(No Model.)

L. H. McCOMB.

ELLIPSOGRAPH.

No. 246,174. Patented Aug. 23, 1881.

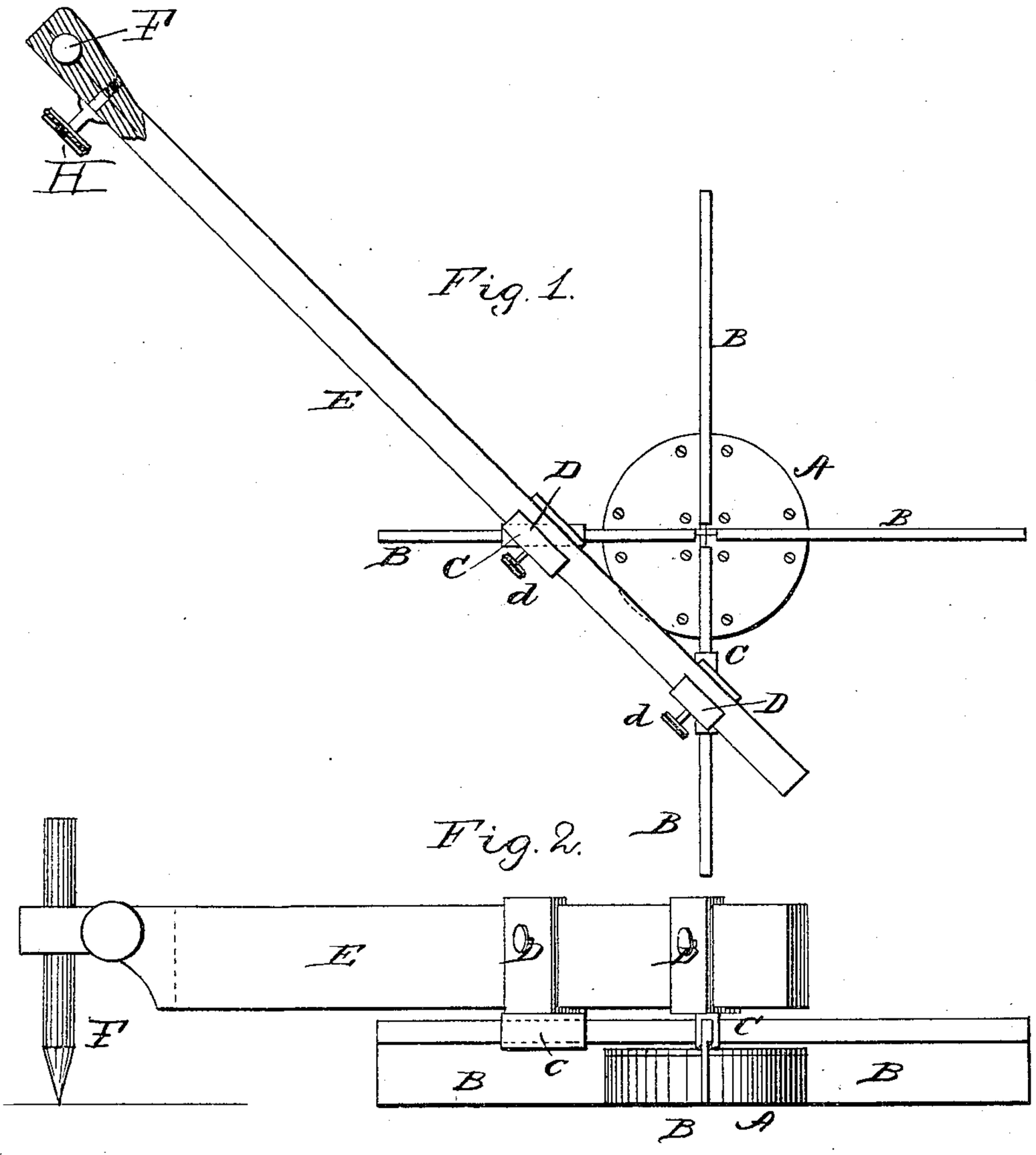


Fig. 1.

Fig. 2.

Fig. 3.

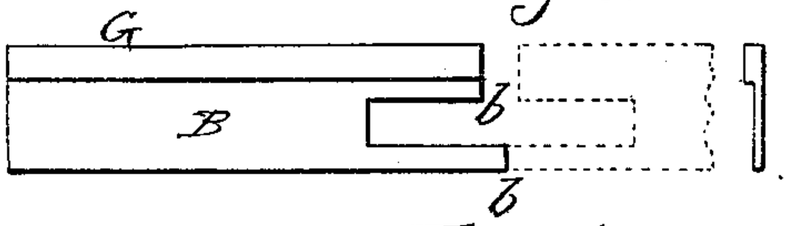
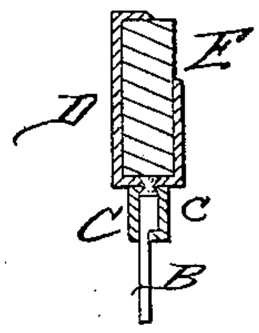


Fig. 4.



WITNESSES

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ELLIPSOGRAPH.

SPECIFICATION forming part of Letters Patent No. 246,174, dated August 23, 1881.

Application filed April 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, LINDEN H. McCOMB, a citizen of the United States, residing at Sidney, in the county of Shelby and State of Ohio, have invented certain new and useful Improvements in Ellipsographs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of drawing-instruments known as "trammels," "ellipsographs," or "beam-compasses," that are used for drawing ellipses; and it consists in the construction and arrangement of parts, as hereinafter more fully described and claimed.

In the annexed drawings, in which like letters indicate similar parts in the several views, Figure 1 is a plan view. Fig. 2 is an isometrical perspective, and Figs. 3 and 4 are details.

A represents a block or bed, which is grooved at right angles on each side or face for the reception of the arms B B. These are provided at their inner ends with lugs or projections *b b*, that enter the grooves in the upper and lower faces of the bed A, to which they are thus attached in such a manner as to remain firm and rigid while the instrument is in use, and yet are capable of being readily detached, when required, for packing in a small space. Each arm B is provided at its upper edge, on one side, with a flange, *c*, for attachment of the slides C C, that are swiveled to clamps D D on the compass beam or bar E. The clamps D D are provided with thumb-screws *d d*, by means of which they may be adjusted at any desired position on the bar E. These slides and clamps are each two in number, and, being so arranged that the slides are always at right angles to each other, it will be seen that as they move back and forth along the upper edge of the arms B, which are slightly separated at the center of the bed A to permit their passage, the pencil or pen F, attached to the extreme end of the bar E, will describe an ellipse proportioned to the position of the clamps upon the beam E and the distance by which they are separated. By simply varying the position of the clamps and attached slides the instrument may therefore be readily employed for describing or drawing ellipses of different size and eccentricity.

The bar E is split at its outer end to form a clamp for holding the pencil F, said pencil being clamped therein by the thumb-screw H.

The device is simple, compact, and durable, and may be readily disconnected for packing or adjusted for use.

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

1. The combination of the grooved bed A, arms B B, having lugs or projections *b b*, slides C C, swiveled clamps D D, and compass-beam E, substantially as and for the purpose specified.

2. The combination of the bed A, arms B B, having flanges *c c*, slides C C, clamps D D, provided with adjusting-screws *d d*, and the compass-beam E, having pencil F, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

L. H. McCOMB.

Witnesses:

WM. A. NESSLER,

N. R. BURRESS.