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H. KASSEBAUM

2,088,063

SCRIBING DEVICE

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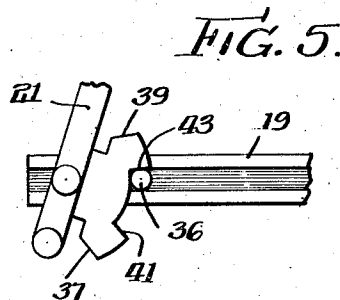
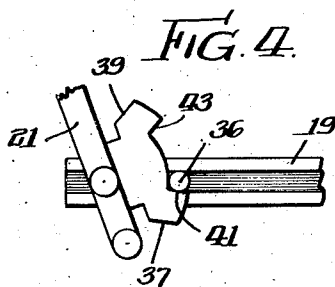
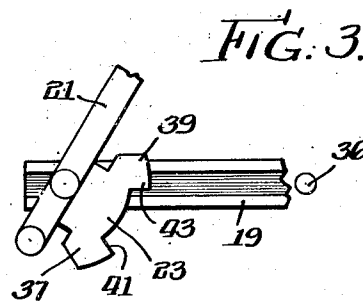
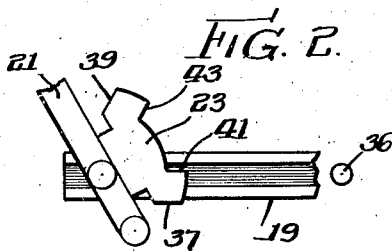
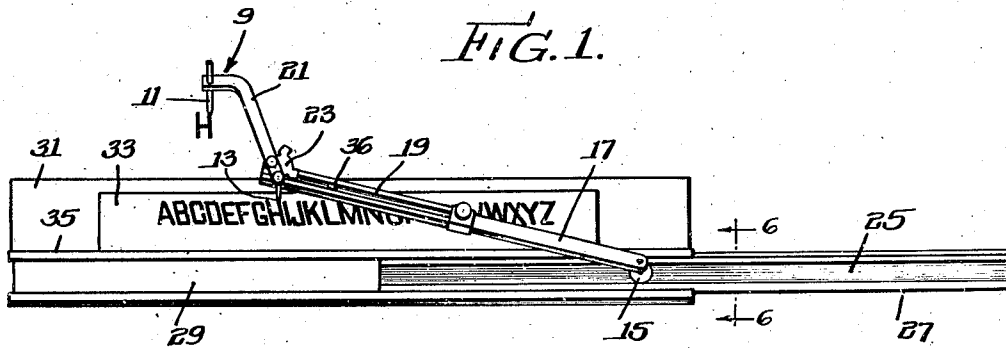
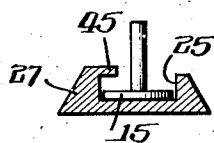


FIG. 6.



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UNITED STATES PATENT OFFICE

2,088,063

SCRIBING DEVICE

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5 Claims. (Cl. 33—23)

My invention relates in general to scribing and has more particular reference to a pantographic instrument more especially adapted to scribe by tracing from a master pattern plate or template.

5 An important object of the invention is to provide scribing apparatus adjustable to produce, from the same pattern plate, scribed characters of varying size and slope or inclination.

10 A further object is to provide apparatus adjustable as aforesaid without changing the spacement of the tracing and scribing points.

Another object is to accomplish ease of operation by providing for guiding the mechanism at or near its center of gravity.

15 Another object is to provide apparatus of the character mentioned comprising a ruler or base forming a sliding mounting for a pantographic arm, including means for disengaging the arm from the sliding mounting at any point in its length.

20 Another object is to provide apparatus of the character mentioned including a mounting in the form of a ruler of low overall height, the ruler affording a mounting for a master pattern or template and a sliding mounting for a pantographic arm embodying a scribing point and a tracing point adapted to trace on the template.

25 Numerous other objects, advantages and inherent functions of the invention will become apparent as the same is more fully understood from the following description which, taken with the accompanying drawing, discloses a preferred form of the invention.

Referring to the drawing:

35 Figure 1 is a top plan view of scribing apparatus embodying my present invention;

Figures 2, 3, 4 and 5 are enlarged fragmentary views showing various adjusted positions of the apparatus; and

40 Figure 6 is a sectional view taken substantially along the line 6—6 in Figure 1.

To illustrate the invention I have shown, on the drawing, a scribing apparatus 9 comprising support means carrying a scribing point 11, a tracing point 13, and a sliding pivot 15. The support means comprises a preferably extensible arm carrying the sliding pivot 15, preferably at one end of the arm, the arm also carrying a swingable cross piece 21 pivoted thereon, preferably at the other end of the arm, and the arm, as shown, preferably comprises the relatively and adjustably extensible portions 17 and 19. The cross piece 21 carries the scribing and tracing points 11 and 13, and also is provided with a stop plate 23. The sliding pivot 15 comprises a disk

