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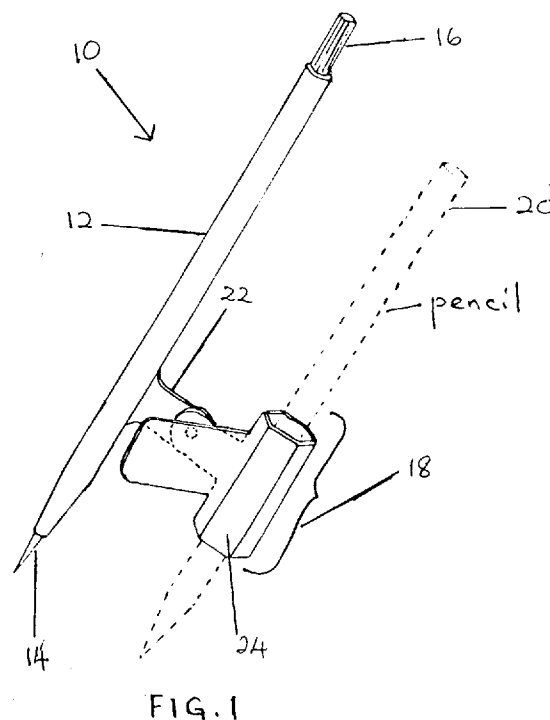
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(54) **Drawing compass.**

(57) A writing apparatus (10) to draw circles and/or circular arcs of predetermined radius consisting of a sharp pivotal point at the terminal end of an elongate leg member (12) and a holder to receive a writing instrument such as a pen or pencil and a finger member to rotate the apparatus about its vertical axis characterised in that the holder (18) is rotatable about an axis perpendicular to the longitudinal axis of the elongate leg member and is secured to the elongate leg member.



The present invention relates to a writing apparatus and in particular to a writing apparatus to draw circles or circular arcs.

Prior art writing apparatus to draw circles or circular arcs consists of a V-shaped hinged instrument with first pointed leg hinged to a second leg which includes a laterally disposed attachment along the second leg to receive and hold an elongate writing instrument such as a pencil or a pen commonly a grip holder is secured at the hinge, to facilitate the holding of the apparatus to draw the circles or the circular arcs. The distance between the terminal end of the pointed leg and the sharp point of the rib or lead of the writing apparatus forms the radius of the circle or circular arc to be drawn. One of the disadvantages of the prior art, is that to facilitate the convenient operation of the writing apparatus the pen or pencil has to be substantially shorter than the length of the second leg. Otherwise the free end of the pen or pencil interferes with the thumb and index finger movement when the first leg is rotated about its longitudinal axis in the drawing of a circle or circular arc.

In prior art writing apparatus of the type described above, the laterally disposed attachment includes a cylindrical block with grooves (threads) along the circumferential surface. An aperture is provided along the cylindrical block to receive a pen or pencil. A tightenable circular ring is provided, to securely fasten the pen or pencil in the said aperture by rotating the circular ring towards the longitudinal axis of the second leg until the circular ring firmly presses against the pen or pencil already in the aperture such an arrangement to secure a pen or pencil in the aperture is extremely inconvenient in that as the grooves wear out, it is difficult to rotate the circular ring along the grooves.

Thus it is an object of the present invention to provide a writing apparatus to draw circles and/or circular arcs wherein only one leg is provided and wherein the writing instrument is received and held by a clip mechanism.

According to the invention there is provided a writing apparatus to draw circles and/or circular arcs of pre-determined radius consisting of a sharp pivotal point at the terminal end of an elongate leg member and a holder to receive a writing instrument such as a pen or pencil and a finger member to rotate the apparatus about its vertical axis. The holder is rotatable about an axis perpendicular to the longitudinal axis of the elongate leg member and is secured to the elongate leg member.

Advantageously the holder to receive a writing instrument includes a clip means rotatably fastened to a lateral finger.

The lateral finger can be secured to the elongate leg member in the perpendicular or at any desired angle to the longitudinal axis. To control the rotational movement of the clip means, it is frictionally controlled

at the axis of the mount to the lateral finger. The angle of rotation of the clip means about the axis of the mount is preferably 360° is both clockwise and counterclockwise directions.

In order that the invention may be more clearly understood reference will now be made to the accompanying drawings which show a preferred embodiment thereof by way of example and in which :-

Fig. 1 is a perspective view of the drawing apparatus embodying the invention.

Fig. 2 is a front elevation thereof.

Fig. 3 is a plan view of the drawing apparatus shown in Fig. 1.

Fig. 4 is a rear view of the drawing apparatus shown in Fig. 1.

