May 9, 1950 L. F. PARR 2,507,045

LETTERING DEVICE

Filed July 23, 1945

Fig. 1.

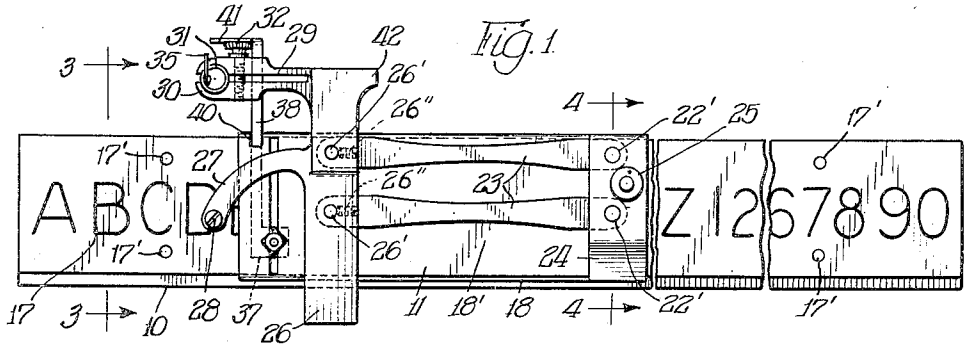


Fig. 2.

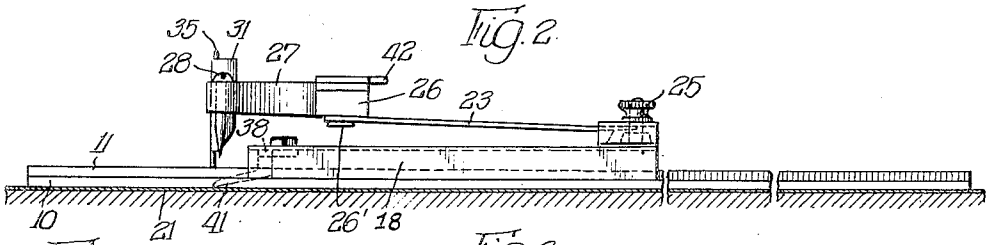


Fig. 6

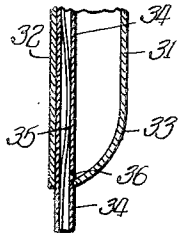


Fig. 3

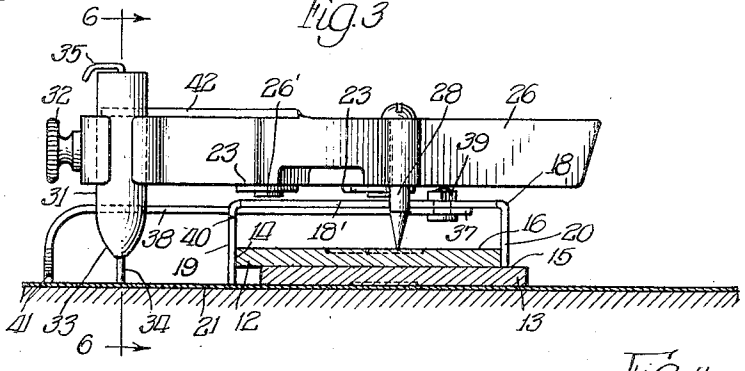


Fig. 4

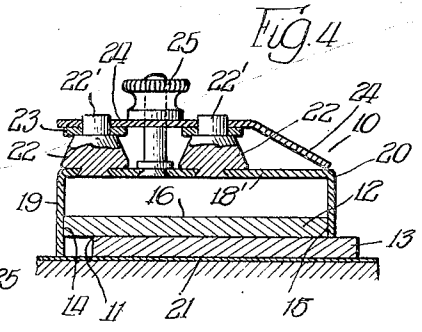
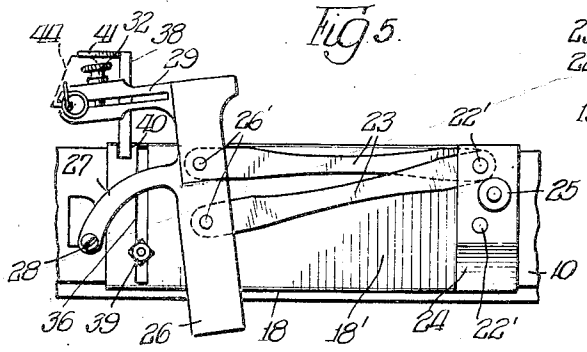


Fig. 5.



