

1,058,688.

2 SHEETS—SHEET 1.



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 TYPE BAR GUIDE FOR TYPE WRITING MACHINES.
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Patented Apr. 8, 1913.

2 SHEETS—SHEET 2.

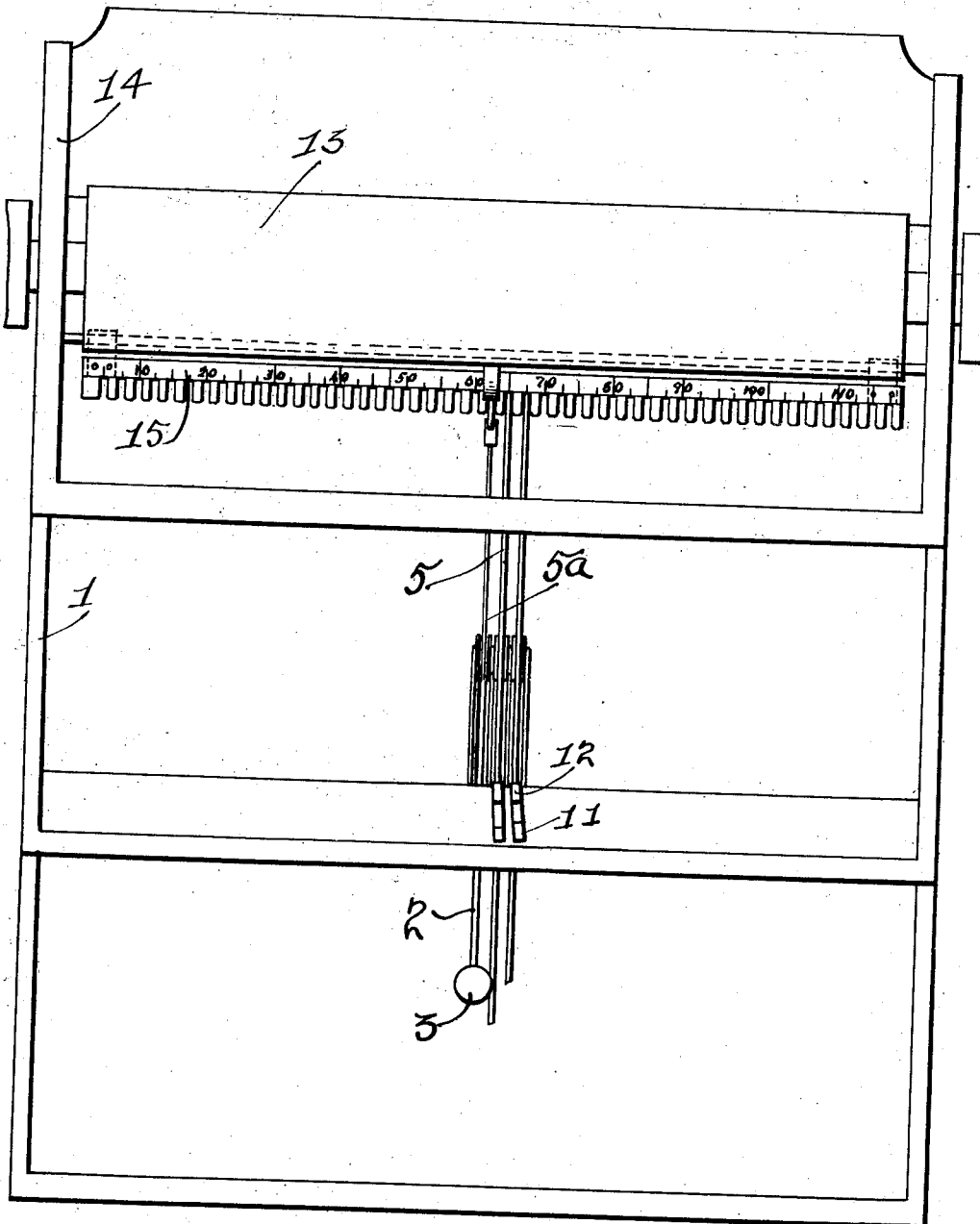


Fig. 2.

