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The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

BOARD OF REGISTRATION IN OPTOMETRY

FOR THE

YEAR ENDING NOVEMBER 30, 1934

DIVISION OF REGISTRATION
DEPARTMENT OF CIVIL SERVICE AND REGISTRATION

PUBLICATION OF THIS DOCUMENT APPROVED BY THE COMMISSION ON ADMINISTRATION AND FINANCE

300. 12-'35. Order 6169.

The Commonwealth of Massachusetts

Department of Civil Service and Registration
Board of Registration in Optometry
State House, Boston

To Honorable James J. Sughrue, *Director of Registration*:

Sir:—The Board of Registration in Optometry has the honor to submit to you its twenty-third annual report as prescribed by section 67 of chapter 112 of the General Laws.

The Board during its fiscal year ending November 30, 1934, met on twenty days. These meetings included hearings and bi-annual examinations. Examinations were held on June 11 to 13 inclusive and November 19 to 21 inclusive. The following questions were asked under their respective subjects at the June examination:

Anatomy

1. Describe the normal anatomy of the retina.
2. Trace the optic tract — "either by description or diagram."
3. Describe the anatomy of the normal lens.
4. Describe the iris.

Physiology

1. What are the physiological relations of the trigeminus to the eye?
2. Discuss physiologically the nerves of the eye.
3. Discuss the function of each conjugate brain centre controlling the ocular muscles.
4. Discuss the vascular system of the eye.

Pathology

1. Discuss Trachoma.
2. Discuss orbital Cellulitis.
3. Discuss the pathology of glaucoma.
4. Describe the diagnostic signs of pareses of the extrinsic muscles of the eye.

Answer three questions in each group. The tenth question may be selected from either group.

June, 1934. John E. Corbett, Opt. D.

Practical Optometry

1. What are the essential findings in an investigation of the visual functions?
2. How is each of these findings obtained?
3. What may they be?
4. How is each one interpreted?
5. How can one determine objectively that bifocals are necessary?
6. What distance from the vertex of the cornea should one place the back surface of the lenses in either spectacles or eyeglasses? Why? Explain fully what changes from this position do to the size of the retinal image. What would be the results of these changes?
7. Describe briefly the technique of fitting telescopic spectacles.
8. For what purpose are eisikonic lenses prescribed?
9. Describe a method of developing the abduction.
10. Describe in detail how one should make a color perception investigation with Holmgren yarns. What findings would indicate red-green blindness?

June, 1934. Walter Irving Brown, Opt. D.

Theoretic Optics

Answer all ten questions.

1. Two parallel plane mirrors A and B face each other at a distance of three feet. A small object, black on one side, white on the other, is placed between them one foot from A with black side facing it. Give the distances from each mirror of the second and third images reflected in them, and how they face each mirror.
2. What is the magnifying power of a convex lens 3 cm. in focal length for a nearsighted eye whose near point is 12 cm?

3. When an object is placed 80 cm. from the center of curvature of a concave mirror and it is found that the distance of the image from the mirror is doubled by bringing the object 20 cm. nearer the mirror, what is the focal length of the mirror?

4. A ray of light impinges on a slab of rock crystal, whose index is 1.545. What must be the angle of incidence in order that the reflected ray may be perpendicular to the refracted ray?

5. An erect image, one-fourth the height of the object, is formed by a mirror; if the distance of the object is nine inches, what is the radius of curvature of the mirror?

Psychological Optics

1. Why, in cases of high hyeropia, are small objects seen better nearer the eye than at some distance, resembling a myopic condition?

2. What visual angle is subtended by a six inch bullseye on a target at 200 yards? How far from the center will a shot strike if an error of a quarter of a degree is made in sighting?

3. Explain why it is that when the sun or moon is reflected in the sea a long band or streak of light is seen instead of a clear image.

4. How would the sizes of the retinal images compare in an emmetrope, a myope of 3D. and a hyperope of 3D. looking at an object at one-third of a meter?

5. If you could construct a perfect human eye, would you place the pupil in the position it now occupies, or elsewhere? Give reasons.

June, 1934. S. W. Baker, Opt. D.

Theoretic Optometry

1. With a plus 3 diopter lens before the static eye, where will the neutral point in the horizontal and vertical meridians be located for the ametrope whose correction is + 1 D sph. = 1 D cyl. axis 90?

2. when may the estimated correction in the use of cross cylinders be assumed to be correct?

3. Which in your opinion is better, and why? White letters on a black background, or black letters on a white background?

4. Describe various ways in which dynamic skiametry may be applied.

5. What particular points in regard to the fusional faculty can and do cause considerable ocular discomfort?

6. (A) Describe the perimeter. (B) What does it measure?

7. Why in a case of amblyopia exanopsia is a rhythmical exposure of the eyes aternately to light and darkness of good physiological value?

8. (A) Explain and diagramatically illustrate by use of the Maddox rods, plus and minus cyclophoria. (B) Give reasons for all observations.

