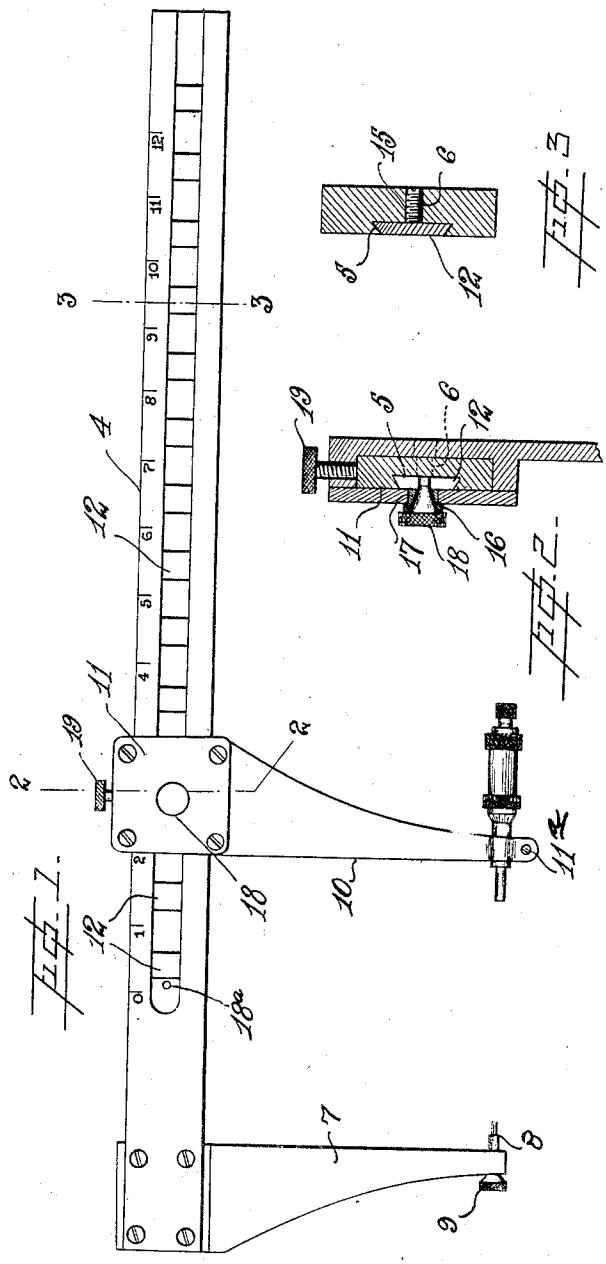
J. W. LOVELL.

CALIPERS.

APPLICATION FILED NOV. 25, 1919.

1,358,321. **Patented Nov. 9, 1920.**



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CALIPERS.

1,358,321. Specification of Letters Patent. Patented Nov. 9, 1920.

Application filed November 25, 1919. Serial No. 340,641.

To all whom it may concern:

Be it known that I, JOSEPH W. LOVELL, a citizen of the Dominion of Canada, residing at St. Catharines, in the county of Lincoln and Province of Ontario, have invented certain new and useful Improvements in Calipers, of which the following is a specification.

This invention relates to improvements in calipers, which are adapted to receive and coöperate with a micrometer head whereby small fractions of an inch may be measured.

The object of my invention is to provide a simple construction which can be easily repaired and one which will not be expensive to manufacture.

A further object is to provide a tool which can be adjusted to receive a plain micrometer or a thread micrometer.

With these and other objects in view, my invention consists in the construction, combination and arrangement of parts as will be hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claim hereunto appended.

Referring to the drawings, Figure 1 illustrates a front plan view of the preferred embodiment of my invention.

Fig. 2 is a sectional view on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view on the line 3—3 of Fig 1.

4 indicates a steel bar ground to a convenient and accurate size. 5 is a dovetail slot running longitudinally along the front side from one end. Holes 6 are drilled from the back of the member 4 so as to come in the center of the inner side of the dovetail slot 5. These holes 6 are approximately one inch apart and in Fig. 1, I show a tool of a twelve-inch capacity. Therefore, it has twelve holes 6.

At one end of the bar 4 I provide a stationary jaw 7, which is secured to the bar by screws. The free end of this jaw 7 is provided with a hole. An anvil 8 is adapted to be inserted partly through this hole and a thumb-nut 9 rigidly holds the anvil in proper position. This anvil may have any desired outer end such as is commonly used in mechanical practice.

10 is a sliding jaw having a covering plate 11, adapted to hold the jaw in proper sliding position. This sliding jaw 10 extends out at right angles to the bar 4 and on the same side as the stationary jaw 7. The slidable jaw 10 has an opening at its outer free end in alinement with the opening in the end of the stationary jaw 7. This opening is to receive a standard micrometer head which is commonly used to measure very small parts of an inch. By a tightening nut fitted into the threaded opening 11^a, the micrometer head will be rigidly held in the jaw 10.

Adjacent the dovetail slot 5, the front face of the bar 4 is marked off into inch spaces and marked accordingly. The first marking is so arranged that the distance between the points of the anvil 8 and the micrometer head touch when the point of the micrometer head is extended out one inch.

Opposite each hole 6 is a number of stops 12. These stops 12 are slidably positioned in the dovetail slot 5 and are held in position by screw-threaded plugs 15 through the opening 6.

The plate 11 is provided with a bushing 16 which extends through central orifice 17. The bushing has a tapered central orifice adapted to receive the setting plug 18. The tool is made so that this plug fits into the dovetail slot and is adapted to come in contact with the stops 12. Above, I have indicated how to find where the one inch marking should be on the face of the bar 4. When this is in the position as referred to the setting plug 18 will be tight against the side of the plug 12 as indicated by 18^a. In this position the micrometer head is given an inch space in which to operate. Should the article which you desire to measure be over 4 inches, withdraw the setting plug 18 and slide the slidable jaw 10 to the four-inch space. Put in the setting plug. Slide along the jaw 10 until the plug strikes the next stop 12. The graduation on the beam next to the slidable jaw will be four inches. In this position you desire the jaw to be held stationary and for this purpose I provide a binding screw 19, which is threadedly engaged in the upper end of the slidable jaw 10 and which, when threaded down, will bind on the upper side of the bar 4 so as to hold the jaw 10 in fixed position. The micrometer head can then be operated so as to get the accurate measurements of the four-inch or over article as above referred to.

I do not wish to limit myself in any way to a twelve-inch caliper, a particular shaped

slot 5 or to the ends of the anvil 8, as these may be changed without affecting the principle of the invention.

From the foregoing it is thought that the construction of my invention will be clearly understood, and, therefore, a more extended explanation has been omitted.

What I claim as new is:

Calipers consisting of a bar with a dovetail slot with graduations along said slot and holes in the rear wall of said slot, jaws, one secured to and the other slidable on said bar, an anvil on the fixed jaw, a micrometer head carried by the slidable jaw, stops in said slot, screws threaded through said holes for adjustably securing said stops in said slot, a carrier for the slidable jaw, a bushing on said carrier, a setting plug carried by the bushing and entering said slot and adapted to abut said stops, and means carried by the slidable jaw and engageable with said bar to hold the slidable jaw in position.

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

JOSEPH WENCELASS LOVELL.

Witnesses:

GEORGE ELDER,

JAMES ELDER.