H. S. McCORMACK.

TYPE WRITING MACHINE.

APPLICATION FILED JUNE 10, 1908.

963,629. Patented July 5, 1910.

Fig. 1.

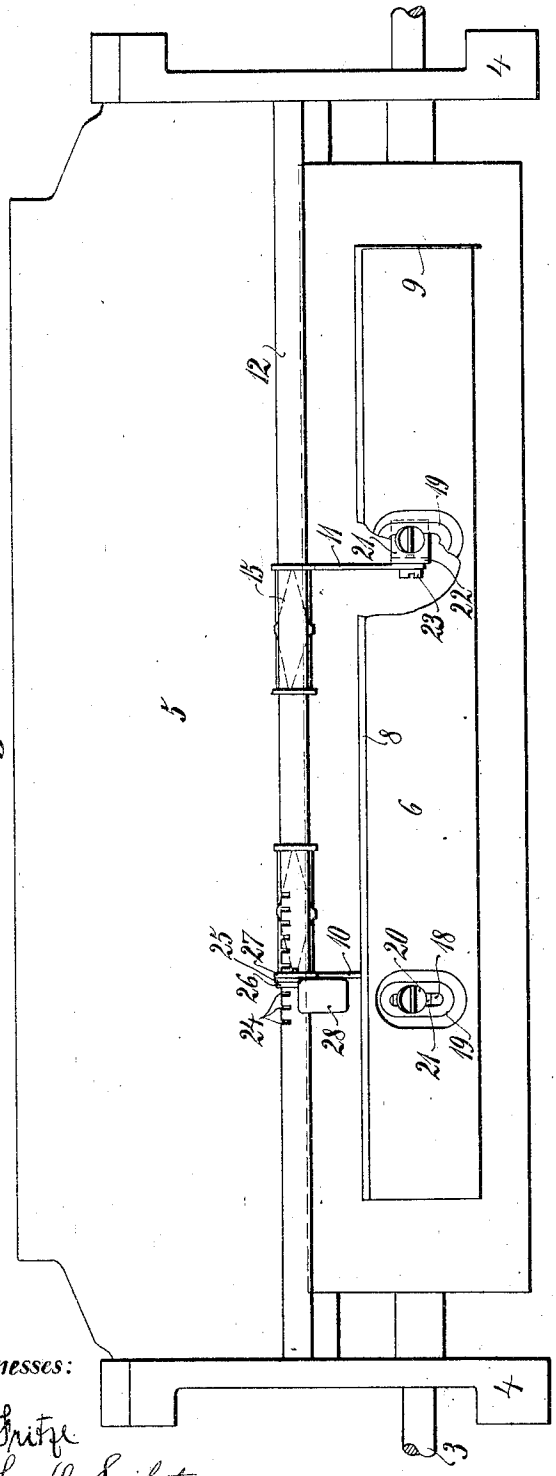


Fig. 3.

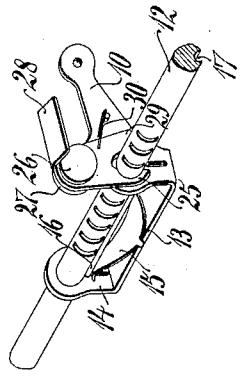
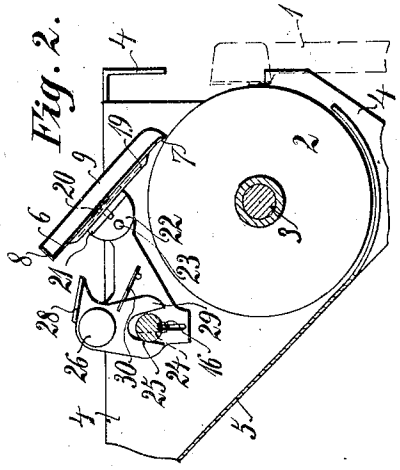


Fig. 2.



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UNITED STATES PATENT OFFICE.

