

M. CHARLES.
TYPEWRITER.
APPLICATION FILED MAR. 2, 1920.

1,381,798.

Patented June 14, 1921.
2 SHEETS—SHEET 1.

Fig. 1.

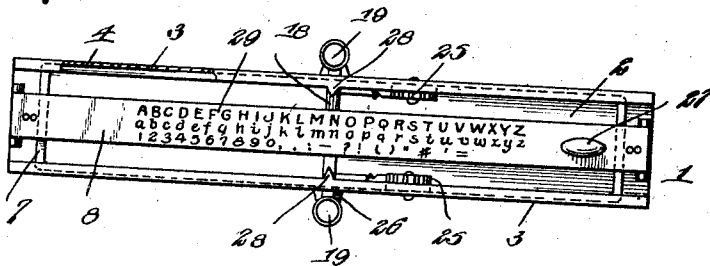


Fig. 2.

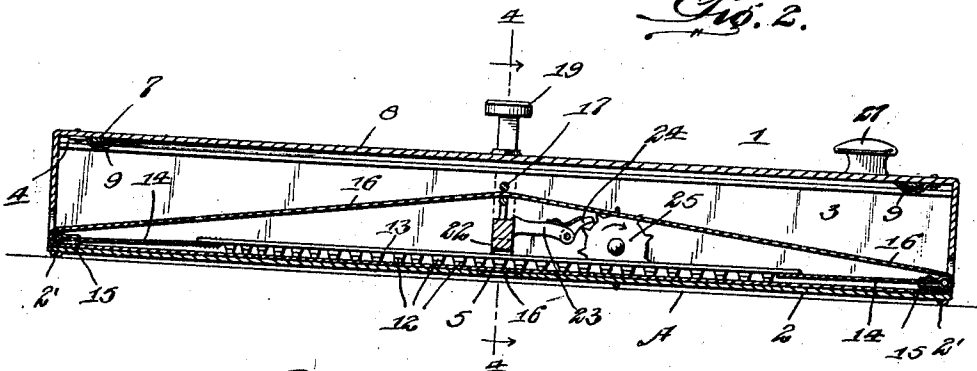


Fig. 3.

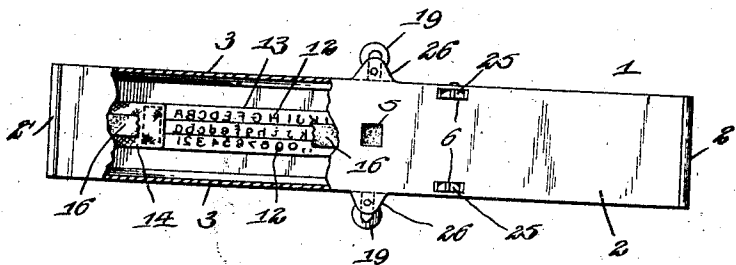
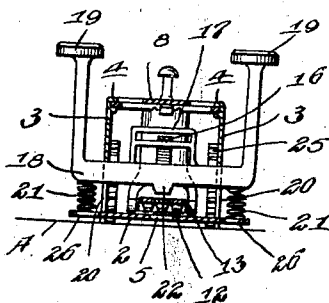


Fig. 4.



Manuel Charles.

INVENTOR

BY Victor J. Evans
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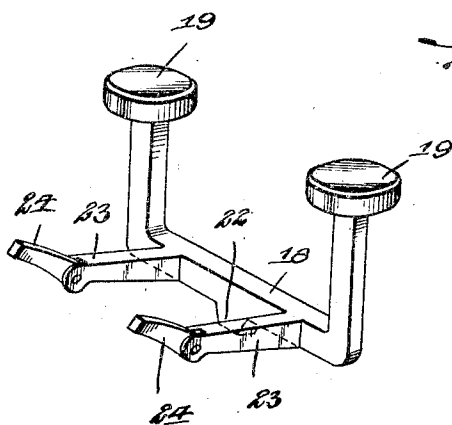


Fig. 5.

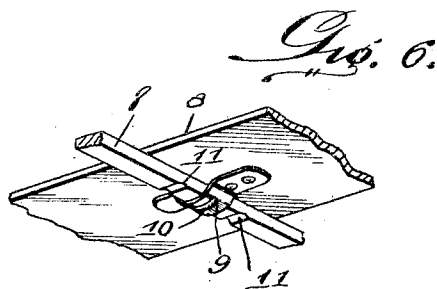


Fig. 6.

