

J. C. McLAUGHLIN.
TYPE WRITING MACHINE.
APPLICATION FILED OCT. 24, 1910.

1,063,815.

Patented June 3, 1913.

Fig. 1.

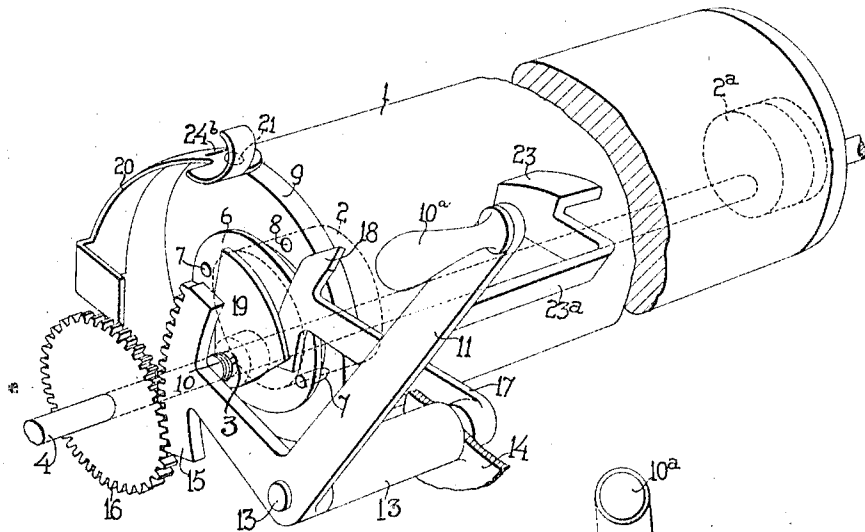


Fig. 2.

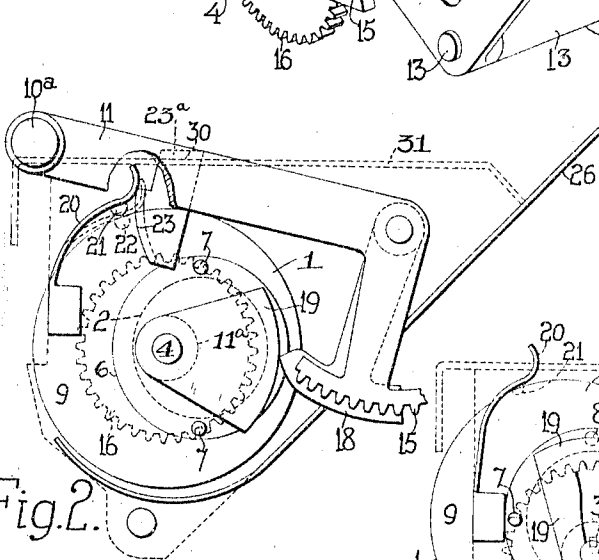


Fig. 4

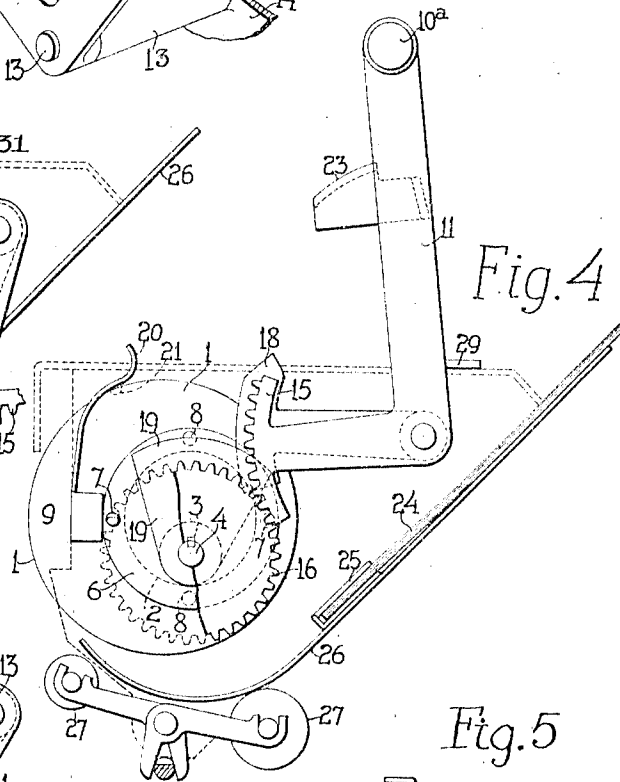
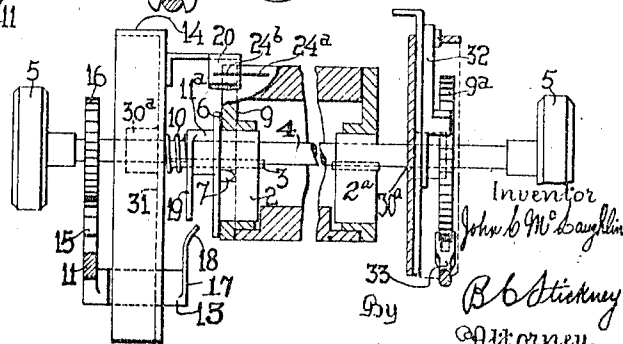
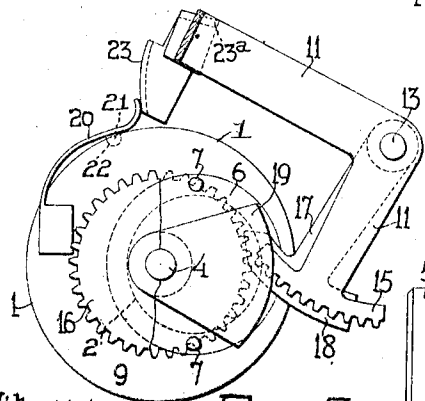


