(No Model.)

H. H. HEMPLER.

OPTOMETER OR SIGHT ADJUSTER.

No. 541,484. Patented June 25, 1895.

Fig. 1

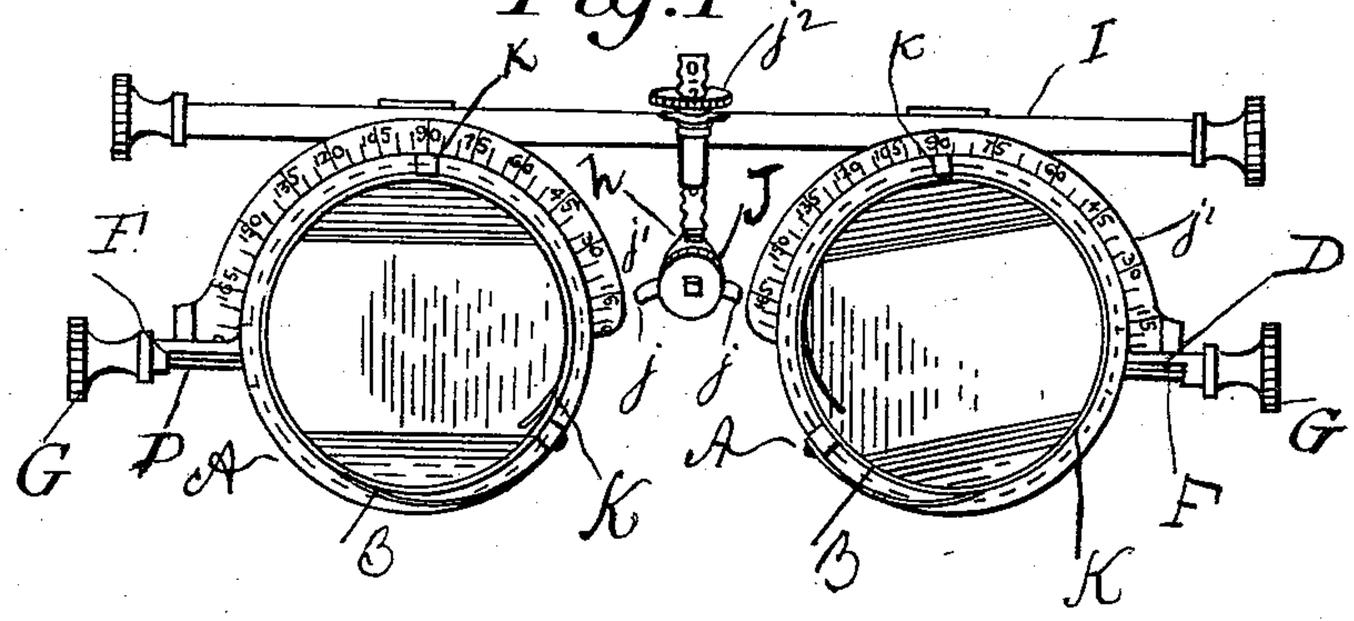


Fig. 2

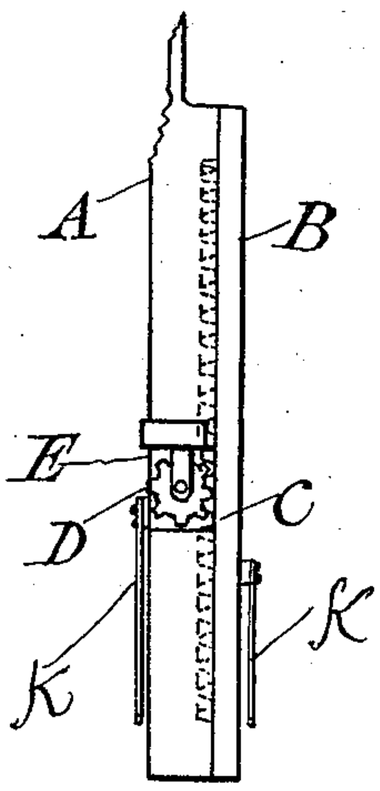


Fig. 3

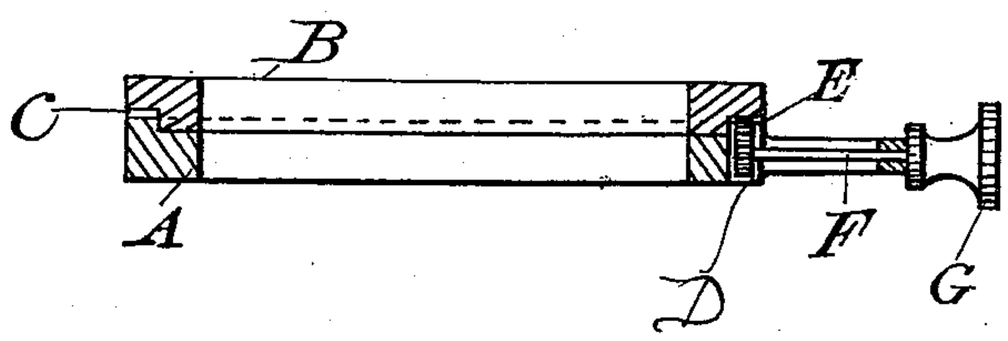
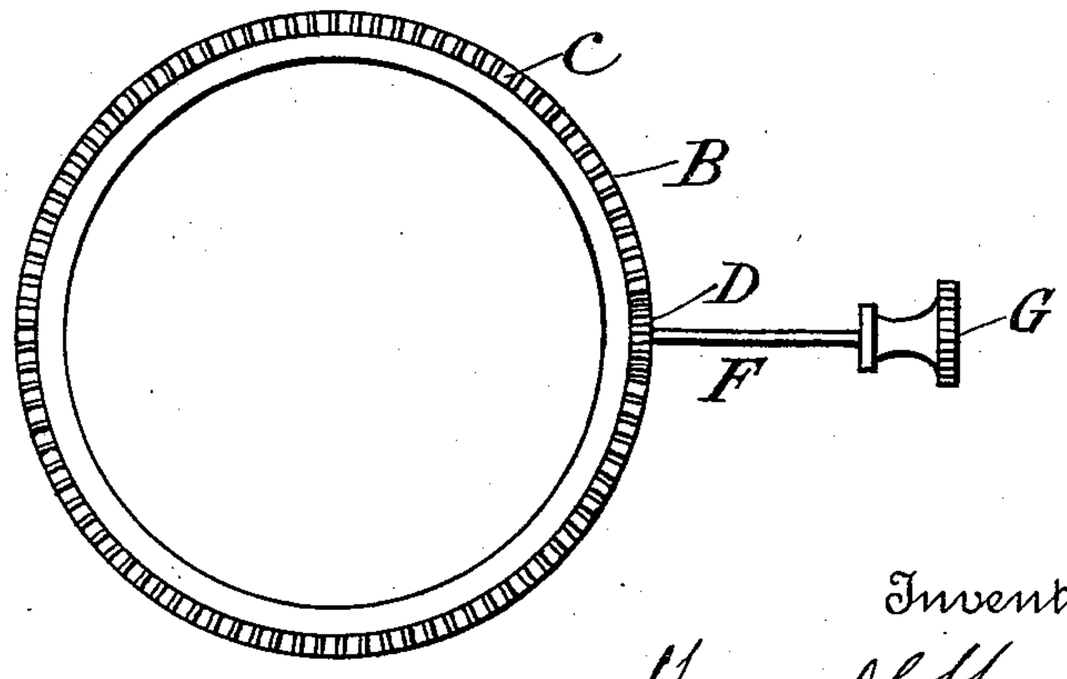


Fig. 4



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY H. HEMPLER, OF WASHINGTON, DISTRICT OF COLUMBIA.

OPTOMETER OR SIGHT-ADJUSTER.

SPECIFICATION forming part of Letters Patent No. 541,484, dated June 25, 1895.

Application filed April 8, 1892. Serial No. 428,387. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. HEMPLER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Optometers or Sight-Adjusters; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a certain new and useful improvement in optometers, or sight-adjusters, and has for its object to provide an improved means of rotating the lens-frames, in the operation of sight-adjusting.

In the construction of the ordinary optometer, the rotating lens-frames are operated in their position in the stationary frames by means of knobs placed on the outside faces thereof, requiring the operator to reach forth his hand around to the front of the apparatus, which obstructs the sight and otherwise hampers the operator.

By my improved device, which is simple in construction, I overcome the disanvantages outlined.

It consists of a gear mechanism, bearing, at either side of the apparatus, on the movable lens-frames in such a manner as to allow of their free and easy adjustment, by the simple turning in either direction of the projected thumb-piece.

In the accompanying drawings, Figure 1 shows a front view of an optometer or sight-adjuster with my device attached thereto. Fig. 2 is a side elevation of the device with the thumb-piece removed. Fig. 3 is a sectional view of same, and Fig. 4 is a detail view.

A designates the stationary annular frames, in which are mounted to rotate the respective lens frames B, formed with a rack-gear on its circular rear surface or edge, as shown, to gear or mesh with the pinion D, as hereinafter specified. The stationary frames A, have respectively, laterally and horizontally disposed sleeves projecting therefrom adjacent to the recesses therein as shown, in which are journaled pins or journals F carrying on their inner