(No Model.)

C. M. PODGORSKI.

SCALE SECTION LINER.

No. 345,989. Patented July 20, 1886.

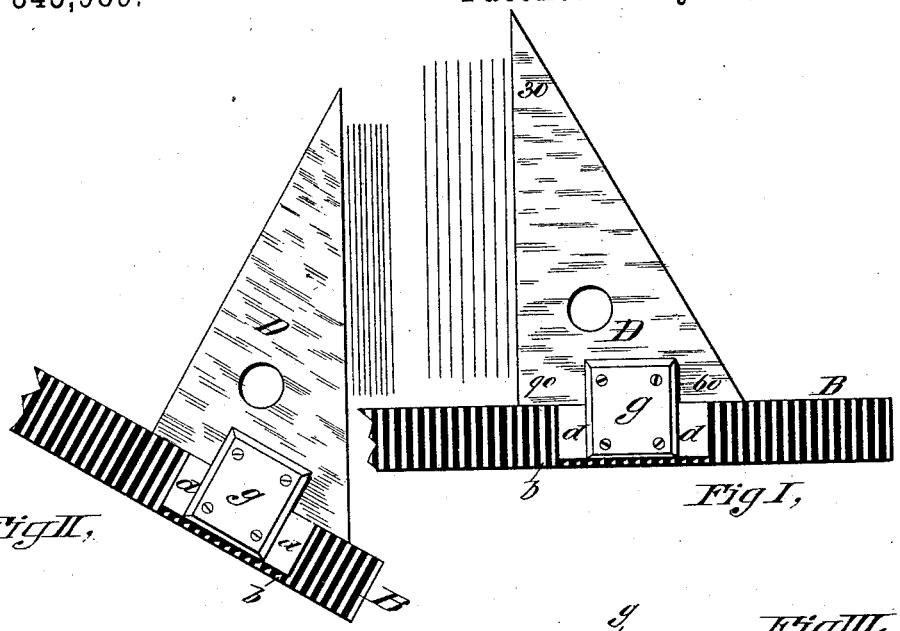

Fig I.

Fig II.

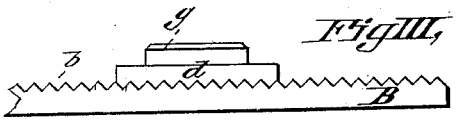

Fig III.

Fig IV.

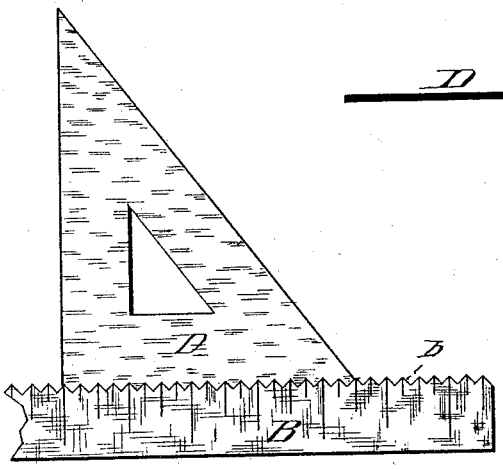

Fig V.

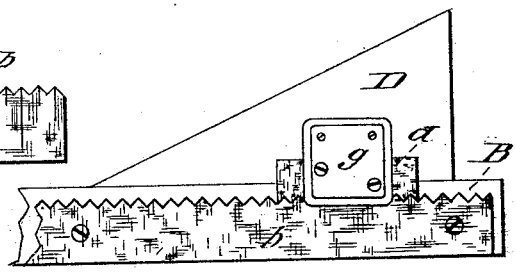

Fig VI.

Witnesses.
W. H. Burrall
T. R. Richmond.

Inventor,
C. M. Podgorski,
by R. F. Hyde
Atty.

UNITED STATES PATENT OFFICE.

CASIMIR M. PODGÓRSKI, OF NORTHAMPTON, MASSACHUSETTS.