Referring now to the drawings in Figs. 1 to 4 a writing apparatus (10) has a longitudinal leg member (12), with a sharp pointed end (14) and a grip means (16) at the other end. A means (18) to hold a writing instrument (20) is provided and which means is rotatable about an axis substantially perpendicular to the longitudinal axis of leg member (12).

The leg member (12) is elongate and includes a terminal sharp end (14). The sharp end can be an integral part of the leg member (12) or alternatively a sharp pointed metal end (14) can be secured into the leg member (12) which leg member can be hollow or solid. In the preferred embodiment, a metal rod is secured into a partially hollow leg member. A metal end retains its pointedness over a longer duration of usage as compared to a plastics pointed end.

The other end of the leg member includes a grip means (16). The grip means preferably includes a friction surface to provide a non-slip grip, the friction surface is preferably a grooved surface.

The writing apparatus (10) includes a lateral flange number (22) which is designed and configured to receive a clip (24). One arm (26) of the clip is rotatably mounted onto the lateral finger member (22); the axis of rotation of the clip (24) being perpendicular to the longitudinal axis of the leg member. Suitable frictional elements, such as friction washers are included in the joint means connecting the lateral flange member and the arm of the clip. The internal gripping surface of the clip can be configured to secure the writing instrument such as a pencil or a pen in a non-slip manner or alternatively can be configured to grip specific writing instruments. The biasing means in the clip is selected such that the writing instrument can be inserted into the clip by applying thumb pressure on the arms of the clip.

It will be understood that other suitable means to secure and hold a writing instrument can be secured to the lateral finger member (22).

The operation of the writing apparatus will now be described. A writing instrument (20) such as a pencil or a pen is introduced into the clip (24). The distance between the tip of the sharp metal end and the tip of

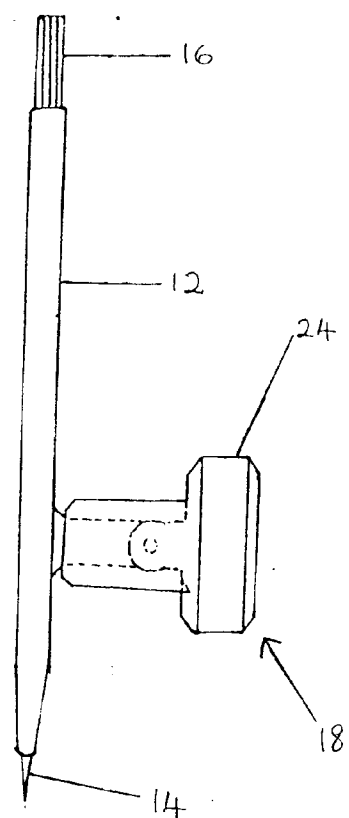
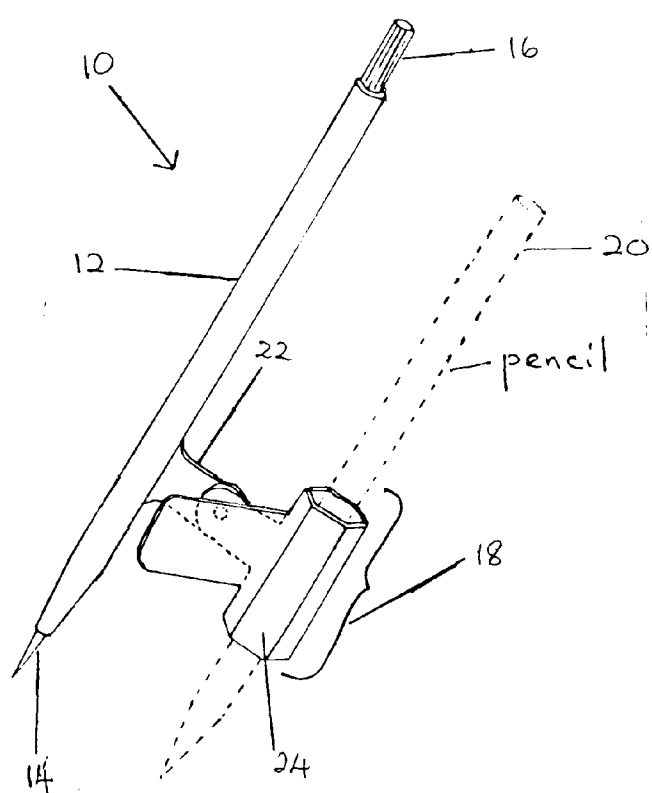
the writing instrument would form the radius of the circle or the circular arc to be drawn. The radius can be varied by adjusting the angle of inclination of the writing instrument to the longitudinal axis of the leg member. As the clip can rotated 360° about the joint means, it is possible to vary the radius from a very small measure to a large measure. The circle or the circular arc is drawn by holding the grip means (16) between the thumb and fore-finger and rotating the leg member about its longitudinal axis. 5 10