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LETTERING DEVICE

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Application July 23, 1945, Serial No. 606,669

9 Claims. (Cl. 33—23)

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This invention pertains to an improved lettering guide for the use of draftsmen, and in related applications enabling the production of perfect characters quickly and easily, all in full view of the user.

It is an object of the invention to provide a lettering guide of the type described which is comparatively simple and inexpensive in its parts, which is capable of being employed effectively with little or no practice, and which enables the production of a perfect job of lettering, without smearing and without requiring the preliminary laying out of guide lines of any type.

A further object is to provide a device enabling the production of perfect letters, either vertical or slanting, as a single operation, without recourse to shifting of a guide or other template device between the commencement and the completion of any given letter.

Yet another object is to provide a device of the type described embodying a suitable lettering guide or template engageable by the stylus or tracer of a further tracer and pen-carrying member, said member being provided with an adjustable supporting and smoothing foot engageable with the surface of a paper or other surface being lettered, so as to maintain said surface smooth beneath the pen in the operation of the device, with the pen engaged with or disengaged from said surface, and to facilitate movement of said guide with reference to the member.

Yet another object of the invention is to provide a lettering device enabling the production of both vertical and slanting letters with a simple adjustment of the scriber mounting.

A further object is to provide an improved readily regulated fountain and pen element for a lettering device of the type described.

A still further object is to provide an improved and simplified guide or template for a device of the type described.

The foregoing statements are indicative in a general way of the nature of the invention, but other and more specific objects will be apparent to those skilled in the art upon a full understanding of the construction and operation of the device.

One embodiment of the invention is presented herein for the purpose of exemplification, but it will be appreciated that the invention is susceptible of incorporation in other modified forms coming equally within the scope of the appended claims.

In the drawings:

Fig. 1 is a fragmentary plan view illustrating the device of my invention, including a straight-edge type guide or template having the tracer and pen assembly operatively coacting therewith;

Fig. 2 is a view in side elevation of the construction illustrated in Fig. 1, with the pen and tracer in inoperative raised position;

Figs. 3 and 4 are respectively views in transverse section taken along lines corresponding generally to lines 3—3 and 4—4 respectively of Fig. 1, Fig. 3 showing the pen in operative position and the tracer in engagement with the template;

Fig. 5 is a fragmentary plan view generally similar to Fig. 1, illustrating the pen and tracer device in a selectively available mounting of the pivot arms thereof for the production of a slanted type of character; and

Fig. 6 is a view in enlarged section on line 6—6 of Fig. 3, illustrating details of an improved ink container and pen structure.

Referring to the drawings, the device of the invention comprises in general a straight-edge type guide or template, generally designated by the reference numeral 10, and a pen and tracer assembly 11 which is guided for sliding movement on said template in the operation of the device.

The construction of the template 10 is illustrated with particularity in Fig. 3 of the drawings. In fabricating the template I employ two flat strips of a suitable material such as a plastic resistant to warping, said strips being designated 12, 13. These strips are assembled in side-by-side relation, with the top strip offset laterally and parallel to the bottom strip 13 so as to provide an overhanging guide ledge 14 at one margin of the template and an inwardly spaced guide shoulder 15 at the opposite longitudinal edge of the device.

By preference, the laminae 12, 13 have a surfacing material or coating 16 applied to the respective exposed sides thereof, which material is of a color contrasting with the color of the main body of the lamina. For example, I preferably form the main body of the strips 12, 13 of a white or ivory colored plastic material, coating the same with a layer 16 in black. The thus coated surfaces are provided with visible template characters 17 by carving through the layer or coating 16, to expose the differently colored interior of the strip. It will be appreciated that the excision in the strips is sufficiently deep to provide a track of substantial depth and of adequate width for the guidance of the stylus or scriber of the assembly 11 to be described.

