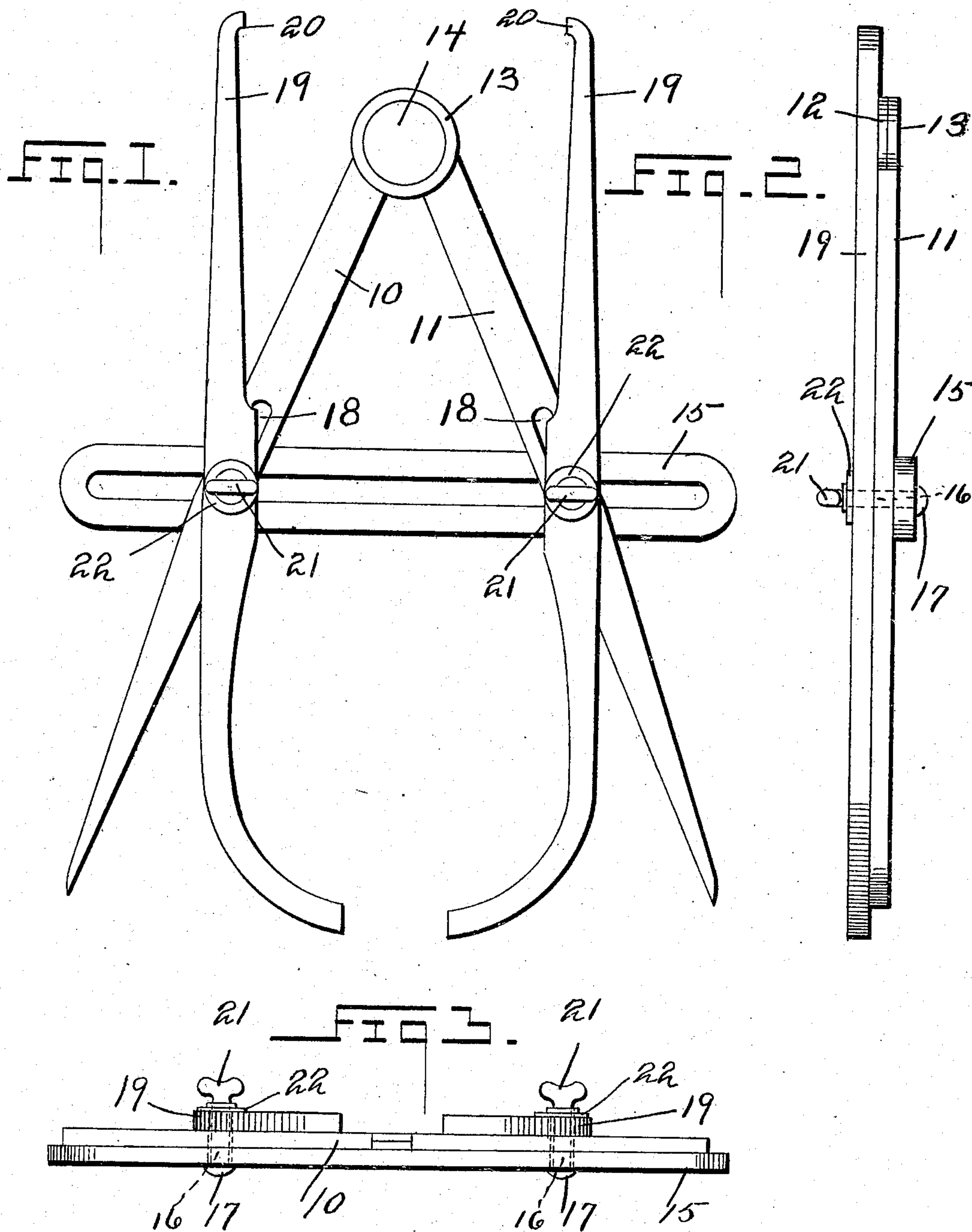


A. H. LUCAS.
MEASURING INSTRUMENT.
APPLICATION FILED JULY 30, 1908.

936,731.

