

(No Model.)

G. W. JOPSON.
CALIPERS.

No. 343,178.

Patented June 8, 1886.

Fig 1

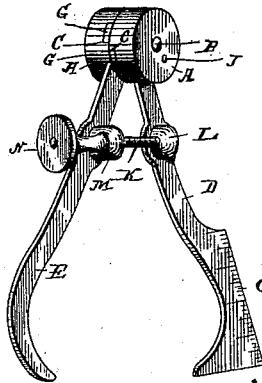


Fig 2

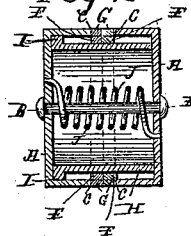


Fig 3

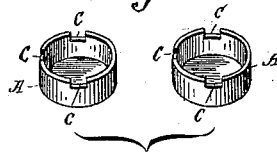


Fig 4

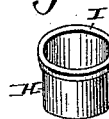
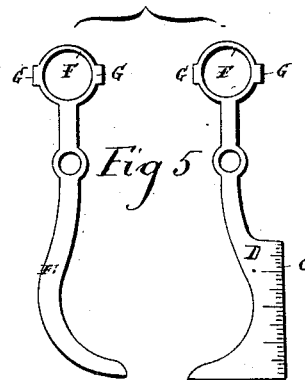


Fig 5



WITNESSES:

Edward H. Rogers.
M. S. Bailey

INVENTOR

INVENTOR
George W. Johnson
BY Geo. K. Seymour
ATTORNEY

UNITED STATES PATENT OFFICE.

GEORGE W. JOPSON, OF MERIDEN, CONNECTICUT.

CALIPERS.

SPECIFICATION forming part of Letters Patent No. 343,178, dated June 8, 1886.

Application filed November 30, 1885. Serial No. 184,929. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. JOPSON, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Calipers; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in that class of calipers which are provided with springs for the actuation of their arms, the object being to improve and to cheapen the expense of producing such instruments.

With these ends in view my invention consists in calipers having a sectional box or casing to receive a spring for actuating their arms, which are respectively secured to independently-turning sections of such box or casing.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of calipers embodying my invention. Fig. 2 is an enlarged sectional view of the box thereof. Fig. 3 embraces detached perspective views of the two cups forming the box or casing of the instrument. Fig. 4 is a detached view, in perspective, of the tubular post thereof; and Fig. 5 embraces plan views of the two arms of the instrument.

As herein shown, the box or casing is composed of two cups, A A, placed edge to edge, turning independently on a pivot, B, uniting them, and respectively having their contiguous edges provided with slots C C C, as shown.

The arms D and E of the instrument are preferably formed from sheet metal, and each is provided at its inner end with an annular bearing, F, having lugs G G, located about opposite each other, formed upon its outer edges. The said arms are interposed between the cups, with which they are respectively engaged by the reception of their lugs G G and their inner ends into the slots C C C thereof. The said lugs and arms fit into the slots so as to be flush with the edges of the cups, which form a bearing each for the other, as do also

the annular bearings of the arms. The tubular post H is adapted to form a bearing for the said annular bearings, through which it passes, and is provided at one end with a flange, I, fitting snugly into one of the cups to hold it in place. The post is also supported midway of its length by the annular bearings, which are interposed between it and the edges of the cups. The spring J of the instrument is located within the posts, and has its opposite ends secured to the respective cups. The adjustment of the arms D and E is controlled by a screw, K, secured to a swiveled stud, L, carried by the arm D, and passing through a swiveled stud, M, carried by the arm E and provided with a nut, N, having a knurled edge. As herein shown, the arm D is provided with an inch-rule, O, made integral with it.

I would have it understood that I do not limit myself to the exact construction and arrangement of parts herein shown, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. Calipers having a sectional box or casing to receive a spring for actuating their arms, which are respectively secured to independently-turning sections of such box or casing, substantially as set forth.

2. Calipers having a sectional box or casing to receive a spring for actuating their arms, which are respectively secured to contiguous edges of independently-turning sections of such box or casing, substantially as set forth.

3. Calipers having a sectional box or casing to receive a spring for actuating their arms, and composed of two cups placed edge to edge and turning independently upon a pivot uniting them, and arms respectively secured to the contiguous edges of such cups, substantially as set forth.

4. Calipers having a sectional box or casing to receive a spring for actuating their arms, and composed of two cups placed edge to edge, turning independently upon a pivot uniting them, and having their edges slotted, and arms having their inner ends provided with lugs, and respectively engaged with the cups.

5. Calipers having a sectional box or casing to receive a spring for actuating their arms, and composed of two cups placed edge to edge and turning independently upon a pivot uniting them, and having their contiguous edges slotted, and arms provided at their inner ends with annular bearings, having lugs upon their outer edges and respectively engaged through the lugs of their bearings with the slotted edges of the cups, substantially as set forth.

6. Calipers having a sectional box or casing to receive a spring for actuating their arms, and composed of two cups placed edge to edge and turning independently upon a pivot uniting them, and arms provided at their inner

ends with annular bearings and respectively secured through such bearings to the cups, and a tubular post forming a bearing for the annular bearings through which it passes, and provided at one end with a flange fitting into one of the cups of the casing, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE W. JOPSON.

Witnesses:

HENRY DRYHURST,
WILLIS I. FENN.