Professor H. Hartridge demonstrated chromatic aberration in the eye and an apparatus permitting direct measurements; also a quantitative test for colour blindness.

Mr. J. W. Tudor Thomas demonstrated rabbits with transparent corneal grafts. One of these grafts had been observed for three years and four months and still remained transparent.

A graft of sclera on to the cornea of a rabbit was also shown.

J. W. Tudor Thomas.

ABSTRACTS

I.—LENS


Cole's article is mainly concerned with the detailed history of a case of tetany in which this condition, and eventually cataract, developed as the result of surgical removal of the two lateral lobes of the thyroid. Treatment with parahormone had no effect on the cataracts which, if one rightly understands the author, were being operated on by Mr. Arthur Cooke by needling, at the time of writing. The patient is aged 34 years. The author refers very briefly (at the commencement of his article) to the literature, beginning with Erdheim in 1906, showing the association of cataract and muscular spasms with parathyroid deficiency.

Ernest Thomson.


This is the record of a case in which Branbergen watched the development of bilateral cataract as a sequel to thyroidectomy. A married woman, aged 34 years, underwent thyroidectomy in June, 1924, local anaesthesia being employed. The thyroid gland was firmly adherent to surrounding tissues: the median portion was completely removed; the wound healed normally.

The following day widespread "spasms" developed, which were treated and controlled by calcium. (The author does not use the term tetany in his paper).

Four years later vision in both eyes began to fail; after a year of
almost stationary defect rapid deterioration ensued, especially in the left eye.

In the early part of 1929, the patient was liable to occasional attacks of spasm. The hair and nails showed no degeneration, and menstruation continued normally.

Examination of the eyes revealed no abnormality except in the crystalline lenses. With the slit-lamp was visible immediately beneath the capsule a thin layer of degeneration, more delicate under the anterior capsule. It was composed of very fine elements assuming the form of snowflakes, between which were minute coloured particles of crystalline appearance.

Visual acuity quickly fell; early in 1930 it was less than 1/10 in each eye. The left cataract was extracted with resulting vision of 3/4.

Cataract as a sequel of removal of the thyroid gland is comparatively rare; most of the recorded cases have occurred in Switzerland. Jacques, in 1928, in an extensive search, collected 34 examples in the literature. It is only in recent years that biomicroscopy has furnished a precise description of the form of cataract, but there appears to be considerable variation in the character of the lental changes.

In the cases quoted by Branbergen, there is a record of tetany or severe spasm in the majority, leading in some to a fatal result. Organo-therapy is usually employed when tetany ensues; it is not always effective, and, as in the author's case, the administration of calcium may be more successful.

J. B. LAWFORD.


(3) Leech's case is interesting in that the persistence of the posterior fibrovascular sheath of the lens was associated with definite histological signs of inflammation. The patient was a girl, aged four months, in whom the right eye was removed for suspected glioma. The inflammatory signs comprised (1) Cells in the anterior chamber; (2) Fibrosis of the iris with cellular infiltration; (3) Capsular cataract and shrinking of the lens; (4) Retention of the pupillary membrane and posterior fibrovascular sheath with its attached hyaloid artery. This latter is regarded by the author as an attempt by nature to combat the organisms causing the inflammation, by retaining the rich vascular network which normally disappears. He suggests that arrested development of other eyes may be due to a toxaemia of some sort.

F. A. W -N.
Refraction


(4) Kirby records seven examples of this condition. The characteristics are, the appearance of a very roughened surface on the capsule of the lens, with light bluish-grey opaque flakes. These flakes may also be present on the iris and the posterior surface of the cornea. There is usually a ring of capsule tags adherent to the lens in the area of maximal contraction of the pupil and the appearances suggest that the movements of the iris have denuded the degenerate capsule of its superficial layers. In confirmation of this is the observation that in all his cases Kirby found an associated senile change in the cortex of the lens. Some of the particles of capsule may be liberated into the aqueous and cause blocking of the pectinate ligament, thus bringing about glaucoma. This complication occurred in 75 per cent. of a series of 45 patients observed by Vogt. This observer examined one eye histologically, post-mortem, and found a definite separation of the superficial lamella of the capsule.

