No. 762,971. PATENTED JUNE 21, 1904.

W. K. H. WOERNER.

ADJUSTABLE CALIPERS.

APPLICATION FILED JAN. 2, 1904.

NO MODEL.

Fig. 1.

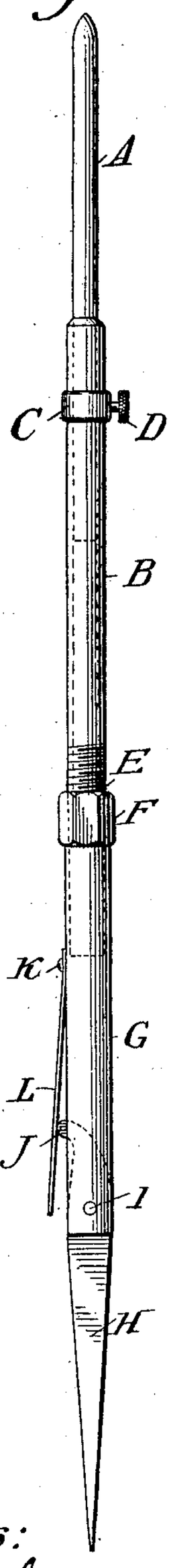
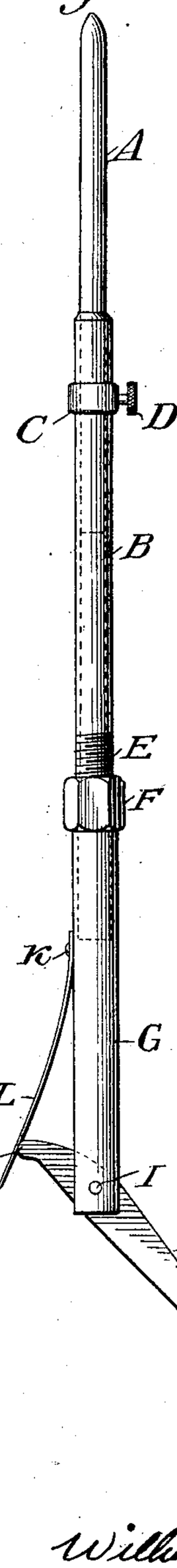


Fig. 2.



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No. 762,971. Patented June 21, 1904.

UNITED STATES PATENT OFFICE.

WILLIAM K. H. WOERNER, OF EVANSVILLE, INDIANA.

ADJUSTABLE CALIPERS.

SPECIFICATION forming part of Letters Patent No. 762,971, dated June 21, 1904.

Application filed January 2, 1904. Serial No. 187,582. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM K. H. WOERNER, a citizen of the United States, residing at Evansville, county of Vanderburg, and State of Indiana, have invented new and useful Improvements in Adjustable Calipers, of which the following is a specification.

My invention relates to calipers, and is particularly applicable for inside and eccentric dimensions.

Figure 1 represents my improved caliper in the position of taking the measurement, and Fig. 2 represents the caliper in position to be removed after the measurement has been obtained.

In the drawings, B represents the body of the tool, which is a metal tube. Into the upper end of this tube B is inserted a metal rod A, which is adjustable and which is held in place by means of a collar C, provided with a set-screw D. The lower end of B is threaded E, upon which threads is screwed a lock-nut F. The lower end of B is screwed into the upper end of G, which is a short metal rod and is secured by lock-nut F. Into the lower end of G, by means of a pin I, is hinged a metal rod H so adjusted that the upper end of H fits into the lower end of G and forms one continuous breakable rod when in the position illustrated in Fig. 1.

The upper end of the metal rod H has a raised shoulder J. In constant contact with said shoulder J is a flat piece of spring-steel L, which is secured to G by pin or screw K.

When it is desired to obtain an inside measurement, the caliper is inserted, the set-screw D is loosened, and the rod A is shoved up until it comes in contact with the surface to be measured, the end of H at the same time resting upon the opposite surface. Then the set-screw is tightened.

To make the measurement absolutely accurate, the metal rod G may be screwed upon threads E until the proper result is secured and such result made permanent by tightening lock-nut F.

To remove the caliper, all that is necessary in my invention is to bend the metal rod H to one side and the caliper is then easily removed, and the spring L, pressing upon the shoulder J, immediately forces H back into its original and proper position.

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

1. In a caliper, the combination of the rods A, and G, adjustably secured to tube B; the rod H, hinged into the lower end of rod G; a spring to hold rod H, normally in extended position.

2. In a caliper, the combination of the rod A, secured to tube B, in an adjustable manner; the rod G, secured to the opposite end of tube B, in an adjustable manner; the metal spring L, secured to rod G, at point K; a rod H, hinged into rod G, at point I; the rod H, having a shoulder J, adapted to be constantly engaged by metal spring L.

3. In a caliper, the combination of a rod A, a tube B, adjustably secured thereto by a screw D, through a collar C; the opposite end of B, being threaded and having upon said threads a lock-nut F; a rod G, said threaded end of B being screwed therein; a rod H, hinged into the opposite end of rod G; a pin I, to secure rod H, therein; said rod H, having at its upper end a raised shoulder J; a spring L, secured to rod G, by a pin K, and being in constant contact with said raised shoulder J.

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

WILLIAM K. H. WOERNER.

Witnesses:
H. SCHELLER,
F. C. GORE.