Patented Oct. 12, 1909.



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UNITED STATES PATENT OFFICE.

AUGUST H. LUCAS, OF STEUBENVILLE, OHIO.

MEASURING INSTRUMENT.

936,731.

Specification of Letters Patent.

Patented Oct. 12, 1909.

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To all whom it may concern:

Be it known that I, AUGUST H. LUCAS, a citizen of the United States, residing at Steubenville, in the county of Jefferson and State of Ohio, have invented certain new and useful Improvements in Measuring Instruments, of which the following is a specification.

This invention relates to measuring instruments having special reference to a combined divider and caliper.

An object of this invention is to construct an instrument of this character which will perform the functions of both a divider and caliper in which the operator will have the two instruments within easy access so that it will not be necessary for him to adjust several instruments during the performance of a piece of work.

The invention has for a further object the provision of a combined device of this character which will be strong, durable and simple in construction and operation.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this application and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the instrument, Fig. 2 is a side edge view of the same, Fig. 3 is a bottom edge view of the same.

Referring now to the drawings 10 and 11 designate the two members of the divider which are provided with hinged members 12 and 13 through which is passed the pivot pin 14 for the purpose of securing the upper extremities of the members 10 and 11. The lower ends of the members 10 and 11 are pointed as is usual in devices of this nature. Intermediately upon the members 10 and 11 is positioned a transverse bar 15 which is centrally and longitudinally recessed to receive bolts 16 which carry enlarged heads 17 for engagement with the outer surface of the bar 15. The bolts 16 extend through slots 18 which are longitudinally disposed intermediately of the members 10 and 11 for the purpose of admitting the free operation of the members 10 and 11 and of the vertical movement of the bar 15. The bolts 16 pass through apertures formed in the enlarged

intermediate portions of the caliper arms 19 these arms having their lower extremities curved inwardly toward each other and the upper extremities thereof bent inwardly at right angles to form studs 20 for engagement with notched washers and the like. The bolts 16 are provided with thumb nuts 21 upon their upper extremities for the purpose of binding the heads 17 against the outer face of the bar 15 to clamp the several members through which the bolts pass in a rigid position. Washers 22 are positioned about the bolts 16 between the outer faces of the caliper members 19 and the inner faces of the thumb nuts 21.

The operation of this device is evident from the construction as when the thumb nuts 21 are released the members 10 and 11 are free to be adjusted while at the same time the caliper members 19 may be raised or lowered according to the uses to which the instrument is to be put. It is evident that from the position of the recesses 18 the caliper members are permitted to be moved to the extremities of the slot formed in the transverse bar 15. The upper extremities of the caliper members 19 may also be employed for the purpose of manipulating the divider points especially where it is desired to describe a circular path upon the surface which is being measured as the arms are disposed practically in alinement with the points of the divider and will thus effect an even rotation of the divider. The bar 15 is employed for the purpose of clamping the several members together and of limiting the movement of the members 10, 11 and 19.

What is claimed is:

1. In combination, two pivoted members, a bar disposed across the intermediate portions of said members, caliper members disposed across the intersecting portions of said pivoted members and said bar, and means to clamp said members at said points of intersection.

2. A device of the class described comprising two members pivotally connected at one end the remaining end of each member being pointed, a carrying member adjustably held to each of said pivotally connected members, a transverse bar adjustably secured to said carrying members, and caliper arms reversibly held to said carrying members.

3. A device of the class described, comprising two members pivotally connected at one

end, and pointed at the other, and being longitudinally slotted intermediate of their ends, a bolt slidably held in each of said slots, a slotted bar carried by said bolts, and
5 a caliper arm carried upon each of said bolts.

4. A device of the class described comprising dividers, a bar disposed across the central portions of the members of said dividers,
10 arms disposed across the intersections of said bar with said dividers, the lower extremi-

ties of said arms being curved inwardly toward each other, and bolts for adjustably securing said bar and said arms to said dividers.

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

AUGUST H. LUCAS.

Witnesses:

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