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UNITED STATES PATENT OFFICE.

LOUIS MYERS, OF NEW YORK, N. Y.

TYPE-BAR GUIDE FOR TYPE-WRITING MACHINES.

1,058,688.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed October 30, 1911. Serial No. 657,500.

To all whom it may concern:

Be it known that I, LOUIS MYERS, a citizen of the United States, residing at 603 West One Hundred and Eighty-fifth street, New York city, New York, have invented certain new and useful Improvements in Type-Bar Guides, for Type-Writing Machines, of which the following is a clear, full, and exact description.

This invention relates to a type-bar guide for typewriting machines, and is more particularly adapted for use with such machines now in current use such as the Monarch or Remington machines, and the object in general of the invention is to accurately guide the several type bars to the printing point against the platen of the machine, and to prevent any undue concussion of the type upon said platen, thereby lengthening the life of the machine and its operating parts.

A further object of the present improvement is to limit the throw of the type bar against the platen and to cause the same to act with uniform pressure under all conditions of use, that is, with different thicknesses of paper on the platen.

Further details and advantages of the present device will appear in the following specification, while the scope of the invention will be covered in the appended claims.

In the drawings which show a preferred embodiment of my invention, Figure 1 is a vertical section through a portion of a typewriting machine showing two type bars, the remainder of said machine being omitted for the sake of clearness; Fig. 2 is a plan view of a typewriting machine with parts removed; and Fig. 3 is a perspective view of a portion of the type bar guide.

Referring more particularly to the drawings, the frame of the machine is indicated at 1, and pivotally mounted at 4 at the lower portion of the same are the usual type levers 2 having the finger pieces 3. Above the type levers and pivoted at 6 are shown the type-bars 5 and 5^a, carrying at their upper ends type 11 and 12. The short end 21 of the type-bars 5 may be connected to the type levers in any preferred manner and, as

shown, are connected by means of a cable 22 passing over a pulley 23 secured at one end to the type-bar, and at its other end by an adjustable nut 24 to the type lever 2. Each type-bar is also preferably provided with a spring such as 9, connected to its short end and to a bracket 8 of the frame for returning said type bar to its inoperative position as shown by type-bar 5. When in their lower inoperative position the rear side of said type-bars rest upon the usual cushion 20, and when in their operative position for printing, as shown by type bar 5^a, the upper and lower type thereon come adjacent the platen, preferably of cylindrical form as shown at 13. The means for shifting the platen relatively to the type 11, 12 of the type-bar are immaterial in the present construction and are therefore omitted, although it is understood that either type 11 or 12 may be brought to printing position by some usual form of shifting mechanism. This platen may be mounted in any suitable paper-carriage such as 14.

Mounted adjacent the platen, preferably by being arranged to swing toward or away from the paper-carriage, is the type-bar guide 15, 17. This type-bar guide as shown consists preferably of the plate portion 15 extending longitudinally of the platen 13 and a notched plate portion 17, preferably at a slight angle thereto, as shown in Fig. 3, and having the notched recesses 18 therein for receiving and guiding the several type-bars to their printing position. The plate portion 15 adjacent the platen may, if desired, be marked off with the usual divisions for indicating the spaces between letters forming a scale, and said guide may also be supported on spring arms such as 16^a, rigidly attached to a fixed bar 16 and which tend to spring toward the platen so as to hold the plate 15 in yielding contact with the platen 13. The spring arms 16^a are not pivoted on the fixed bar 16 but are rigidly attached thereto, at the same time they are resilient and in consequence of this resiliency they press the plate 15 toward the platen. The bottom 19 of the notches 18 is adapted to engage the type-bar just below

the type for forming a stop and limiting its movement against the platen. It will be obvious from this construction that the pressure of the type carried by the type-bar against the paper upon the platen may be very accurately adjusted, and this pressure will always be uniform no matter how many thicknesses of paper are placed on the platen, since the yielding type-bar guide accommodates itself to the different thicknesses of paper upon the platen and its stop accurately limits the throw of the type-bar under all conditions.

