
(2) Chronaxia is the time, measured in thousandths of a second (sigma), during which a current of twice the threshold intensity must flow to produce a minimal stimulation. Measurements may be made from the sensory or the motor standpoint. With regard to the latter there are for animals and men three general values: small from 0·06 to 0·14 sigma, medium from 0·16 to 0·34 sigma and large from 0·40 to 0·70 sigma. The proximal parts of the body have smaller chronaxies than the distal, and the ventral muscles smaller than the dorsal. Synergic muscles form a separate group characterized by having the same chronaxia. On the sensory side, a considerable amount of work has been done by measuring the chronaxia for production of a phosphene by electrical stimulation of the eye. The values obtained are considerably higher than those in other organs. The peripheral retina gives from 1·2 to 1·8, the central from 2·1 to 2·7 sigma. The rods and cones themselves are supposed to be unaffected by the current used, the stimulus acting on their neurones. Even so, however, the figures are suggestive of the functional difference between rods and cones. Disease of the eye may alter its chronaxia and changes have been found in such conditions as optic atrophy, choroido-retinitis and retinal detachment. In two cases of cataract, disease of the posterior portion of the retina was diagnosed by alteration of chronaxia and the bad prognosis given, was verified after operation by finding an old choroido-retinitis. That the mechanism of electrical stimulation differs from that of light is shown (1) by the fact that a dark adapted eye has a chronaxia many times greater than one adapted for light. (2) That a light stimulus may act for as short a time as $2 \times 10^{-7}$ seconds and yet be visible. This figure is much lower than that obtaining when an electrical stimulus is used.

F. A. W-N.

BOOK NOTICES


The object of this work is "an examination of the blind and of their estate from the point of view of the social economist—the presentation of something of what has come to be known as a 'social survey' respecting them." Such a survey must be the essential preliminary to a scientific approach to the prevention
of blindness and the means whereby the State may effectually ameliorate the condition of the blind. Attempts in this direction have not been wanting in England—notably in the activities of the Departmental Committee of the Ministry of Health on the Prevention of Blindness (1922), and of the Prevention of Blindness Committee of the Union of Counties Association for the Blind at present sitting. It must be admitted, however, that no such comprehensive survey has hitherto been available as is contained in this volume of the conditions which obtain in the United States.

The book is divided into seven parts:—

I. Blindness and possibilities of its prevention; II. General condition of the blind; III. Provision for education of blind children; IV. Intellectual provision for adult blind; V. Material provision for blind; VI. Organizations interested in the blind; VII. Conclusions with respect to work for the blind.

The facts are based almost entirely upon United States’ data. These are most elaborate, and have been statistically analysed from almost every conceivable point of view. Such statistics are of course liable to considerable errors, but there can be no doubt that a vast amount of useful information has been accumulated, and it is incontrovertible that no body seriously interested in the welfare of the blind can afford to neglect this work.

It is certain that many causes of blindness are avoidable, even if the author’s statement “that perhaps well over two-thirds, perhaps almost three-fourths, of it might have been avoided by means known to us” is far too optimistic.


Part 2 of this little book is devoted to radiotherapy for diseases of the eye. In the introductory chapter to this part the author has written somewhat boldly:—“It may be stated with confidence that radium can be of more service in more diseases of the eye than any single remedy hitherto at our disposal.”

Three out of the 4 chapters dealing with radiotherapy for ocular diseases are concerned with corneal opacities, cataract and retinitis pigmentosa respectively. This selection is as unfortunate as the results of radium treatment for these disorders are uncertain and unconvincing. The remaining chapter about diseases of the eyelids consists of less than one page devoted to a statement that for new growths of the lid radium has become the treatment of choice, no statistics having been given as to the nature of the growths and the result of treatment, and a few lines to a case of ectropion treated by radium.
In this book no mention is made of the value of radiotherapy for epibulbar malignant growths or of the recent work which has been done on the treatment of malignant intra-ocular neoplasms such as glioma retinae, sarcoma of the uveal tract and angiomatosis retinae by radium, neither is radiotherapy for spring catarrh and other chronic inflammatory states discussed. Nor are there warnings of the dangers of radiotherapy and such unpleasant sequelae as corneal necrosis, cataract, and necrosis of the orbital wall. The reviewer is left with the impression that the best evidence for the case of radiotherapy in diseases of the eye has not been called upon but instead the author has brought forward material most of which yields results which are very difficult to assess and are in most instances unconvincing.


This is a jubilee number dedicated to Professor Emil de Grósz, celebrating the 30th year of his Professorship and the 70th year of his age.

It contains 31 short papers by his colleagues and is published in the Magyar language. For the benefit of such as ourselves, who have not the Pentecostal gift of tongues, an index in English is provided.

The number reflects great credit on all partaking in its production and we feel sure will be a source of great gratification to the distinguished professor of ophthalmology at Budapest.

CORRESPONDENCE

To the Editors of The British Journal of Ophthalmology.

Sirs,—Your note in the August number which I unfortunately missed seeing at the time is liable to be misconstrued. I was the guest of the Ophthalmological Section of the American Medical Association, and the very generous fee which they gave me for my lecture was not the Knapp Memorial Prize though it was provided out of the Knapp Testimonial Fund which provides for all the expenses of the Ophthalmological Section. The Knapp Medal is only very rarely given and is a separate thing which has not been presented for many years. The honorary membership, on the other hand, is of the American Medical Association and not a sectional thing.

Yours faithfully,

Leslie Paton.