April 27, 1926. 1,582,185

H. J. MOECKEL

DRAWING GUIDE

Filed Sept. 29, 1925

Fig. 1.

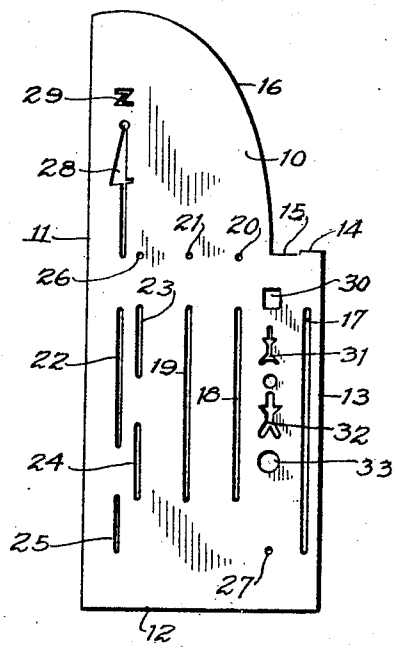


Fig. 2.

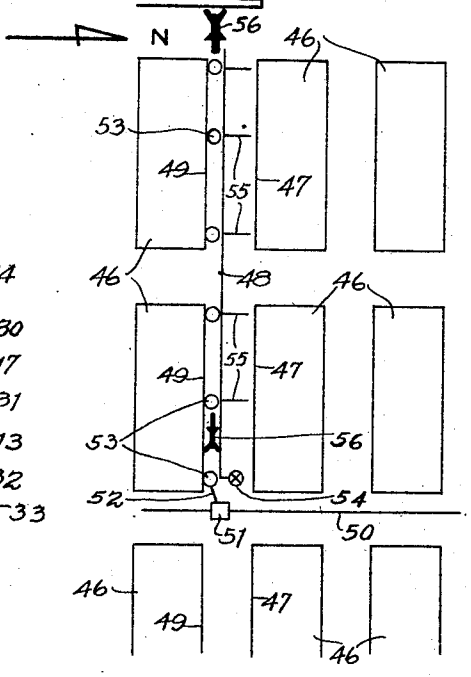
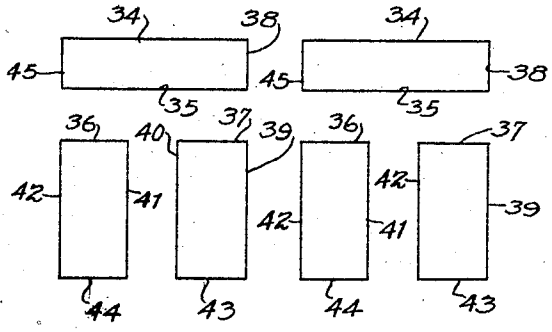


Fig. 3.



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Patented Apr. 27, 1926. 1,582,185

UNITED STATES PATENT OFFICE.

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DRAWING GUIDE.

Application filed September 29, 1925. Serial No. 59,402.

To all whom it may concern:

Be it known that I, HARTMANN J. MOECKEL, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Drawing Guides, of which the following is a specification.

The present invention relates to a drawing guide, and has for an object to provide a templet or guide plate peculiarly constructed to facilitate the laying off of blocks, squares, streets, alleys, and other lines of division and locations of objects on plats for use by telephone construction engineers, or for other engineering and like work where rough plats or lay-outs are made on different locations.

At the present time in making drawings of a plant to be removed, erected or changed, it is necessary for the engineer to prepare a rough or crude drawing and turn it over to a draftsman for redrawing or copying it at least roughly to a scale sufficient to show the general features of the plant. By the use of the present invention the engineer may use the guide in making out his rough drawings and the drawings will be of sufficient accuracy to eliminate the step of having the plat redrawn by the draftsman. This saves considerable time and enables the engineer to carry out his individual designs and at the same time ensures more accurate lay-outs.