SCALE SECTION-LINER.

SPECIFICATION forming part of Letters Patent No. 345,989, dated July 20, 1886.

Application filed January 28, 1886. Serial No. 190,051. (No model.)

To all whom it may concern:

Be it known that I, CASIMIR M. PODGÓRSKI, a subject of the Emperor of Russia, residing at Northampton, county of Hampshire, State of Massachusetts, have invented a new and useful Improved Section-Liner, of which the following is a specification.

My invention relates to apparatus for dividing a plane surface by right lines into regular and pre-determined spaces; and the invention consists in the combination and construction, as hereinafter described, and more particularly pointed out in the claim.

My invention is fully illustrated in the accompanying drawings, in which Figures I and II are plan views of my device in different positions. Fig. III is a rear elevation. Fig. IV is a side elevation of a part, and Figs. V and VI are plan views of modifications.

D is a triangle having a toothed segment, *d*, adapted to engage with a corresponding toothed segment or rack upon the ruler B.

The segment *b* upon the ruler and the segment *d* upon triangle D are relatively arranged to cause the progression of the triangle upon the ruler to be in a straight line, so that lines made upon a free side of the triangle, as a ruling-edge, will be parallel to any other made upon the same side, as the triangle is moved over the ruler without a change of position of the ruler. Any side of a triangle may be used to follow upon, what is in effect, the straight edge of the ruler.

In Fig. I an offset or post, *g*, is shown from one face of the triangle D, projecting over and holding a toothed segment, *d*, to engage with a toothed surface upon the flat upper side of ruler B, to leave a perfectly straight edge of the triangle to coincide and move upon a corresponding straight edge of the ruler.

In operation the finger of one hand exerted upon the post *g* is sufficient as a means of sliding the post with its segment *d* to consecutive teeth of the ruler or to pass over any desired intermediate number.

In Fig. V the teeth are shown made on the corresponding straight edges of ruler and triangle.

In Fig. VI corresponding removable segments are shown engaging upon surfaces parallel to the straight edges of the ruler and triangle in contact. With the same triangle and ruler corresponding segments of any size teeth may be used.

It will be seen that, the width of the teeth being known, with this instrument section and parallel lines may be quickly drawn at given distances one from the other. Any line or plane may be divided into a given number of parts without using any other scale, and without the use of "dividers." Geometrical figures can be constructed upon given dimensions. Architectural and other drawings may be augmented or diminished, as they could be with proportional dividers, and that cross-hatching and many other things may be done with this one instrument, heretofore requiring separate instruments. It will be seen that aside from the celerity with which space may be divided, the surface of paper is preserved from the injury of holes left by divider-points.

In Fig. II the device is placed in position to illustrate the employment of the diagonal to diminish the space between lines which would be ruled upon the free cathetus of the triangle in the position shown in Fig. I, and it will be seen that any required proportional diminution may be obtained by the use of a triangle having the desired and known angles.

Without a departure from the spirit of my invention, one or both of what would otherwise be the straight edges of a triangle may be changed to enable equidistant corresponding contours to be ruled. One tooth or detent in the triangle would be sufficient to cause the movement of the triangle to be governed by the teeth of the ruler; but to prevent injury to the point of one tooth or to one interdental space from affecting the accuracy of the tool, I prefer to employ, in combination with the triangle, a segment made up of several teeth.

Now, having described my invention, what I claim is—

The within-described improved scale section-liner, consisting of a straight-edge ruler provided with teeth to a scale, and a triangle or other figure having a straight base provided with one or more teeth corresponding to and engaging with those of the ruler, and adapted to be moved over said ruler to have the intervals of movement of its ruling-edges determined by the teeth of the ruler, the two combined and operating as and for the purpose set forth.

CASIMIR M. PODGÓRSKI.

Witnesses:
R. F. HYDE,
F. R. RICHMOND.