SHAMMING NIGHT-BLINDNESS

BY

N. BISHOP HARMAN, M.B., F.R.C.S.

Eye tests are of two orders: objective and subjective. We can examine the eye in all its parts with our ophthalmoscopes and other instruments and watch certain reactions to light which are uncontrollable by the mind of the subject. But what the detailed vision of that eye may be we cannot find out except by the voluntary response of the subject. There are occasions when the objective findings and the subjective responses seem to clash. The eyes of a subject on examination may appear quite good in every detail, yet the visual response may be poor. The possibility of checking the visual response by special tests is a problem of interest and present-day importance; it is particularly so as regards seeing in a minimum of light—night vision.

The publication (*Journal*, September 6, p. 349) of the results of the examination of 700 subjects for night-vision reactions with the disk-spotting test has brought inquiries as to the possibility of using the test to distinguish between a real defect of night vision and a suspected shamming. To-day there are many branches of national service that require the citizen, whether a civilian or a member of the Services, to do work that entails ability to see in the dark. Inability to do so means not only danger to the subject but also danger to the community if that subject be truly night-blind or partly so. Is this inability always real or may it be sometimes false? How are we eye men to find out?

Shamming Bad Day Vision

Something of the same problem arose on occasions during the last war in the examination of men called up for military service. The eyes of a subject under detailed examination were found to be good, but the visual reaction was poor. Then I devised a test which enabled the examiner to check the visual reaction in some measure. This test has since been of much value in examining patients claiming workmen's compensation for eye injury whose visual reaction was much worse than the state of the eye seemed to warrant. The test is as follows:

Two Snellen's test types are fixed one on each surface of the same board. On one side the regular range from 6/60 to 6/6 is fitted. On the other side the types range from 6/36 to 6/5, but the arrangement of these slightly smaller types matches in pattern and in general appearance the normal set of types. The patient is shown No. 1 test type; say he reads three lines: V=6/24. Now No. 2 test type is exposed; if he again reads three lines his vision is really 6/18, and he is convicted of inconsistency and suspected of shamming deficiency. The test is easy to apply and has proved to be very useful.

Shamming Bad Night Vision

Checking suspected shamming of bad night vision is a much more difficult problem. If there is found in the eyes of the subject density or opacity of the media, or very small pupils that do not dilate, or defect of the fundus oculi, then the deficiency is likely to be genuine. High errors of refraction and the need for thick lenses will also make it genuine. But in some cases there is good daylight vision, no discernible sign of defect on the objective examination of the eyes, and no general defect of health or nourishment to explain the poor night vision reaction. There may be as complete an absence of any ocular evidence in confirmation of the night vision defect as there is of anomalies or lack of colour vision.

By applying the experience with the daylight test described above it is possible so to vary the use of the disk-spotting test as to make it a check upon the reaction of the subject. This can be done in two ways: (1) varying the light; (2) altering the size of the disks on the test.

1. *Varying the Light.*—The candle-box enclosing the standard candle has a projection tube through which the light passes to the white disks on the test board. A cap, like a pill-box lid, can be made with its flat surface of semi-transparent

grease-proof paper; the density of this film can be chosen so that it cuts off half the candle-light. Or the light may be increased instead of diminished: if a hand torch with a sliding or adjustable reflector be held alongside the candle-box the adjustment can be made so that the torch light reinforces the candle-light and increases it three or four times.

2. *Altered Disk Sizes.*—The size of the disks in the test board can be changed. The normal-pattern disks are 1/2 inch in diameter and 1/8 inch in separation from each other. In the test board (as made by Theodore Hamblin, Ltd.) there is space enough on the velvet surface of the base board between disk-groups 4 and 5 to allow to be pasted to it another set of disks, four in number, each of 3/4 inch in diameter, and separated by 1/4 inch. Thus the size and distinction of the disks in the candle-light can be suddenly altered by turning the test cover during the examination.

There are then three ways in which the test may be made more difficult or more easy. If the subject with bad night vision is genuine in his disability he will show this in his response to the variation of the test. When the light is less his vision will be worse; when the light is brighter he will see much better and at a greater distance. So also will he see somewhat better when he is shown the larger disks. For example, a subject whose response to the regular test was only 2.5 metres was tested this way. (The average response of normal subjects is at 5 metres.) After a full dark adaptation the varied tests were made. He could only count the disks in the reduced light at 1 metre; he could count them easily at 6 metres with the added light; he could count the larger disks in the usual fractional candle-light at 3.25 metres. There was thus reasonable consistency in the reactions of this subject to light variations, so the night-vision defect was considered to be real. In making these variations of the test in suspected cases it is desirable to have an assistant to help the examiner manipulate the test. The examiner should stand with the subject. Between each grade or alteration of the test the eyes of the subject should be covered, so that there will be no actual observation of the changing of the conditions of the test.

Conclusion

Applying tests to check subjective vision reactions requires much nous on the part of the examiner. It is a trial of wit against wit. The "cutest" one of the pair, examiner and examinee, will win the trial, but that is the normal reaction of a medical practitioner: he is always faced with problems in diagnosis and the interpretation of symptoms that demand acuteness of judgment.

THE YORK CLINIC AT GUY'S HOSPITAL

The building has recently been completed at Guy's Hospital of the York Clinic—the first psychiatric clinic to be erected in this country as part of a general teaching hospital. Its opening will have to be deferred until the end of the war, but its completion at this time is symbolic of a determination that when the conflict is over social and scientific progress will go forward hand in hand at an increased speed.

For fifty years Guy's Hospital has had a lecturer in psychological medicine, and more than 200 years ago its founder provided in his will for the care of forty chronically insane patients in a ward which stood in the hospital precincts. Later the Governors obtained the permission of the Charity Commissioners to transfer the funds available for this purpose to Bethlem Hospital. In accord with the developments of medical, and especially of psychiatric, science that have taken place since these old days the new clinic is intended to fulfil a very different purpose. "Functional" disorders, or psychoneuroses, have been found to result from disturbed minds, and the general need for early treatment of mental disorders has been stressed. The York Clinic has been constructed for the treatment both of psychoneuroses severe enough to require in-patient treatment and of psychoses. The purpose of having it within the precincts of a general hospital is twofold: first, to encourage the early treatment of all such conditions as can be admitted with no other formality than attends the admission of any other type