Fig. 5



Witnesses.
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Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN C. McLAUGHLIN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF DELAWARE.

TYPE-WRITING MACHINE.

1,063,815.

Specification of Letters Patent.

Patented June 3, 1913.

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To all whom it may concern:

Be it known that I, JOHN C. McLAUGHLIN, a citizen of the United States, residing in Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

The present invention relates to an improved means in a typewriting machine for shifting the platen with respect to the paper guide, to permit of correct and easy insertion of considerable thicknesses of paper, or of paper with clasps and the like attached to it. In the preferred form of the present invention, the platen is shifted independently of its attached parts, such as the line-space wheels, etc. The shifting is preferably done by means of a crank mounted on the platen frame. The mechanism may be made easy and light of operation, of few and simple parts, and quickly shiftable from one position to the other.

I also provide a simple and effective means for locking the platen to the shaft or axle, so that the two may be normally turned together by the hand wheels or the line-spacing mechanism, and also for unlocking the shaft and platen, to permit of the shifting of the latter relatively to the former and away from the paper guides. In the form of the invention hereinafter shown, the platen is supported on an eccentric fast to said platen shaft, and the platen is normally locked to the eccentric so as to turn with the shaft. The eccentric is, however, movable longitudinally on the platen shaft to be unlocked from the platen, whereupon, when the shaft is turned, the eccentric is therefore turned and operates to shift the platen away from the paper guide.

The invention also comprises, in certain of its forms, a means for preventing accidental rotation of the platen during the shifting of the latter; and a simple device for effecting the longitudinal and turning movements of the eccentric.

The above and other objects and features of the invention will more fully hereinafter appear.

In the accompanying drawings, Figure 1

is a rear view in perspective of the platen and platen shifting mechanism. Fig. 2 is a view in end elevation of the mechanism shown in Fig. 1, when the same is in normal idle position. Fig. 3 is a view similar to Fig. 2 except that the operating lever has been moved sufficiently to lock the platen against rotation. Fig. 4 is a view showing the position of the parts when the operating lever is fully thrown. Fig. 5 is a top plan view of the platen and shifting mechanism, the platen being shown in cross section.

The invention is shown applied to an Underwood front strike machine.

