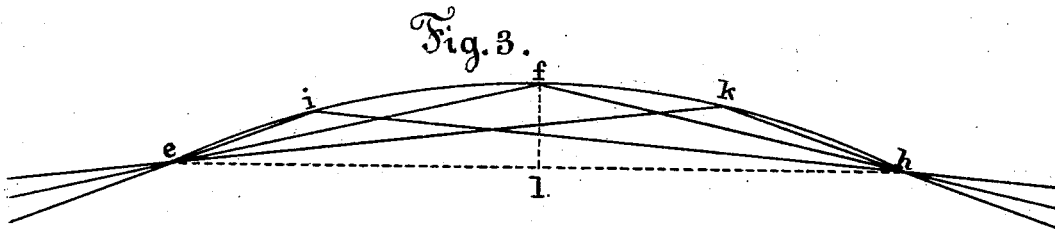
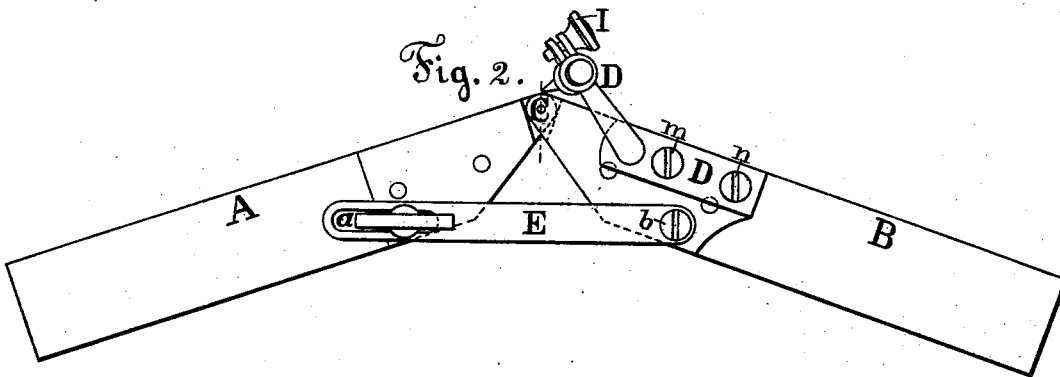
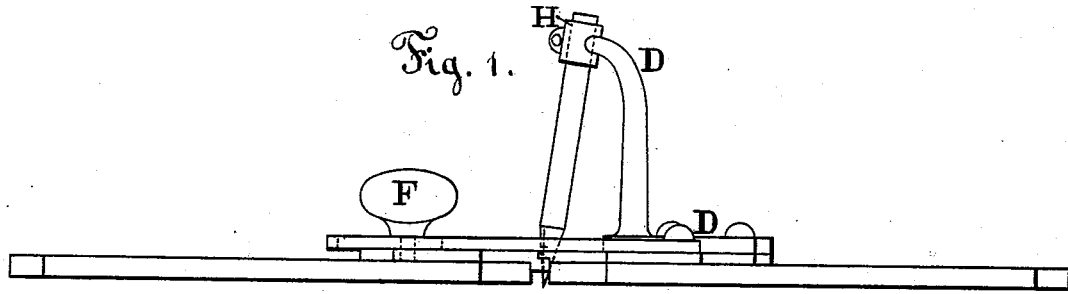


T. SCHEFFLER.

Instrument for Drawing Arcs of Circles.

No. 212,627.

Patented Feb. 25, 1879.



Witnesses:  
*Max Schenck*  
*Ph. Dreier*

Inventor:  
*Theodore Schöffler*

# UNITED STATES PATENT OFFICE.

THEODORE SCHEFFLER, OF PATERSON, NEW JERSEY.

IMPROVEMENT IN INSTRUMENTS FOR DRAWING ARCS OF CIRCLES.

Specification forming part of Letters Patent No. 212,627, dated February 25, 1879; application filed July 25, 1878.

*To all whom it may concern:*

Be it known that I, THEODORE SCHEFFLER, of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful Instrument for the Purpose of Drawing Arcs of Circles of very Large Radius without the Use of a Trammel. Said instrument I call "Curve-Lineater," and the following is a specification of the same.

To describe arcs of circles if the radius be above five feet, and even one hundred feet, is generally found a very inconvenient matter, and therefore an instrument which would facilitate the operation will be considered very valuable.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a side view; Fig. 2, a plan; and Fig. 3 is for the explanation of the operation with the instrument.

The instrument consists of two straight-edges, A and B, which join by means of a small pivot, C, and there may form the vertex of an angle, such as is required in operating. E is a small bar connecting the two straight-edges, and keeping the latter in their proper position. On the straight-edge B the bar E is held by means of a screw, *b*, which fits in the hole of the bar; but on the straight-edge A the bar has a slot, *a*, so that the straight-edges may be placed at different angles, and, by means of the thumb-screw F, held at the required angle. D D is the adjustable pencil or pen holder. It admits of a pencil or pen to be secured in its socket H, and held tight there by the thumb-screw I. The screws *m* and *n* fasten the pen-holder D D to the straight-edge B, but admit an adjusting, the holes being somewhat larger than the screws, so that the point of the pen may be placed as

near as possible to the edge, just the same as a pen is held against a straight-edge when drawing a line.

Pencil or pen holders may be made of different shapes and construction, and also scribe-awls of steel may be inserted in place of pencils or pens, for the purpose of marking arcs of circles on metal.

To draw the arc of a circle, *e i f k h*, when the chord *e l h* and the versed sine *l h* in Fig. 3 are given, the straight-edges are in the first place adjusted to the angle *e f h*, and held in that position by means of the screw F; and as, in a circular arc between the points *e h*, all angles drawn between those points are equal, the vertexes of the angles being located in the arc, as shown in *i f k*, therefore, if the points *e* and *h* are marked with a pin or needle each, and the pencil or pen be placed at the point *e* and the instrument moved in the direction toward *h*, the edges kept pressed lightly against the pins at *e* and *h*, then the arc *e i f k h* will be produced.

The points of the pencil or pen have to be placed somewhat below the straight-edges, so that the weight of the instrument alone is necessary to produce the line. The operator should merely move the instrument steadily and keep it against the end points.

What I claim is—

An adjustable pen or pencil holder, D D, in combination with the straight-edges A and B, connected at the pivot C, and held tight by bar E, for the purpose as substantially set forth.

THEODORE SCHEFFLER.

Witnesses:

MAX JOHN,  
P. L. DUSENDORFER.