

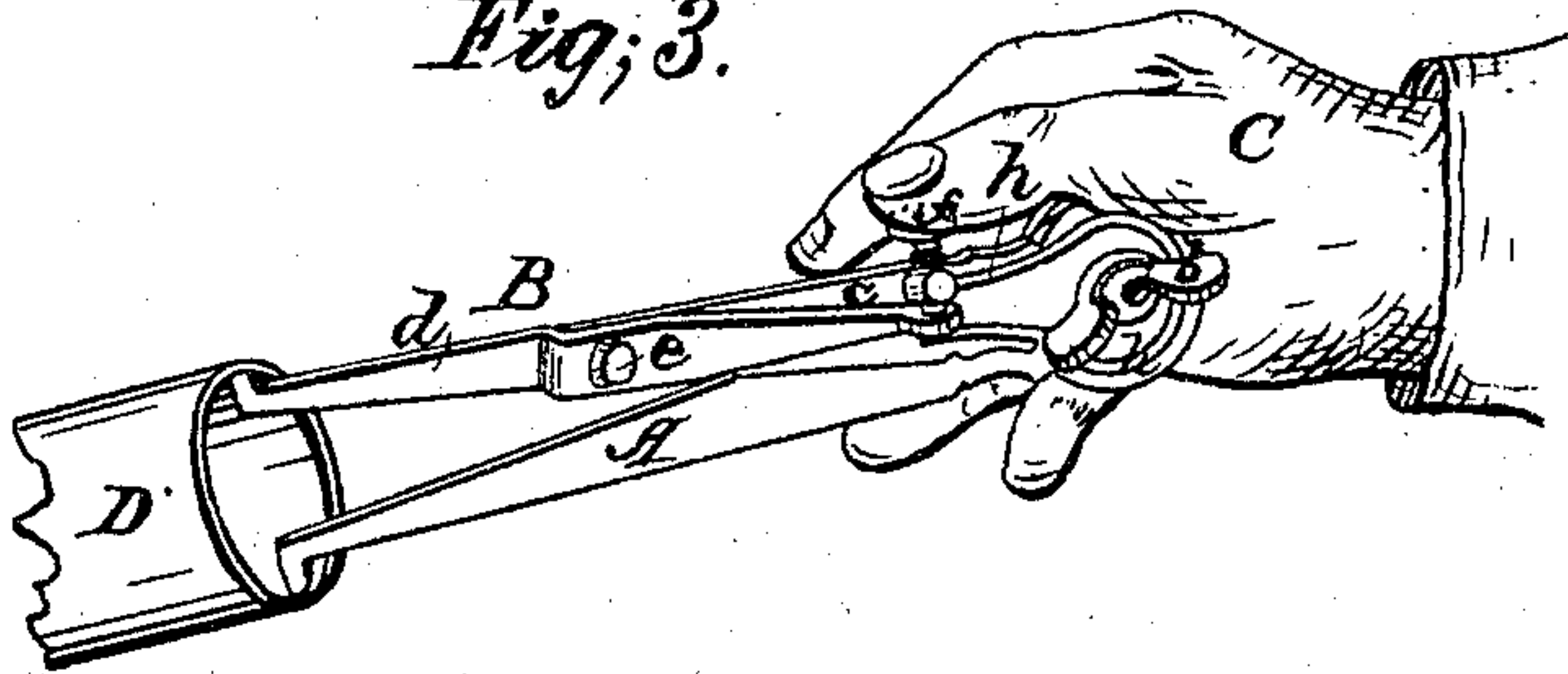
H. K. PORTER.

Calipers.

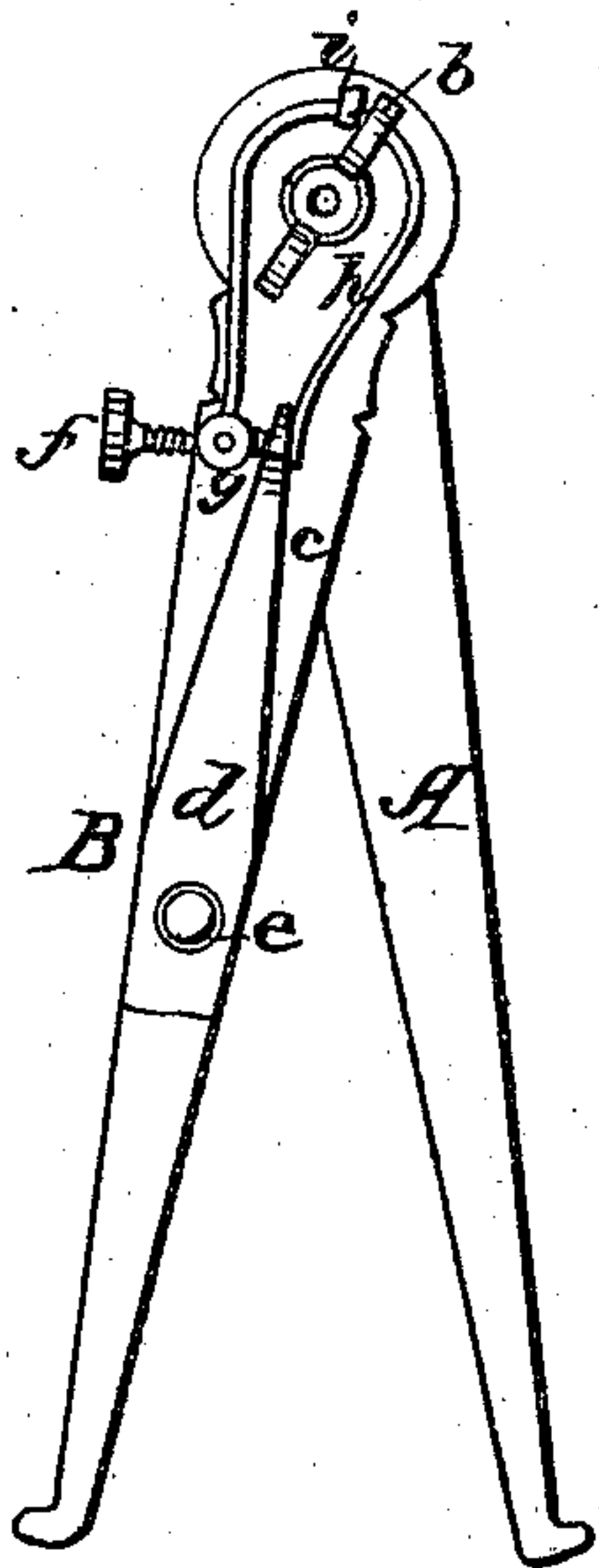
No. 103,926.