The platen 1 is journaled at its ends on eccentrics 2 and 2^a respectively, which are keyed to the platen shaft or axle 4 so that the eccentrics turn with the shaft at all times; the platen shaft being journaled in the platen frame (of which a part is indicated at 26) in the usual manner. During line-spacing operations, the shaft, eccentrics and platen rotate as if made in one piece. The eccentric 2 is, however, shiftable on its key 3, longitudinally of the shaft. It carries a plate 6 having pins or bolts 7, which in the normal position of the eccentric fit within holes 8 in the head 9 of the platen roll, whereby the platen roll is normally locked to the eccentric so that the roll and the eccentrics turn together when the shaft is rotated by hand wheels 5 or by the line-spacing ratchet wheel 9^a. A coiled compression spring 10 which bears upon a hub or sleeve 11^a fast to the eccentric 2, tends to force the disk 6 toward the platen so that the pins or bolts 7 may engage the platen. Under normal conditions, therefore, the eccentric 2 merely serves to lock the platen to the platen shaft. When it is desired to shift the platen with respect to the paper guide 26 and feed rolls 27, the platen is released from the control of the locking pins 7. For this purpose the eccentric 2 may be first moved longitudinally on the shaft 4, against the action of the spring 10, by suitable means; to withdraw the pins 7 from the platen, whereupon the eccentric is free to rotate relatively to the platen, while still serving as a bearing therefor. The platen may be otherwise locked to and released

from the eccentric. For shifting the eccentric longitudinally to unlock the same from the platen, and for thereafter turning the eccentric to shift the platen with respect to the paper guide and feed rolls, there is provided a finger piece 10^a carried by one arm of a bell crank 11, fast to a rock shaft 13, which has bearing in the carriage frame 14. On the other arm of the bell crank 10 lever 11 is a segmental rack 15 adapted to mesh with a pinion 16 fast to the platen shaft 4. Fast to the rock shaft 13 is also an arm 17, on the end of which is a cam member 18. Fast to the hub 11^a of the eccentric 2 is a disk 19. The disk 19 is so arranged with respect to the cam member 18 that, by engagement of the cam with the disk upon proper forward movement of the lever 11, the eccentric is shifted axially of the platen far enough against tension of spring 10 to withdraw the pins from the platen.

Mounted on the carriage frame is a spring 20, carrying a detent 21, which, in the working positions of the parts shown in Figs. 3 and 4, temporarily locks within a hole or seat 22 at the edge of the platen, thereby preventing revolution of the platen. In the normal position of the lever 11, however, (see Fig. 2), a cam 23 carried on arm 23^a of the lever, engages the spring 20 and holds the detent 21 free of the platen so that the platen is free to be turned. When it is desired to shift the platen to insert the paper 24, the lever 11 is rocked up and back from the normal idle position shown in Fig. 2. This is not done, however, until the platen has been turned to the fixed position indicated by some mark 24^a on the platen, registering with a mark 24^b on plate 20, so that the recess 22 is thereby brought opposite the detent 21, and the disk 19 is brought to proper position with respect to the cam 18. As soon as the lever 11 has been moved up a slight distance, but before the segmental rack engages the pinion 16, the cam 23 is removed from the spring 20, permitting the spring to throw the detent 21 into the recess 22, thereby locking the platen against rotation. Further upward movement of the lever 11 causes the cam 18 to engage the disk 19 on the eccentric 2, to move the latter to the left at Fig. 1, to withdraw the pins or bolts 7 from the platen. Further upward and backward movement of the lever 11 brings the segmental rack to the pinion 16, and causes the latter to be revolved. Since both the pinion 16 and the eccentrics are fast to the shaft 4, both eccentrics are turned with the shaft by the rack 15; and the turning movement of the eccentrics causes the platen 1 to be shifted up to the position shown in Fig. 4, away from the paper guide 26 and the paper-feeding rolls 27 which usually run on

the under side of the platen. The guide 26 forms part of the usual platen frame.

The platen, as above stated, is held against rotation during the shift of the same, by the detent 21. The spring 20, carrying the detent, is of such length and design as to move with the platen during the described shift of the latter without withdrawing the detent from the recess 22.

A stop 29 on the carriage frame limits the throw of the lever 11 and connected parts. When the lever has been thrown to the stop, the paper 24, with clasps 25 or the like, may be passed freely between the guide 26 and the platen. When the paper has been inserted, the platen is returned to normal position by drawing forward the finger piece 10^a with the lever 11, so that the pinion 16, the segment 15, and the cam 18 are returned to normal positions. As soon as the return movement of the cam 18 permits, the spring 10 again throws the eccentric 2 axially to bring the pins 7 into engagement with the platen to lock the latter to the eccentric. When the return movement of the lever 11 has brought the cam 23 to the spring 20, the cam acts upon the spring to force the detent from the recess 22, whereupon the platen is again free to be rotated in the usual manner. The normal position of the lever 11 is determined by the engagement of the arm 23^a with the carriage frame at 30.