The invention further aims at the provision of a drawing guide which comprises a flat plate having elongated slots, apertures and the like therein arranged in predetermined and definite relation with one another and also with respect to the various edge portions of the instrument to insure the proper spacing of the various lines and devices, to indicate streets, alleys, and other objects in their correct proportions.

The above and various other objects and advantages of this invention will be in part described and in part understood from the following detail description of the present preferred embodiment, the same being illustrated in the accompanying drawings, wherein:—

Fig. 1 is a plan view of a drawing guide constructed according to the present invention;

Fig. 2 is a plan view of a drawing showing a plat drawn with the aid of the improved guide, and

Fig. 3 shows a second lay-out which may be drawn with the improved guide.

Referring to the drawing, the guide or drawing instrument comprises a body plate 10 which may be constructed of celluloid or other suitable material, and the body sheet 10 may be transparent if so desired. The body sheet 10 is preferably thin so as to accommodate the point of a pencil without striking the casing supporting the lead of a pencil. The body plate or sheet 10 is provided at one side with a straight elongated edge 11 serving as a ruler or guide for a pencil, and is also provided with a base edge 12 at one end which is also straight and at right angles to the edge 11. The opposite longitudinal edge of the plate 10 is formed with a straight edge 13 extending but little more than half the length of the plate 10 and which is in parallelism with the long straight edge 11. The edge 13 terminates intermediate the plate 10 in a shoulder 14 which is provided with a recess or notch 15 of substantial width which terminates at the base of a curved edge 16 which is rounded off to the opposite end of the plate 10 and meets the long straight edge 11. The shouldered side of the plate 10 is provided with an elongated slot 17 lying closely adjacent to and parallel with the straight edge 13 of the plate, and which is adapted to cooperate with straight slots 18 and 19 formed intermediately in the plate 10 in spaced relation to each other and to the slot 17. All of the slots 17, 18 and 19 are in parallel relation to each other, and the body plate 10 is provided with small perforations 20 and 21 therethrough to receive the point of a pencil, the perforations 20 and 21 being spaced in a longitudinal direction from the adjacent ends of the slots 18 and 19, in accordance with desired proportions and with relation to the other structural features of the plate 10. The body plate 10 is further provided, near the straight edge 11, with a shorter slot 22 and a pair of spaced but longitudinally aligned short slots 23 and 24. The slot 22 is spaced from the slots 23 and 24 toward the edge 11 of the plate, and the plate 10 is provided with a short slot 25 in longitudinal alignment with slot 22 but spaced therefrom a distance equal substantially to the space between the adjacent ends of the slots 23 and 24. The plate 10 is also provided near its reduced end with a single perforation 26 for cooperation with the slots 23 and 24, and near its base and with another single perforation 27 adapted to receive a

pencil point for determining certain angular relations with respect to the slots 17, 18 and 19, and the perforations 20, 21 and 26.

At the reduced end of the plate 10 there is provided a slot 28 of the configuration of a direction indicating arrow, and spaced outwardly from the point of the arrow configuration 28 is a perforation or slot 29 of suitable configuration for indicating a definite direction, such as "N" meaning "north". The body of the plate 10 is also provided with a number of slots or perforations 30, 31, 32 and 33 which are given different configurations for indicating different devices illustrated upon the drawing. These indicating configurations or symbols are preferably arranged in a row between the slots 17 and 18 so as to be in a position for easy access.

In using the improved drawing guide, reference may first be had to Figs. 1 and 3 wherein to draw a street block with a T alley, the guide plate 10 is placed upon the drawing sheet in a horizontal position and a pencil point is inserted in the slots 18 and 19 and in the slots 23 and 24 to form respectively the lines 34, 35, 36 and 37 on the drawing sheet. Next swing the guide plate 10 around into a vertical position so that the slots 22 and 25, 19, 18 and 17 are so positioned with respect to the lines already formed as to guide the pencil in forming the lines 38, 39, 40, 41 and 42 respectively. To draw the remaining lines 43, 44 and 45 of the blocks, any of the straight edges 11, 12 or 13 may be utilized, although, of course, any of the slots in the body plate may also serve the same purpose provided that they be of suitable length. This procedure may be repeated any number of times to make the desired drawing, although Fig. 3 shows the block with the T alley duplicated but once.

