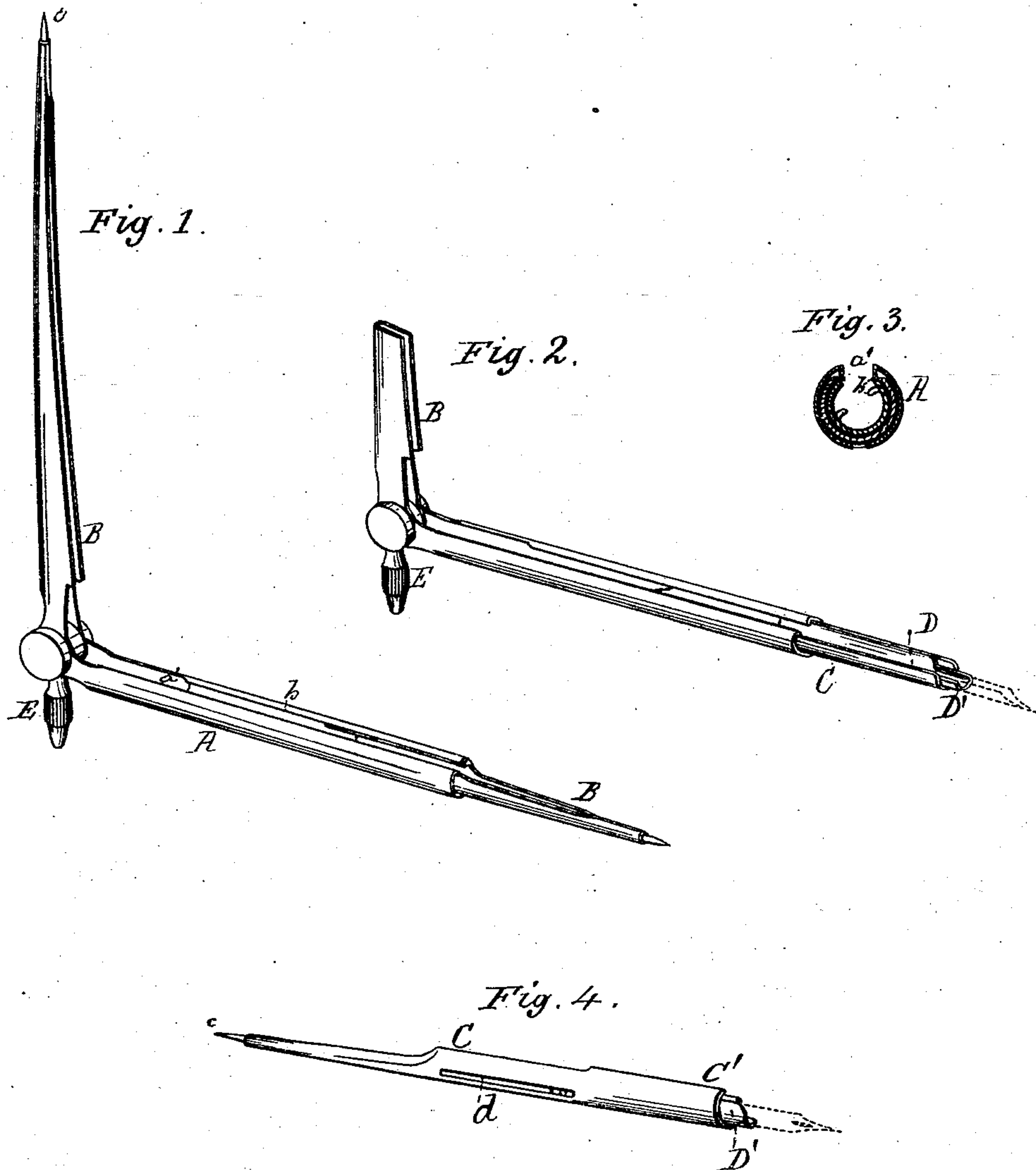


W. SMITH.
Dividers.

No. 157,137.

Patented Nov. 24, 1874.



Witnesses.
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WALTER SMITH, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN DIVIDERS.

Specification forming part of Letters Patent No. **157,137**, dated November 24, 1874; application filed November 4, 1874.

To all whom it may concern:

Be it known that I, WALTER SMITH, of Boston, county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Dividers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 represents a perspective view of the improved dividers complete. Fig. 2 is a similar view, showing one of the lugs in section and the other with the extension-slide reversed. Fig. 3 is a transverse section through the leg and slide, and Fig. 4 is a perspective view of the extension-slide detached.

Similar letters of reference denote corresponding parts wherever used.

The invention consists in a novel construction of reversible leg, or extension of one of the legs, of the divider, whereby it is made to combine a divider-point and pencil-holder with a sliding pen-holder, adapted to be used either as a circle-pen or as an ordinary writing-pen, and the whole forming a simple, cheap, and durable drafting or writing instrument for school purposes, or for the pocket, all as hereinafter set forth.

In the accompanying drawing, A B represent the legs of the divider, united at *a* by the usual or any preferred construction of pivot-joint. The leg A is, by preference, made cylindrical in form, with a longitudinal slit or opening on its inner face at *a'*, where the edges of the metal forming the leg are turned inward, forming lips or flanges *b*, (see Fig. 3,) the opening *a'* being of sufficient width to receive the U-shaped leg B when the legs A and B are folded together. Within the end of the leg A is fitted an extension leg or slide, C, Fig. 4, similar in form to the leg A, and left open on its inner face in like manner for the folding of the leg B within it. This leg or slide C is made tapering in form at one end, and, like leg B, receives a fixed divider-point, *c*. The opposite end C' of this extension-leg, forming an incomplete cylinder, as explained, is adapted to receive a pencil, and within this

cylindrical portion is fitted a slide, D, also bent into curved or nearly cylindrical form, and open like the parts A and C on its inner side, all as shown in Fig. 3, to permit the folding of the leg B within them. This slide D has a pin or spur at its inner end projecting through a slot at *d* in the extension-leg C, facilitating its movement relatively to the leg or slide C, and at its outer end is provided with a pen-holder at D', set obliquely to or at one side of the opening or slit *a'*, and in such relation thereto that when the point *c* of the leg B is set for describing a circle the pen will face the direction of movement of the leg A. Lips, as at *b*, are formed upon the respective parts for retaining the inclosed slides in proper relation to each other, and these may be of any form suitable for that purpose.

The several parts, as described, may be struck up into the desired shape from any preferred metal, and the style of ornamentation may be such as is common to pocket pen and pencil holders, and which the instrument closely resembles when folded, with the pen withdrawn and the extension piece C inserted with the point *c* inward and inclosed by the leg A.

When the parts are in this folded position the instrument can be conveniently carried in the pocket, and, with the pen and pencil thrown out, can be used for ordinary writing purposes, as will be readily understood.

A set-screw, E, applied at the joint serves to hold the legs at any desired angle of adjustment, and also as a stem or handle for operating the dividers.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the dividers, of the reversible extension leg or slide C, provided with the fixed point *c*, pencil-holder C', and pen-holder slide D, constructed and operating substantially as and for the purpose set forth.

WALTER SMITH.

Witnesses:

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