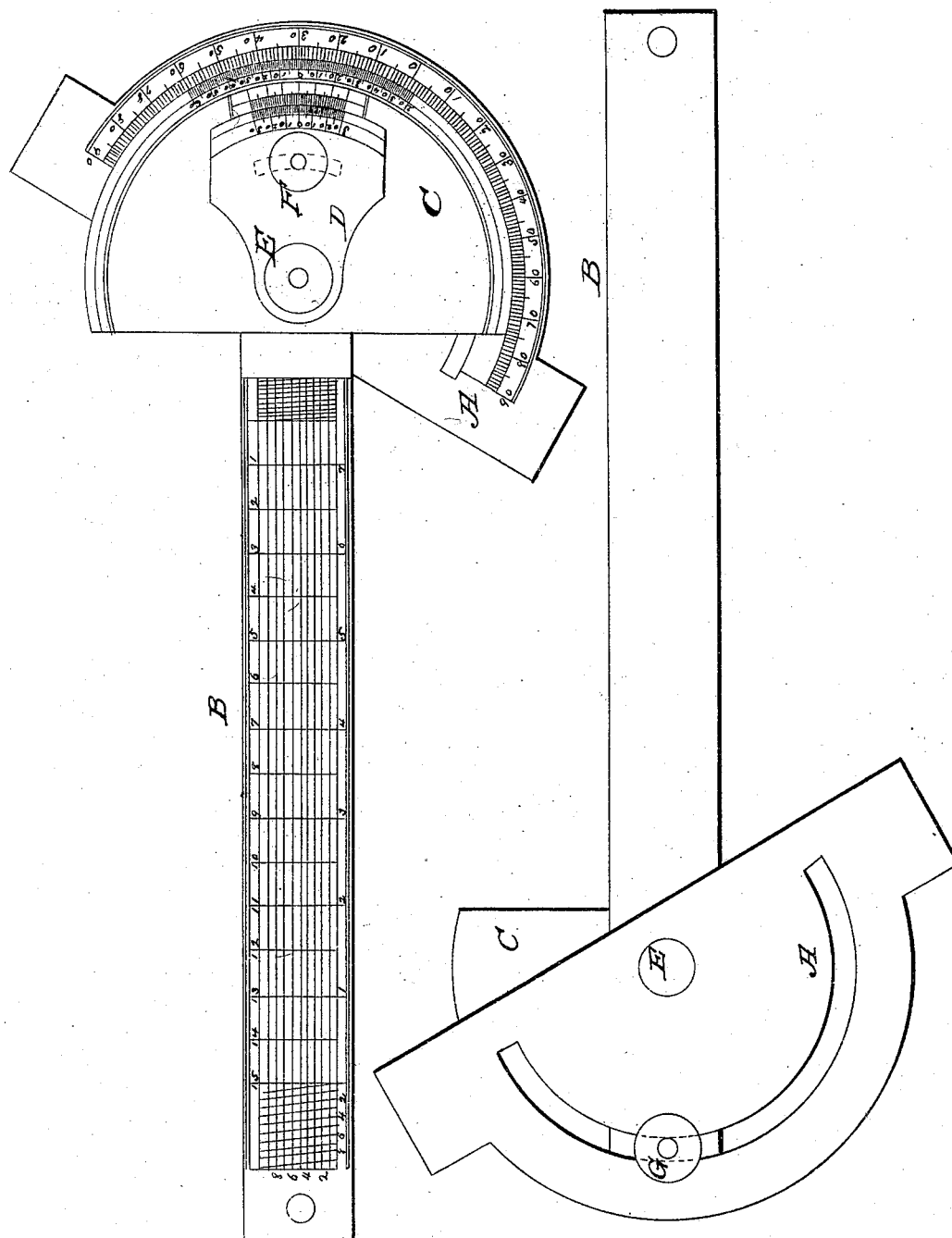


W. J. CARD.

Machine for Plotting Surveys, &c.

No. 2,561.

Patented April 16, 1842.



# UNITED STATES PATENT OFFICE.

WM. J. CARD, OF LANCASTER, OHIO.

## INSTRUMENT FOR PLATTING SURVEYS.

Specification of Letters Patent No. 2,561, dated April 16, 1842.

*To all whom it may concern:*

Be it known that I, WILLIAM J. CARD, of Lancaster, in the county of Fairfield and State of Ohio, have invented a new and useful Machine for Platting all Kinds of Surveys; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in providing four pieces of wood or metal graduated in any of the known ways of graduating protractors or surveyor's compass, which all work on a pinion screw E as a center, with two clamp screws F and G to clamp the outside pieces to the center blade B at any angle desired from 0° to 90°.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

It consists of four pieces of wood or metal, viz: the sector C, the bottom piece or semicircle A, the blade B, the nonius or top piece D. The piece marked C is graduated as a sector on the edge from 0° right and left into 60 divisions of 31 minutes each to coincide with the graduations of the semicircle A, and is also graduated on the top from 0° right and left, into 30 divisions of 30 minutes each. The bottom piece or semicircle A is graduated from 0° right and left into 90°. The top piece or nonius D is graduated from 0° right and left into 30 divisions of 31 minutes each, to coincide with the graduations on the top of the sector C. On the blade B, is laid off a diagonal scale of equal parts. All of these four pieces A, B, D, C, work on the pinion screw E as a center. The stems of the two clamp screws F and G are made fast to the blade B. When the 0° on the nonius D, the sector C, the semicircle A, coincide, the blade B forms a right angle with the straight edge of the semicircle A.

To plat a survey, I fasten my paper to a drawing board or table squared for the purpose, then loose the clamp screw G and set the semicircle A to the desired angle; then apply the straight edge of the semicircle A to one edge of the drawing board or table and slide it along until one edge of the blade B coincides with the fixed point on the paper, then with a pen or pencil mark the direction of the course along the edge of the blade B to any desired length and in like manner describe any course or angle desired from 0° to 90° right or left.

To plat an eastern or western variation, loose the clamp screw F, then move the sector C, to the right or left between the blade B and the nonius D the distance of the variation, then clamp the screw F and proceed as before described in platting a survey.

By this machine any kind of surveys can be platted much more accurately and rapidly than can be done by any method now in use.

By referring to the accompanying drawings it will be seen that I have a protractor, right angle triangle parallel ruler, nonius or vernier, and a diagonal scale of equal parts all combined on one instrument.

What I claim as my invention and desire to secure by Letters Patent under the name of the theolodian protractor, is—

The application of a graduated circle and nonius or vernier to a movable triangle or right angle, combining for that purpose as above described four pieces of wood or metal, namely, a semicircle, a sector, a nonius, and diagonal scale of equal parts, which latter also forms a parallel ruler.

W. J. CARD.

Witnesses:

H. C. WHITMAN,  
W. VAN HAMM.