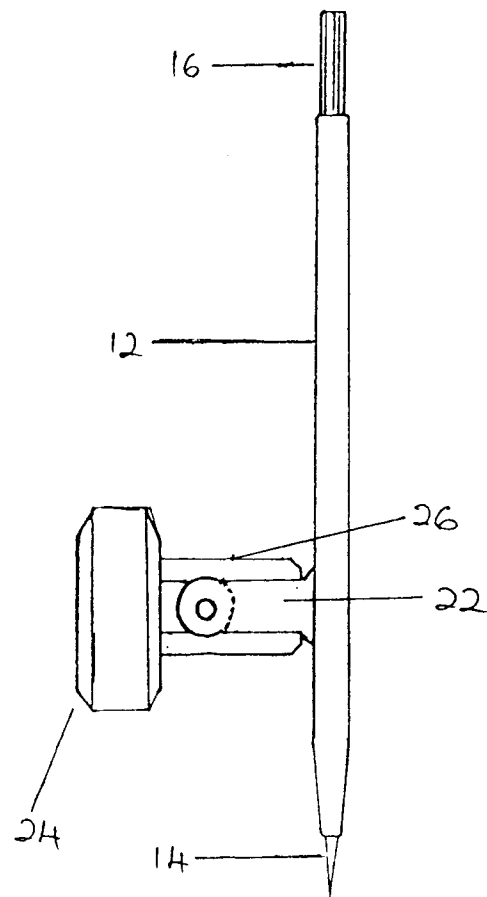
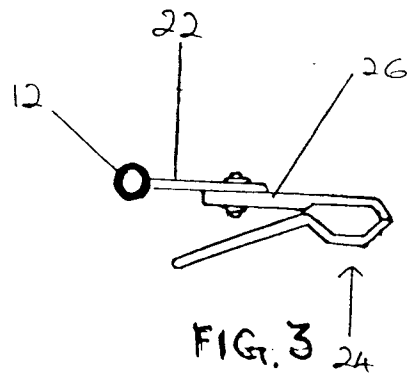
The invention can suitably be made of rigid material such as metals or rigid plastics.

it will be understood that the drawing apparatus is capable of many modifications in structure and design without departing from the spirit of the invention within the scope of the appended claims. 15

Claims

1. A writing apparatus (10) to draw circles and/or circular arcs of predetermined radius consisting of a sharp pivotal point at the terminal end of an elongate leg member (12) and a holder to receive a writing instrument such as a pen or pencil and a finger member to rotate the apparatus about its vertical axis characterised in that the holder (18) is rotatable about an axis perpendicular to the longitudinal axis of the elongate leg member and is secured to the elongate leg member. 20 25 30
2. A writing apparatus as claimed in Claim 1 wherein the holder is characterised by a clip means (24) rotatably fastened to a lateral finger member (22). 35
3. A writing apparatus as claimed in Claim 2 wherein the lateral finger member (22) is secured to the elongated leg member (12) along the longitudinal axis of the said elongate leg member. 40
4. A writing apparatus as claimed in Claim 2 where the clip means (24) is designed to receive and hold firmly any writing instrument (18) including a pencil or a pen. 45
5. A writing apparatus as claimed in Claim 4 wherein the rotational movement of the clip means (24) about the lateral finger (22) is frictionally controlled. 50
6. A writing apparatus as claimed in Claim 5 wherein the clip means (24) can be rotated 360° in both directions about its axis of mount on the lateral finger (22). 55







European Patent
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EUROPEAN SEARCH REPORT

Application Number

EP 92 30 0905

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	DE-A-2 726 345 (CRONACHER) * page 6, line 5 - page 8, line 12; figures *	1,3	B43L9/02
Y	---	2,4,5	
Y	US-A-2 981 001 (SCHNELL) * column 1, line 55 - column 2, line 22; figures *	2,4,5	
X	---	1,6	
X	US-A-3 537 181 (GRAEF) * column 2, line 42 - column 4, line 10; figures *	1,6	
X	---	1,6	
A	DE-A-2 750 277 (WALDER) * page 5, paragraph 2 - page 6, paragraph 1; figures 1,2,4 *	1,2,4	TECHNICAL FIELDS SEARCHED (Int. Cl.5) B43L
A	GB-A-669 909 (MOLESWORTH) * page 1, line 63 - page 2, line 43; figures *	1,6	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 14 MAY 1992	Examiner PERNEY Y.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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