The type-bar guide as shown is preferably mounted upon the paper-carriage so as to travel therewith, and therefore after the printing of each letter a new notch is presented for the next type-bar due to the lateral movement of the paper-carriage for spacing the letters under the influence of the usual escapement. By this construction it will be clear that accurate spacing of the letters is obtained since the spacing of the notches on the guide is made to correspond with the spacing of the letters to be printed upon the paper. In other words, each step by step movement of the platen past the printing point brings a new notch to receive and guide a type-bar, and thus the type-bar cannot be made to print between the space of two letters. Furthermore, collision of the different type-bars within the notches of the guide is practically avoided since the notches of the guide are sufficient to receive but one type-bar at a time, and as soon as this type-bar is withdrawn from its printing point a new notch is presented to receive the next type-bar.

In a preferred form of the invention, the type-bar guide is arranged so that, as the layers of paper are wound upon the platen, they come in contact with the edge of the guide which lies adjacent to the platen and displace the guide outwardly or forwardly. Hence, when a greater number of layers of paper are placed on the platen, as in making a great number of carbon copies, the guide arrests the movement of the type-bar at a greater distance from the face of the platen roller. It is understood that when the type-bar strikes the guide, the platen forms a backing to support the guide against the effect of the blow delivered by the type-bar.

The present embodiment of my invention herein shown and described is only the preferred one of the many forms my invention may take, and it is to be understood that my invention may be embodied in any of the forms broadly included in the appended claims.

What I claim is:

1. A type-bar guide for typewriting machines comprising a plate mounted adjacent the platen of the machine, and forming a

stop for limiting the throw of the type-bar, said stop being arranged to automatically adjust itself relatively to said platen corresponding to the thickness of paper thereon.

2. A type-bar guide for typewriting machines comprising a plate mounted adjacent the platen with a notch therein for guiding the type-bar, and having a stop for limiting the throw of the type-bar, said guide and stop being arranged to automatically adjust itself relatively to said platen corresponding to the thickness of paper thereon.

3. A type-bar guide for typewriting machines comprising a plate with a notch therein for guiding the type-bar and having a stop engaging the type-bar adjacent the type thereon for limiting the throw of the type against the paper, said guide and stop being mounted adjacent said platen and arranged to yieldingly bear against the same for automatically accommodating itself to a thickness of paper on said platen.

4. A type-bar guide for typewriting machines comprising a plate mounted longitudinally of the platen of the machine, said platen having a plurality of notches therein spaced according to the spacing of the letters to be printed, and adapted to guide a type-bar.

5. A type-bar guide for typewriting machines comprising a plate mounted adjacent the platen of the machine and carried therewith past the printing point of the type-bars, said plate having a plurality of notches therein spaced according to the letters to be printed whereby said type-bar guide presents a new notch at said printing point after each printing operation.

6. A type-bar guide for typewriting machines comprising a letter-scale plate mounted adjacent the platen and having a plurality of notches therein corresponding to the letter divisions of said scale and adapted to guide a type-bar.

7. A type-bar guide for typewriting machines comprising a letter-scale plate mounted adjacent the platen and having a plurality of notches therein corresponding to the letter divisions of said scale and adapted to guide a type-bar, the bottom of said notches forming a stop for the type-bar to limit its throw against the platen and arranged to automatically adjust itself relatively to the platen corresponding to the thickness of paper thereon.

8. A type-bar guide for typewriting machines comprising a letter-scale plate mounted adjacent the platen and having a plurality of notches therein corresponding to the letter divisions of said scale and adapted to guide a type-bar, the bottom of said notches forming a stop for the type-bar to limit its throw against the platen and arranged to automatically adjust itself rela-

tively to the platen corresponding to the thickness of paper thereon, the notched plate being carried with said platen past the printing point whereby a new notch is presented at said printing point after each printing operation.

Signed at New York city, New York, this 28th day of October, 1911.

LOUIS MYERS.

Witnesses:

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