

(No Model.)

E. V. FAUCETT.
CALIPERS.

No. 433,199.

Patented July 29, 1890.

Fig. 1.

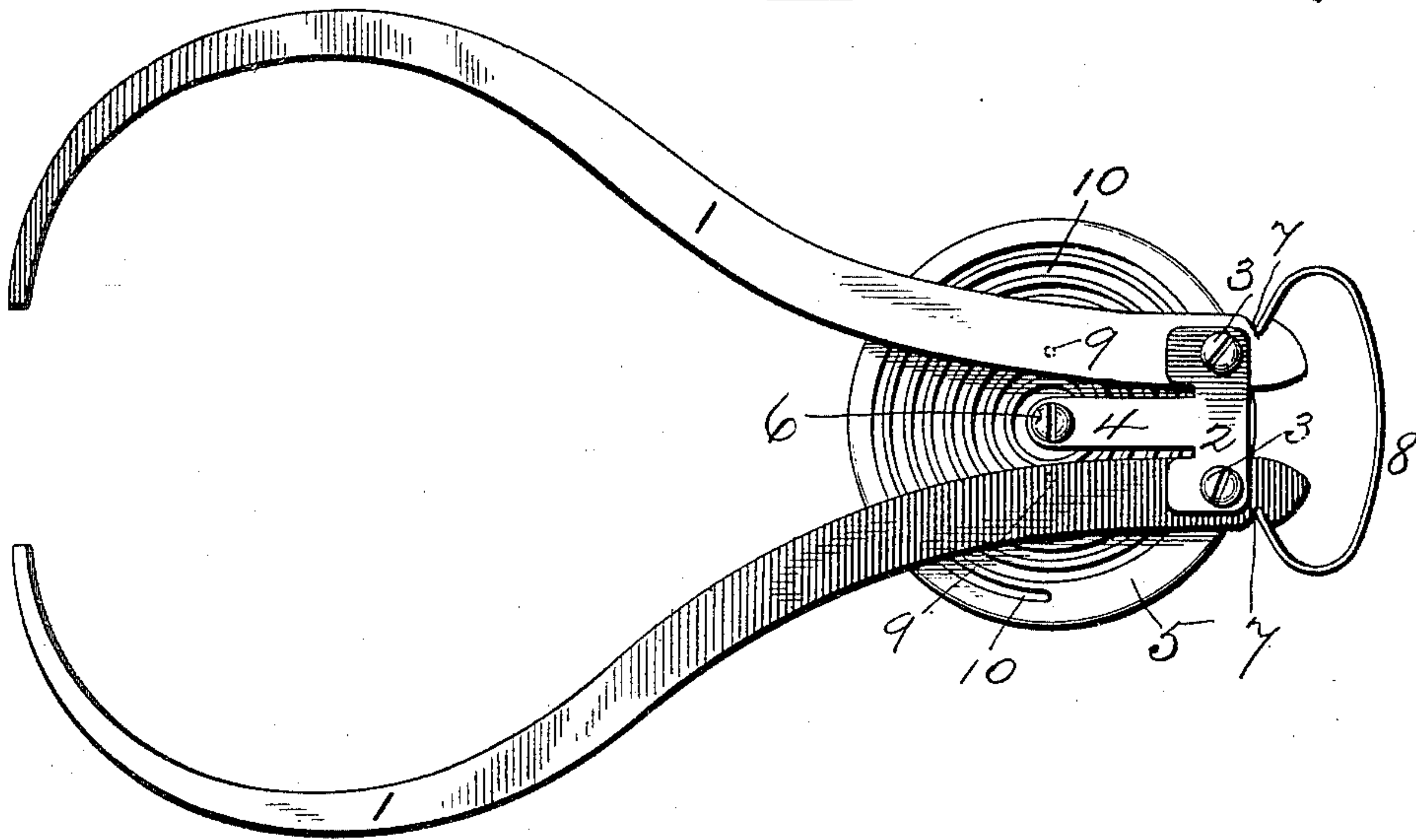
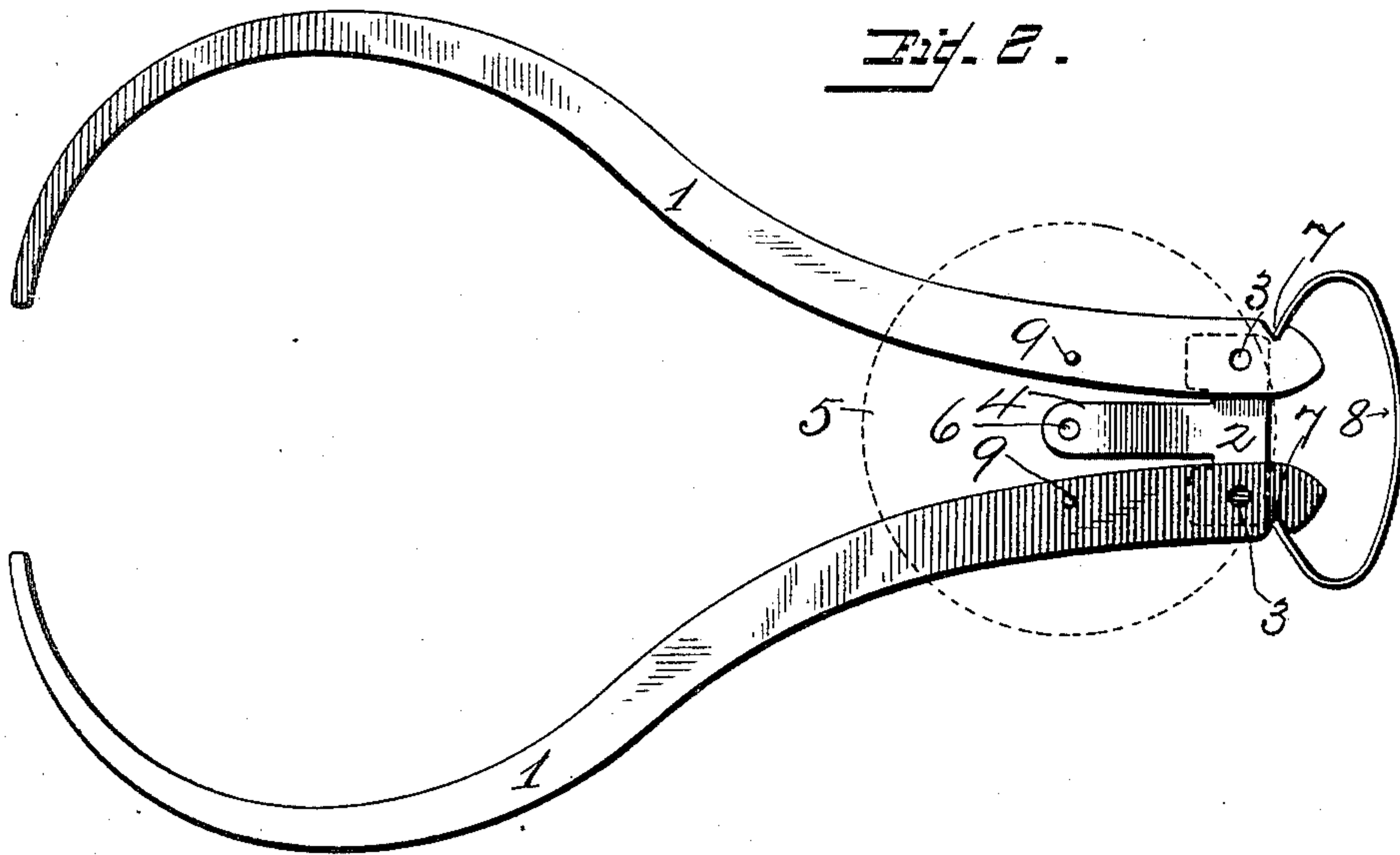