Patented June 7, 1870.

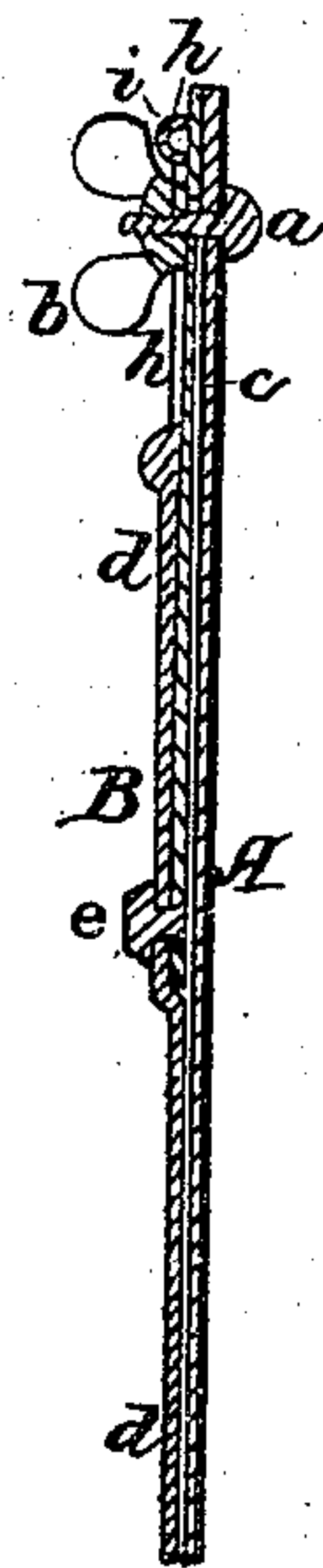
Fig; 3.



Fig; 1.



Fig; 2.



Witnesses;
J. H. Porter
K. W. Jameson

Inventor;
H. K. Porter

United States Patent Office.

HENRY K. PORTER, OF BOSTON, MASSACHUSETTS

Letters Patent No. 103,926, dated June 7, 1870.

IMPROVEMENT IN CALIPERS.

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, HENRY K. PORTER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Calipers; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

This invention relates to a new and useful improvement in calipers, by which they are more readily and delicately adjusted to demonstrate spaces, diameters, or dimensions; and

The invention consists in forming one limb of the calipers in two parts or sections, which are pivoted together near the center of one section and the end of the other, so that when the latter section is locked to the other limb, the centrally-pivoted section may, by a screw or other device, be vibrated upon its pivot, so as to be nicely adjusted and accurately indicate the space or dimension sought to be determined.

Figure 1 is a side elevation;

Figure 2 is a longitudinal section; and

Figure 3 is a perspective view of the calipers and mode of applying and adjusting them.

Similar letters of reference indicate like parts in the several figures.

In the drawing—

A represents the rigid limb, constructed in the usual manner, and

B is the jointed limb.

c is the section, which is pivoted, in conjunction with limb A, upon the screw-bolt a.

The section d is pivoted near its center to the end of section c, by the section e, as is plainly shown.

f is a set-screw, which moves in a corresponding female screw, cut in stud g, this stud being secured in section c.

h is a spring, one end of which is secured in stud g, passing thence around and at a short distance from thumb-nut b.

It is, at the apex of the curve, held under the lock i, from whence it passes to the upper end of section d, bearing against the same, and constantly pressing it against screw f.

The method of using and advantages of these calipers are as follows:

Suppose the inside diameter of cylinder D is to be determined, the calipers are set at about the diameter of the cylinder, and locked in that position, by actuating thumb-nut b upon bolt a; then, while holding the calipers in the right hand, C, as shown in fig. 3, and inserting the feet of the calipers in the cylinder, by actuating screw f, the diameter can be exactly determined, as section d is pivoted at e, near its center; therefore, the movements of screw f are sufficiently slow and delicate to allow of any desired accuracy of adjustment.

I do not claim, in the abstract, constructing calipers or similar instruments with a jointed limb; but

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

The combination of rigid limb A and pivoted limb B, constructed with sections c and d, actuating-screw f, and spring h, substantially as and for the purposes specified.

H. K. PORTER.

Witnesses:

EBEN HUTCHINSON,
EDWARD F. HALL.