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TYPE-WRITING MACHINE.

963,629. Specification of Letters Patent. Patented July 5, 1910.

Application filed June 10, 1903. Serial No. 437,625.

To all whom it may concern:

Be it known that I, HARRY S. McCORMACK, a citizen of the United States, residing in New Rochelle, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to paper handling devices of typewriting machines, and particularly to means for gaging the sheet in the operation known as "retail billing and charging" and is an improvement on the device disclosed in Patent No. 829,989 granted to me September 4, 1906. In said patent a plate or table having gages is mounted on a rod to lie over the platen, the leading and side edges of the sheet being brought to register with the gages on said table, so that the first line of writing may fall at the desired point on the sheet.

It is one of the objects of the invention to improve said device with a view to avoiding the liability of the table being accidentally pushed to the right or left on its supporting rod, so that a new entry will fall out of columnar alinement with previous entries on the same sheet. For this purpose I provide the table-supporting rod with notches at letter-space intervals, and means releasably engaging the notches to lock the table against endwise displacement.

Another feature of the invention is to provide for a moderate range of adjustment of the sheet-gaging table toward and away from the printing line on the platen. The plate is carried by means of a pair of brackets or other supporting devices upon a rod to which the brackets are attached, to permit adjustment of the plate along the platen. Said table is provided with slots through which extend screws to connect it to said brackets and permit adjustment of the table around the platen; the screws being confined in slotted depressions formed in the table, so as not to project above the surface of the table. Said screws are preferably threaded into ears which are hinged or pivoted upon said brackets, to permit the lower or front edge of the table to swing toward and away from the platen; said edge being preferably lipped to contact with the platen and guide the paper up onto the table, and to avoid liability of the sheet accidentally passing between the table and the platen.

Other objects and advantages will hereinafter appear.

In the accompanying drawings, Figure 1 is a plan of the platen frame of an Underwood front strike typewriting machine provided with my improvements. Fig. 2 is a sectional end elevation of the same. Fig. 3 is a perspective view of one of the plate-carrying brackets illustrating a releasable tooth or dog thereon, to engage any of the notches constituting a rack for holding the plate against displacement along the platen.

Type bars 1 strike upon the front of a platen 2, which is mounted by an axle 3 in the ends 4 of a platen frame 5.

Lying directly over the platen is a plate or table 6 having at its front end a lip 7 to contact with the platen, and at its rear end a ledge 8 serves as a gage for the front edges of the sheets. At the right hand end of the plate is a gage 9 for the side edges of the sheets. The plate inclines upwardly and rearwardly from the upper front side of the platen.

The table is mounted upon a device consisting of a pair of brackets 10, 11, yieldingly splined upon a rod 12 extending along the platen and fixed at its ends in the platen frame ends 4; each bracket formed of sheet metal and bent backwardly at 13 and upwardly at 14, to form a yoke, whereby the bracket is journaled upon the rod. In said yoke is seated a spring 15 which presses a key, in the form of a roller 16, into a groove 17 in the rod, whereby the plate 6 is held firmly in working position, as at Fig. 2, but may be turned upwardly and rearwardly away from the platen, when desired.

The plate or table 6 is adjustable toward and away from the printing line or printing point on the platen, such adjustment being permitted by slots 18 formed in depressions 19 in the plate, screws 20 passing through the slots to engage ears 21 on which the plate is supported. The depressions are provided to enable the heads of the screws to be sunken either flush with or below the top surface of the plate 6, so that they may not project and engage the edges of the paper and hamper the operator in adjusting the same.

The ears 21 are preferably hinged upon the forward ends of the brackets 10, 11, each ear bent back at 22 to receive a pivot-screw 23; sufficient friction or binding of

the parts being provided during the manufacture of this joint to prevent the plate 6 from turning too freely upon the hinge.