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

EUGENE V. FAUCETT, OF WILMINGTON, DELAWARE.

CALIPERS.

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Application filed January 25, 1890. Serial No. 338,079. (No model.)

To all whom it may concern:

Be it known that I, EUGENE V. FAUCETT, a citizen of the United States, residing at Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Calipers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in the construction of calipers, whereby the same may be readily adjusted and securely maintained in adjusted position while in use.

The essential features of my invention consist in constructing the caliper-legs with outwardly-extending pins or lugs on one face and near their upper ends; in pivotally connecting said legs together by a suitable strap or hanger, and in pivotally suspending from said strap or hanger a spirally-grooved disk, within the grooves of which said pins on the legs engage, so that upon said disk being rotated in either direction the respective legs will be either projected or retracted, according to the direction in which the disk is rotated. It is contemplated to form the disk-supporting and leg-connecting strap or hanger of spring metal, for the purpose of maintaining the operative contact of the disk and pins, a spring being also attached to the upper portion of the legs to assist in maintaining said legs rigidly in their adjusted position.

In the accompanying drawings, Figure 1 represents a side elevation of my improved calipers. Fig. 2 represents an elevation viewed from the side opposite to that shown in Fig. 1, the spirally-grooved disk being shown in dotted outline.

1 represents the legs of my improved calipers, which are pivotally connected near their upper ends by a strap 2 and pivot-pins, screws, or analogous means 3. 4 represents a depending portion of said leg-connecting strap 2, which serves as a hanger, upon which the spirally-grooved disk 5, for securing the adjustment of the legs 1, is pivotally supported, as at 6. To the upper ends of the legs is attached, by notches 7 or otherwise, a spring 8, whose function is to exert sufficient tension inward upon the upper ends of said legs to insure the

lower or operative ends of said legs remaining steadily in their extended position and prevent their shifting movement while in use.

I do not confine myself to the precise method shown in the drawings of applying the leg-steadying spring 8, nor to the special form of spring shown, as a plate-spring may be riveted or otherwise secured to said legs, or a spiral spring may be secured thereto in any known or approved manner.

Extending transversely from one face of each leg 1, at a suitable position in the neck thereof, is a pin or lug 9, which pins, when the several parts of my calipers are assembled, engage and rest within the spirally-grooved portion 10 of the rotatable disk 5. The strap and hanger 2 4 are preferably of spring metal, in order that the requisite amount of tension may be maintained between the disk 5 and legs 1 to insure the retention of the pins 9 in operative position within the spiral groove 10, and also to permit of the legs being sprung out to release the pins from the groove whenever it may be desired to open out the legs in a more expeditious manner than by rotating the disk.

The several parts of my improved calipers having been connected, as herein indicated, and it being desired to extend the legs 1, so as to open out the calipers, the user either grasps the legs and by a pressure thereon transversely of the disk of sufficient force to overcome the resistance of the spring-strap 2 4, disengages the pins 9 from the spiral groove 10, and then draws said legs sidewise to the desired distance, upon reaching which said pins are again placed in engagement with the spiral groove 10, or else he rotates the disk until the respective legs are forced out to the appropriate position. In either mode of use, whenever the legs are to be retracted that result is accomplished most readily and with extreme nicety of adjustment by simply rotating the disk in the reverse direction to that in which it is rotated to extend the legs. By means of the spirality of the groove 10 it will readily be understood that upon the disk 5 being rotated in one direction the gradual increase in the circumference of the groove brought to bear upon the pins 9 will, to a corresponding extent and in unison, force out the legs 1, while the rotation of said disk in

the contrary direction will cause the constantly-decreasing area of the groove to draw the pins 9 and legs 1 inward. It will thus be seen that by my improvement the legs of the calipers can be very expeditiously and easily adjusted in either direction to any degree of projection, and that by reason of the spring-connection between the disk and legs and between the legs themselves the legs are securely held in their adjusted position without the possibility of their shifting under the grasp of the user.

What I claim is—

1. A calipers consisting of a pair of connected legs having pins or lugs projecting outward horizontally from one of their side faces, and a vertically-disposed rotatable spirally-grooved disk engaging said pins or lugs and adapted, upon the rotation vertically of said disk, to extend or contract said legs.

2. A calipers consisting of a pair of legs having angularly-extending pins, and a rotatable disk having a spirally-grooved face, with which the pins on the legs engage, and a strap or hanger pivotally connecting said legs and serving as a pivotal support for said disk.

3. A calipers consisting of a pair of legs having transversely-projecting pins or lugs, a strap connecting said lugs, a disk having rotatable bearing upon said strap and having a spirally-grooved face engaging with the pins or lugs on the legs, whereby upon said disk

being rotated in opposite directions said legs will be respectively expanded and contracted, substantially as set forth.

4. A calipers consisting of a pair of legs having lugs or pins extending from one face thereof, a disk having a spirally-grooved face, with the convolutions of which said pins engage, a spring plate or strap connecting said legs near their upper ends and having a depending portion, upon which said disk is supported and has a rotatable bearing, said spring plate or strap serving to maintain the legs and disk in frictional contact during the rotation of the disk to secure the adjustment of the legs and while the calipers are in use, substantially as set forth.

5. A calipers consisting of a pair of legs having outwardly-extending lugs or pins, a tension-spring connecting the upper ends of said legs, a spirally-grooved disk adapted to engage the pins on the respective legs, and a strap pivotally connecting the respective legs and having a depending spring portion, upon which the disk has rotatable bearing and which also serves to maintain the disk and pins in operative engagement.

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

EUGENE V. FAUCETT.

Witnesses:

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