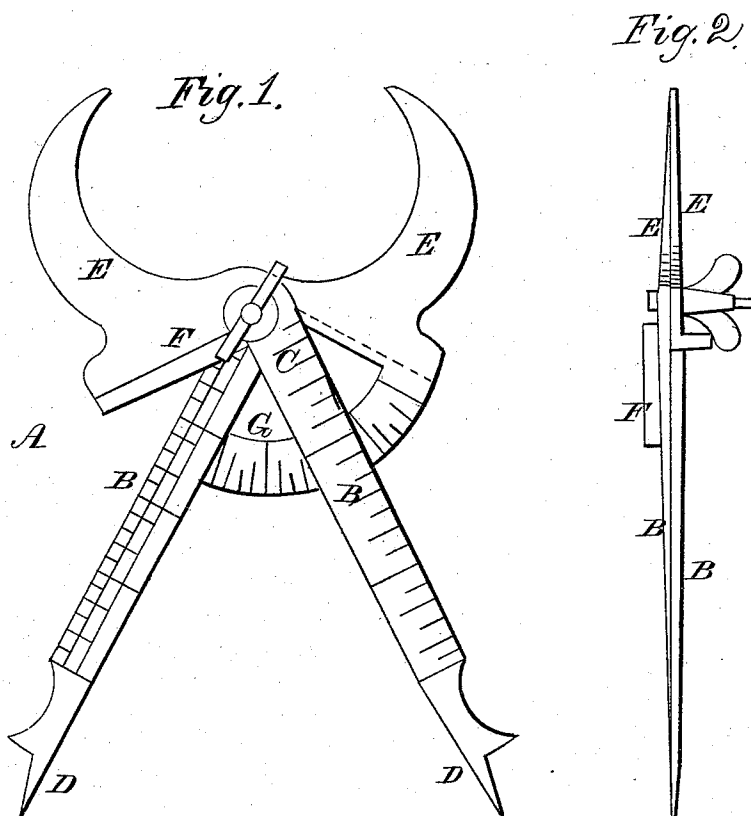


C. M. LANE.

Dividers.

No. 78,974.

Patented June 16, 1868.



Witnesses;
W. C. Aslikott
Jas. Encke

Inventor;
C. M. Lane
per *[Signature]*
attorneys

United States Patent Office.

C. M. LANE, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND CHARLES GOOCH, OF SAME PLACE.

Letters Patent No. 78,974, dated June 16, 1868.

IMPROVEMENT IN COMBINATION-TOOLS FOR MEASURING AND MARKING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, C. M. LANE, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented a new and improved Combination-Tool; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention relates to a tool in which are combined, among others, a pair of outside and inside calipers, dividers, or compasses, a square, a centring-square, and a rule.

In the accompanying plate of drawings my improved combination-tool is illustrated—

Figure 1 being a face view of the same, and

Figure 2 an edge view.

Similar letters of reference indicate like parts.

A, in the drawings, represents my improved tool, which is constructed as follows:

B, the two legs of the dividers or compass portion of the tool, which legs swing upon or are pivoted together at one end, C, but at their other, D, are pointed. Each of these legs is marked off or graduated along their edge, the two projections near the points forming an inside caliper. To each leg B, at and from their pivoted ends, there is formed a curved-shape extension, E, constituting an out and inside caliper to the combination-tool.

F, a right-angular arm to one of the legs B, which, when the two legs are opened, adapts the tool to be used as a square, the graduations of the divider-legs enabling the tool to be used as a rule.

G, a graduated arc-shaped bar, forming part of one of the legs B to the dividers, which arc-bar is concentric with the centre pivot on which such leg swings, and, by its graduations, enables the distance to which the dividers or calipers are opened to be indicated or read; also, by one of the legs of the dividers being placed in a line with the centre line of the said arc-shaped bar, enables the tool to be used as a centring-square.

The thumb-screw secures the tool in any desirable position.

A protractor could easily be divided upon the arc-shaped bar, and the legs of the compasses might be divided as a machinist's standard scale.

I claim as new, and desire to secure by Letters Patent—

The combination of the graduated and pointed legs B, having curved arms E, right-angular arm F, and graduated arc G, said legs B being pivoted together by a thumb-screw, C, substantially as described for the purpose specified.

Witnesses:

SAM. K. ROSE,

J. H. PLUMP.

C. M. LANE.