It will be understood that when the screws 20 are loosened and the plates slid upwardly or downwardly on the ears 21, and the screws tightened, the plate may be turned about the hinges 23 to bring its forward lipped edge 7 against the platen. The operator is thus not only enabled to position the sheet accurately with reference to prior written lines thereon, but is also enabled to set the sheet so that the first written line will fall thereon in any desired position. The device is thus adapted for use with bills or forms having specially ruled or printed headings.

The table 6 with its gage 9 may be adjusted along the platen; and to prevent accidental displacement of the plate in this direction, which is sometimes liable to happen during the constant use to which the table is subjected, I form upon the rod 12 a series of notches 24 forming a rack, and upon the bracket 10 I provide a dog or tooth 25 to engage the rack, as at Figs. 1 and 3, so that such accidental displacement of the paper-adjusting plate 6 is prevented. The dog 25 is pivoted at 26 upon an ear 27 of the bracket 10, and is formed with a finger-piece 28, which is depressible to swing the dog out of the rack, as at Fig. 2, thereby releasing the plate for adjustment along the rod or rack bar 12. The movement of the key 28 is limited by a stop 29 formed on the dog. It will be seen that the dog is forked at its lower end to bestride the rod 12, one member of the fork being engageable with the rack notches 24, and the other member 29 serving as a stop to engage the front side of a rod 12 and limiting the depression of the key. Any suitable spring as 30 may be provided to return the dog to normal position.

Having thus described my invention, I claim:

1. In a typewriting machine, the combination with a platen and a platen frame, of a paper-gaging plate or shelf overlying the platen, a bar extending along the platen, a bracket mounted upon said-bar and adjustable therealong and carrying said plate, and a spring-pressed key pivoted upon said bracket; said key forked at its end to bestride said bar, one member of the fork being a tooth to engage the rack, and the other member forming a stop to limit the throw of the key.

2. In a typewriting machine, the combination with a platen and a platen frame, of a rod mounted upon the platen frame, brackets adjustable along said rod, and a paper-gaging table mounted upon said brackets for adjustment toward and away from the printing line on the platen.

3. In a typewriting machine, the combination with a platen and a platen frame, of a rod mounted upon the platen frame, brackets adjustable along said rod, and a paper-gaging table mounted upon said brackets for adjustment toward and away from the printing line on the platen; said plate or table being also hinged upon said brackets to enable its front edge to be swung down to the platen.

4. In a typewriting machine, the combination with a platen and a platen frame, of a rod mounted at its ends upon the ends of the platen frame, brackets yieldingly splined upon said rod, and a paper-gaging plate or table mounted upon the ends of said brackets for adjustment toward and away from the printing line on the platen; said plate or table being hinged upon said brackets by means of ears pivoted to the brackets and adjustably secured to the plate.

5. In a typewriting machine, the combination with a platen and a platen frame, of a rod mounted at its ends upon the ends of the platen frame, brackets yieldingly splined upon said rod, and a paper-gaging plate or table mounted upon the ends of said brackets for adjustment toward and away from the printing line on the platen; said plate or table being hinged upon said brackets by means of ears pivoted to the brackets and adjustably secured to the plate, the latter having slotted depressions to receive screws threaded into said ears.

6. In a typewriting machine, the combination with a platen, of a sheet-gaging shelf or plate adjustable along the platen and inclined rearwardly from the upper front side of the platen and at its front edge contiguous thereto and adjustable toward and away from the printing point and at its bottom edge movable toward and away from the platen, said plate having a gage at its upper edge for the leading edge of the sheet, and a gage at its side for the side edge of the sheet.

7. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a sheet-gaging table overlying the platen, and means supporting said table for adjustment toward and away from the printing line, and for adjustment of the bottom edge of the table toward and away from the platen.

8. In a typewriting machine, the combination with a revoluble platen and a platen frame, of a sheet-gaging table overlying the platen, and means supporting said table for adjustment along the platen and toward and away from the printing line, and also for adjustment of the bottom edge of the table toward and away from the platen.