It will be seen that the platen may be readily lifted without affecting the usual bearings of the platen axle at 30^a in the ends 31 of the platen frame, and without moving the platen knobs 5 or the line-space wheel 9^a. The latter is usually turned by a normally disengaged pawl 32, and provided with a spring detent 33.

The structure shown is susceptible of various modifications within the scope of the invention. Portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, and means for shifting the eccentric longitudinally on the shaft to unlock the eccentric and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide.

2. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a

platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, and a cam for shifting the eccentric longitudinally on the shaft to unlock the eccentric, and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide.

3. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, a pin carried by the eccentric engaging a hole in the end face of the platen for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, and means for shifting the eccentric longitudinally on the shaft to withdraw the pin carried by the eccentric from the hole in the platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide.

4. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, means for shifting the eccentric longitudinally on the shaft to unlock the eccentric and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide, and a toothed pinion for turning the eccentric.

5. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, means for shifting the eccentric longitudinally on the shaft to unlock the eccentric and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide, a pinion fast to the shaft, a rack meshing with the pinion, and means for moving the rack to turn the eccentric.

6. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft,

means for shifting the eccentric longitudinally on the shaft to unlock the eccentric and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide, and a spring for shifting the eccentric to the position in which it is locked to the platen.

7. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, means for shifting the eccentric longitudinally on the shaft to unlock the eccentric and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide, and means for holding the platen against revolution during the shifting of the eccentric.

8. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, means for shifting the eccentric longitudinally on the shaft to unlock the eccentric and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide, and a spring actuated detent engaging the platen to hold the latter against revolution during the shifting of the eccentric.

9. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, means for shifting the eccentric longitudinally on the shaft to unlock the eccentric and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide, means for holding the platen against revolution during the shifting of the eccentric, and means for rendering said holding means normally ineffective.

10. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that

the platen may be revolved with the shaft, means for shifting the eccentric longitudinally on the shaft to unlock the eccentric and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide, a spring actuated detent engaging the platen to hold the latter against revolution during the shifting of the eccentric, and a cam engaging the detent device to render the latter normally ineffective.

11. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, means for shifting the eccentric longitudinally on the shaft to unlock the eccentric and platen so that the eccentric may then be revolved relatively to the platen to cause the platen to be shifted with respect to the paper guide, a spring actuated detent engaging the platen to hold the latter against revolution during the shifting of the eccentric, a cam engaging the detent device to render the latter normally ineffective, and means for moving the cam to release the detent when the eccentric is to be turned relatively to the platen.

12. In a typewriting machine, the combination of a platen frame, a paper guide, a platen shaft supported in the platen frame to rotate with the platen, and means on the shaft for shifting the platen transversely of the shaft, to and from the paper guide.

13. In a typewriting machine, the combination of a platen frame, a paper guide, a platen shaft supported in the platen frame to rotate with the platen, and an eccentric on the shaft for shifting the platen transversely of the shaft, to and from the paper guide.

14. In a typewriting machine, the combination of a platen frame, a paper guide, a platen having bearings to permit it to be revolved in the platen frame, and an eccentric normally rotatable with the platen but shiftable relatively thereto for shifting the platen with respect to its bearings, to move the platen to and from the paper guide.

15. In a typewriting machine, the combination of a platen frame, a paper guide, a platen having bearings to permit it to be revolved in said frame, means for shifting the platen with respect to its bearing, to move the platen to and from the paper guide, and for sustaining the platen when shifted away from the paper guide, and means for normally preventing the shift of the platen.

16. In a typewriting machine, the combination of a platen frame, a paper guide, a

platen having bearings to permit it to be revolved in the frame, means for shifting the platen with respect to its bearings, to move the platen to and from the paper guide, and for sustaining the platen when shifted away from the paper guide, and means for holding the platen against rotation during the shift of the same.

17. In a typewriting machine, the combination of a platen frame, a paper guide, a platen shaft supported in the platen frame, means on the shaft for shifting the platen transversely of the shaft to and from the paper guide, means for holding the platen against rotation during the shift of the same, while permitting of the rotation of the shaft, and a lever for operating said holding means and for rotating the shaft to shift the platen.

18. In a typewriting machine, the combination of a platen frame, a paper guide, a platen having bearings to permit it to be revolved in the platen frame, means normally disconnected from the platen for shifting the platen with respect to its bearings, to move the platen to and from the paper guide, and means for moving said shifting means into connection with the platen.

