.

4. In a typewriting machine, in combination, a platen, an operative member, indices, means for giving said operative member a constant starting position, and electrically controlled means for giving said member simultaneous movement with the platen from such position, to render said indices effective to inform the operator of the progress of the sheet.

5. In a typewriting machine, in combination, a platen, indices, means for giving said indices a constant non-indicating position, a sheet-controlled electrical circuit, and means controlled through said circuit for giving said indices indicating prominence coordinately with the progress of the sheet from such constant position.

6. In a typewriting machine, in combination, a platen, an indicator, a spring for returning said indicator into starting position, and sheet-controlled means for connecting said indicator to move with the platen from such position.

7. In a typewriting machine, in combination, a platen, a paper-feeler, an index-carrier actuated from the platen under the control of said paper-feeler, and means including a spring for returning said index-carrier into starting position.

8. In a typewriting machine, in combination, a platen, an operative member, indices called into operation through said member,

means including a spring and cooperating stop for giving said member a constant starting position, and sheet-controlled means for giving said member movement correlated with that of the platen from such position.

9. In a typewriting machine, in combination, a platen, an operative member, a visual signaling means, means for giving said member a constant starting position, and electrically controlled means for giving said member movement correlated with that of the platen from such position, to render said signaling means effective.

10. In a typewriting machine, in combination, a platen, an operative member, a visual signaling means, means for giving the operative member a constant starting position, a sheet-controlled electrical circuit, and means controlled by a device in said circuit for giving said member movement correlated with that of the platen from such position, thereby rendering said signaling means effective.

11. In a typewriting machine, in combination, a platen, an operative member, a visual signaling means called into operation through said member, a spring for returning said member into starting position, and means for giving said member movement correlated with that of the platen from such position.

12. In a typewriting machine, in combination, a platen, an operative member, a visual signaling means, a spring for returning said operative member into starting position, and sheet-controlled means for giving said member movement correlated with that of the platen from such position, thereby rendering said signaling means effective.

13. In a typewriting machine, in combination, a platen, an operative member, an audible signaling means, means for giving said member a constant starting position, and electrically controlled means for giving said member movement correlated with that of the platen from such position, to render said signaling means effective.

14. In a typewriting machine, in combination, a platen, an operative member, an audible signaling means controlled by said member, means for giving said member a constant starting position, a sheet-controlled electrical circuit, and means controlled by a device in said circuit for giving said member simultaneous movement with the platen from such position.

15. In a typewriting machine, in combination, a platen, a bell-striking means in an electrical circuit, an operative member in control of said circuit, means for giving said member a constant starting position, and means for giving said member movement correlated with that of the platen from such position.

16. In a typewriting machine, in combina-

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tion, a platen, an audible signaling means in an electrical circuit, an operative member in control of said circuit, means for giving said member a constant starting position, and sheet-controlled means for giving said member movement correlated with that of the platen from said position.

17. In a typewriting machine, in combination, a platen, an operative member, an audible signaling means called into operation through said member, a spring for returning said member into starting position, and sheet-controlled means for giving said member movement correlated with that of the platen from such position.

18. In a typewriting machine, in combination, a platen, a sheet-controlled electrical circuit, and a device in said circuit for rendering the typewriter mechanism inoperative at a predetermined line-position as the sheet is advanced through the machine by the platen.

19. In a typewriting machine, in combination, a platen, a carriage, an electrical circuit, and a device in said circuit controlled from said carriage for rendering the typewriter mechanism inoperative at a predetermined line-position as the sheet is advanced through the machine by the platen.

20. In a typewriting machine, in combination, a platen, a carriage, an electrical circuit, a device in said circuit controlled from said carriage for rendering the typewriter mechanism inoperative at a predetermined line-position in feeding the sheet through the machine, and means for releasing the said mechanism for further use.

21. In a typewriting machine, in combination, a platen, an operative member, means for rendering the typewriter mechanism inoperative, means for giving said operative member a constant starting position, and electrically controlled means for giving said member simultaneous movement with the platen from such position, to render the first-named means effective.

