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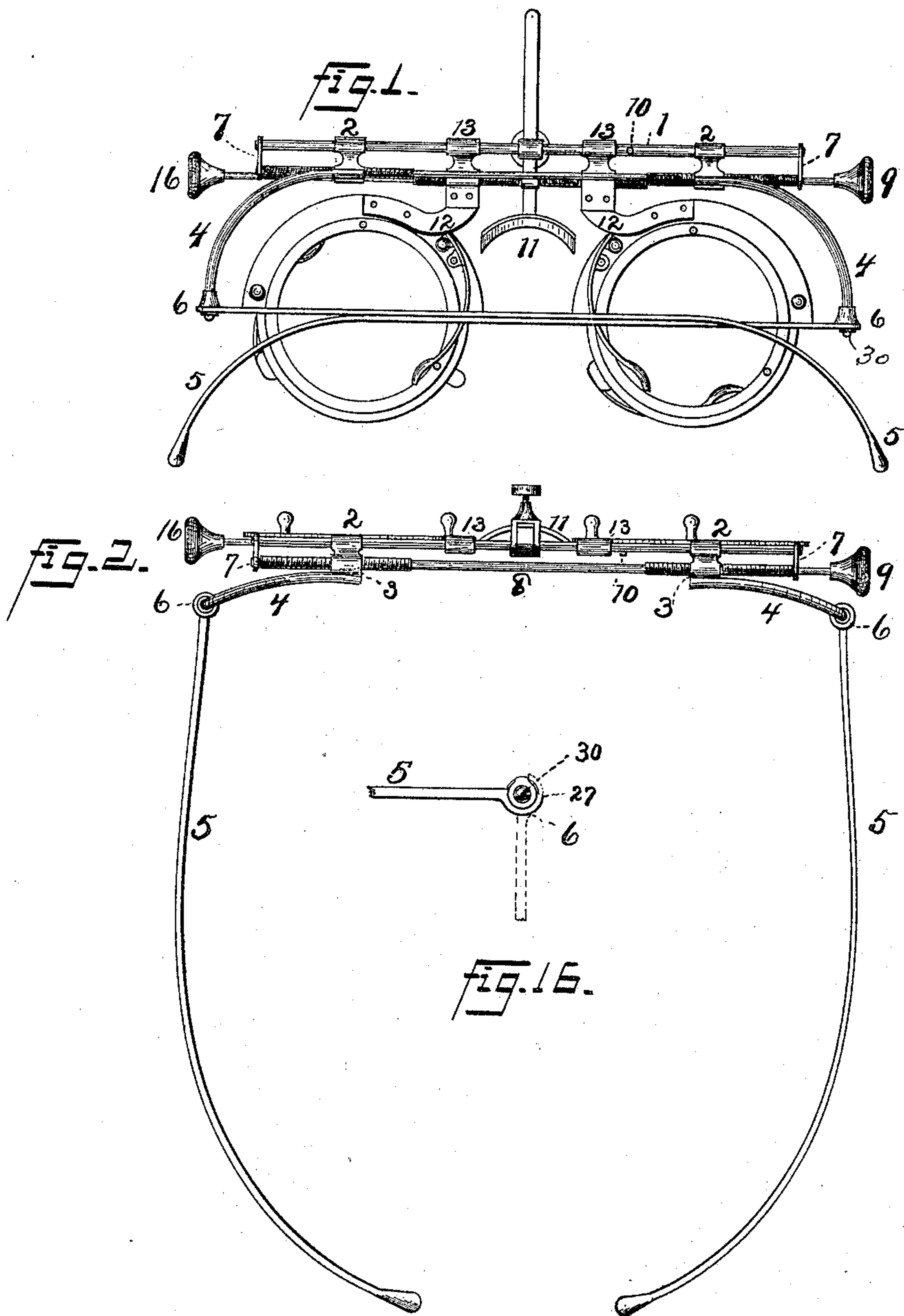
Patented Sept. 13, 1898.

O. T. MAY.
TRIAL FRAME FOR OCULISTS.

(Application filed Dec. 20, 1897.)

(No Model.)

