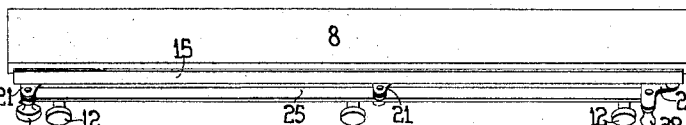
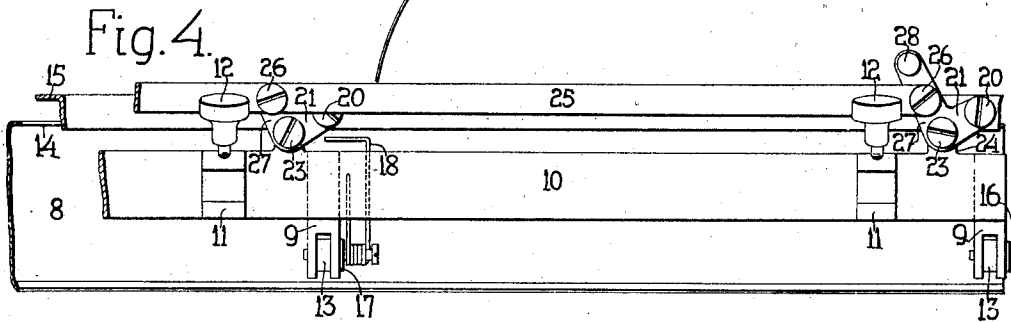
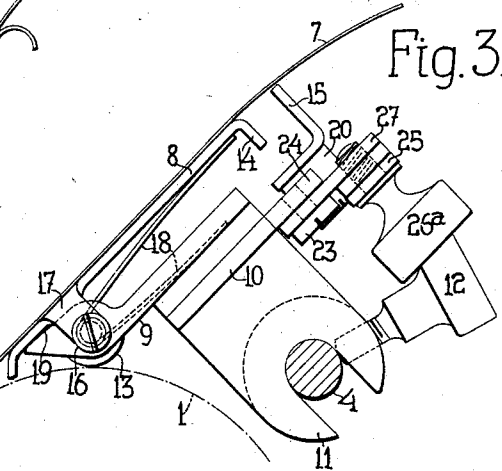
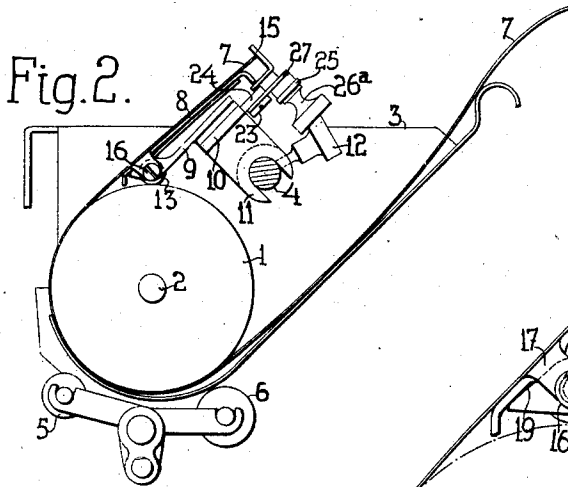
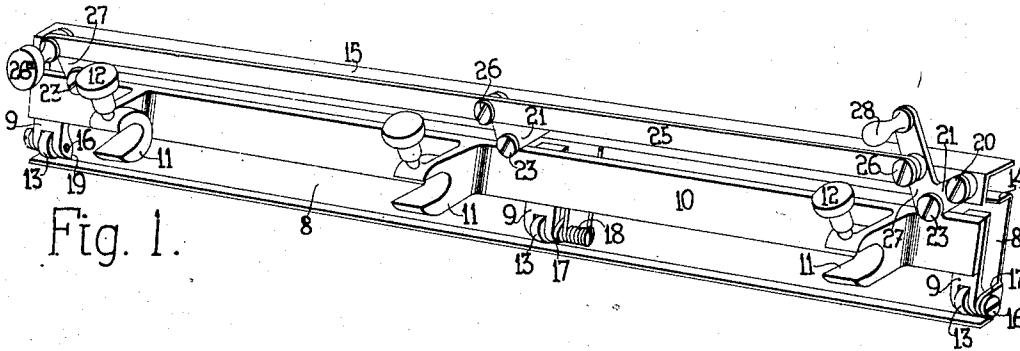


