

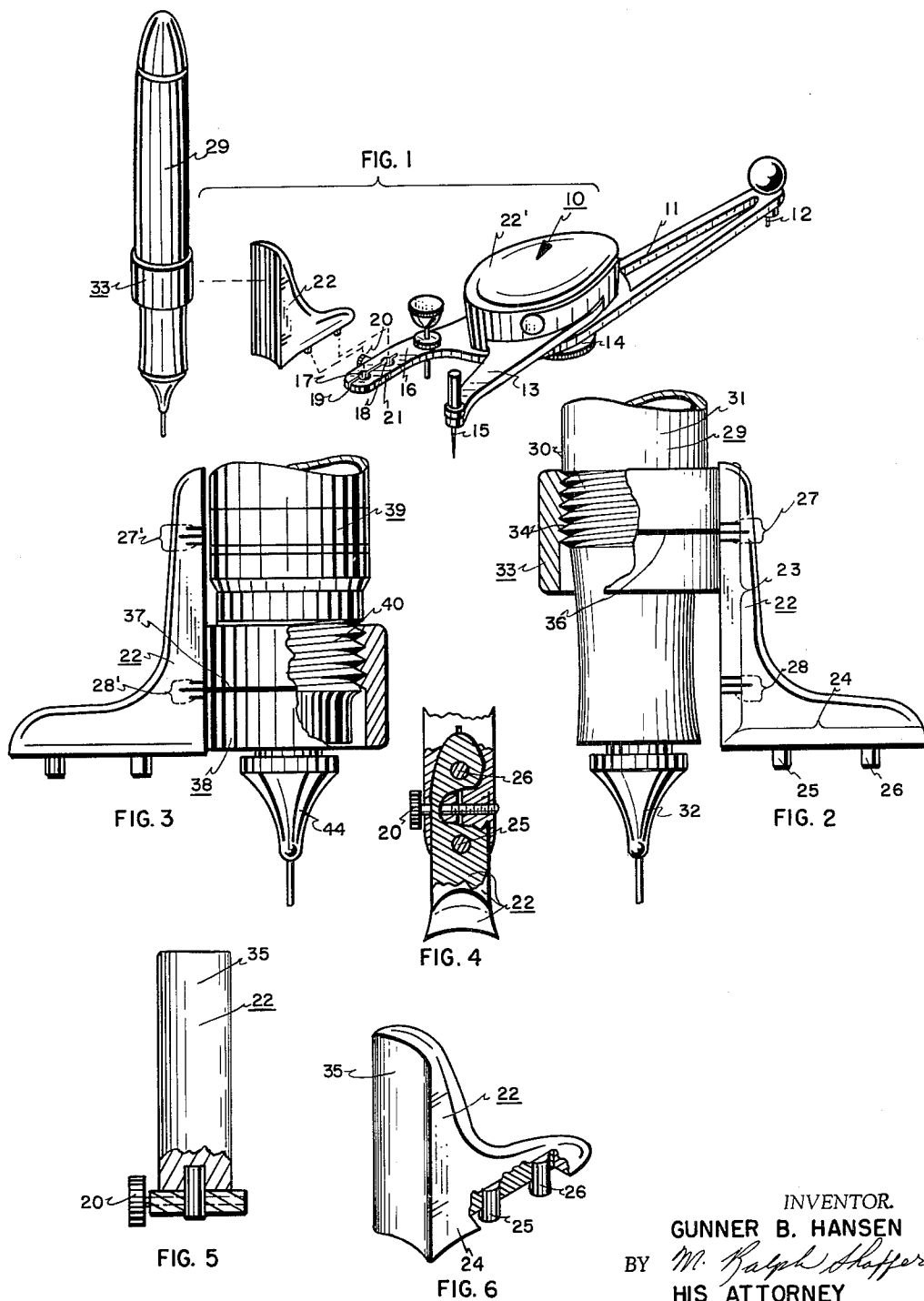
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STRUCTURE FOR LETTERING SCRIBERS

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1

2

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STRUCTURE FOR LETTERING SCRIBERS

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The present invention relates to lettering scribes, and, more particularly, to certain improvement structure for lettering scribes wherein drawing pens of many different forms may be employed in easily manipulated and easily adjustable scribe apparatus to enable the user of the scribe apparatus to duplicate line weight in all parts of a particular drawing, where desired.

