

O. A. ZEIER, DEC'D.
J. ZEIER, ADMINISTRATOR.
CURVE SCRIBER.

APPLICATION FILED SEPT. 29, 1908. RENEWED DEC. 27, 1909.

956,920.

Patented May 3, 1910.

2 SHEETS-SHEET 1.

Fig. 1

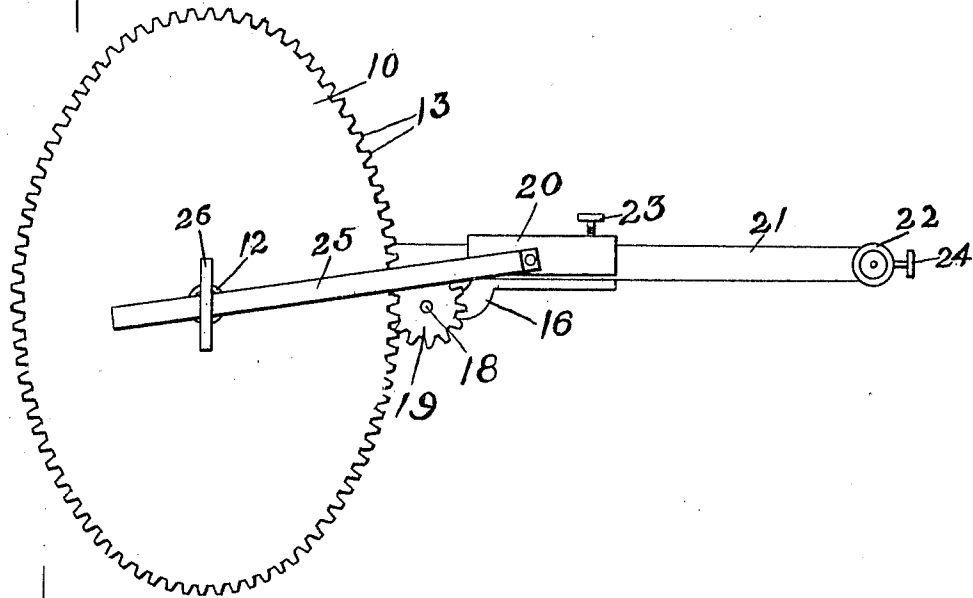
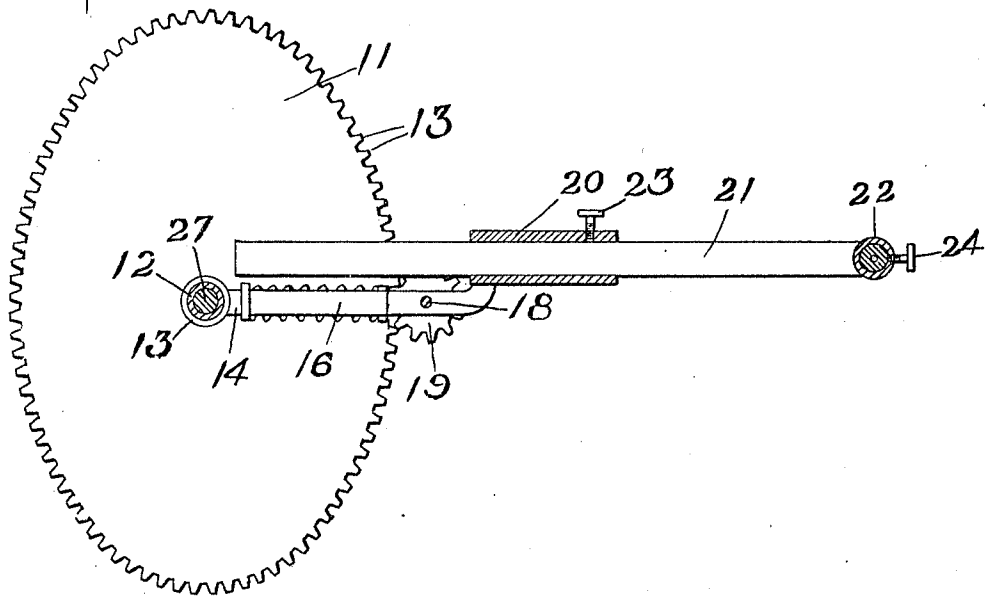