19. In a typewriting machine, the combination of a platen frame, a paper guide, a platen having bearings to permit it to be revolved in the platen frame, an eccentric for shifting the platen with respect to its bearings, to move the platen to and from the paper guide, means for shifting said eccentric with respect to the platen, and means to render the eccentric effective and ineffective at will.

20. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, and a lever for shifting the eccentric longitudinally on the shaft and releasing the locking means, and having means for thereafter rotating the eccentric to cause the same to shift the platen with respect to the paper guide.

21. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, and a lever having a cam for shifting the eccentric longitudinally on the shaft and releasing the locking means, and also having means for thereafter rotating the eccentric

to cause the same to shift the platen with respect to the paper guide.

22. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, a lever for shifting the eccentric longitudinally on the shaft and releasing the locking means, and having means for thereafter rotating the eccentric to cause the same to shift the platen with respect to the paper guide, and a disk or plate on the eccentric for engagement with the shifting cam.

23. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, a lever for shifting the eccentric longitudinally on the shaft and releasing the locking means, and having means for thereafter rotating the eccentric to cause the same to shift the platen with respect to the paper guide, means for holding the platen against rotation during the shift of the same, and means operated from said lever for rendering said holding means normally ineffective.

24. In a typewriting machine, the combination of a paper guide, a platen shaft, an eccentric fixed to revolve with the shaft but shiftable longitudinally of the shaft, a platen supported on the eccentric, means for locking the platen to the eccentric when the latter is in one position on the shaft so that the platen may be revolved with the shaft, a rock member having fast thereto an arm carrying a cam for engaging and shifting the eccentric and releasing the locking means, and having also fast thereto an arm carrying a segmental rack, a pinion fast to the platen shaft meshing with the rack, and means for rocking said rock member to shift the eccentric and thereafter to rotate the pinion with the platen shaft and eccentric.

25. In a typewriting machine, the combination of a platen, a shaft extending through the platen to rotate therewith, and means for displacing the platen on said shaft.

26. In a typewriting machine, the combination of a platen, a shaft to rotate therewith, a paper guide, means for locking the platen against rotation, and means for revolving the shaft to shift the platen away from the paper guide.

27. In a typewriting machine, the combination of a platen, a shaft, means for locking the platen to the shaft, means for

releasing said lock, means for locking the platen against rotation, and means for revolving the shaft to shift the platen transversely of the shaft.

28. The combination with a revoluble platen, of a platen frame having journals upon which said platen rotates, said platen being normally concentric with said journals, and means between said journals and said platen for effecting bodily displacement of the platen to a position eccentric to said journals while connected thereto.

29. The combination of a platen frame, a shaft or axle journaled therein, a platen supported upon said shaft or axle to turn therewith, and means for displacing said platen to a position eccentric to said shaft or axle, and supporting it there.

30. The combination of a platen frame, a shaft journaled therein, a platen rotatable with said shaft and concentric thereto, means between said shaft and said platen for displacing the latter to an eccentric position, and means, including a finger-piece upon the frame, for operating said displacing means.

31. The combination of a platen frame, a shaft journaled therein, a platen rotatable with said shaft and concentric thereto, means between said shaft and said platen for displacing the latter to an eccentric position, means, including a finger-piece upon the frame, for operating said displacing means, said platen normally locked to said shaft, and said operating means being provided with a device to release said platen from said shaft.

32. The combination of a platen frame, a shaft journaled therein, a platen carried upon the shaft, releasable means for locking the platen to the shaft, and means rotatable relatively to the platen after such release, for displacing the platen to a position eccentric to the shaft.

33. The combination of a platen frame, a shaft journaled therein, a platen carried upon the shaft, releasable means for locking the platen to the shaft, means rotatable relatively to the platen after such release, for displacing the platen to a position eccentric to the shaft, and means upon said frame for operating said displacing means, said operating means normally disengaged from said displacing means.

34. The combination of a platen frame, a platen, journal bearings in said frame whereon said platen revolves, means for displacing said platen bodily to a position eccentric to said journal bearings, and supporting it there, and means for holding the platen against accidental rotation while being displaced.

35. The combination of a revoluble shaft, a platen supported thereby to rotate therewith, and means between the shaft and the

platen for displacing the platen to a position eccentric to said shaft.