Well known is lettering equipment which is currently used in a variety of contexts for mechanical drawing. Scribes are used for duplicating characters on innumerable types of templates on whose surfaces are indentations corresponding to certain letters, numbers, mechanical and electrical symbols, and so forth.

The lettering scribes above referred to generally come in lettering sets having a plural number of scribe pens of various sizes which give varying line weights (i.e. thicknesses). In conventional practice a draftsman or artist is supplied with a lettering scribe set (including scribe, a set of pen points for the scribe, and a plural number of desired templates); he is also supplied with a set of fountain pen type, mechanical drawing pens which operate on a plunger principle and are now quite generally used in preference to the old-fashioned ruling pens. These presently preferred mechanical pens have proven very suitable for fast line work. Many of these pens are manufactured in Germany are sold under the trademark "Rapid-O-Graph" and "Kohinoor." Such pens have caps and include threaded portions on their barrels for receiving the pens' caps. It would of course be desirable to use the same drawing pens for scribe work in order to eliminate the need for separate scribe inking points and also to insure that line weights of scribed portions of the drawing and general line work thereof is identical.

Now different types of mechanical drawing pens, while including caps threaded onto the pen barrels, nonetheless vary in dimension and in outer contour and, furthermore, the threaded portions thereof may be proximate or quite remote from the pen point.

Difficulties have been encountered in the past in devising suitable primary or auxiliary structure for scribes which will permit the easy placement, withdrawal, and manipulation of pens, with suitable adapters, so as to render feasible use of scribe equipment in connection with any one of a number of pen types.

Accordingly, it is a principal object of the present invention to adapt conventional scribe equipment so that the same may employ mechanical drawing pens of any one of a number of different types, the threaded portion of the pen barrels being utilized in conjunction with other specific structure, hereinafter described, to facilitate the mounting of the pen to a conventional lettering scribe.

Another object of the invention is to provide improved scribe apparatus employing suitable magnetic retention means for retaining selected pens in position.

A further object of the invention is to provide a unique adjustability as to vertical orientation of a mechanical drawing pen, and this whether the points thereof are of similar or slightly different sizes.

A further object is to provide improved scribe structure wherein the same, by suitably devised magnetic means, may entertain the placement of adapter rings of any one of a number of desired drawing pens in proper

placement relative to the plane of the paper upon which the scribe is to be operated.

A further object is to provide an improved scribe structure wherein easily manufactured retaining means may be supplied any one of a number of drawing pens to enable the latter to cooperate with suitable magnetic mounting means so as to position discretely the pens, whatever their pre-determined point types.

The features of the present invention which are believed to be novel are set forth with particularity in the appended claims. The present invention, both as to its organization and manner of operation, together with further objects and advantages thereof, may best be understood by reference to the following description, taken in connection with the accompanying drawings in which:

FIGURE 1 is an exploded, perspective view of the basic structure as contemplated by the present invention.

FIGURE 2 is an enlarged, fragmentary left-side elevation of the writing pen, adapter ring, and support structure shown in FIGURE 1.

FIGURE 3 is an enlarged, fragmentary, right-side elevation, showing alternate writing pen structure, and a particular adapter ring therefor, utilized in the practice of the present invention.

FIGURE 4 is an enlarged, fragmentary, partially-sectioned view taken along a horizontal plane and looking downwardly at the releasably secured means supplied to secure this structure to the basic structure of FIGURE 1.

FIGURE 5 is a rear elevation of the support structure or support member of FIGURES 1-3 and is partially broken away for convenience of illustration.

FIGURE 6 is a perspective view, partially cut away for convenience of illustration, of the support structure or member of the present invention when separately considered.

In FIGURE 1 lettering scribe 10 is shown to include conventional scribe parts comprising scribe frame 11, tail pin 12 releasably secured thereto, and adjustable arm 13 adjustably secured by knurled thumb screw 14 to scribe frame 11, the adjustable arm 13 having scribe point 15. In conventional practice, the arm 13 is made movable or adjustable about the axis of thumb screw 14 so that lettering slant may be pre-determined as desired. Scribe frame 11 includes a front extension 16 provided with vertically oriented apertures 17 and 18 which are contiguous with the longitudinal slit 19, the latter being selectively constricted by the conventional thumb screw 20 provided. In practice, thumb screw 20 is threaded through the aligned, threaded apertures 21 provided in the forward extension 16. Also preferably included in the lettering scribe design is a grasping boss 22' which is graspable by the thumb and fingers of the user and which is permissively removable from the scribe frame 11.