9. A patient while wearing —2D sph. lenses under the dynamic test neutralizes the shadow movement during fixation up to 40 cm. Give his amplitude of accommodation and the distance of his near point.

10. What are the effects of the extrinsic muscles on the relation of the visual lines of the two eyes?

June, 1934. Charles J. Collins, Opt. D.

Practical Optics

1. (A) Patient has P.D. 62 m right eye, 3 mm nearer the nose than left eye, spectacle frame, high bridge, bifocal lenses. How would you adjust?
   (B) Nose protrudes out on left side, and in on right side. How would you adjust a pair of eye glasses?
2. (A) Patient with flat nose, high bridge frame, eye lashes touch. How would you adjust?
   (B) Spectacle frame projects out on left side, and right is too low. How would you adjust?
3. (A) A lens measure set for an index of 1.52 shows one side 1.25 sphere, the other + 2.75 sphere, the glass has an index of refraction of 1.62. What is the strength?
   (B) A + 4.00 sphere is decentered 4½ mm. What is the prism value?
4. (A) A compound lens with the axis of cylinder set between 90 and 180. State how you would determine by looking through at cross bars of window, that the axis was not between 0 and 90.

(B) The centers of each lens of a pair of + 5.00 spheres are 2 mm. from centers of pupils, they are in a G. F. spectacle frame. Would you grind new lenses and decenter?

5. (A) Using one spherical lens at a time, neutralize the following lenses:
   (a) — 0.37 sph = + 1.25 cyl x 90
   (b) — 0.75 cyl x 45 = + 2.25 cyl x 135
   (c) + 0.87 sph = + 0.62 cyl x 80
   (d) + 0.50 cyl x 90 = + 1.25 cyl x 180
   (B) Transpose the following:
   (a) + 4.50 sph = — 1.25 cyl x 90
   (b) — 0.75 sph = — 0.62 cyl x 30
   (c) — 0.50 cyl x 50 = + 0.75 cyl x 140
   (d) + 0.87 sph = + 0.62 cyl x 20
6. (A) What is spherical abberration?
   (B) What is chromatic abberration?
7. (A) Describe every operation of surface grinding a finished lens from a rough blank.
   (B) Give every detail in recementing a pair of cement bifocals.
8. (A) Change the following lens powers to equivalent in diopters:
   14 inches, 22 inches, 30 inches, 52 inches
   (B) Change the following to equivalent in inches:
   + 1.50 D. +3.25 D. + 5.00 D. + 12.00 D.
9. (A) A flat lens + 2.00 sph. = + 1.50 cyl. axis 55 drilled in eye glass drops out and is reversed end for end. What is the change in the axis of lens?
   (B) If put in wrong side out, what is the change?
10. (A) What wafers would you use in the following prescription:
    O. D. — 0.75 sph. ⊃ — 4.00 x 120

    Total + 1.75

    O. S. — 1.00

    Total + 1.50 Flat Cement Bifocal

    (B) The following periscopic lens was put into the frame, inside out:
    R + 2.00 ⊃ 2° Base Up
    Can the patient wear it? Explain your reason.

June, 1934. MATTHEW J. FOWLER, Opt. D.

In June, 51 applicants were examined; and in November, 54 applicants were examined. Of this number, 14 were successful and were registered as practitioners of optometry.

There was one request for reciprocity which was denied because of the applicant's inability to meet the statute requirements.

Seven certificates of registration were revoked for non-payment of annual registration fee. Two were cancelled by reason of retirement from practice and ten were cancelled due to the decease of the practitioners. One certificate was suspended under the five year clause, section 69 of chapter 112 of the General Laws, due to the practitioner withdrawing from practice in this Commonwealth.

The Board added to its equipment a Clayson visual acuity meter, stand and screen.

During the year the law was amended. This amendment of the statute makes the requisite to practice optometry comparable with the requirements of other states and further safeguards the public health of this Commonwealth.

His Excellency Governor Joseph B. Ely appointed Dr. John J. O'Neil of Springfield on November 14, 1934, to succeed Dr. Samuel W. Baker.

His Excellency Governor Joseph B. Ely appointed Dr. Walter I. Brown of New Bedford to succeed himself on December 27, 1934.

At the annual meeting of the Board, Dr. John E. Corbett of Boston was elected Chairman and Dr. Walter I. Brown was elected Secretary for the ensuing year.

During the year the Board was cited to appear before the Judge of the Superior Court on an injunction process instituted by Dr. William H. Bain. This action was very ably defended by the Assistant Attorney General George Lourie, the Court upholding the action of the Board.

Financial Report

Receipts

Fees received from various sources for year ending November 30, 1934	$2,902.00

Expenditures

Members' services	$1,752.20
Travel expenses	673.36
Office expenses	546.05
Total expenses	$2,971.61

Respectfully submitted,

John E. Corbett, Opt. D., *Chairman*
Walter I. Brown, Opt. D., *Secretary*
Charles J. Collins, Opt. D.
John J. O'Neil, Opt. D.
Matthew J. Fowler, Opt. D.