A feature of importance in the template structure resides in the assembly of the strips 12, 13 with the coated surfaces on opposite sides of the template, whereby these strips mutually offset any natural warping tendency possessed by either thereof. Being secured in this relation by rivets or other similar means 17', freedom from warping distortion of the template is assured, despite excision in its top and bottom.

A point to be noted is that the template char-

acters 17 carried by the composite template member 10 are absolutely identical in size and inclination to the letters or characters reproduced by the device in the use thereof. Hence, it is contemplated that each surface of the template will be provided with a representative number of sets of alphabet characters, numerals, symbols, and the like, in different sizes or degree of slant, or in different types of character, both upper and lower case, if desired, thus enabling the production of a large variety of different types of letters, signs, numerals, symbols, etc.

The pen and tracer assembly 11 consists of a slidable body member 18 of U-shaped, elongated rectangular section, having a top surface 18' paralleling the top and bottom surfaces of template 10, and front and rear down-turned legs or flanges 19, 20, respectively, adapted for sliding and guiding engagement with the guide ledge 14 and shoulder 15 of the template 10. In use, the flange 19 slides along and is supported by the surface of the paper 21 being operated on, in the manner of a runner, as will be hereinafter further referred to.

At one side of the guide member 18, as illustrated in Figs. 1 and 4, I provide a pair of upstanding spacer and pivot members 22 which are appropriately secured to the flat upper surface 18' of said guide member. Each of these spacers 22 at its upper end has a pin 22' which pivotally receives one end of a link 23 of resilient strip metal material; and a sheet metal keeper plate 24, apertured to receive the pivot pins 22', is secured in place on the member 18 by a thumb screw 25. This plate serves to maintain said links 23 from vertical displacement on the pivots 22' and is removable to alter the pivotal relationship of links 23 in the manner illustrated in Fig. 5, when such is desired.

At the opposite ends thereof, the links 23 are pivoted to a one-piece cross head 26, the pivots being spaced equal to the spacing of the pivots 22' at the opposite ends of the links so that a parallel arm motion of the cross head 26 results. To effect the pivotal mounting to cross head 26, I employ a pair of pins or rivets 26' extending upwardly into the crosshead 26 and held in place by set screws 26'' threaded laterally in the crosshead for engagement with the pivot pins. Adjustment of the freedom of movement of the parallel motion linkage is secured by manipulation of the thumb nut 25 at the opposite end of the links 23.

Referring to Fig. 2, it will be noted that the resilient links 23 extend slightly upwardly from their pivotal mounting beneath the keeper 24, in a manner to maintain the crosshead 26 and associated parts springably elevated, but capable of being depressed with slight pressure of the user's finger in use.

The crosshead 26 is provided medially of its length with a laterally extending integral bracket arm 27 in which a pinpointed tracer or stylus 28 is fixedly secured for guiding engagement in the template characters 17 of the template 10. At its extreme forward end, the crosshead 26 also carries a split spring yoke arm 29 providing a spring clamp 30 in which the ink fountain or container 31 is clamped. A thumb nut 32 engageable with the split arm serves to draw up this clamp to hold the container 31 in place.

The container 31, which is charged with ink from its top, is in the form of a vertically elongated cylinder 32 drawn at its lower end 33 into rounded form at one side (see Fig. 6). Said

cylinder has secured to an internal vertical wall thereof the vertically extending hollow tube-like pen 34. This pen internally receives an ink regulator or gauge 35. Pen 34 extends downwardly through the lower end of the ink cylinder 32, being apertured at 36 to receive ink from the cylinder 32, and the amount of ink which issues through the pen is regulated closely by the vertical position of pin 35 in the pen. Pin 35 is proportioned in diameter to permit some flow around its sides in any position thereof in the pen. In order to sustain the pin in adjusted position, the same is curved slightly so as to have frictional contact at all times with the interior of the pen 34. I find that a pen of this type permits exact regulation of the fineness of the line produced and likewise effects a considerable economy of the ink consumed. In Fig. 6, dimensions are exaggerated.