ends the pinions D, which are arranged in recesses formed in the peripheries of the respective stationary frames; the teeth of the pinions projecting sufficiently to accurately and precisely engage in the rack-gear on the rotating lens frames. On the outer end of the pins F is a thumb-piece G. This arrangement and construction of the operating mechanism insure certainty and precision of movement, and at the same time is neat, sightly and convenient, since the hand of the operator will not prevent full view of the lens during adjustment. The glass holders are adjustably sustained on a holding-bar, as shown in Fig. 1 of the drawings, and to this holding bar is secured a pendant which is disposed between the glass holders, as shown and hereinafter more fully described. On the stationary frames are mounted graduated scales having sight indications marked thereon, so that the adjustments may be readily and accurately ascertained.

The rotatable lens frames B, are secured upon and held in place upon the stationary frames A, by being sprung or fitted upon the circular flange of the stationary frames, and fit snugly to rotate in their relations when thus arranged and connected.

H, designates a nose-piece secured on the bar I, to extend down between the lens frames, and which may have a thumb-screw *h*, to clamp a nose-bow J. The nose-piece H is held to the bar I, by a set screw j^2.

K designates springs to hold the lens in the frames; these springs being secured by any suitable fastenings, as K.

What I claim is—

The spectacle gage herein-described, comprising a supporting-bar I, two non-rotative rings supported on the bar and movable to and from each other, and having recesses in their perimeters and formed with lateral and horizontally projecting-sleeves adjacent to

the recesses, two rotative rings fitted to and held by the non-rotative rings and formed with rack-gears, on their rear edge surfaces, shafts journaled in the sleeves of the non-rotative rings, pinions on the inner ends of the shafts arranged in the recesses of the non-rotative rings to mesh precisely with and adjust the rotative rings, springs to hold the lens in the rotative rings, and a nose-piece on the supporting bar.

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

HENRY H. HEMPLER.

Witnesses:

J. STEWART BOWEN,

FRED. C. HEMPLER.