In normal practice the apertures 17 and 18 may be used, alternately, for receiving and retaining in place lettering tools commonly referred to as lettering points. Of course, conceivably but one aperture such as aperture 17 need only be provided. Fixed retention of the points is enabled through the provision of thumb screw 20.

The present invention contemplates the employment of a support member 22 which, see FIGURE 2, includes upstanding portion 23 and base portion 24 contiguous with each other. The base portion 24 is provided with depending pens 25 and 26 which are adapted for positioning in respective mounting apertures 17 and 18, respectively, see FIGURE 1. The upstanding portion 23 of support member 22 includes alignment indicia 27 and 28, the purpose for the inclusion of which will be shown and described hereinafter.

3

FIGURE 2 illustrates one type of drawing pen or writing tool 29, the same including threaded portion 30 on the barrel 31 thereof and a conventional point 32. An adapter mounting ring 33 is supplied in the present invention and is interiorly threaded at 34 for receiving the threaded barrel of pen 29 as shown in FIGURE 2. Adapter mounting ring 33 preferably includes alignment indicia 36 disposed about the periphery thereof.

Other views of the support member 22 are illustrated in FIGURES 5 and 6. FIGURES 5 and 6 illustrate in particular that a support member 22 includes a cylindrically concave, adapter ring placement face 35. This face is preferably vertical and at right angles with respect to base portion 24. The concave face 35 is preferably cylindrically concave and the adapter mounting ring 33 cylindrically configured so that the two may abut together in a manner illustrated in FIGURE 2. In this connection it should be mentioned that, in a preferred form of the invention shown, either the support member 22, or the adapter mounting ring 33, or both, are of magnetic material, e.g. support member 22 may be of magnetized iron or an iron, cobalt alloy going under the trade name Alnico, and ring 33 be of paramagnetic (magnetically responsive) ferrous material. It is desirable that the force of magnetism be relied upon to secure the adapter ring 33 against concave face 35 of support member 22. This allows for slight incremental adjustments as may be necessary in connection with the placement of point 32 on to the drawing paper. To facilitate such alignment, it is preferred that the indicia 36 and 27 be supplied, as shown in FIGURE 2, so as to enable an initial (and perhaps a final) alignment of the pen 29 with respect to support member 22 and the scriber pen in general, in order that the point 32 be appropriately positioned. For this purpose it is desirable that the adapter mounting ring 33 be threaded all the way up to the top of threaded portion 30 of the barrel of pen 29, at which point it will be understood that alignment indicia 36 will be discretely placed with respect to indicia 27 and, when so placed, will insure that the pen point 32 will be positioned at the correct level.

The purpose for including multiple indicia within the area 27 of support member 22 is to take cognizance of the situation that even for certain definite types of drawing pens, the points which may be used therein may in fact vary, by virtue of their design, as to elongation from the pen proper. The plural marks of indicia 27 may be discretely placed so as to accommodate well-known types of European and domestic points.

Similar plural indications are given in the indicia 28 in FIGURE 2. This is for the purpose of accommodating indicia 37 of alternate adapter-mounting ring 38. Adapter mounting ring 38 is for the purpose of threadedly containing a different type of writing tool or pen 39 in FIGURE 3 from that shown in FIGURE 2. It will be noted in FIGURE 3 that the threaded portion 40 of the barrel of pen 39 is disposed at a region which is lower with respect to pen 29. Hence, a different adapter ring 38 will be required because the outer portion of the barrel will have a different outside diameter when compared with that of pen 29. Indicia 28' (corresponding in elevation to indicia 28 in FIGURE 2) and indicia 27' (corresponding in elevation to indicia 27 in FIGURE 2) insures the proper alignment of the adapter mounting ring 38 may be provided as between indicia 37 and indicia 28'. Again, the reason for the plural marks in indicia 28' is to accommodate the structure for a variety of European and domestic points used with the pens extant.

