F. I. BLAKE & M. D. REIDY.

CALIPERS OR DIVIDERS.

APPLICATION FILED AUG. 8, 1912. RENEWED FEB. 12, 1915.

1,135,095. Patented Apr. 13, 1915.

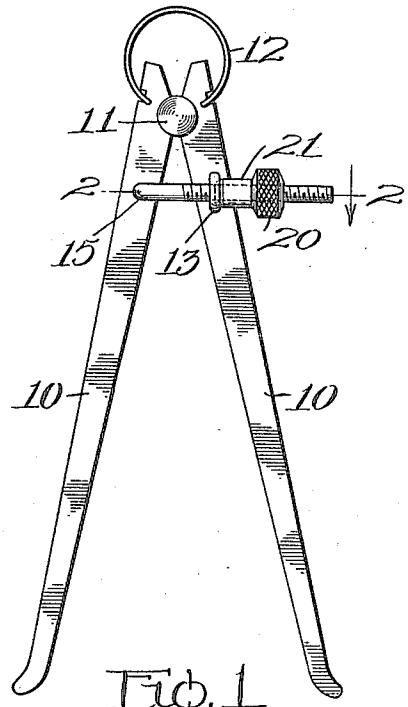


Fig. 1.

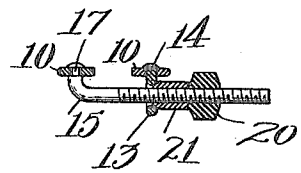


Fig. 2.

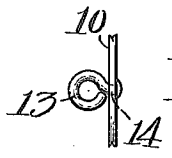


Fig. 3.

Witnesses:

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FREDERICK I. BLAKE AND MICHAEL D. REIDY, OF WORCESTER, MASSACHUSETTS.

CALIPERS OR DIVIDERS.

1,135,095. Specification of Letters Patent. Patented Apr. 13, 1915.

Application filed August 8, 1912, Serial No. 713,954. Renewed February 12, 1915. Serial No. 7,812.

To all whom it may concern:

Be it known that we, FREDERICK I. BLAKE and MICHAEL D. REIDY, citizens of the United States, both residing at Worcester, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in Calipers or Dividers, of which the following is a specification.

This invention relates to that class of instruments represented by calipers and dividers.

It is applicable to all types of small instruments which are provided with two legs spring-pressed apart and with an adjusting device for adjusting the spread of the legs.

The principal objects of the invention are to provide an instrument of this character with an adjusting means of a simplified and inexpensive kind; to provide an adjusting means consisting of a minimum number of parts; and in general to reduce the expense of manufacture and the complications due to the unnecessarily large number of parts usually employed.

Further objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings in which—

Figure 1 is a front elevation of a pair of calipers constructed in accordance with this invention. Fig. 2 is a transverse sectional view on the line 2—2 of Fig. 1, and Fig. 3 is an edge view of part of one leg of the calipers with the adjusting screw and connected parts removed.

Although the invention is capable of application to a number of small instruments of the general character above described, it is shown in the drawings as applied only to one type of instrument, namely a pair of calipers. These calipers are illustrated as comprising two legs 10 pivoted together at 11 and having a spring 12 normally holding the free ends of the legs apart. On one of the legs is located an eye 13 which consists preferably of a piece of round wire bent into circular form and having a neck 14 projecting through the leg of the caliper and riveted over on the rear. This constitutes one part of the adjusting device and it will be understood of course that the eye is capable of swinging on the axis of the neck to accommodate the turning of the legs about the pivot 11. The other member of the adjusting device consists of a piece of metal 15 preferably in the form of a wire, having a reduced neck 17 at right angles to the main body of the wire and passing through the other leg of the calipers. This is headed over on the rear, as is the case with the eye. The other end of this wire is screw-threaded throughout most of its length and is designed to pass freely through the eye. It is of course pivoted to swing about the riveted neck. The screw is shown as provided with the usual nut 20 and washer 21. Any other kind of adjusting device can be used on the screw as will be obvious. In this construction it will be seen that the eye is formed of a single piece of metal and that of an extremely simple and inexpensive form, while the screw with its fastening device by which it is pivoted to the leg of the instrument is formed of a single piece of metal requiring no additional piece of any kind for pivotally fastening it in position. In this way a very material reduction in the number of parts is secured and a corresponding reduction in the cost of manufacture and liability of injury in use. At the same time the efficiency of the device is not decreased but in fact is increased as the two parts 13 and 15 are freely pivoted and swing readily about their pivots.

Although we have illustrated and described a preferred embodiment of the invention and shown it as applied only to calipers we are aware of the fact that many modifications can be made therein and that it can be applied to other instruments of the same general type, as for example dividers and the like, without departing from the scope of the invention as expressed in the claim. Therefore we do not wish to be limited to all the details of construction or the particular application of the invention herein shown and described, but

What we do claim is:—

In an instrument of the class described, the combination with a pair of pivoted spring-pressed legs, of an eye having an integral neck extending therefrom and mounted on one of said legs and capable of swinging about the axis of its neck, a screw pass-

ing through said eye and having one end bent at right angles to the screw body and parallel with said neck, and passing freely through the other leg so as to be capable of swinging thereon, and headed over on the rear side, and a nut on the screw.

In testimony whereof we have hereunto set our hands, in the presence of two subscribing witnesses.

FREDERICK I. BLAKE.
MICHAEL D. REIDY.

Witnesses:
LOUIS W. SOUTHGATE,
C. FORREST WESSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."