

the patient. In this way we test the sensibility of the retina from periphery to centre. The result is a chart of the field of vision, which may be projected upon paper, and in which any deviations from the normal may be noted from day to day. The practical uses of the instrument are—to detect blind spots, technically called scotomata, in the retina. These may be due to hemorrhages, to syphilitic gummata, or other tumors; to detached retina, local nerve lesions and to various forms of choroidal and retinal disease. More especially is it useful in estimating functional changes originating either in the optic nerve or more remote nerve centres. In obscure cases of glaucoma, one of whose prodromata consists in a gradual narrowing of the visual field, its diagnostic assistance is invaluable.

But it is in the substitution of the metrical or dioptric system for the obsolete inch measurement, that Ophthalmology has had one of its greatest triumphs in the present day. So universal has this system now become, since its first suggestion to the profession, at the Heidelberg Ophthalmological Congress in 1875, that I can now only remember one oculist of eminence on the large staff at Moorfields who continues to work in inches. According to the old system, lenses were numbered by their focal length in inches. "Their refractive power being the reverse of their focal length was represented by a fraction, of which the numerator was 1, and the denominator was the focal length in inches. Thus, a lens of 6 inches focus, had a refracting power of $\frac{1}{6}$ th; that is to say, $\frac{1}{6}$ th the refracting power of a lens whose focal length was one inch." The latter was taken as the unit of measurement. Now the length of the inch varies in different countries, and all calculations by such a system had to be made in fractions; two difficulties, which were got over by substituting the diopter for the inch and the metrical system for the fractions. Nagel and Javal first proposed, at Heidelberg, the use of the metrical system in notation, and took as unit of measurement a lens having one metre focus. This unit is called a diopter, and becomes No. 1 in the new system. No. 2 is 2 diopters, is double the strength of No. 1, and has its focus at half a metre (50 centimetres). No. 10 is 10 diopters, has a strength ten times that of No. 1, and has its focus at one-tenth of a metre (10 centimetres) and so on.

We have now the advantage of making our calculations in whole numbers, and of being able to estimate without trouble the focal lengths of the lenses we employ. As all refraction ophthalmoscopes, test glasses and spectacles made in the old country are numbered according to the new system, it becomes imperative for the specialist and most useful for the general practitioner, to form an acquaintance with it.

No less important have been our gains of late years in the departments of Ocular Surgery and Therapeutics. Allow me, briefly, to allude to some of them. First, let me mention the modern treatment of Glaucoma, long looked upon as an incurable affection; now, thanks to the discovery of the prophylactic action of iridectomy in these cases, by Von Graefe, and to the equally if not more efficacious operation, termed Sclerotomy, by my master, De Wecker, brought within the range of practical surgery. The advantages and disadvantages of either operation were well discussed at the last meeting of the International Medical Congress in London. Further experience alone may decide which is to carry the palm.

While both equally reduce tension and relieve pain, iridectomy is objectionable on account of the deformity it occasions. Again, it is an operation which cannot be indefinitely repeated—in certain disorganized conditions of the iris it is impossible. Sclerotomy on the other hand (which consist essentially in an incision of the sclerotic involving the iridian angle, in the neighborhood of Schlem's canal, leaving behind a cicatrix, which is supposed to act as a permanent drain to the globe—Filtration Cicatrix, DeWecker terms it) may be repeated as required, produces no deformity, is applicable to more cases of the disease, and in exercised hands requires no greater skill for its performance. I have seen the operation repeatedly done by De Wecker, and have never witnessed the ill effects with which it is credited by certain English ophthalmologists.

The different methods of extracting senile cataract might form another interesting subject for discussion. I shall mention the one most in favor, as illustrating our progress in this direction. Such operations as couching, reclinatio and needling hard cataracts are now matters of history. The modified linear operation, combined with an iridectomy, done upwards so as to secure protection