

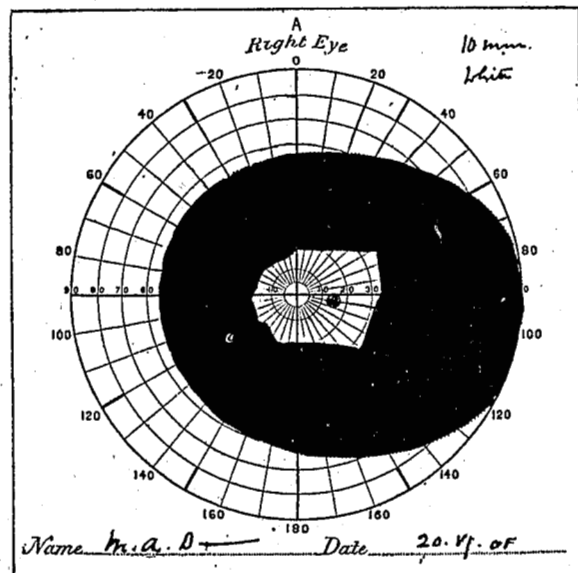
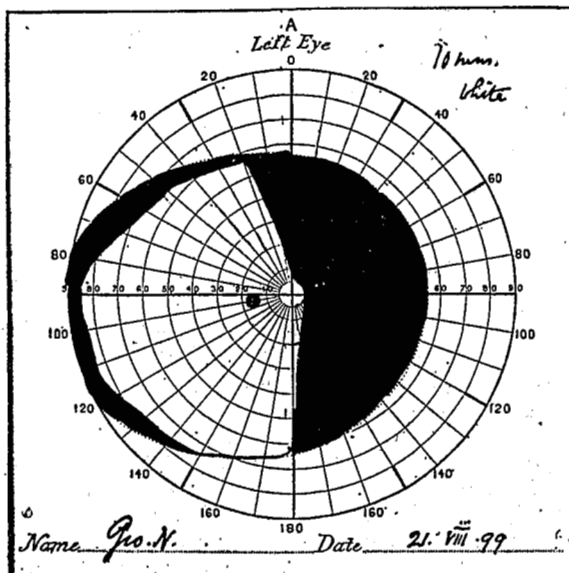
below a concentric contraction, the result of chronic glaucoma, and a lateral contraction, the result of disease of one optic tract, are represented. The shaded area represents the parts lost. Having found the area of the field for white, we may in a similar manner investigate the extent of colour vision. This is more variable than the white field. Sometimes the colour fields are more defective than could have been expected from the fields for white; occasionally in hysterical patients the reverse is the case, and the colour fields actually exceed in size the fields for white. The question of peripheral acuity has not received the attention which so important a subject deserves.

*Note.*—The size of the object used must always

meridian. Not uncommonly as a result of disease of the optic nerve or retina, other blind areas or, as they are called, scotomata, may be found by careful search. They are most readily observed when they are near the macula; in the periphery they may be readily overlooked.

Lastly, the colour-sense must be examined. Many people have an abnormal difficulty in distinguishing colours which are perfectly unmistakable to a normal subject.

To most observers the rainbow appears to consist of five or six colours which are not confusable in any way. I say "five or six" because, while many would state the colours of the rainbow to be red, orange, yellow, green, blue, and violet, others would declare orange to be merely reddish-



be noted. It is easy to see for oneself by trial that a decrease of the object means decrease of the size of the field. Especially is this true for colour vision—an object 10 m.m. diameter will show a colour field twice as large as one 2 m.m.

On the other hand, the external limits of the field may remain normal and the central regions may be defective.

The head of the optic nerve is insensitive to light so there is always in normal people an area of the visual field corresponding to this which is deficient. This is the "blind spot."

Its position and size may be seen from the two charts just given. It is on the outer side of the fixation point rather below the horizontal

yellow, and to deserve a place as a special colour no more than yellow-green between the yellow and green. Apart from this difference, however, some few are unable to distinguish more than three colours in the spectrum—red, green, and violet—while a few can only see two, red and violet. These people are "colour-blind." It is not the place here to enter into a discussion of the theories of colour vision, but it is enough to point out that in the higher degrees of colour blindness green cannot be distinguished from red—to show what dangers may arise in consequence of the employment of colour-blind people as seamen or as railwaymen.

(To be continued.)

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