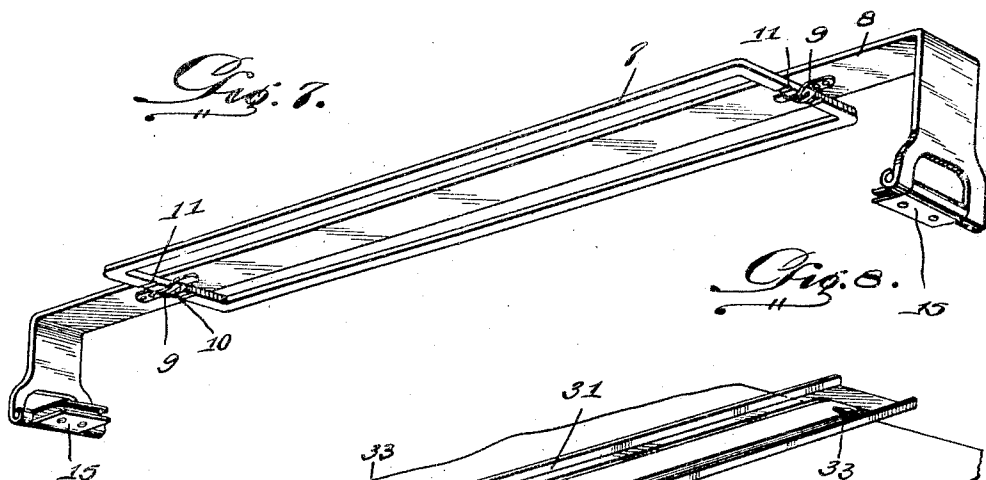
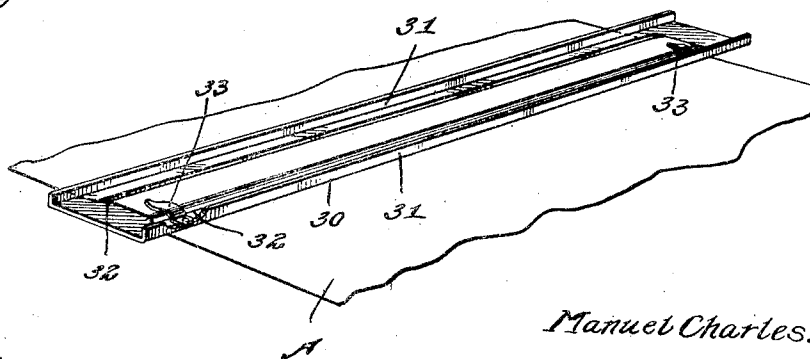


Fig. 7.

Fig. 8.



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UNITED STATES PATENT OFFICE.

MANUEL CHARLES, OF MEXICO, MEXICO.

TYPEWRITER.

1,381,798.

Specification of Letters Patent. Patented June 14, 1921.

Application filed March 2, 1920. Serial No. 362,871.

To all whom it may concern:

Be it known that I, MANUEL CHARLES, a citizen of Mexico, residing at Mexico city, Mexico, have invented new and useful Improvements in Typewriters, of which the following is a specification.

This invention relates to improvements in typewriters and the principal object of the invention is to provide a typewriter of a very small size that it can be carried in the vest pocket and one of simple construction, containing but a few parts and easily operated.

Another object of the invention is to provide means whereby the entire device will travel across the paper when the keys are manipulated.

A still further object of the invention is to provide means whereby the type are moved under the hammer which is only capable of vertical movement to depress the type onto the paper, with means for shifting the type carrier longitudinally and laterally to bring the desired type under the hammer.

A further object of the invention is to provide means operated by the retrograde movement of the hammer for directing the device to move a step forward to bring it into position to print another letter on the paper.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

Figure 1 is a plan view with a portion broken away.

Fig. 2 is a longitudinal sectional view.

Fig. 3 is a bottom plan view with parts broken away.

Fig. 4 is a section on line 4—4 of Fig. 2.

Fig. 5 is a perspective view of the type actuating means.

Fig. 6 is a detail perspective view of the means for supporting the carrier member on the guiding member.

Fig. 7 is a perspective view of these two members.

Fig. 8 is a perspective view of the combined guide and paper holder.

In these drawings 1 indicates a frame which is composed of the bottom plate 2 and the side plates 3, the ends and top of said frame being open. Adjacent the upper edges of the side plates longitudinal guideways 4

are formed and a type opening 5 and a pair of openings 6 are formed in the bottom plate, the type opening being centrally arranged. At each end of the bottom plate 2 is located a rounded projection 2' for facilitating the movement of the device on the surface being printed upon. A guiding frame 7 composed of side and end rails has its side rails engaging the guideways 4 so that the frame is longitudinally movable in said main frame. The carrier member 8, which has its ends bent downwardly at right angles with the ends forked, is movably connected with the rails of frame 7 by means of the spring plate 9 so that said member can be moved transversely on said guiding frame. Each spring plate is provided with a depression 10 which is adapted to engage with any one of the three depressions 11 formed in each end rail of the frame so as to hold said carrier member either in the center of the frame or to one side or the other of said center. The type 12 are preferably arranged in three rows, each row being placed on a strip 13 of leather or the like, said strips being arranged side by side and having their ends connected to elastic strips 14, the outer ends of said strips 14 being connected with the clips 15, which are pivotally connected with the forked ends of the member 8. Thus the strips carrying the type will be stretched between the forked ends of the carrier member and will lie parallel with the main part of said member. The ink ribbon 16 is passed through the forked ends of the member 8, around the clips and has a portion passing under the type. The upper portion of the ribbon passes above the strips of type and is held taut by means of the guide 17 which is located on the actuating member 18. As shown in Fig. 5 this member is of substantially U-shape with the buttons 19 on the ends of its limbs for engagement by the fingers. This member passes through slots 20 formed in the sides of the main frame and is normally held with its cross bar against the upper walls of the slots by the springs 21. The lower edge of the cross bar is provided with a projection 22 which acts as a hammer for engaging the type strip to force the type through the opening 5 and upon the paper which is indicated at A. This cross bar carries the guide 17 for the ink ribbon. It also carries a pair of ears 23 to which the dogs 24 are pivoted, said dogs being arranged to engage the spur wheels 25

