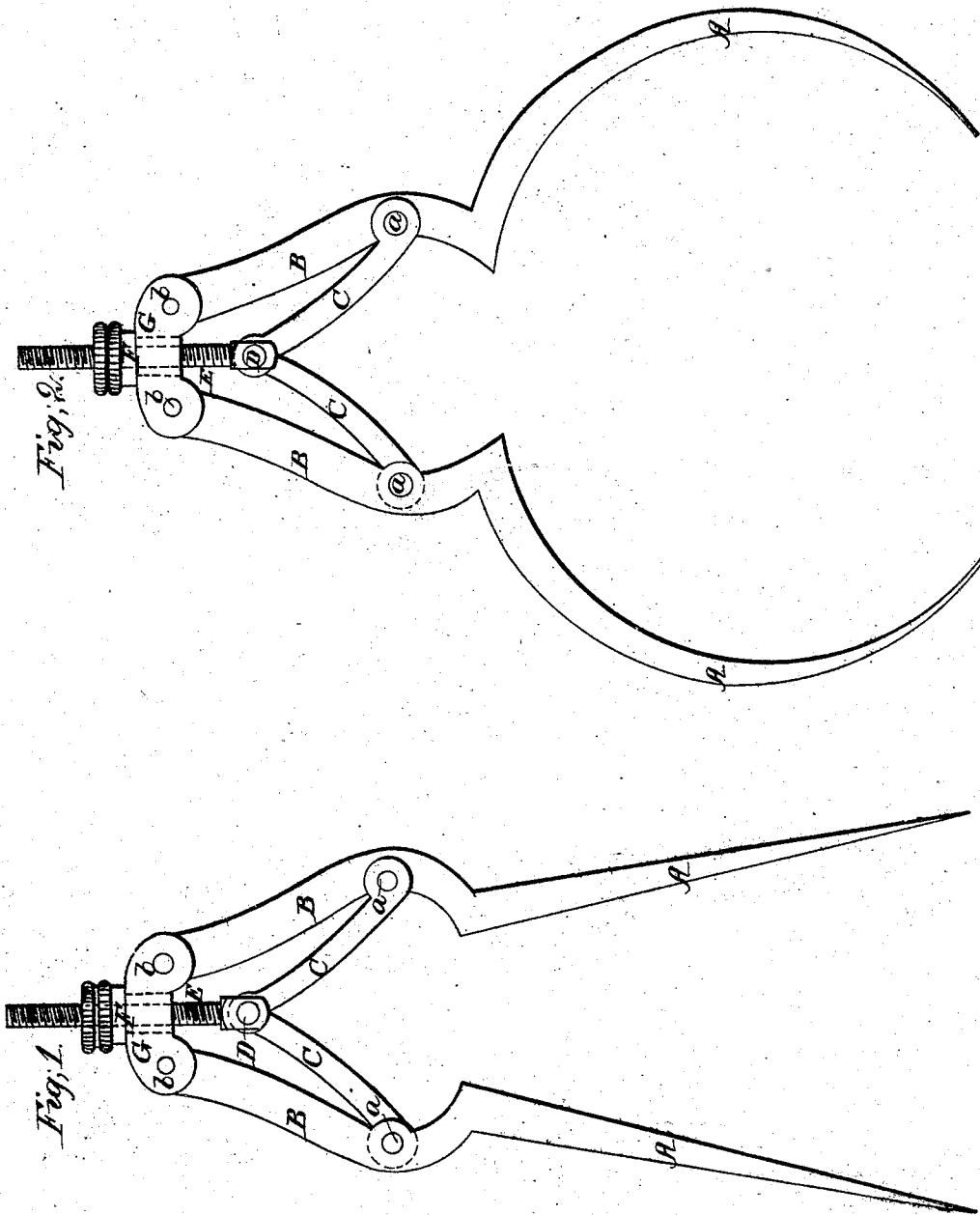


J. E. Earle,

Dividers.

No. 11,420.

Patented Aug. 1. 1854.



UNITED STATES PATENT OFFICE.

JOHN E. EARLE, OF LEICESTER, MASSACHUSETTS.

COMPASS AND CALIPERS.

Specification of Letters Patent No. 11,420, dated August 1, 1854.

To all whom it may concern:

Be it known that I, JOHN E. EARLE, of Leicester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Compasses, Dividers, or Calipers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part thereof, in which—

Figure 1, represents a pair of compasses or dividers, and Fig. 2 represents a pair of calipers.

Similar letters in both the figures refer to like parts.

The nature of my invention relates to the method of opening, closing, and holding the legs of compasses or calipers.

The lower extremity of the legs A, A, of the instrument, may be straight or curved, as may best suit the purpose to which they are to be applied. The upper parts B, B, being curved so as to receive the toggle arms C, C, by which the legs are operated. The toggle arms C, C, are pivoted at D, by a pin common to both, and upon which they may work in the direction of the sweep of the legs of the instrument, while they should be prevented from yielding in any other direction. The other ends of the arms C, C, are pivoted—one to each of the legs at *a, a*—the legs at that point being suitably counter-sunk to receive the ends of said arms, or any other suitable hinged joint may be made. The arms at D, are pivoted or hinged, to the lower end of a screw rod E, of suitable length to allow for the full sweep of the legs

of the instrument, said rod passing up through a bur or nut F, which has a female screw cut in it.

The bur or nut F, extends through the head or yoke G, to which the legs are pivoted or hinged at *b, b*, and has upon its upper part which projects above said head, a milled thumb piece by which it may be turned—said bur being so connected with the head as that it may turn therein without rising or falling with the screw, by which means the legs may be operated either way and the screw or bur which operates them, hold them from moving in both directions, when properly set.

The forms of these several parts may be modified or changed without changing the general principle of the instrument, and I do not confine myself to the precise arrangement represented, reserving the right to modify so long as I do not depart from the general construction of the instrument.

Having thus fully described the nature of my invention what I claim therein as new and desire to secure by Letters Patent is—

The combination of the hinged arms C, screw rod E, and nut F, with the hinged legs of compasses or dividers, and calipers, for the purpose of moving or holding said legs in both directions anywhere within the line of their sweep, substantially as described.

JOHN E. EARLE.

Witnesses:

H. D. STONE,
GEORGE F. VERRY.