Beneath the laterally projecting crosshead arms 27, 29, the U-shaped guide member 11 is provided with a slot 36 for the slidably adjustable reception of one end 37 of a paper engaging member 38. A nut 39 holds member 38 in adjusted position in the slot. This member extends forwardly through a side aperture 40 in the flange 19 of the guide member 11 and terminates in a downwardly and laterally bent paper engaging foot 41. It is intended that the member 38 be adjusted in slot 36 whereby said foot 41 is positioned adjacent but out of contact with the pen 34 in the operative movements of the latter, so as to maintain the paper 21 smooth and eliminate possibility of its sticking to the pen when the latter is elevated. Foot 41 and flange 19 support the major portion of the downward pressure applied to member 18 in the use of the device.

In operation the tracer and pen assembly 11 is positioned on the template 10 in the manner illustrated in Figs. 1, 2 and 3, with said template disposed over the work and parallel to the proposed line of lettering to be formed. The template 10 is then shifted laterally in one direction or another for the selection of the desired letters constituting the desired indicia, and, with a selected template letter 17 in proper position, the crosshead 26 is moved downwardly for engagement of pen 34 with the paper and engagement of stylus 28 in the template letter 17. The stylus is then traced over the outline of said template letter, with the result that the said letter is faithfully reproduced on sheet 21.

In order to provide a more comfortable manipulation of the device, the crosshead 26 is shaped to provide a projecting finger rest 42.

The parallel arm motion characterizing the pen and tracer assembly assures the above mentioned faithfulness of reproduction, so that it is unnecessary to provide a distorted representation of the letter templates 17 on member 10 in order to secure a conventional letter product. This is a substantial improvement over existing devices now on the market which are characterized by an arcuate movement of a pen and are reliant on a distortion of the lettered product as compared to the inclination of the template character 17 which is followed by the tracer or stylus. The paper engaging foot 41 maintains the surface 21 flat at all times and eliminates wrinkles therein, while at the same time, in conjunction with flange 19, supporting pressure applied to the pen and tracer assembly 11. Thus, the template member 10 may be freely shifted beneath said assembly, without undue binding or cramping of the template against the paper.

In the event it is desired to produce a slanted letter, it is merely necessary to remove the keeper **24** and to shift the pivot point of one or the other of the arms **23** onto a common pivot point for the two, thus enabling the production of a slanted character, as indicated in dotted lines in Fig. 5 and designated by the reference numeral **44**.

I consider that the above features and advantages constitute a substantial advance over the lettering guides of the simple template type presently available, wherein letters are traced directly through openings in a template sheet, necessitating shifting of the template several times to perfect certain letters. It is also a material improvement over the distorted movement types of guides which have in common with it only the feature of pantographic movement.

I desire it to be understood that the terms used herein are to be construed in the broadest sense commensurate with the scope of the appended claims. Specifically I employ the term "pen" in a broad manner to include pencil, crayon, brush or other marking device in all claims where the context does not recite or imply a limitation to an ink-fed marker.

What I claim is:

1. In a lettering or like guide adapted for use with an elongated guide and template member having guide characters on at least one surface, a pen and tracer assembly shiftable longitudinally on said member, said assembly including a body, a movable member, means mounting said movable member on the body for movement relative thereto, a tracer on the movable member engageable with said guide characters, a pen on the movable member engageable with a surface to be lettered, and a presser member mounted on the body in fixed relation thereto for engagement with said last named surface to smooth and restrain the same.

2. In a lettering or like guide adapted for use with an elongated guide and template member having guide characters on at least one surface, a pen and tracer assembly shiftable longitudinally on said member, said assembly including a body, a movable member, parallel link means mounting said movable member on the body for movement relative thereto, a tracer on the movable member engageable with said guide characters, a pen on the movable member engageable with a surface to be lettered, and a presser member mounted on the body in fixed relation thereto for engagement with said last named surface to smooth and restrain the same.