36. The combination of a shaft, a platen revolvably supported thereby, means between the shaft and the platen for displacing the platen to a position eccentric to said shaft, and means for holding the platen against accidental rotation during such displacement.

37. The combination of a platen frame, a shaft journaled therein, eccentrics on said shaft, and a platen mounted on said eccentrics but concentric to said shaft to turn therewith; said eccentrics being rotatable to displace the platen relatively to the shaft.

38. The combination of a platen frame, a shaft journaled therein, eccentrics on said shaft, a platen mounted on said eccentrics but concentric to said shaft to turn therewith; said eccentrics being rotatable to displace the platen relatively to said shaft, and means upon said frame to rotate said eccentrics.

39. The combination of a platen frame, a shaft journaled therein, eccentrics on said shaft, and a platen mounted on said eccentrics but concentric to said shaft; said eccentrics being rotatable to displace the platen relatively to the shaft, and means upon said frame to rotate said eccentrics, said rotating means normally disconnected from said eccentrics.

40. The combination with a platen, of a platen-shaft, means to enable the shaft to displace the platen to a position eccentric of the shaft, and means for turning the shaft to displace the platen.

41. The combination with a platen, of a platen-shaft, means to enable the shaft to displace the platen to a position eccentric of the shaft, and means for turning the shaft to displace the platen, said shaft-turning means including a finger-piece mounted upon a frame in which the shaft is journaled; said finger-piece normally disconnected from the platen-shaft.

42. The combination with a platen, of a platen-shaft, means to enable the shaft to displace the platen to a position eccentric of the shaft, means for turning the shaft to displace the platen, said shaft-turning means including a finger-piece mounted upon a frame in which the shaft is journaled; said finger-piece normally disconnected from the platen-shaft, means normally locking the platen to the shaft, and means connected to said finger-piece for releasing the platen from the shaft.

43. The combination with a platen, of a platen-shaft, means to enable the shaft to displace the platen to a position eccentric of the shaft, means for turning the shaft to displace the platen, said shaft-turning means including a finger-piece mounted upon a frame in which the shaft is jour-

naled; said finger-piece normally disconnected from the platen-shaft, means normally locking the platen to the shaft, means connected to said finger-piece for releasing the platen from the shaft, and means for locking the platen against accidental rotation while being displaced.

44. The combination with a frame and a revoluble platen journaled thereon, of a paper guide to cooperate with the platen, and means contained within the platen structure for displacing the platen bodily relatively to its journals while connected thereto.

45. The combination with a frame and a revoluble platen journaled thereon, of a paper guide to cooperate with the platen, and means contained within the platen structure for displacing the platen bodily relatively to its journals; said platen provided with an indicating device to show when the parts are in operative positions for displacing the platen.

46. The combination with a frame and a revoluble platen journaled thereon, of a paper guide to cooperate with the platen, means contained within the platen structure for displacing the platen bodily relatively to its journals; said platen provided with an indicating device to show when the parts are in operative positions for displacing the platen, and means to hold the platen against accidental rotation while being displaced.

47. In a typewriting machine, the combination of a paper guide, a platen cylinder, an eccentric on which the platen is mounted, means whereby the eccentric is normally locked to the platen to rotate as a unit therewith, and a lever and means controlled thereby for unlocking the eccentric from the platen and for rotating the eccentric relatively to the platen to cause the latter to be shifted with respect to the paper guide.

48. In a typewriting machine, the combination of a paper guide, a platen cylinder, an eccentric on which the platen is mounted, a platen shaft to which the eccentric is fast, means whereby the eccentric is normally locked to the platen to rotate as a unit therewith, and a lever and means controlled thereby for unlocking the eccentric from the platen and for rotating the eccentric relatively to the platen to cause the latter to be shifted with respect to the paper guide, transversely of the platen shaft.

49. In a typewriting machine, the combination of a platen shaft, an eccentric fast to the platen shaft, a platen cylinder engaged by the eccentric, a pinion fast to the platen shaft, and means for rotating the pinion to turn the shaft and eccentric relatively to the platen, whereby the platen is shifted transversely of the platen shaft.

50. In a typewriting machine, the combi-

nation of a platen frame, a platen shaft, an eccentric fast to said platen shaft, a platen cylinder engaged by the eccentric, a pinion fast to the platen shaft, and a segmental rack on the platen frame for rotating the pinion to turn the shaft and eccentric relatively to the platen, whereby the platen is shifted transversely of the platen shaft.

