

Optical Department.

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Correspondents should note that for an intelligent answer to be given to their inquiries it is necessary in every case to give the following information relative to their patient: (1) Sex, (2) age, (3) occupation, (4) near point of distinct vision for small type with each eye alone, (5) how their eyes trouble them, *i.e.*, their asthenopic symptoms, (6) vision of each eye at twenty feet alone without glasses, (7) best vision obtainable with glasses, naming correction.

Example.—J.S., male; age, 18; book-keeper; can read small type to within five inches of each eye; complains of much headache through the day and evening; eyes feel sore and water a good deal, look red and inflamed, etc., etc.

R.E.V. $\frac{2}{3}$ with + 1.50 = $\frac{2}{3}$
 Z.E.V. $\frac{2}{3}$ with + 1.50 = $\frac{2}{3}$

The above example is taken to illustrate about how we desire inquiries to be made.

F.E.L.: How is the best way to be sure when minus cyl's axis horizontal are indicated that plus cyl's axis vertical are not required?

Ans.—The above is a good question, as many people are wearing - .50 to - 1.00 cyl's axis horizontal when they ought to be wearing + cyl's axis vertical. To avoid this error the fogging system is the one I use until some line of the astigmatic chart is plainly visible and completely the correction with a minus cyl. in front of the plus sphere and then making the proper reduction. For instance, if a person requires a - .50 cyl. ax. 180 to see all lines equally black, we take a + 4.00 sphere and reduce gradually and if + cyl's are needed when we get down to + .50 the vertical lines will be clear and with a - .50 cyl. ax. 180 in front of it the horizontal lines will also be made plain. This reduced is the same thing as a + .50 cyl. ax. 90.

Optical Institute of Canada.

EXAMINATION QUESTIONS.

1. How are rays of light bent in passing from a rarer to a denser medium, and from a denser to a rarer medium?
2. What is a plane glass, a prism, a spherical, a cylindrical glass?
3. How may convex sph's be supposed to be formed? Also concave sph's, convex cyl's, and concave cyl's?
4. What do you mean by the principal focus of a glass?
5. What do you mean by neutralization?
6. How do you neutralize a prism, a spherical, a cylindrical glass?
7. What do you mean by a one dioptric glass?
8. What do you mean by a twenty-inch glass?
9. How do you find the focal distance of a glass marked in the dioptric system, in inches, in centimeters?
10. What do you mean by the accommodation of the eye?
11. Explain how it is produced.
12. How much accommodation has an emmetrope at twenty years of age? a myope? a hyperope (same age)?
13. What do you mean by the p.r. (far point), also p.p. (near point)?
14. Where would the p.p. of an emmetrope be at twenty years of age, a hyperope at twenty years of age who had 3 D. of hyperopia, and a myope at twenty years of age who had 3 D. of myopia?
15. What is the visual angle?
16. Upon what does its size depend?
17. Explain the construction of Snellen's test types.
18. What does a vision of $\frac{2}{3}$ indicate?
19. Give the definition of a hyperopic eye.
20. How is hyperopia divided?
21. What convex glass would you give to a hyperope?
22. What are the evil effects of hyperopia?
23. How can you tell a hyperope?
24. Give the definition of myopia.
25. How can you tell a myope?
26. What concave glass do you give to a myope?
27. What is an astigmatic eye?
28. What do you mean by the principal meridians in astigmatism?
29. How do you tell a case of astigmatism?
30. How do you correct simple astigmatism?

31. What meridian of the eye refracts the vertical line of a clock face?

32. What lines of the clock face does a person with simple astigmatism see plainly?

33. Give definition of presbyopia.

34. What convex glass would you give to a presbyope under sixty-five years of age; over sixty-five years of age?

35. What effect has hyperopia or myopia on the appearance of Pb?

36. If the vertical meridian of the eye requires + 150 D. and the horizontal meridian + 200, write Rx. for glass required.

37. If the vertical meridian requires - 200 and the horizontal a + 400 write Rx. for glass required.

38. What causes cataract?

39. Why can some children wear their grandfathers' glasses with comfort?

40. Write a short essay on the anatomy of the eye.

South African Trade.

Our readers will be interested in a series of letters which are appearing from our special correspondent in Cape Town, South Africa.

Manufacturers who have suitable lines to export to Cape Colony, and there are many of them in Canada, might find a good opening for business there.

The import duties on goods pertaining to the drug and chemical trade are as follows:

- Acetic acid, 3s. per imperial gallon.
- Condensed milk, 4s. 2d. per 100 lbs.
- Paraffin and kerosene oils and benzine, 3d. per imperial gallon.
- Cotton seed, palm and hemp seed oils, £10 per 100.
- Essential and perfumed oils, £20 per 100.
- Fish oil, 1s. per imperial gallon.
- Soap, laundry, 4s. 2d. per 100 lbs.
- Perfumed spirit, £1 per imperial gallon.
- Infants' food, 9 per cent. ad valorem.
- Extracts and essences for flavoring or perfumery, 20 per cent. ad valorem.
- Saccharine, 20 per cent. ad valorem.
- Patent and proprietary chemical drugs or medicines, 20 per cent. ad valorem.
- Medicated foods, 20 per cent. ad valorem.
- Perfumery and cosmetics, 20 per cent. ad valorem.
- Toilet soaps and soap powder, 20 per cent. ad valorem.
- The following are admitted free:
 - Dye-woods, etc., in bulk.
 - Engravings, lithographs and photographs.
 - Flowers of sulphur.
 - Glue.
 - Potash and soda, carbonate and bicarbonate, caustic.
 - Crystals and silicate (in bulk).
 - Sheep dip and sheep dipping powder.
 - Vaccine virus and toxin.