3. In a lettering or like guide adapted for use with an elongated guide and template member having guide characters on at least one surface, a pen and tracer assembly shiftable longitudinally on said member, said assembly including a body having a depending guide element, a movable member, parallel link means mounting said movable member on the body for movement relative thereto, a tracer on the movable member engageable with said guide characters, a pen on the movable member engageable with a surface to be lettered, and a presser member mounted on the body in fixed relation thereto for engagement with said last named surface adjacent said pen to smooth and restrain the same, said guide element slidably engaging said last named surface, and with said presser member, supporting said assembly for relative movement of the template member and assembly.

4. In a lettering or like guide adapted for use with an elongated guide and template member having a longitudinal guide ledge and guide characters on at least one surface, a pen and tracer assembly shiftable longitudinally on said member, said assembly including a body having a guide element slidably engageable with and guided by said ledge, a movable member, means mounting said movable member on the body for movement relative thereto, a tracer on the movable member engageable with said guide characters, a pen on the movable member engageable with a surface to be lettered, and a presser member mounted on the body in fixed relation thereto for engagement with said last named surface to smooth and restrain the same.

5. In a lettering or like guide adapted for use with an elongated guide and template member fabricated of a pair of elongated strips secured in laminated, laterally offset relation to provide a longitudinal guide ledge and having guide characters on said strips, a pen and tracer assembly shiftable longitudinally on said member, said assembly including a body having a guide element slidably engageable with and guided by said ledge, a crosshead, means mounting the crosshead on the body for movement relative thereto, a tracer on the crosshead engageable with said guide characters, and a pen on the crosshead engageable with a surface to be lettered.

6. In a lettering or like guide adapted for use with an elongated guide and template member fabricated of a pair of elongated strips secured in laminated, laterally offset relation to provide a longitudinal guide ledge and having guide characters on said strips, a pen and tracer assembly shiftable longitudinally on said member, said assembly including a body having a guide element slidably engageable with and guided by said ledge, a crosshead, means mounting the crosshead on the body for movement relative thereto, a tracer on the crosshead engageable with said guide characters, a pen on the crosshead engageable with a surface to be lettered, and a presser member adjustably mounted on the body in fixed relation thereto for engagement with said last named surface adjacent said pen to smooth and restrain the surface, said guide element slidably engaging said last named surface and with said presser member supporting said assembly for relative movement of the template member and assembly.

7. In a lettering or like guide adapted for use with an elongated guide and template member, guide characters on said member, a pen and tracer assembly shiftable longitudinally on said member, said assembly including a body, a crosshead, a tracer on the crosshead engageable with said guide characters, a pen on the crosshead engageable with a surface to be lettered, parallel link means mounting the crosshead on the body for movement relative thereto and affording exact reproduction by the pen of characters traced by the tracer, and a presser foot mounted on the body in fixed relation thereto for engagement with said last named surface adjacent said pen to smooth and restrain the surface.

8. In a lettering or like guide for use with a template member having guide indicia thereon, a pen and tracer assembly slidable on said member for movement along a surface to be lettered, said assembly including a base, a pen and tracer support, and means mounting said support for movement on the base, said support having a tracer guidingly engageable with said indicia to trace the same and a pen engageable with said

surface to be lettered, and a presser foot adjustable on said base for restraining engagement with said surface adjacent said pen, said foot and base engaging said surface to support the assembly thereon, said mounting means comprising parallel links pivoted at the ends thereof to said base and support for undistorted reproduction by the pen of template indicia traced by the tracer.

9. In a lettering or like guide for use with a template member having guide indicia thereon, a pen and tracer assembly slidable on said member for movement along a surface to be lettered, said assembly including a base, a pen and tracer support, and means mounting said support for movement on the base, said support having a tracer guidingly engageable with said indicia to trace the same and a pen engageable with said surface to be lettered, and a presser foot adjustable on said base for restraining engagement with said surface adjacent said pen, said foot and base engaging said surface to support the assembly thereon.

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