The structure shown in the drawings operates and is used as follows. The pen (29 or 39 in FIGURES 2 or 3, respectively) is selected and inserted in the proper adapter mounting ring (33 or 38). The scriber 10 will be initially provided with the support member 22 which, if used as permanent equipment, may be in fact affixed in any manner desired to the basic scriber 10. Where removable structure is required, then the support member

4

22 will be provided with pins 25 and 26 which may be suitably inserted and withdrawn from mounting apertures 17 and 18. The mounting of support member 22 to scriber 10 necessarily affixes a disposition of 27 and 28 above the plane of the paper upon which the scriber is to be used. Thus, where the user simply orients indicia 36 of adapter mounting ring 33, for example, then the pen 29 and its point 32 necessarily, will be placed in a proper position so that the scribing operation may be commenced.

Where a different pen is to be used, as in the case of FIGURE 3, then the pen with its associated adapter ring 38 will be provided and the indicia 37 of adapter ring 38 so positioned as to be in appropriate relationship with indicia 28 (28' in FIGURE 3) to insure proper positioning of the pen. Where slightly different pen-points 32 and 44 are required, then different alignment may be employed as by the respective adapter rings being positioned such that their indicia 36, 37, may be appropriately aligned with other markings upon the support member 22.

Thus, the invention is seen to provide suitable and easily manipulated means whereby pens of different character may be releasably affixed to conventional scriber structure.

FIGURE 4 merely illustrates in horizontal section the manner of releasable securement of the pins 25-26 of support member 22 from the basic scriber structure 10 at apertures 17 and 18 thereof.

While particular embodiments of the present invention have been shown and described, it will be obvious to those skilled in the art that changes and modifications may be made without departing from this invention in its broader aspects, and, therefore, the aim in the appended claims is to cover all such changes and modifications as fall within the true spirit and scope of this invention.

I claim:

1. In a lettering scriber including a scriber frame, a depending tail pin affixed to and depending from a rearward portion of said scriber frame, and a depending scriber point affixed to said frame forwardly of said tail pin, an improvement comprising a writing tool support member secured to said frame remote from said tail pin and said scriber point, a writing tool, and means secured to said writing tool for releasably mounting said writing tool to said support member in a writing position for said scriber, one of said support member and said means being magnetic, the remaining one of said support member and said means being magnetically responsive, said support member and said means being magnetically, releasably intercooperable for mutual, releasable securement together.

2. Structure according to claim 1 wherein said support member is upstandingly elongate, said support member having alignment indicia means for orienting said writing tool with respect to said support member.

3. Structure according to claim 1 wherein said support member is upstandingly elongate, said support member having plural, spaced alignment indicia for orienting said releasably mounting means upon said support member.

4. Structure according to claim 1 wherein said support member is magnetic.

5. Structure according to claim 1 wherein said releasably mounting means comprises an internally threaded adapter mounting ring, said writing tool being externally threaded and releasably receiving said adapter mounting ring thereat, said adapter mounting ring having alignment indicia, said support member also having alignment indicia disposed for correspondence with said alignment indicia of said adapter mounting ring when said writing tool is positioned, height-wise, for writing.

6. In a lettering scriber including a scriber frame, a depending tail pin affixed to and depending from a rearward portion of said scriber frame, and a depending scriber point affixed to said frame forwardly of said tail pin, an improvement comprising a writing tool support mem-

5

ber releasably secured to said frame remote from said tail pin and said scribe point, a writing tool, and means secured to said writing tool for releasably mounting said writing tool to said support member in a writing position for said scribe, one of said support member and said means being magnetic, the remaining one of said support member and said means being magnetically responsive, said support member and said means being magnetically, releasably intercooperable for mutual, releasable securement together.

7. Structure according to claim 1 wherein said means comprises an adapter mounting ring, said support member having an upstanding-outwardly-facing, concave face, said adapter mounting ring being releasably received in said concave face.

8. In a lettering scribe including a scribe frame, a depending tail pin affixed to and depending from a rearward portion of said scribe frame, and a depending scribe point affixed to said frame forwardly of said tail

6

pin, an improvement comprising a writing tool support member secured to said face remote from said tail pin and said scribe point and having plural, mutually spaced alignment indicia, one of a selectable number of writing tools, and one of a selectable number of means secured to said writing tool for releasably mounting said writing tool to said support member at a respective one of said alignment indicia and, thereby, in a writing position for said scribe, one of said support member and said means being magnetic, the remaining one of said support member and said means being magnetically responsive, said support member and said means being magnetically, releasably intercooperable for mutual, releasable securement together.

No references cited.

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