51. In a typewriting machine, the combination of a platen shaft, an eccentric fast to said shaft, a platen cylinder engaged by the eccentric, means whereby the eccentric is normally locked to the platen to rotate as a unit therewith, a cam for releasing the eccentric from the platen to permit of rotation of the eccentric relatively to the platen, and means for operating said cam.

52. In a typewriting machine, the combination of a platen shaft, an eccentric fast to said shaft, a platen cylinder engaged by the eccentric, a device whereby the eccentric is normally connected to the platen to rotate as a unit therewith, and means for releasing the eccentric from the platen to permit of rotation of the eccentric relatively to the platen.

53. In a typewriting machine, the combination of a platen shaft, an eccentric fast to said shaft, a platen cylinder engaged by the eccentric, means whereby the eccentric is normally locked to the platen to rotate as a unit therewith, a cam for releasing the eccentric from the platen to permit of rotation of the eccentric relatively to the platen, and means for operating said cam and for rotating the eccentric relatively to the platen to cause the latter to be shifted transversely of the shaft.

54. In a typewriting machine, the combination of an eccentric, a platen cylinder mounted on said eccentric, an element attached to the eccentric, a bolt adapted to lock the platen and the eccentric against relative rotation, means for withdrawing the bolt to permit of rotation of the eccentric relatively to the platen, and means for rotating the eccentric when the bolt is withdrawn.

55. In a typewriting machine, the combination of a paper guide, a platen frame, a platen shaft supported in the platen frame, a platen, means which connects the platen to the shaft to cause the two to rotate together under normal conditions, but which is adjustable to permit the shifting of the platen transversely of the shaft with respect to the paper guide, and means on the platen shaft for so shifting the platen.

56. In a typewriting machine, the combination of a paper guide, a platen frame, a platen shaft supported in the platen frame, a platen, means which connects the platen to the shaft to cause the two to rotate together under normal conditions, but which

is adjustable to permit the shifting of the platen transversely of the shaft with respect to the paper guide, and an eccentric for shifting the platen.

57. In a typewriting machine, the combination of a paper guide, a platen frame, a platen shaft supported in the platen frame, a platen, means for supporting the platen on the platen shaft, and means including an element of said supporting means operable by a pinion on the platen shaft for shifting the platen transversely of the shaft with respect to the paper guide.

58. In a typewriting machine, the combination of a paper guide, a platen frame, a platen shaft supported in the platen frame, and means for holding the platen to cause the same to turn with the shaft under normal conditions, and for shifting the platen transversely of the shaft with respect to the paper guide.

59. In a typewriting machine, the combination with a platen, of a shaft extending through the platen and capable of rotating the platen, means for shifting said platen on and relatively to said shaft and means for holding the platen against rotation during the operation of the platen shifting means.

60. In a typewriting machine, the combination of a platen frame, a paper guide, a platen, said platen frame having journals to permit the platen to be revolved, means connected to both ends of the platen for positively shifting it with respect to said journals away from the paper guide sufficiently to make an opening or clearance for the insertion of paper around the platen without obstruction from the guide, while the platen remains supported on said journals and means for holding the platen against rotation during the operation of the platen shifting means.

61. In a typewriting machine, the combination of a platen frame, a paper guide, a platen shaft supported in said frame, means connected to both ends of the platen for positively shifting it transversely of the shaft and away from the paper guide sufficiently to make an opening or clearance for the insertion of paper around the platen without obstruction from the guide and means for holding the platen against rotation during the operation of the platen shifting means.

62. In a typewriting machine, the combination of a paper guide, a platen frame, a platen shaft supported in the platen frame, a platen, and means for supporting the platen on the platen shaft and for shifting the platen transversely of the platen shaft; the shifting means being normally rotatable as a unit with the platen.

63. In a typewriting machine the combi-

nation of a paper guide, a platen frame, a
platen shaft supported in the platen frame,
a platen, means for supporting the platen
on the platen shaft and for shifting the
5 platen transversely of the platen shaft, the
shifting means being normally rotatable as
a unit with the platen, and means for hold-

ing the platen against rotation while rotat-
ing the shifting means.

JOHN C. McLAUGHLIN.

Witnesses:

K. FRANKFORT,
C. RIPLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."