A. ROSENBLATT.

RIM STRETCHING DEVICE.

APPLICATION FILED AUG. 1, 1916.

1,219,160. Patented Mar. 13, 1917.

Fig. 1.

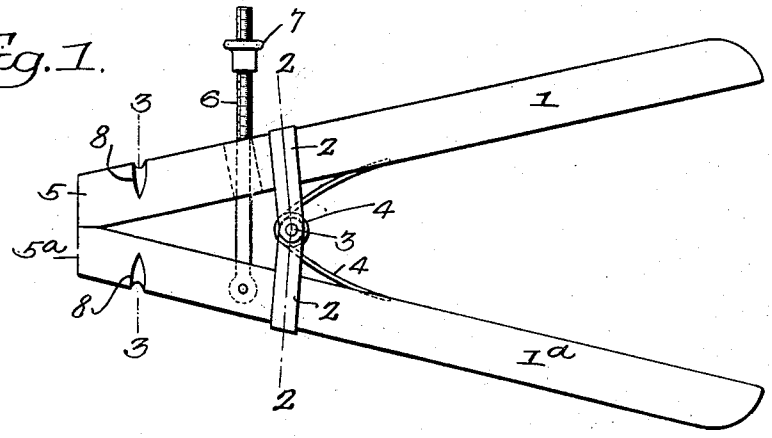


Fig. 2.

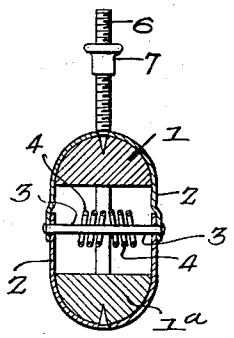


Fig. 3.

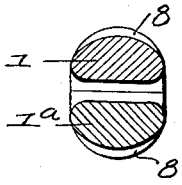
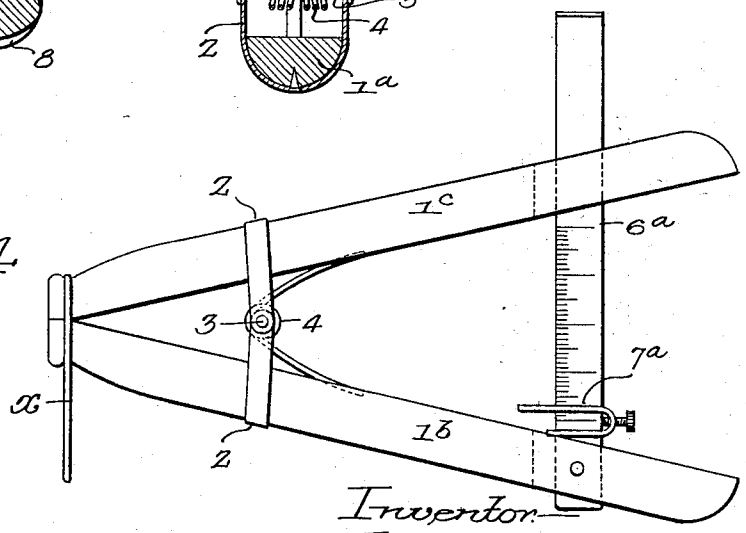


Fig. 4.



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

UNITED STATES PATENT OFFICE.

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RIM-STRETCHING DEVICE.

1,219,160. Specification of Letters Patent. Patented Mar. 13, 1917.

Application filed August 1, 1916. Serial No. 112,562.

To all whom it may concern:

Be it known that I, AARON ROSENBLATT, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented a Rim-Stretching Device, of which the following is a specification.

One object of this invention is to provide an instrument for accurately stretching the so-called shell rims for eye glasses to bring them to a predetermined diameter at which they may be easily put in place around or mounted upon the lenses;—the invention contemplating an arrangement of parts which in addition to the above use may be employed as a holding device or vise for eye glasses while they are being adjusted or otherwise operated upon.

I further desire to provide a simple, substantial and inexpensive instrument of the character above noted with means whereby it may be adjusted to accurately predetermine the amount of expansion or stretching to be given to a rim.

These objects and other advantageous ends I secure as hereinafter set forth, reference being had to the accompanying drawings, in which,

Figure 1 is a side elevation of a rim stretching device constructed in accordance with my invention;

Figs. 2 and 3 are transverse sections on the lines 2—2 and 3—3, Fig. 1; and

Fig. 4 is a slightly modified form of my instrument.