9. In a typewriting machine, the combination with a platen and a platen frame, of a sheet-gaging shelf or table over the platen, and means supporting the table, the

latter having depressions to receive screws threaded into said supporting means; said depressions slotted to permit adjustment of the table toward and from the printing line.

10. In a typewriting machine, the combination with a platen and a platen frame, of a sheet-gaging shelf or table over the platen, means supporting the table, the latter having depressions to receive screws threaded into said supporting means; said depressions slotted to permit adjustment of the table toward and from the printing line, and means to permit the adjustment of the bottom edge of the table toward and away from the printing line.

11. In a typewriting machine, the combination with a platen and a platen frame, of a sheet-gaging shelf or table over the platen, and means supporting the table, the latter having slotted depressions to receive screws threaded into said supporting means, and said supporting means having a hinged member to permit the front or bottom edge of the table to be swung toward and away from the platen.

12. In a typewriting machine, the combination with a platen and a platen frame, of a rod upon the platen frame, a sheet-gaging shelf or table over the platen, and means supporting the table upon said rod, and said supporting means having a hinged member to permit the front or bottom edge of the table to be swung toward and away from the platen; the table and supporting means being adjustable along said rod.

13. In a typewriting machine, the combination with a platen and a platen frame, of a rod upon the platen frame, a sheet-gaging shelf or table over the platen, and means supporting the table upon said rod; said supporting means having a hinged member to permit the front or bottom edge of the table to be swung toward and away from the platen; the table and supporting means being adjustable along said rod; and rack teeth being cut in the rod and engaged by a releasable tooth carried upon the supporting means.

14. In a typewriting machine, the combination with a platen and a platen frame, of a rod upon the platen frame, a sheet-gaging shelf or table over the platen, and means supporting the table upon said rod, said supporting means having a hinged member to permit the front or bottom edge of the table to be swung toward and away from the platen; the table and supporting means being adjustable along said rod; and rack teeth being cut in the rod and engaged by a releasable tooth carried upon the supporting means; the latter being yieldingly splined to said rod.

15. In a typewriting machine, the combination with a platen and a platen frame, of a rod upon the platen frame, a sheet-gaging shelf or table over the platen, and means supporting the table upon said rod, said supporting means having a hinged member to permit the front or bottom edge of the table to be swung toward and away from the platen.

16. In a typewriting machine, the combination with a revoluble platen and platen frame, of a sheet-gaging plate or table lying over and adjustable along the platen, a rack-bar, means mounted on said rack-bar to support the table and to permit adjustment of the gage-plate toward and away from the printing line on the platen, and means to engage the rack to lock the plate against movement.

17. In a typewriting machine, the combination with a revoluble platen and platen frame, of a plate or table lying in an inclined position at the delivery side of the platen on which to gage the leading edge of the sheet, a rod on which said plate is mounted and along which it is adjustable, and means to adjust said plate toward and away from the printing line on the platen.

18. In a typewriting machine, the combination with a platen and a platen frame, of a sheet-gaging shelf or table over the platen, and means supporting the table, said supporting means including a member hinged to permit the front or bottom edge of the table to be swung toward and away from the platen.

19. In a typewriting machine, the combination with a platen and a platen frame, of a sheet-gaging shelf or table over the platen, and means supporting the table, said supporting means including a member hinged to permit the front or bottom edge of the table to be swung toward and away from the platen, and said table being adjustable toward and away from the printing line.

20. In a typewriting machine, the combination with a platen and a platen frame, of a sheet-gaging shelf or table over the platen, and means supporting the table, said supporting means including a member hinged to permit the front or bottom edge of the table to be swung toward and away from the platen, and said table being adjustable toward and away from the printing line and also adjustable along the platen.

21. In a typewriting machine, the combination with a platen and a platen frame, of a rod mounted upon the platen frame, brackets adjustable along said rod, and a paper-gaging table hinged upon said brackets by means of ears which are pivoted to the brackets and adjustably secured to the table.

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