2 Sheets—Sheet 1.



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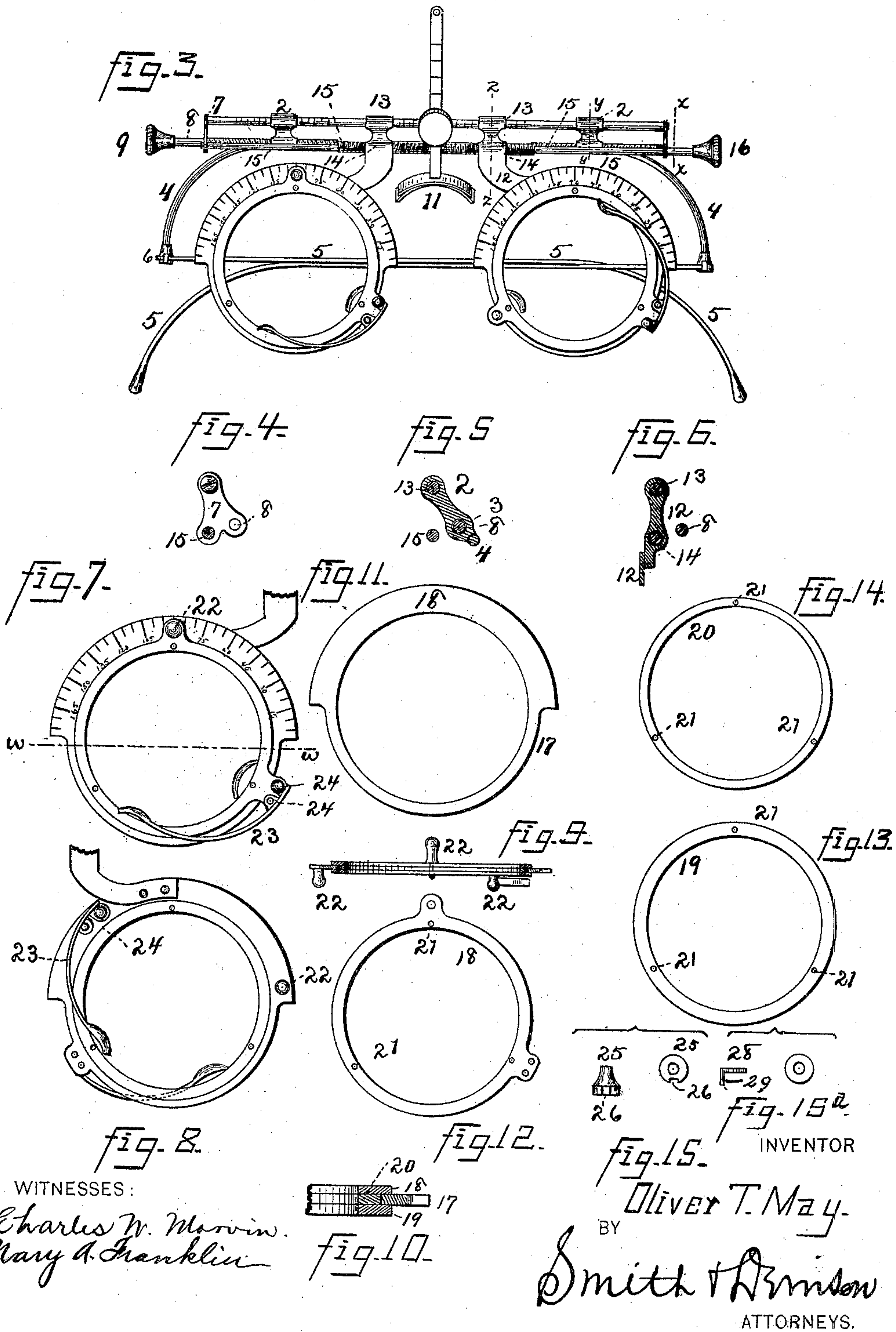
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UNITED STATES PATENT OFFICE.

OLIVER T. MAY, OF GENEVA, NEW YORK.

TRIAL-FRAME FOR OCULISTS.

SPECIFICATION forming part of Letters Patent No. 610,817, dated September 13, 1898.

Application filed December 20, 1897. Serial No. 662,567. (No model.)

To all whom it may concern:

Be it known that I, OLIVER T. MAY, of Geneva, in the county of Ontario, in the State of New York, have invented new and useful
5 Improvements in Trial-Frames for Oculists, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in
10 trial-frames for the use of oculists in testing and fitting the eyes with lenses.

My object is to improve the detail construction and general utility; and to that end my invention consists in constructing trial-
15 frames by which I am able to separately adjust laterally the temple-pieces and lens-holders so as to fit a variety of users; and it consists in constructing a new, useful, and inexpensive lens-holder which grips a lens
20 upon each side thereof, at the same time allowing the lens to be turned so as to indicate the axis of the cylinder, and also the further object of producing such an improved joint connecting the temple-pieces with the bows
25 so that the screw will not work loose by the action of the bows, and in the several other new and novel features of construction and operation hereinafter described, and which are specifically set forth in the claims here-
30 unto annexed.

It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a rear view of the frames complete, the bows being folded. Fig. 2 is a top
35 plan view thereof, the bows extended. Fig. 3 is a front view of the frame, the bows folded. Fig. 4 is a cross-section on line $x x$, Fig. 3. Fig. 5 is a cross-section on line $y y$, Fig. 3. Fig. 6 is a cross-section on line $z z$, Fig. 3.
40 Fig. 7 is a front view of one of the lens-holders. Fig. 8 is a rear view thereof. Fig. 9 is a cross-section on line $w w$, looking at the upper portion. Fig. 10 is an enlarged view of one end of the cross-section shown in Fig.
45 9. Fig. 11 is the base-ring of the lens-holder. Figs. 12 and 13 are rings which are secured to the base-ring and inclose the ring shown in Fig. 14. Fig. 14 is the inclosed ring. Fig. 15 shows two views of the cylindrical tip
50 adapted to be secured to the temple-piece, detached. Fig. 15^a shows two views of the washer adapted to be secured to the end of

the body, detached. Fig. 16 shows them assembled in connection with the temple-piece and bows, forming the joint as they appear
55 in use.