C. F. LUNDEBERG.
TYPE WRITING MACHINE.
APPLICATION FILED JUNE 21, 1910.

974,503.

Patented Nov. 1, 1910.



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TYPE-WRITING MACHINE.

974,503.

Specification of Letters Patent.

Patented Nov. 1, 1910.

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To all whom it may concern:

Be it known that I, CARL F. LUNDEBERG, a citizen of the United States, residing in Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to paper-alining mechanism for typewriting machines, and as to certain features it constitutes an improvement on the invention disclosed in my application filed December 2, 1909, Serial No. 530,904; wherein the leading end of the work sheet after being passed loosely around the platen, is led to a stationary paper table, which forms a support upon which the sheet is adjusted to a gage.

In certain prior constructions of paper-gaging tables, the gage itself has been constructed for movement out of the path of the advancing work sheet, so that the latter may not encounter obstruction in emerging from the machine. In some cases, the gage has been connected to the mechanism which releases the pressure rolls that run upon the platen to feed the paper around the same. To avoid the expense, complication and other difficulties that are sometimes found objectionable where the gage is movable out of the path of the sheet, especially where it is connected to the pressure-roll releasing mechanism, and to simplify the operation and relieve the mind of the operator from the necessity of giving attention to the matter of adjusting the gage into and out of position, I have contrived means to clear the leading edge of the advancing sheet from the gage without the necessity of moving said gage by the manipulation of a special key or the like. To this end, the gage is normally covered or blanketed by the table itself, so that table and gage are not in working relation. The paper table is mounted in such a way that the mere pressure of the operator's fingers upon the work sheet and table, moves said table down out of its normal position, and thereby brings about a working relation of the table and gage; the table yielding far enough, at its upper portion, to uncover the gage, against which the leading edge of the sheet is to be set. The operator may in some cases hold the sheet in such position until he restores

the pressure rolls that run upon the platen, whereby the sheet is held against displacement; and he may then relieve the sheet and table of pressure, whereupon the table is lifted by a spring, to free the leading edge of the work sheet from the gage, so that said sheet may advance freely thereover.

Another object of the invention is to provide for readily securing the alining devices to existing machines without requiring special skill; to which end the mechanism is mounted on a frame or base which is releasably fastened to the platen frame, the mechanism being supported in part by the surface of the platen itself, whereby said paper table is held in the exact relation to the platen surface required.

Other objects and advantages will herein-after appear.

In the accompanying drawings, Figure 1 is a perspective rear view of one embodiment of the invention. Fig. 2 is an end view showing its application to the platen frame of an Underwood writing machine, parts being omitted, the work being set to the gage. Fig. 3 is an enlarged end view of the invention alone, the parts being in normal positions. Fig. 4 is a detail rear view. Fig. 5 is a plan.

A platen 1 has an axle 2 journaled in the platen frame ends 3, which are connected by the usual tie rod 4. The usual paper feed rolls 5 and 6 are cast off from the platen by a release key (not shown) in the usual manner. The work sheet 7 is inserted loosely between the platen and the feed rolls, (which may be cast off prior to the introduction of the sheet) so that the leading edge of said sheet rises in front of the platen.

A paper table 8, which, in visible writing machines, as the Underwood, is located above and preferably inclined upwardly and rearwardly from the platen, affords a support for the sheet while being adjusted. Said table is jointed to supporting arms or lugs 9, 9, the latter extending from a base or frame 10, substantially parallel with the platen and having forked clamps 11 to embrace the tie rod, and being held rigidly by set screws 12, which removably secure the paper alining mechanism to the machine.