Fig. 2 shows another type of drawing illustrating the various portions of a plat requiring revision and change. In order to make this drawing, the various blocks 46 are laid out with the aid of the slots 17, 18 and 19, and when this is done to the desired number as shown in Fig. 2, the guide plate 10 may be placed upon the drawing with the slot 17 over the line 47 of one of the blocks and a pencil point inserted in the aperture 27, marking the drawing sheet and again marking the sheet by inserting the pencil point in the recess 15 at the base of the curved edge 16. These two points give the straight line 48 which is spaced from the lines 49 of adjacent blocks and which are correctly proportioned as to spacing in order to accommodate the various devices used by the engineers. The plate 10 is now manipulated to bring the various slots or perforations 30, 31, 32 and 33 over the space between the lines 48 and 49 as shown in Fig. 2 for setting forth on the drawing paper symbols according to the configurations of the perforations. The line 50 passing between the ends of the blocks to designate a cable line or the like, and the configuration 51 which is formed by utilizing the perforations 30 may be produced by proper shifting of the plate 10 over the drawing sheet.

In laying out the plat shown in Fig. 2, line 50 indicates a terra cotta tile duct with one or more cable openings therethrough which lead from an exchange office, in telephone installation or the like, to a manhole indicated at 51. From the manhole 51 the cable is pulled through a pipe 52 which leads to a pole 53, the pipe 52 being under ground and the cable being carried upwardly to a suitable height of about eight feet to a terminal box 54, and from this box the cable is carried outwardly and hung upon the poles 53 by means of the various devices used in this class of work. 55 designates small terminal boxes to which small groups of wires from the cable are led and from which the drop wires extend which lead to the individual houses or buildings for connection with the call boxes or telephone instruments. The anchors for bracing the poles 53 are indicated at 56 in the plat and show the proper positions of the same to keep the poles in line and from pulling in either one direction or the other.

It will be noted that there is a predetermined and definite relation between the various slots and perforations not only as to length, but as to size and location in the body plate 10.

It will be noted that the perforations 20 and 21 are so spaced from the upper ends of the slots 18, and 19 that lines of various degrees of inclination may be readily determined by marking with a pencil point through the perforations and through the adjacent ends of the slots. The other perforations 26 and 27 are likewise positioned definitely with respect to the slots and the symbol perforations in line therewith and with the base of the curved edge 16.

It is, of course, understood that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, and being limited only by the scope of the following claims.

What is claimed is:—

1. A drawing guide comprising a plate having a plurality of spaced apart parallel slots therein, said plate being of substantially rectangular form at one end and having a curved edge at its other end, there also being a plurality of symbolic perforations in the plate in definite relation to said slots and to an edge portion of the plate for locating the symbols with respect to blocks formed by said slots.

2. A drawing guide comprising a plate having a rectangular configuration at one end, said plate having a stepped portion spaced inwardly from the opposite end and terminating in a curved portion, there being in the plate a plurality of spaced parallel slots, a plurality of symbolic perforations in definite relation to said slots for determining the position of the symbols with respect to the lines drawn with said slots.

3. A drawing guide comprising a flat transparent plate of rectangular form at one end and provided with a shoulder at one side near its other end and terminating in a curved edge leading from the base of said shoulder, there being a plurality of laterally and longitudinally spaced apart slots formed in said plate, said plate having perforations spaced from the ends of certain of said slots to determine various angular positions of street and alley lines with respect to the sides of the blocks indicated by the longitudinal slots, there also being a plurality of perforations conforming to engineering symbols employed formed through the plate in definite relation to said longitudinal slots and to an edge portion of the plate for correctly locating the symbols with respect to the blocks.

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