Fig. 2



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Witnesses

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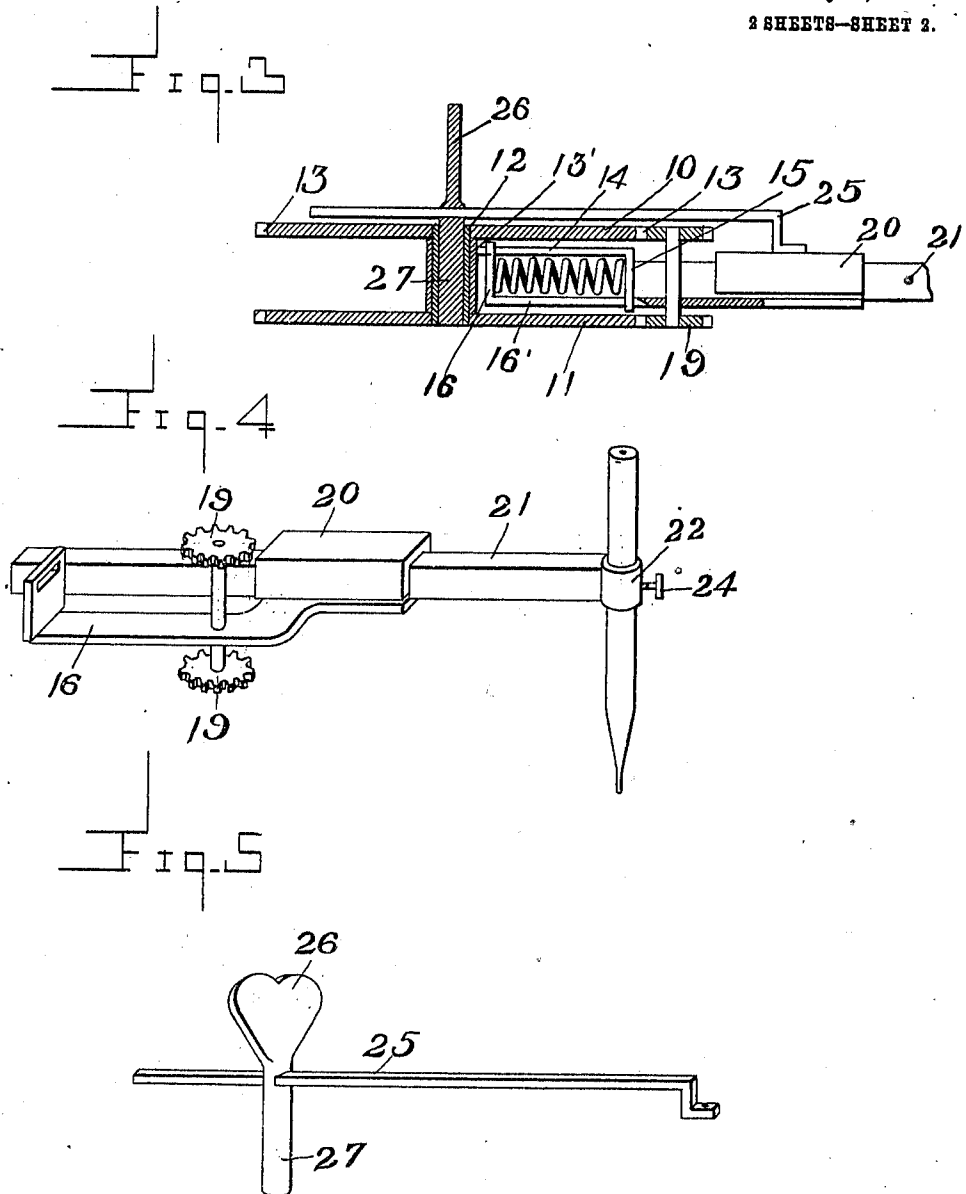
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UNITED STATES PATENT OFFICE.

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ODILO A. ZEIER, DECEASED.

CURVE-SCRIBER.

956,920.

Specification of Letters Patent.

Patented May 3, 1910.

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To all whom it may concern:

Be it known that I, ODILO A. ZEIER, a citizen of the United States, residing at Madison, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Curve-Scribers, of which the following is a specification.

This invention relates to curve scribes, and has for its object to provide such a device which will be extremely simple to use, and adjustable to form curved figures of various sizes.

Another object is to provide a novel form of extensible arm for carrying a marking instrument.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the accompanying drawings, in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top view of the instrument, Fig. 2 is a horizontal sectional view, Fig. 3 is a vertical sectional view through the device, Fig. 4 is a detail of the pencil carrying arm, Fig. 5 is a detail of the guiding means.