adapted to fit into a slot 25 in a slide element 27 which travels in a guide 29 formed in a base plate or support 31. The support 31 also affords a mounting for a tracing template 33, the mounting providing a shouldered abutment 35 adapted to engage an edge of the template for the purpose of aligning the same with the groove 25. The sliding arm portion 17 preferably carries the sliding pivot 15 at one end thereof and extends adjustably within the extensible portion 19, which preferably carries suitable clamping means for securing the parts in adjusted position. The portion 17 at or near its end remote from the sliding pivot 15 is formed with a stop, preferably comprising a pin 36 carried on the arm portion 17. The stop plate 23 is adapted to cooperate with the pin 36 when the extensible arm is in collapsed or compressed position and is also adapted, when the arm is extended, to cooperate directly with the arm portion 19 so that the cross piece 21 may be secured selectively in any one of the four positions illustrated in Figures 2 through 5. The cross piece 21 may thus be adjusted at various inclinations with respect to the arm portion 19 and thereby provide for four types of reproduction from the tracing template 33, to-wit, small and large lettering in upright or inclined form; and the parts may be arranged so that all letters produced from a given template may have uniform width, regardless of height or inclination.

When the sliding arm portion 19 is extended one can obtain large or small upright lettering, large letters being obtained by turning the cross piece 21 to the position shown in Figure 2, wherein a flange 37 at the lower portion of the plate 23 engages the edge of the arm portion 19; small letters are obtained by turning the parts to the position shown in Figure 3, in which a downwardly turned flange 39, at the upper end of the plate 23, engages the side of the arm portion 19.

When the sliding arm 19 is in depressed position so that the pin 36 is in position to engage the stop plate 23, one can produce either large or small inclined lettering, large letters being produced by turning the arm 21 to the position shown in Figure 4, wherein a shoulder 41 on the plate 23 engages the stop pin 36; small inclined letters being produced by turning the arm 21 to the position shown in Figure 5, wherein a shoulder 43 engages the pin 36.

The sliding disk 15 is guided in the groove 25 and is held in place by a protrusion 45 formed on the way 27 at one side only, so that the disk is prevented from leaving the groove vertically when in the position for lettering, but can be

easily removed by tilting the same when it is desired to disconnect the lettering arm 9.

The device is used by sliding the template 33 along the shoulder 35 of the ruler 31 until the letter to be written reaches a desired position opposite the tracing point 13. The tracing point is then moved along the character inscribed on the template and thus acts as a guiding point, a second guiding point being provided by the sliding pivot disk 15 operating in the groove 25, which thus restricts the movement of the writing point 11 so that a character corresponding to that being traced on the template is written by the scribing point 11.

It is thought that the invention and its numerous attendant advantages will be fully understood from the foregoing description, and it is obvious that numerous changes may be made in the form, construction, and arrangement of the several parts of the illustrated apparatus without departing from the spirit or scope of my invention or sacrificing any of its attendant advantages, the form herein described being merely for the purpose of demonstrating the invention.

I claim:

1. Scribing apparatus comprising an arm, means to mount said arm for sliding movement at one end, a lever carrying a writing point and a tracing point for use on a lettering template, said lever pivoted on said arm at a point remote from the mounted end thereof, and cooperating stop means on said lever and on said arm for holding the lever in a selected one of a plurality of relative positions with respect to said arm, whereby to enable the production of a plurality of character forms from a single template.

2. Scribing apparatus comprising an arm, guide means on said arm and adapted for sliding engagement in a guide, said arm having an extensible portion, and a lever pivoted on said extensible portion and carrying a writing point and a tracing point adapted for use in a lettering template, said lever carrying stop means adapted to cooperate with said extensible portion when the same is in extended position and with a stop on said arm when the extensible portion is in a predetermined adjusted position on the arm, whereby to hold said lever in any one of a plurality of angularly adjusted positions on said extensible portion to provide for the production of

a selected one of a number of character forms from a single template.

3. Scribing apparatus comprising a sliding arm having a disc at one end adapted for engagement in the groove of a ruler which affords support for a lettering template, said sliding arm having at its other end an extensible portion, a lever carrying tracing and writing points and pivoted on said extensible portion, said lever carrying a stop plate adapted to co-operate with stop means on said sliding arm whereby to enable the production of large or small characters in a variety of inclinations from a single template.

4. Scribing apparatus comprising an arm having a flanged slide element thereon and adapted for sliding engagement in the slide-way of a ruler which also affords support for a lettering template, a lever carrying a writing point and a tracing point for use on the lettering template, said lever being pivoted on said arm at a point remote from said slide element, cooperating stop means on said lever and on said arm for holding the lever in a selected one of a plurality of relative positions with respect to said arm, whereby to enable the production of a plurality of character forms from a single template, said slide-way comprising a groove open on one side and having a projecting flange at the other to interlockingly receive the sliding disc when the apparatus is in scribing position while permitting detachment of the disc from the way merely by tilting the sliding arm from scribing position.

5. Scribing apparatus comprising an arm, guide means on said arm and adapted for sliding engagement in a guideway, said arm having an extensible portion, and a lever pivoted on said extensible portion and carrying a writing point and a tracing point adapted for use on a lettering template, said lever carrying a stop plate providing opposed abutments adapted to cooperate with a stop pin on said arm when the extensible portion is in a predetermined adjusted position on the arm, said plate also providing opposing shoulders in position to cooperate with said extensible portion whereby to hold said lever in one of a number of angularly adjusted positions on said extensible portion to enable production of a selected one of a number of character forms from a single template.

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