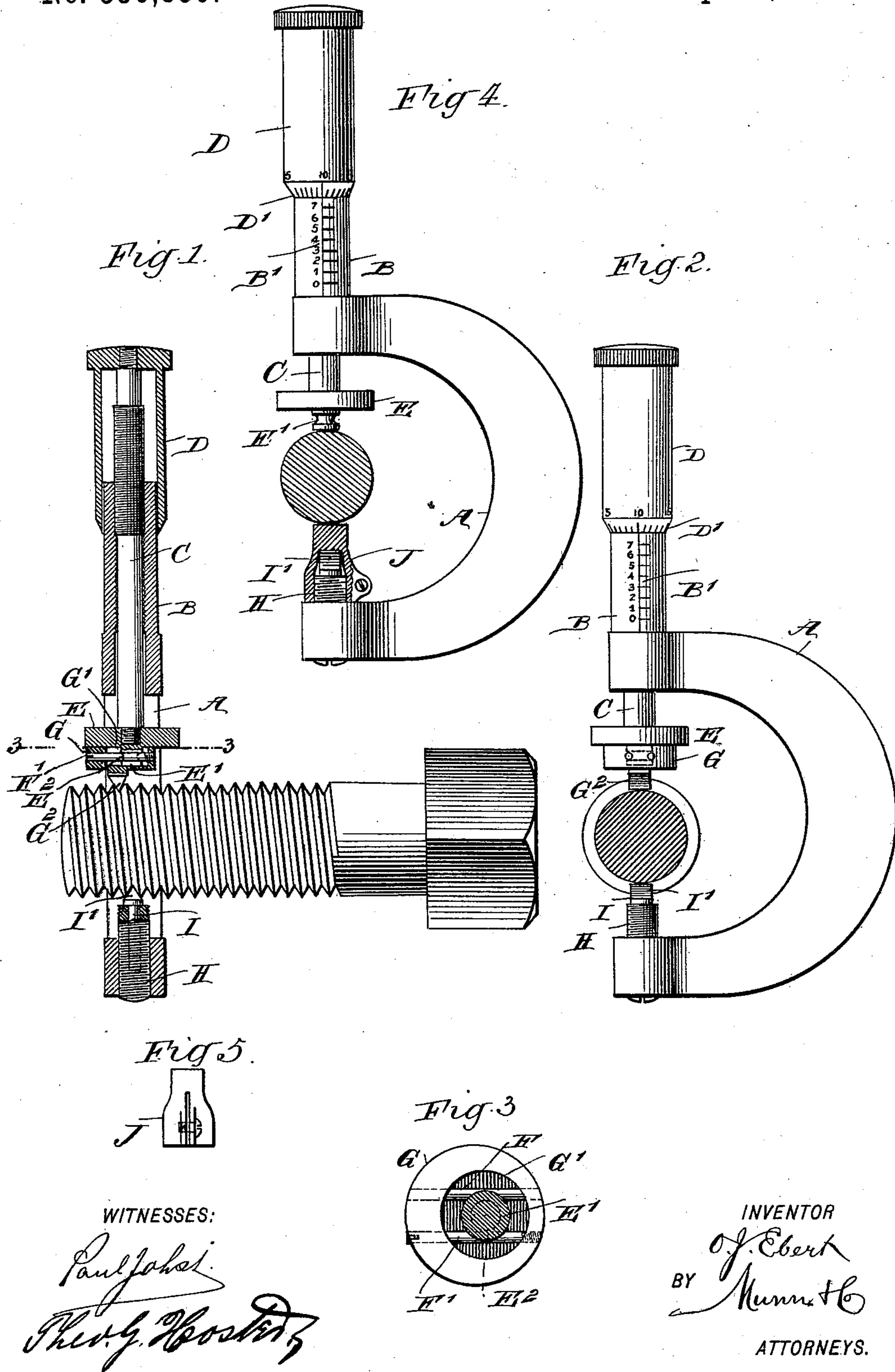


(No Model.)

O. J. EBERT.
MICROMETER.

No. 536,859.

Patented Apr. 2, 1895.



UNITED STATES PATENT OFFICE.

OTTO J. EBERT, OF CLEVELAND, OHIO.

MICROMETER.

SPECIFICATION forming part of Letters Patent No. 536,859, dated April 2, 1895.

Application filed May 10, 1894. Serial No. 510,751. (No model.)

To all whom it may concern:

Be it known that I, OTTO J. EBERT, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved

5 Micrometer, of which the following is a full, clear, and exact description.

The invention relates to an improvement in micrometer calipers or measuring gages for

10 The invention is embodied in the means for covering and protecting one of the bearings, or screw points, of the instrument.

Reference is to be had to the accompanying drawings, forming a part of this specification, 15 in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a transverse section of the improvement arranged for measuring screw threads. Fig. 2 is a side elevation of the 20 same. Fig. 3 is an enlarged sectional plan view of the same on the line 3—3 of Fig. 1. Fig. 4 is a side elevation of the improvement arranged for outside calipering; and Fig. 5 is a side elevation of an auxiliary cap.

25 The improved micrometer is provided with the usual frame A, having the graduated tube B, in which screws the stem C controlled in its up and down movement by the cap D, having the usual graduation D' reading in connection with the graduation B' on the tube B, as will be readily understood by reference 30 to Fig. 2.

On the lower end of the stem C is secured a foot E, formed on its underside with a pivot 35 E', having an annular groove, E², which is engaged on opposite sides by two parallel rods, F and F', which are arranged horizontally in a disk, G. The rod, F, is permanently attached to the latter, but the other rod, F', is 40 formed as a screw (see Figs. 1 and 3), and thus adapted to be easily removed.

45 A recess, G', is formed in the upper side of the disk, G, to receive the pivot, E', of disk E, and it is made considerably larger than the pivot, to permit lateral movement of the disk. The recess is traversed by the rods F and F'. On the under side of the disk G is secured a downwardly-extending V-shaped point G², adapted to pass between adjacent

threads of a screw-threaded article, such as a 50 bolt, as illustrated in Figs. 1 and 2.

In the bottom of the frame A, screws the screw H, carrying a pin I, provided with a V-shaped point I', adapted to pass between 55 adjacent threads on one side of the bolt or other article, the threads of which are intended to be measured by the micrometer.

It will be understood that by the construction described the disk G may be moved on the pivot E' so as to readily engage the point 60 G² between adjacent threads after the lower point I' has already been engaged between the adjacent threads of the bolt or other article, as will be readily understood by reference to Figs. 1 and 2. 65

The instrument thus far described is substantially the same as that for which I have filed an application, Serial No. 511,317, and I do not therefore here claim such invention.

When it is desired to caliper the diameter 70 of a bolt or other article having no screw thread, the rod, F, is removed from the disk, G, and the latter is then detached from the pivot, E. A cap, J, (Fig. 5,) is then placed upon the point of the lower screw, H, and 75 thus serves as one of the bearings, or calipering points, while the pivot E', serves as the other, as shown in Fig. 4.

The cap is slit lengthwise (see Fig. 5), and provided with lateral perforated and opposite 80 lugs, or flanges, through which the screw is inserted. It is obvious from this construction, that the screw may draw the edges of the slit together, and thus clamp the cap J on the point H. 85

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

In a micrometer, the removable cap for the lower bearing or screw point, the same having 90 a lengthwise slit and opposite lateral perforated lugs, and the screw for drawing the edges of the slit together, and clamping the cap upon the screw, as shown and described.

OTTO J. EBERT.

Witnesses:

WALTER E. MORROW,
JOSEPH B. MORROW.