The frame comprises a bar 1, upon which are slidingly mounted brackets 2, the lower end of each being provided with a threaded eye
60 3, and to the lower end is secured the laterally-extending temple-piece 4, 5 being the bows secured thereto by means of the temple-joint 6.

Upon each end of the bar 1 I secure a triangular bracket 7, having two openings in its
65 lower end, one of which receives a right and left hand threaded shaft 8, which engages with the threaded eye 3, and having a thumb-piece 9 upon one end by which it is operated. It will thus be observed that by rotating the
70 thumb-piece 9 I simultaneously adjust laterally the temple-pieces 4, so that the bows are extended to fit a person with a broad face or contracted to meet the demands of a person
75 with a narrow one, the threads upon the said shaft 8 engaging with the threads in the eyes 3 of the bracket 2, as shown fully in Fig. 2.

10 is a lug mounted on the bar 1, so as to limit the inward travel of the bracket 2 upon
80 said arm, the outer travel being limited by the bracket 7. Upon the bar 1 I show a vertically annularly adjustable nose-piece 11; but inasmuch as I make no claim as to the novelty of this I will not further describe it. Upon the bar 1 are also slidingly mounted
85 brackets 12, the upper ends 13 adapted to slide upon said bar 1 and provided at 14 with threaded eyes to receive a right and left hand shaft 15 and having a thumb-piece 16 by
90 which it is operated and being held in position by being mounted in the openings of the brackets 7. (Shown in Fig. 4.) At the lower end of said brackets 12 I secure the lens-
95 holders. It will thus be observed that by rotating the said shaft in one direction I simultaneously move the lens-holders outward, or by rotating it in the opposite direction I contract them, so as to fit persons of different distances between the eyes.

In Figs. 7 to 14, both inclusive, I show my
100 construction of lens-holders, which comprises a ring 17, widened at its upper end, as shown at 18, where it may be graduated so as to show the axis of the cylinder of the lens, the

whole being stamped from a piece of sheet metal, and 18' and 19 are rings (shown in Figs. 12 and 13) stamped from pieces of sheet metal and which are secured together upon the base-ring 17, the ring 20 being interposed. The rings 18 and 19 are secured together by rivets through the openings 21, so as to allow them to be rotated by the finger-pieces 22.

Upon the lens-holder thus constructed I secure upon either side springs 23 by simply providing the springs with feet extending at right angles, as shown at 24 in Figs. 7 and 8, so that when the lens is placed upon the holder it will force it against the finger-pieces 22 and yieldingly hold it in position so that they may be turned in either direction to show the axis of the cylinder, as heretofore set forth. The feet 24 are located at right angles to the spring 23 for the purpose of holding the spring in the position shown, and holding one end of said spring rigid imparts an elasticity to the opposite end. The springs, through these feet, are secured to the lens-holder by pins or rivets passing through them and into the holder.

In Figs. 15 and 16 I show the temple-joint which connects the temple-piece with the bow.

25 is a cylindrical tip threaded internally, having a recess 26 in one edge and adapted to be secured to the end of the temple-piece, the bow 5 having an eye in one end and a shoulder 27, and 28 is a perforated washer having an arm 29, adapted to be placed upon the bow, the arm extending down to engage with the recess 26, and 30 is a screw securing the washer and bow to the tip 25. It will thus be observed that the washer is locked from rotation, and that inasmuch as the swinging movement of the bow does not come in contact with

the head of the screw there is no danger of its working loose.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A trial-frame for oculists, comprising a bar having two sets of brackets slidingly mounted thereon, threaded eyes in said brackets, and temple-pieces secured to one set of said brackets and lens-holders secured to the other set, and right and left hand screws engaging the eyes on each set of brackets, for the purposes set forth.

2. In a trial-frame for oculists, a lens-holder, comprising a base-ring having a portion of its face graduated and rings secured upon each side of said base-ring, all constructed from sheet metal, and means for yieldingly holding said lens upon said holder, as set forth.

3. A temple-joint comprising an internally-threaded tip having a recess in one edge, a washer having an arm adapted to engage with said recess, and a screw for holding the several parts together substantially as described.

4. A temple-joint, comprising an internally-threaded tip having a recess in one edge, a washer having an arm adapted to engage with said recess, a bow having one end perforated and provided with a shoulder adapted to engage with said arm on said washer, and a screw for holding all of the parts together, substantially as shown and described.

In witness whereof I have hereunto set my hand this 11th day of December, 1897.

OLIVER T. MAY.

In presence of—

SMITH A. HARRIMAN,
LENA M. BUTLER.