Referring to the drawings, there is shown a curve scriber comprising spaced ovate plates 10 and 11 connected by means of a concentric tubular shaft 12 and carrying peripheral teeth 13. Engaged revolubly around the shaft 12, there is a sleeve 13' carrying a radial arm 14 having a laterally extending encircling guide 15. Engaged through the guide 15 there is a similar arm 16' having a guide 16 at its end engaged around the arm 14, for sliding extensible movement of the two arms. Engaged between the arms 14 and 16' there is a helical spring bearing at its opposite ends against the guides 15 and 16, to hold the arms yieldably in overlapped relation for longitudinal movement relatively. Carried by the arm 15 outwardly of the plates 10 and 11, there is a vertical shaft 18 carrying at its opposite ends gears 19 meshed with the peripheral teeth of the plates. Outwardly of the shaft 18, the arm 15 carries a longitudinal boxing 20 having an arm 21 of a pencil-carrying member 22 engaged slidably therein. The boxing is offset laterally

of the arm 15, so that the arm 21 will not interfere with the extensible arrangement of the device. A set screw 23 is engaged in the side of the boxing 20 to hold the arm 21 adjustably therein. The pencil-carrying member 22 comprises a collar of desirable shape adapted to receive a vertical pencil slidably therethrough and carries a set screw 24 to secure the pencil adjustably therein. Engaged with the boxing 20 there is an upwardly offset operating arm 25 extending inwardly over the plate 11 and engaged slidably through a winged operating member 26 having a shank portion 27 disposed revolubly within the tubular connection 12.

It will be seen that upon rotation of the member 26, the arms 14 and 16 will be rotated, carrying the boxing 20 therewith. The gears 19 will engage with the peripheral teeth of the plates, and operate the marking member radially to vary its distance from the axis of the plates to correspond with the engaged edge of the plate. It will thus be seen that an oval of any desired size may be marked with facility.

The device is adapted to be laid upon a sheet of paper or other material upon which it is desired to draw a figure, the engagement of the arm 21 with the boxing 20 being adjusted by means of the set screw 22 to suit the size of the figure which it is desired to draw, and the pencil being adjusted to bear upon the surface with proper weight. The device may then be held firmly in position by pressing upon the upper plate 11 with one hand while the member 26 is rotated with the other.

What is claimed is:

1. An instrument of the class described comprising spaced concentrically connected plates, a radially disposed revoluble arm concentrically connected therewith, a second arm engaged slidably with the first arm, resilient means coengaged therebetween to hold the last arm normally at the inner limit of its movement, a cross-head member carried by the second arm and engaged slidably against the edges of the plates, and a marking member carried by the second arm and adjustable longitudinally thereof for demarcation of figures of various sizes upon rotation of the arms.

2. A device of the class described comprising spaced guide plates, a revoluble arm concentrically coengaged therebetween, said

arm carrying a perforated head at its outer end, a second arm engaged slidably through the head and having a similar head engaged slidably around the first arm, a spring engaged between the head to hold the second arm at the inner limit of its movement, a guide member carried by the second arm in engagement with the periphery of the plate for radial reciprocation of the second arm upon rotation of the other two arms, a longitudinally adjustable pencil-holding member carried by the second arm and means for rotating the arm.

3. A device of the class described comprising a guide plate, an arm pivoted centrally thereof, said arm having a second arm slidably engaged thereon, spring means engaged between the arms to hold the second arm normally at the inner limit of its movement, means carried by the second arm for engagement with the periphery of the plate, to induce a reciprocation of the second arm upon rotation of the arms, the second arm carrying a longitudinally extending sleeve, a pencil-holding member slidably engaged in the sleeve, means for securing said pencil holder adjustably at various points of its movement, a revoluble operating member disposed centrally of the plate, and connections between the operating member and the second arm for rotation thereof.

4. An article of the class described including a guide plate, an arm pivoted centrally thereof, said arm having a perforated head portion at its outer end, a second arm engaged slidably in the head and provided with a similar perforated head receiving the first arm slidably therethrough, spring means engaged between the heads to hold the second arm normally at the inner limit of its movement, the second arm having a lat-

eral extension turned inwardly to form a sleeve, a pencil-holding member engaged slidably in the sleeve, a clamp member carried by the sleeve and means carried by the second arm in engagement with the periphery of the plate for radial reciprocation of said arm and pencil holder upon rotation of the arms.

5. An article of the class described including a guide plate, a central pivot shaft carried thereby, an arm pivoted thereon, said arm being stamped from sheet material and having its outer end turned laterally and perforated, a second similar arm engaged slidably through the perforations and having its inner end similarly turned and perforated and receiving the first arm slidably therethrough, a spring engaged between the latter turned portion to hold the second arm normally at the inner limit of its movement, means carried by the second arm in engagement with the periphery of the plate to radially reciprocate said arm upon rotation of the arms, said arm having a lateral extension at its outer end bent to form a sleeve, a pencil holder carried in said sleeve radially slidable with relation to the plate, clamp means for adjustably securing the pencil holder in the sleeve, a revoluble key carried centrally of the plate, said key having a transverse passage therethrough, an arm engaged slidably in the passage and secured at its outer end to the second named arm for rotation of the arms upon manipulation of the key.

In testimony whereof I affix my signature, in presence of two witnesses.

ODILO A. ZEIER.

Witnesses:

JOHN CORNELIUS JOHNSON,
LORNCÉ ZEIER.