The leading end of the work sheet 7 is pressed down by the operator upon the table 8, and squares its leading edge with a gage

15 carried by said frame or base 10, and shown in the form of a ledge extending parallel with the platen.

The table 8 is pivoted at 16 by ears 17 to the depending lugs or arms 9, and is held up by a spring 18 so that its outer face normally lies about flush with the top of gage 15, (Fig. 3). When the leading edge of the sheet 7 is pressed down with the table (Fig. 2) the latter swings or yields downwardly, so that its upper edge exposes or uncovers the gage 15, to enable the leading edge of the sheet to be alined or squared thereagainst. While the sheet is still held by the operator, the feed rolls 5, 6 are restored to the platen, to retain the sheet, and then the pressure on the table is relieved, and the spring 18 raises the table to normal position, thereby clearing the leading edge of the sheet from the gage or deflecting the sheet over the gage, to permit the sheet to advance without obstruction. The lugs or arms 9 are flattened at 19 (Fig. 3) below the pivotal connection 16 between the table and said arms, to form stops to arrest the table. Said gage 15 may be adjusted forwardly and backwardly relatively to the printing line, either to accommodate headings of different widths or to enable the printing to fall upon ruled lines on the work sheet; the ledge 15 for this purpose being pivoted at 20 to one arm of each of elbow levers 21, which, in turn, are pivoted at 23 (preferably to ears 24) on the base or frame 10. Said levers are connected by a link 25, pivoted at 26 to the remaining arms 27 thereof, one of said pivots 26^a being in the form of a binding screw, which, when loosened, enables the gage to be shifted by the handle 28 on one of said levers, and when tightened, holds the gage against displacement.

The lower edge of the table 8 may just clear the periphery of the platen 1, to prevent the creeping of the leading end of the sheet between the platen and paper table, and preferably rolls 13 (pivoted upon arms 9) run upon the platen, to support the paper alining frame. This enables the lower or front edge of the paper table to lie very closely to but out of actual contact with the platen; the paper table being originally swung down about the axis 4 until the rolls 13 touch the platen whereby the lower edge of 8 is brought into the exact position required relatively to the platen. The table may also have a strengthening rib or flange 14.

It will be seen that the entire paper-alining mechanism forms an attachment readily applied to and removed from existing machines.

Having thus described my invention, I claim:

1. In a typewriting machine, the combination with a platen, of a paper-alining mechanism comprising a gage and a shiftable

paper-tablet with its upper edge lying flush with the outer edge of the gage to cover or blanket the latter.

2. In a typewriting machine, the combination with a platen, of a paper-alining mechanism comprising a paper gage and a yielding paper table to uncover the gage only when the leading edge of the work sheet is being alined therewith. 70

3. In a typewriting machine, the combination with a platen, of a paper-alining mechanism including a paper gage, a paper table hinged relative to the gage, and a spring to hold the paper table in position to sheathe the gage. 75 80

4. In a typewriting machine, the combination with a platen, of a yielding paper table, and paper-alining means normally rendered ineffective by the position assumed by the paper table relative thereto. 85

5. In a typewriting machine, the combination with a platen, of a swinging paper table and a paper gage adjustable relative to the printing line and normally sheathed by the position assumed by the paper table. 90

6. In a typewriting machine, the combination with a platen frame, a tie rod, and a platen, of a paper alining attachment detachably secured to the tie rod and comprising a paper-arresting gage and a tilting paper table whose free edge normally lies flush with the outer edge of the gage to enable the leading edge of the work sheet as it is advanced, to clear the gage. 95

7. In a typewriting machine, the combination with a platen, of a paper-alining mechanism comprising a stationary base, a paper gage adjustably connected thereto, and a tilting paper table whose free edge normally blankets the gage to enable the leading edge of the work sheet, as it is advanced, to clear the gage. 100 105