22. In a typewriting machine, in combination, a platen, an operative member, means for rendering the typewriter mechanism inoperative, means for giving the operative member a constant starting position, a sheet-controlled electrical circuit, and means controlled by a device in said circuit for giving said member movement correlated with that of the platen from such position, thereby rendering the first-named means effective to indicate the sheet-position to the operator.

23. In a typewriting machine, in combination, a platen, means for rendering the typewriter mechanism inoperative, an operative member in control of said means, a spring for returning said member into starting position, and means for giving said member movement correlated with that of the platen from such position, thereby rendering said

first-named means effective to indicate the sheet-position.

24. In a typewriting machine, in combination, a platen, an operative member, means controlled thereby for rendering the typewriter mechanism inoperative, a spring for returning the operative member into starting position, and sheet-controlled means for giving said member movement correlated with that of the platen from such position.

25. In a typewriting machine, in combination, a platen, the carriage, printing mechanism, and an electrical device controlled from the carriage for locking the printing mechanism against printing at a predetermined line-position as the sheet is advanced through the machine by the platen.

26. In a typewriting machine, in combination, a platen, printing instrumentalities, and a sheet-controlled electrical device for locking the printing instrumentalities against use in printing at a predetermined line-position as the sheet is advanced through the machine by the platen.

27. In a typewriting machine, in combination, a platen, printing instrumentalities, an operative member, means controlled by said member for locking said printing instrumentalities against use in printing, a spring for returning the operative member into starting position, and means for giving said member movement correlated with that of the platen from such position.

28. In a typewriting machine, in combination, a platen, printing instrumentalities, an operative member, means controlled by said member for locking said printing instrumentalities against use in printing, a spring for returning said member into starting position, and sheet-controlled means for giving the said member movement correlated with that of the platen from such position.

29. In a typewriting machine, in combination, a platen, an operative member, indicating means, means for giving said member a constant starting position, and electrically controlled means for giving said member simultaneous movement with the platen from such position, to render said indicating means effective.

30. In a typewriting machine, in combination, a platen, an operative member, indicating means, means for giving said operative member a constant starting position, a sheet-controlled electrical circuit, and means controlled by a device in said circuit for giving said member movement correlated with that of the platen from such position, thereby rendering said indicating means effective.

31. In a typewriting machine, in combination, a platen, an indicating device in an electrical circuit, an operative member in control of said circuit, means for giving said member a constant starting position, and

means for giving said member movement correlated with that of the platen from such position.

32. In a typewriting machine, in combination, a platen, an indicating device in an electrical circuit, an operative member in control of said circuit, means for giving said member a constant starting position, and sheet-controlled means for giving said member simultaneous movement with the platen from such position.

33. In a typewriting machine, in combination, a platen, an operative member, indicating means called into operation through said member, a spring for returning said member into starting position, and sheet-controlled means for giving said member movement correlated with that of the platen from such position.

34. In a typewriting machine, in combination, a platen, a revoluble member, indicating means called into operation through said member, a spring adapted to act rotatively upon the said member, a projection on the member, a stop coöperating therewith, and sheet-controlled means for giving the member movement correlated with that of the platen.

35. In a typewriting machine, in combination, a platen, an operative member, indicating means called into operation through said member, means for giving the said member a constant starting position, co-

operating friction members having a magnet-closed engagement for giving said member simultaneous movement with the platen, and sheet-controlled means for controlling the said movement.

36. In a typewriting machine, in combination, a platen, a rotary member having a projection thereon, a stop adapted to coöperate with said projection to give said member a constant starting position, indicating means called into operation through said member, and means including a magnet whereby the member is rotated simultaneously with the platen from said starting position.

37. In a typewriting machine, in combination, a platen, an operative member, indicating means called into operation through said member, means for giving the said member a constant starting position, and sheet-controlled means for giving the said member simultaneous movement with the platen from such position, including a paper-feeler spring-pressed into the paper-path and movable out of the paper-path by the leading edge of the sheet as the same is entered into the machine.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM J. NEIDIG.

Witnesses:

NATHAN B. DAY,
OSCAR F. HILL.