In the above drawings 1—1ª represents a pair of similar bars made of suitable material such as wood or metal, which in the case illustrated are of half-round section and pivoted together so that one pair of their ends 5 and 5ª is normally held in engagement, for which purpose each of them has fixed to it a U-shaped body 2 of relatively stiff material constituting a fulcrum or pivot member. The free ends of these fulcrum members are connected by a pivot pin 3 on which is mounted a coiled spring 4 whose extremities respectively engage the two bars 1—1ª so as to hold their ends 5 and 5ª normally in engagement.

In that form of my invention shown in Fig. 1, I provide the bars 1 and 1ª with a device situated between the ends 5 and 5ª and the pivot members 2 whereby the possible amount of separation of said ends may be predetermined and accurately limited. For this purpose I mount on one of said bars 1 a rod 6 preferably so that it is free to swing to a limited extent, and extend it through an opening in the other bar, threading on its outer end a nut 7. This rod in addition to its threads is provided with notches constituting graduations in inches or centimeters and fractions thereof, designed to indicate the amount of separation of the ends 5—5ª when the bar 1 engages the nut 7.

The ends 5 and 5ª are preferably provided with some means such as notches 8 in their external or outermost portions designed to receive and hold in place a rim to be stretched. Knowing the diameter of the lens to which a so-called shell rim is to be applied, the nut 7 is rotated on the graduated stem 6 until its inner face is immediately adjacent to a predetermined graduation indicating the diameter to which experience has shown the rim must be stretched in order to be properly mounted on the lens. The celluloid or other rim after being softened as by being placed in a suitably heated liquid at the desired temperature, is thereafter placed over the ends 5 so that it rests in one of the notches 8.

By forcing together the opposite ends of the bars or members 1 and 1ª against the action of the spring 4, the ends 5 and 5ª are forcibly separated to an extent dependent upon the previous adjustment of the nut 7. When the end 5ª comes into engagement with said nut, the rim which rests in the notches 8 has been stretched to the desired diameter so that it may be easily placed around the periphery of the lens, which it tightly grips in the desired manner when it cools.

Without departing from my invention I may mount the movement limiting device for determining the amount of stretching to be given to the rim, at the opposite or handle end of the instrument as shown in Fig. 4, and while I may employ a graduated screw as before, I preferably pivot or fix a flat scale 6ª to the handle portion of the bar 1ᵇ and extend it through a suitable opening in the corresponding portion of the bar 1ᶜ. The adjustable nut in such case may be replaced by a spring slider 7ª operative on the scale between the bars 1ᶜ and 1ᵇ and so formed that as before the amount of separation of the ends 5ᵇ and 5ᶜ may be definitely predetermined in order that a rim carried by them shall receive a predetermined stretching or expansion when the handle

portions of the bars are moved together until the bar 1^c comes into engagement with the slide 7^a.

Obviously other means than the notches 8 may be employed for holding the rim x while it is being stretched. For example, I may form the bars 1^b and 1^c as indicated in Fig. 4, so that their engaging extremities 5^b and 5^c are provided with noses or projections which will prevent the rim to be stretched from being displaced when the bars or handle members are operated as above described.

I have found the instrument made in accordance with my invention to be available as a convenient means for holding an eye glass or eye glass frame during assembly or adjustment. For this purpose said instrument is laid on its side on a suitable supporting table or other flat surface so that the object to be held may be placed within the jaws 5 and 5^a which under the action of the spring 4, firmly grip and support it in the desired position.

I claim;—

1. A rim stretching device consisting of two pivotally connected bars; a spring normally operative to maintain an end of one bar in engagement with the corresponding end of the other bar; a graduated member connected to one of the bars; and an adjustable element on said graduated member placed to engage the other bar to limit the separation of the normally engaged ends of the bars.

2. The combination of a pair of bars having means for holding in place a rim to be stretched; means for pivotally connecting the bars; a graduated spindle mounted on one of the bars and extending through the other; and a nut adjustable on the spindle to limit the amount of separation of the rim supporting ends of the bars.

3. A rim stretching device consisting of a pair of bars having means on a pair of adjacent ends for retaining thereon a rim to be stretched; U-shaped members respectively fixed to said bars; a pivot connecting the free ends of said members; a spring on the pivot acting on the bars to normally force together their rim engaging ends; and means for positively limiting the amount of separation of said rim engaging ends of the bars.

AARON ROSENBLATT.

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