8. In a typewriting machine, the combination with a platen, of a paper-alining mechanism comprising a paper gage with which the leading edge of the work sheet is alined, and a yielding paper table effective to uncover the gage when the work sheet is to be alined, and means to return the free edge of the paper table to lie flush with the outer edge of the gage to disengage the leading edge of the work sheet from and enable it to clear the gage. 110 115

9. In a typewriting machine, the combination with a platen, of a paper alining mechanism including a paper gage located above the platen, and a yielding paper table extending between the platen and gage, on which the leading edge of the paper is shifted to aline it with the gage, the free edge of said table normally held flush with the outer edge of the gage to cause the leading edge of the paper to clear the gage. 120 125

10. In a typewriting machine, the combination with a platen, of a paper alining 130

mechanism, including a paper gage spaced apart from and extending about parallel with the platen, and a yielding paper table between the platen and gage, the lower edge of said table lying in contact with the platen to prevent the leading edge of the work-sheet from entering between the platen and table, and bearings at the point of contact of the table and platen, the free edge of the table normally lying flush with the outer edge of the gage to sheathe the latter during the feed of the paper.

11. In a typewriting machine, the combination with a platen frame having a tie rod and supporting a platen, of a paper alining attachment including a paper-gage, a yielding paper table extending between the platen and the gage and normally sheathing the latter, and clamping means to removably secure the attachment to the tie-rod.

12. In a typewriting machine, the combination with a platen and platen frame, of a paper-alining attachment including a yielding paper table, a paper gage normally sheathed by said table, and means to removably secure the attachment to the platen frame.

13. In a typewriting machine, the combination with a platen, of a paper alining mechanism including a paper table, a paper gage, levers on which the gage is supported to be adjusted relative to the printing line, a bar pivotally connected to the several levers, and a releasable lock to rigidly fasten the bar to at least one of said levers to hold the gage where adjusted.

14. In a typewriting machine, the combination with a platen, of a paper alining mechanism including a paper table, a paper gage, levers on which the gage is supported to be adjusted relative to the printing line, a bar pivotally connected to the several levers, and a set screw constituting one of said pivotal connections to lock the bar and lever rigidly together to hold the gage where adjusted.

15. In a typewriting machine, the combination with a platen, and a platen frame having a tie rod, of a paper-alining attachment comprising a base, clamps on the base to connect the attachment to the tie rod, levers pivoted to the base, a paper gage mounted on the levers for adjustment relative to

the printing line, and a paper table hinged to the base and yieldingly held in one position, to divert the work sheet from contact with the gage.

16. In a typewriting machine, the combination with a platen, of a paper alining mechanism, including a paper gage, and a paper table yielding under pressure to uncover the gage to enable the leading edge of of a work-sheet to be alined with the gage and to shift said work sheet out of contact with the gage when the pressure is removed.

17. In a typewriting machine, the combination with a platen, of a paper-alining mechanism, including a paper table and a gage, said mechanism having bearings resting on the platen.

18. In a typewriting machine, the combination with a platen, of a paper alining mechanism, including a base or frame secured to the machine, a paper gage and a paper table carried by the base or frame, and supporting rolls mounted on the frame and resting on the platen to impart rigidity to the frame.

19. In a typewriting machine, the combination with a revoluble platen, of a sheet-gaging table arranged over the platen, a gage for the leading edge of the work sheet, said gage and table being normally out of operative relation, the table above the gage so that the sheet may advance freely past said gage, and means to cause the pressure of the operator's hand upon the sheet to bring said table and gage into operative relation.

20. In a typewriting machine, the combination with a revoluble platen, of a sheet-gaging table arranged over the platen, a gage for the leading edge of the work sheet, said gage and table being normally out of operative relation, the table above the gage so that the sheet may advance freely past said gage, means to cause the pressure of the operator's hand upon the sheet to bring said table and gage into operative relation, and a spring to restore the normal relation of the gage and table.

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