F. A. W-N.

II.—Refraction


(1) In the opening sentences of this article the writer gives some historical facts concerning contact lenses. No genuine success in their manufacture or use was obtained until the Zeiss optical works, at Jena, produced the contact glasses now generally employed. Kazdan gives a description of such glasses, but as these are now familiar to most ophthalmologists this need not be repeated. They are made from the hardest optical glass and are, or should be, quite resistant to the corrosive effect of the tear fluids.

With the test contact glass in position in the patient’s eye, ordinary lenses are added until the maximum vision is obtained. The strength of the lens, plus or minus, is then incorporated in the contact lens prescribed. “It requires time and patience on the part of both oculist and patient, until the latter becomes accustomed to insert and remove the contact glass himself. At first the eye is anaesthetised . . . but after several trials the use of anaesthesia can be discontinued.” The author advises that a contact glass should not be worn continuously for more than about eight hours.
The apparatus he recommends for insertion is described and illustrated.

Kazdan's two cases, (a) a male, aged 44 years, whose sight failed in early adolescence, and (b) a female, aged 38 years, in whom conical cornea developed at the termination of her school career, were greatly benefited by the use of contact lenses.

(a) V. was in R. about 7/200, L. about 4/200. Left eye was divergent. With contact glasses and added correction vision was improved to R. 20/30, L. 20/40. Owing to the strabismus, correction to the right eye only was prescribed.

(b) A school teacher: V. was 1/200, R. and L. With contact lenses vision was improved to 20/200, and "4 mm. print."

"Both these patients have for the first time since the onset of their disease been able to see their own features in the mirror, and to see the world about them as it really is."

A bibliographical list is appended.

J. B. LAWFORD.


(2) Cattaneo has examined a number of myopes by means of the slit-lamp and the microscope and has found that changes in the vitreous are much earlier in appearance than in normal eyes.

Often there can be seen filiform masses floating in the fluid vitreous; Cattaneo does not agree with those who hold these always to be the remains of the hyaloid vessels; on the contrary he considers many to be due to the entrance of heterogeneous elements, and explains in this way the presence of changes in the lens and other structures. He finds that pigmented opacities are constantly found with detachment of the retina, and may be a forerunner of this condition.

HAROLD GRIMSDALE.


(3) Blatt reports a case of a frail-looking but healthy girl, aged 19 years, in whom disturbances of accommodation recurred at each menstrual period. Normally menstruation lasted 8 days and was associated with general malaise in addition to backache. Accommodation was normal in the intermenstrual periods but within a day or two of the onset of menstruation the near point had receded from 10 cm. to 26-30 cm. Difficulty with near work was most marked towards the end of the day; in the morning reading was
possible for a short time, but in the afternoon it could not be done at all. Accommodation recovered gradually whilst the periods still lasted, so that by the end of menstruation it was practically normal. During the height of accommodative disturbances, attempts at reading rapidly exhausted what accommodation was available, such accommodation re-appearing after a short interval of rest. Possible explanations are discussed, and the author is inclined to regard these disturbances as due to auto-toxaemia acting on a system predisposed owing to endocrine disturbances.

ARNOLD SORSBY.

BOOK NOTICE


This book forms Volume VII of the Bibliographia Genetica, and is the most comprehensive study of hereditary diseases of the eye which has appeared. We in England are all familiar with the epoch-making researches of Nettleship on this subject; and these in turn have inspired the work of Usher, Julia Bell, Lawford and others. Unfortunately many of their communications are enshrined in special numbers of Biometrika, a costly production of limited circulation. Moreover, many as are the diseases so exhaustively investigated by these writers, they do not provide a complete conspectus of the whole subject as does the volume under review. Dr. Waardenberg chose hereditary disease as the topic for his "Inaugural Dissertation" in 1912, and has continued to collect material, particularly of eye diseases, ever since that date. The result is a masterpiece of industry, admirably arranged, and documented with full bibliographies. It cannot be neglected by any student of heredity, a fortiori by any student of inherited affections of the eyes. Apart from the encyclopaedic material which forms the body of the book the attention of ophthalmologists may be specially directed to the thoughtful discussion of the true criteria of inherited disease contained in the short introduction.

The author first discusses variations of pigmentation; then passes on to consider each structure of the eye and its adnexa seriatim; concluding with chapters on the eye and nervous system, refraction, variability and asymmetry, twins, etc. These chapters are a rich storehouse of data.

The book is beautifully printed and illustrated.