which are pivoted to the side plates of the main frame and having portions projecting through the openings 6 in the bottom of the main frame. The springs are carried by ears 5 26 at the sides of the bottom plate and the member 8 is provided with a handle 27. A pointer 28 is also carried by the upper edge of each side plate of the main frame at the center thereof to indicate when the desired type is located under the hammer. The upper 10 face of the member 8 carries a chart 29 which is a duplicate of the arrangement of the type on the strips so that when a letter on the chart is brought opposite the pointers 15 28 the operator will know that this letter type is in position to be engaged by the hammer. When the type of the center row are to be used the member 8 is placed with the depression in the spring plates 9 engaging the center depressions in the end bars of the frame 7 and when the type in one of the 20 outer rows are to be used the member 8 is shifted laterally on the frame 7 to bring the desired row of type in alinement with the opening 5 and the hammer. The desired type in the row is brought into printing position by moving the member 8 and frame 7 longitudinally in the main frame by the 25 handle 27.

In the operation of the device it is first placed upon the paper or surface which is to be printed upon. Then the member 8 is moved to bring the first letter of the first word into printing position. The actuating 30 member is then depressed by the fingers engaging the buttons 19 which will cause the depression 15 to engage the type strip over the desired type causing said type to pass through the opening 5 and strike the 40 paper. The actuating member is then released by the fingers so that the springs will raise it and in this upward movement the dogs will rotate the wheels 25 and as these wheels are engaging the surface being printed upon their rotation will cause the entire 45 device to move forward one step and thus bring the device into a position to print the next letter. The movement of the member 8 in positioning the type will cause the endless ink ribbon to be moved to bring a fresh 50 part thereof under the type.

In some cases I find it desirable to use a guide plate 30 on the typewriter. This plate is provided with side flanges 31 and 55 is provided with a pair of longitudinally extending slots 32 in its bottom through which the paper to be printed upon is passed, the sheet of paper being held against movement by the springs 33. In this case 60 the wheels of the typewriter will engage the side portions of the bottom of the guide plate instead of the paper.

It will be seen that I have produced a simple and effective device which may be manu- 65 factured to sell at low cost and one which

can be operated by a child. The device is useful in printing on pages of books where it is impossible to pass the sheets to be printed upon through an ordinary typewriter.

As before stated, the principal object of my invention is to provide a typewriter which may be made of such a small size that it can be carried in the vest pocket so that it will be readily at hand at all times and 75 can be practically substituted for a pen or pencil.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent. 80

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims. 85

What I claim is:—

1. A pocket typewriter comprising a channel shaped frame having a type opening therein and longitudinal guideways in its upper part, a guiding frame longitudinally 90 movable in said guideways, a carrier member adjustable transversely on said guiding frame, rows of type carried by said member, a vertically movable type actuating member for depressing the type through the type 95 opening, an inking ribbon supported by the carrier member and engaging a portion of the actuating member.

2. A pocket typewriter comprising a channel shaped main frame having a type opening 100 therein and a second opening, a propeller wheel pivoted to the frame and projecting through said second opening, guideways in the upper part of said main frame, a guiding frame longitudinally movable in 105 said guideways, a carrier member adjustable transversely on said guiding frame, rows of type carried by said carrier member, a type actuating member vertically movable in the main frame and having a part for projecting the type through the type opening, a 110 dog actuated by said type actuating member for imparting a step by step movement to the wheel and an inking ribbon supported by the carrier member and engaging a portion of the type actuating member. 115

3. A device of the class described comprising a main frame consisting of a bottom plate and side plates, the bottom plate having a centrally arranged type opening and 120 side openings and the side plates having guideways at the upper edges, a guiding frame slidably mounted in said guideways, a carrier member carried by said guiding frame and having transverse movement 125 thereon, the ends of said member being bent downwardly, strips supported by said downwardly bent ends, type carried by said strips, a U-shaped type actuating member having vertical movement in said main 130

frame, a projection on the cross bar of said member for engaging the type carrying strips for forcing the type through said type opening, an ink ribbon supported by the carrier member and engaging a portion of the actuating member, spur wheels carried by the main frame and having portions projecting through the openings in the bottom thereof and dogs carried by the actuating member for giving said wheels a step by 10 step movement.

In testimony whereof I affix my signature.

MANUEL CHARLES.