

G. J. PETERSEN.  
 DRAWING IMPLEMENT.  
 APPLICATION FILED OCT. 24, 1910.

1,002,749.

Patented Sept. 5, 1911.

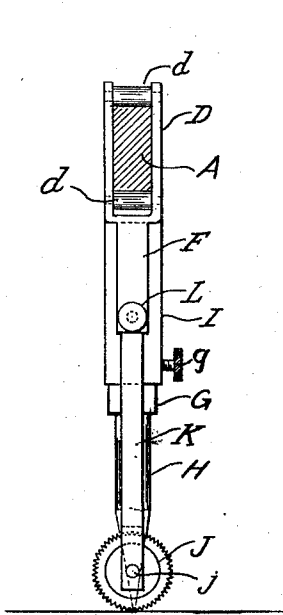


FIG. 1.

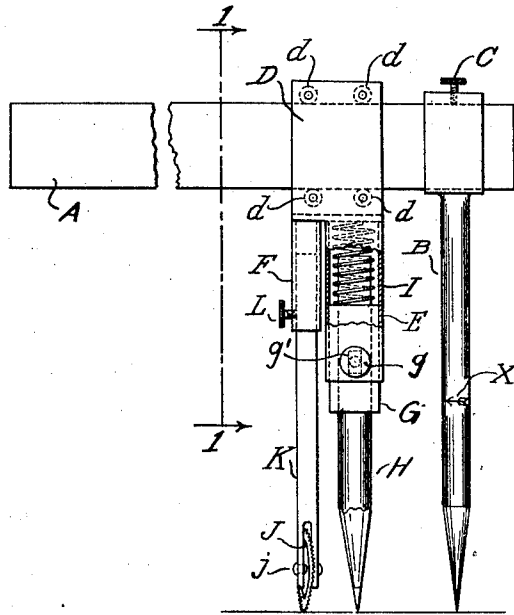


FIG. 2.

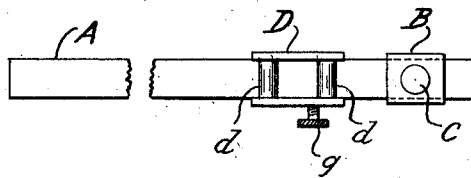


FIG. 3.

WITNESSES:  
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# UNITED STATES PATENT OFFICE.

GEORGE J. PETERSEN, OF CHICAGO, ILLINOIS.

DRAWING IMPLEMENT.

1,002,749.

Specification of Letters Patent.

Patented Sept. 5, 1911.

Application filed October 24, 1910. Serial No. 588,918.

To all whom it may concern:

Be it known that I, GEORGE J. PETERSEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Drawing Implement, of which the following is a specification.

This invention relates to devices used for drawing curved lines and the object of the invention is to obtain an instrument by which a spiral may be drawn from a given center. Further to obtain an instrument which can be adjusted to automatically draw spirals diverging at different angles from a circle around a given point.

I attain these objects by the mechanism illustrated in the accompanying drawing, in which:—

Figure 1 is a section on line 1—1 of Fig. 2, viewed in the direction indicated by the arrows. Fig. 2 is a side elevation of a device embodying the invention, and Fig. 3 is a top plan view.

Similar letters refer to similar parts throughout the several views.

A is a horizontal bar.

B is a needle mounted on bar A.

C is a set screw by means of which needle point B may be secured rigidly in an adjusted position on bar A.

D is a traveling head mounted on the bar A.

$d, d,$  are rollers rotatably mounted in head D to come in contact with the upper and lower faces of the bar A. The purpose of the rollers  $d$  is to lessen the force required to move the head D along on bar A.

E, F, are pockets on head D.

G is a pencil or pen holder which is movably inserted in pocket E.

$g$  is a set screw in the cylindrical wall of pocket E, which prevents the rotation of holder G in said pocket.

$g'$  is a short groove or recess in the cylindrical wall of holder G, in which groove the end of the screw  $g$  fits. A slight up and down movement to holder G in pocket E is thus obtainable while the holder cannot turn.

H is a pencil secured in holder G and I is a spring in pocket E the upper end of which is in contact with the bottom of the pocket E and the lower end of which is in contact with the upper end of holder G. The spring I tends to force holder G and pencil downward onto the paper or other

article on which a spiral is to be drawn by the device.

J is a tooth wheel rotatably mounted in stem K. Stem K may be put into pocket F and secured by set screw L in any desired position. To draw a scroll the axle  $j$  of wheel J is set at an angle to a line passing through needle B and pencil H. This is well illustrated in Fig. 2 and when set as in said Fig. 2, in order to draw an ever enlarging scroll around the point of needle B the device must be turned in the direction indicated by the arrow marked X on the needle B, in Fig. 2. When the wheel J is set as illustrated in Fig. 2 and the device is turned around the needle B in the opposite direction to the arrow marked X the scroll drawn by the pencil H will converge toward said needle. By turning the stem K in pocket F from the position thereof illustrated in Fig. 2 to a different position a different scroll will be automatically drawn by the device from the one which will be drawn with said wheel adjusted as illustrated. The operation is effected by the wheel J forcing the head D along the bar A as the device is rotated around the point of needle B. It is of course evident that what is known as a right line drawing pen may be substituted for pencil H in holder G.

I claim,

1. A bar, a needle mounted on the bar, a head freely slidable on the bar with rollers interposed between the head and the bar, a plurality of holders attached to said head, in combination with a stem adjustably rotatable in one of the holders, and a marking device in the other of said holders, means to yieldingly hold the marking device in a forward position in its holder, means to maintain the stem in an adjusted position, and a toothed wheel rotatably mounted in the stem.

2. A bar, a needle adjustably mounted on the bar, means to maintain the needle in an adjusted position, a head freely slidable on the bar and a plurality of holders attached to said head, in combination with a stem adjustably rotatable in one of the holders, means to maintain said stem in its rotatably adjusted position in said holder, a toothed wheel rotatably mounted in said stem, a marking device in the remaining holder and means to yieldingly hold said marking device in operative position.

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3. A bar, a needle adjustably mounted on the bar, means to maintain the needle in an adjusted position, a head freely slidable on the bar and a plurality of holders attached  
5 to said head, in combination with a stem adjustably rotatable in one of the holders, means to maintain said stem in its rotatably adjusted position in said holder a toothed wheel rotatably mounted in said stem, a  
spring and a marking device in the remain- 10  
ing holder, said spring arranged to yield-  
ingly hold the marking device in an opera-  
tive position.

GEORGE J. PETERSEN.

In the presence of—  
MARTIN MATTHESEN,  
CHARLES TURNER BROWN.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
Washington, D. C."

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