(No Model.)

O. D. WARFIELD.

CALIPERS.

No. 267,290. Patented Nov. 7, 1882.

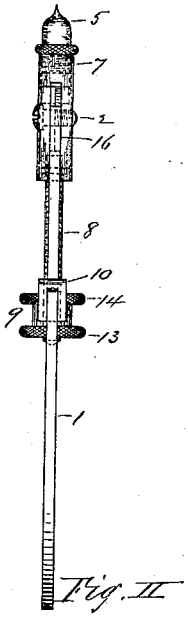

Fig. II

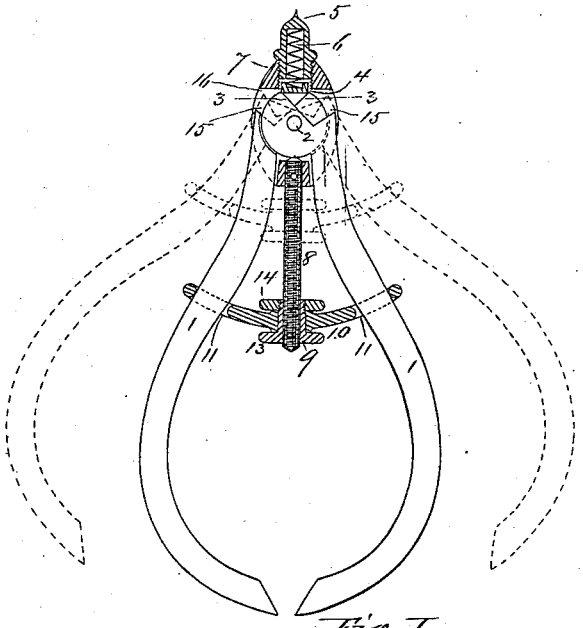

Fig. I

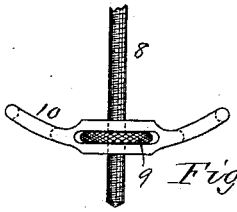

Fig. III

Witnesses.
N. E. Dwinnell.
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his Atty.

UNITED STATES PATENT OFFICE.

OLIVER D. WARFIELD, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND FRANK J. WARNER.

CALIPERS.

SPECIFICATION forming part of Letters Patent No. 267,290, dated November 7, 1882.

Application filed July 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, OLIVER D. WARFIELD, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Calipers, of which the following is a description and specification.

The object of my invention is to provide a screw-calipers which combines ease of operation with accuracy, and which may be readily adjusted with the thumb and fingers of the same hand in which it is held when being used in making measurements; and I accomplish this by the mechanism substantially as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure I is a side view of a calipers made according to my invention. Fig. II is a vertical section through the head, adjusting-screw, and yoke at line A of Fig. I, with the legs of the calipers in side view; and Fig. III is a modification of the yoke and adjusting thumb-nut secured therein.

In the drawings, 1 represents the legs of the calipers, whose extreme upper ends are made flat and of circular form and halved together, and which are notched or cut away, as shown at 15, forming an inclined edge, as 3, at the extreme upper end of each leg and above the pivot, as shown clearly in Fig. I. These legs, halved together at their upper ends, are placed in a vertical slot, as 16, made in the head, as 7, and are pivoted to the head at 2, and a vertical threaded hole is made in the top of the head 7, into which is dropped first a small disk, as 4, and then a cap, as 5, with a spring, as 6, inside, is turned into the threaded hole, with the lower end of the spring bearing upon the disk and the latter resting upon the upper ends of the two inclined edges 3, so that the said disk and spring operate to force the two legs apart at their lower ends by pressing upon said inclined edges. A screw, as 8, is firmly fixed or secured by a pin, as 12, or in any other convenient manner, in the lower part of the head 7, and extends down between the legs of the calipers, with a thumb-nut, as 9, extending through a hole in a yoke, as 10, turned upon said screw. This thumb-nut may consist of two disks, as 13 and 14, one provided with a sleeve threaded on the outside at the end, to be turned into a hole in the other disk, and threaded through the inside, so that the nut thus formed may be turned upon the screw 8; and the yoke, as 10, may consist of a curved flat bar with an oblong hole, as 11, near each end, through which the leg 1 extends, as shown clearly in Fig. II.

Instead of making the thumb-nut with two disks, as shown in Fig. II, and a connecting-sleeve extending through the yoke, the latter may be provided with an elongated horizontal hole, as 17, and a single disk placed therein, with its knurled periphery extending out beyond the bar on each side.

The operation of the invention is as follows: When the parts are in place, as shown in Fig. II, as the nut, as 9, is turned onto the screw 8 the yoke, as 10, is moved upward toward the pivot, and the legs 1 are allowed to be forced apart by the pressure of the disk, as 4, upon the inclined edges 3 at the top, and when the nut 9 is turned down on the screw 8 the yoke 10 is also moved down and away from the pivot, and the outer ends of the elongated holes 16 in the yoke operate to draw the legs of the calipers together.

Having thus described my invention, what I claim as new is—

An improved calipers consisting of two legs pivoted together and to a slotted head, and each leg provided with an incline at the top, a disk having a bearing upon said inclines and actuated by a spring to press thereon, a yoke embracing each leg of the calipers, a thumb-nut secured in said yoke, and an adjusting-screw secured to said head and extending through a threaded hole in said nut, whereby the legs may be adjusted to any desired distance apart by turning the nut upon said adjusting-screw, substantially as described.

OLIVER D. WARFIELD.

Witnesses:
T. A. CURTIS,
CHAS. H. WOOD.