

"Now, my vision I used to think good. I have often at sea caught the masts and rigging of a ship before those searching for them; and the defects which I have spoken of I have frequently believed to be fancies, as they seemed inconsistent with many evidences that I had good vision. I should certainly have unhesitatingly trusted my eyes in any matter but colour. Possibly some of the strange discrepancies in description are due to similar defects of vision and we may, some day, find it necessary to make every observer of delicate phenomena, who claims credit, *prove that he can see*."—*Scientific Opinion*, Feb. 24, 1869, from *Monthly Notices of the Royal Astronomical Society*, Feb.

52. *Colour-Blindness*.—Dr. ARGYLL ROBERTSON states (*Edinb. Med. Journal*, Feb. 1869) that colour-blindness is not an unfrequent symptom of advancing amaurosis, and he expresses the belief, in which we fully concur, that it would be found to exist far more commonly than is supposed, were patients more frequently tested on the point. Dr. Moritz Benedict states (*Der Daltonismus der Sehnerven, Atrophie*, Arch. f. Ophth., Bd. x.) that during two years he has frequently observed colour-blindness, especially of red and green along with amaurosis accompanying tabes. He narrates six cases in which he found colour-blindness and amaurosis combined. Poland (*R. Lond. Oph. Hosp. Rep.*, vol. vii.) and Dr. Geo. Wilson (*Researches on Colour-Blindness*, 1855) each narrates cases caused by injuries to the head.

A case of colour-blindness with partial amaurosis, the result of disease, was recorded by the editor of this Journal, in the No. for Aug. 1840. Other cases will be found noticed in the editor's edition of Lawrence's "Treatise on the Diseases of the Eye," third edition, Philadelphia, 1854.

According to Mr. ERNEST HART (*Brit. Med. Journ.*, Jan. 16, 1869), "the true chromatic organs of the eye may be considered to be the cones, each of which bodies acts as a small prism, decomposing the light, so as to form at its base concentric coloured circles corresponding to the colours of the solar spectrum. The following are some of the chief results of clinical investigations made by using a fixed scale of colour types, in which scale the principal colours of the spectrum are arranged in the order adopted by M. Chevreul. In retinal apoplexy, when the effusions are large or situated in the central parts of the retina, the eye often sees objects coloured red or green, which coloration is sometimes changed during the course of the disease into violet or yellow. In albuminuric retinitis, partial colour-blindness is a symptom of advanced disease and disorganization of the retinal tissue near the yellow spot. In syphilitic inflammation of the deep-seated parts of the eye, perception of green colours, and sometimes of red, is lost. In cases of atrophy of the optic disk and of amblyopia caused by chronic alcoholism, similar perversions of the chromatic sense are presented; there is anaesthesia of the retina to certain compound colours, as light and dark green; violet is also taken for red, and brown for green. In atrophy of the disk, these aberrations are permanent; whilst in spirit-drinkers, they vary from day to day, and even hourly, presenting a succession of abnormal visual phenomena. Descriptions are also given by Galezowski of colour changes occurring with glycosuric retinitis, general and localized atrophic choroiditis, and during the course of various cerebral affections. These I have not fully verified. The remarkable morbid changes which occur in these diseases, do not appear to me to be so precise and uniform as described. But I am pursuing the clinical inquiry with care, and shall shortly publish some further results. The subject is an extremely interesting one, and deserving of careful study, as the chromatic scale is, in my opinion, an addition to ophthalmic means worthy of cultivation, and likely to be of value in the diagnosis of many cases of amblyopia, of which both the ophthalmoscope and the nature of the subjective symptoms fail to give any full explanation."

53. *Visual Hallucinations*.—A description is given by NÆGETI, in the *Bayr. Acad. Sitzgsber* (1868, 1), of certain hallucinations of vision occurring in his own person whilst he was confined to a darkened chamber for many days, in consequence of an injury inflicted by fire on the cornea, especially of the left eye. The hallucinations were various in character, though they consisted mostly of

landscapes, or the forms of persons, or of other objects. These hallucinations, in the course of N.'s observation of them, often underwent the most unexpectedly grotesque movements and changes; at other times they remained stationary. They appeared sharply and clearly defined, and remained long enough to allow of their careful examination—resembling, by no means, pictures produced by the painter's pencil, but gave the same impression as though they were, in fact, natural existing objects. N., during health, had never before been the subject of similar hallucinations. He believes they were seen by the left eye alone. It is true, that by rapidly opening and closing the lids of the right eye, the cornea of which had been slightly injured, there appeared before this eye another clear picture, which quickly vanished; the pictures which occupied the whole field of vision were produced evidently by the left eye alone. The hallucinations above described did not originate in any morbid excitement of the brain, nor certainly from any preceding impression upon the sense of vision; nor were they the least under the control of the will.—*Centralblatt f. d. Medicin. Wissenschaften*, Oct. 1868. D. F. C.

54. *Sympathetic Ophthalmia*.—MR. HAYNES WALTON records (*Lancet*, October 17, 1868) the following instructive case:—

"A farmer was accidentally shot in his right eye twenty-seven years ago. The eyeball was penetrated; some of the vitreous humour escaped directly, and with it two shots. Vision was destroyed. The inflammation which followed subsided in a few weeks. For twenty years he suffered no inconvenience in his eyes, but now the left eye occasionally became inflamed from exposure to cold winds, or from any irregularity in diet, such as drinking too much. The attacks became more frequent without any apparent exciting cause, and in 1866 this gentleman was brought to me by Dr. Edward Lawford, of Leighton-Buzzard. I found the eye damaged from the repeated attacks of inflammation; the iris was discoloured and bulging, and the pupil nearly generally adherent. The vitreous humour was a little hazy; vision was imperfect. As I could not detect any irritation in the wounded eye, which was very much shrunken, I thought I had before me a case of rheumatic ophthalmia, and prescribed accordingly. I saw my patient several times afterwards, during successive attacks of inflammation. The eye got a little worse, in spite of all treatment and all care, and sight was fast failing. On his last visit to me I examined the collapsed eye very carefully again, and pressed it firmly between the fingers. This caused much pain. A repetition of the pressure produced the same effect, and the patient said, 'No pressure hurts the other eye, but this is most intolerant of any.' I was now quite satisfied that there was irritation here, which was affecting the other eye, and I recommended the removal of the stump. This was at once acceded to, and I operated. A grain of shot was discovered in a mass of fibrinous effusion. Besides this there was a cup of bone deposited between the sclerotica and that which remained of the choroid. The left eye commenced to improve from the very hour of the operation. The pain disappeared, the muscæ decreased, and vision improved. At this time, two months from the operation, vision is still better, and small type can be read. The vitreous humour is almost clear. I have no doubt that the vision will improve still farther."

55. *Operative Treatment of Conical Cornea*.—VON GRAEFÉ, in the course of an article which deals elaborately with the whole subject of this disease, dwells upon the ill-success which has attended all the various operative procedures which have been devised for its relief. Long-continued treatment with atropia and with bandage-pressure, repeated evacuation of the aqueous humour by paracentesis of the cornea, iridectomy, making the pupil into a long slit, like the pupil of a cat, by double iridectomy, on Bowman's plan—all these measures have proved highly unsuccessful. Graefe has, however, lately devised a method which has already succeeded, in several cases, far better than any previously known plan. A little flap (three-quarters to one line in thickness) is made, with a very narrow knife, from the apex of the corneal protrusion; and this is cut away along its base with scissors. On the next day the new surface is touched with a mixture of one part of nitrate of silver and two of nitrate of