cent. Uveitis (including iris and ciliary body) account for more than 5 per cent., while refractive errors, chiefly myopia, account for a small percentage (under 5 per cent.).

The age at onset of blindness should be stated as definitely as is possible. Miss Kerby gives some interesting figures from the 1920 census, e.g., the incidence of blindness among children under five years of age is about 2 in 10,000. The rate falls during preschool, school and adolescent periods but again reaches 2 at about the age of 35 years. It increases up to the age of 60 when it is about 9 in 10,000; and rapidly thence onwards to 75 in 10,000 at the age of 80 or over. "These figures," she says, "at first glance seem to confirm the popular theory that if one lives long enough, he may become blind. (The chances are one in 130 for persons over 80 years.)"

Miss Kerby ends with a word of warning. Her statistics are based on comparative analysis of such data as are available. The figures are incomplete and too much faith must not be placed in their entire accuracy. It is highly desirable that the statistics which have still to be compiled shall have a much higher degree of uniformity in order that the findings of various studies may be combined and compared. For this reason the recommendations of the Committee on Statistics of the Blind, which set a pattern of minimum standards, are stressed.

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**ABSTRACTS**

**I.—CONJUNCTIVA**


(1) McKee reports two cases of primary conjunctival diphtheria in a boy aged nine years and a girl aged five years. Each case was of the superficial, or croupous, form.

In the case of the boy, the micro-organism, both morphologically and biochemically, was atypical but guinea-pig inoculation proved it to be a true diphtheria bacillus of mild virulence. In the case of the girl, the degree of virulence was high. In neither case was their evidence of diphtheria in any other region of the body.

The bacteriological report on the case of the boy is worth abstracting. "A guinea-pig was injected with the culture as received. Only a slight local induration resulted. Metachromatic granules were not a prominent feature of the organism, and
its fermentation reactions did not conform to those accepted for the diphtheria bacillus, so that a provisional report “Bacillus Xerosis” was given. On the fourth day the guinea-pig died without obvious lesion and the virulence test was repeated with a larger dose of young culture, giving a control animal 500 units of anti-toxin. After two days the control was perfectly well, while the other animal died in 24 hours with local haemorrhagic oedema and haemorrhagic suprarenals: a typical diphtheria death.”

The bacteriologist’s note is that in this case “morphologically and biochemically the organism would be missed, but there is no escaping the second guinea-pig test.”

R. R. J.

(2) Thygeson, Philips, and Proctor, Francis I. (Santa Fe, New Mexico).—The filtrability of trachoma virus. Arch. of Ophthal., June, 1935.

(2) Thygeson and Proctor selected 14 patients with active chronic trachoma and scraped the anaesthetised conjunctivae (2 per cent butyn) with a platinum spatula. The removed epithelium was then suspended in a few c.c. of sterile nutrient broth and ground lightly in a mortar. Some of this fluid was filtered through a collodion membrane. Subsequent inoculation of the filtered or of the unfiltered material into the conjunctiva of African sphinx-baboons produced the follicular conjunctivitis which is characteristic of trachoma in these animals. The authors feel justified, therefore, in stating that trachoma is due to a filterable virus. The virus occurs in two phases, the large initial body (Lindner) phase and the small elementary body phase. Morphologically it is identical with the virus of inclusion blenorrhoea and is strikingly similar to the virus of psittacosis. The authors are planning experiments on blind human eyes in order to determine whether or not trachomatous infection can be produced by bacterium-free filtrates.

F. A. W-N.

II.—RETINA


(1) Weve finds that the prognosis in cases of retinal detachment with the exception of disinsertion, is worse in cases in which large holes are present, than in those in which there are small
ones. Trauma and the pseudo-disinsertion associated with high myopia may produce such large ("giant") holes that operation is regarded as hopeless. The author finds that this is not so, and reports some cases of successful surgical intervention. In one of these no less than five operations were performed before the retina went back into position. The author localises the hole by trans-illumination. To effect this, he employs a strong source of light and the indirect method of ophthalmoscopy with a x20 lens. The operator looks at the retinal hole through the ophthalmoscope and an assistant marks the centre of the illuminated area on the sclera. A ring of surface coagulation at 80°C. is then made along the margin of the hole followed by a ring of perforations with a 1·5 mm. needle electrode of platinum along the inner margin of the ring of surface coagulations. In the central part of the sclera three or four punctures are made with 3·5 mm. electrode while at the actual centre a 4·5 mm. needle is used. The procedure is controlled by repeated ophthalmoscopic examinations and varied according to the exigencies of each case.

F. A. W-N.

(2) Maggiore (Genoa).—The treatment of retinal detachments by diathermy, with special regard to those cases in which no tear can be seen. (La dia-termo terapia del distacco retinico con particolare riguardo al casi di irreperibile scontinuita della retina). Ann. di Ottal., June, 1936.

(2) In this interesting paper Maggiore gives a short account of the methods of treatment of detachments including those which were employed before Gonin's. He decides in favour of diathermy since by it, many cases, such, for example, as those of disinsertion, can be treated successfully, though they were looked upon by Gonin as impossible. With diathermy it is possible to watch the effect of the operation as it proceeds by means of the ophthalmoscope, and the areas of coagulation may be placed in accordance with the visible signs. When no tear can be found, Gonin did not advise operation; the author has in these cases not hesitated to attempt a cure; he has by extensive diathermy scar-ring, shut off a large area of the retina; if this did not succeed in re-attaching the retina permanently he has repeated the operation in different regions more than once, and in many cases with complete success. He discusses the contra-indications for operation; multiple rents are unfavourable, not because they cannot be closed but because they show a general degeneration of the retina which makes further rents likely; aphakic eyes, also, often fail; eyes with much reduced tension show that there is severe disturbance of their nutrition, and failure is probable; longstanding detachments which do not reach the macula are not specially unfavourable. The author adds that while we have a very valuable weapon
in diathermy, we must not neglect non-operative treatment entirely, since some cases respond to medical treatment, nor must we forget that some later method of operation may be devised which will enable the surgeon to improve on the present proportion of successes.

HAROLD GRIMSDALE.


(3) In this experimental research, carried out on rabbits, Uyama sought to discover whether in the production of tuberculous periphlebitis in the retina by the injection of tubercle bacilli into the circulation there was any difference between animals previously treated with repeated subcutaneous injections of tuberculous antigens and animals not so treated.

His results confirmed what had already been found, viz., that in rabbits previously sensitized with tuberculous antigens an early hypersensitivity reaction takes place; in them periphlebitis developed, exclusively in the retina, more frequently than in the control animals, and after much smaller injections of living tubercle bacilli than had been required by previous investigators.

This periphlebitis is primarily and mainly situated in the temporal veins not at the periphery of the retina but between the ora serrata and the optic disc; the vein is not encircled by the infiltration, which invades the perivascular, lymph space on the scleral side, or only on one side, of the vein. It consists chiefly of lymphocytes and epithelioid cells (giant cells and caseation being absent). The histological picture is closely analogous to that of periphlebitis in the human eye.

As regards the passage of the tubercle bacilli in the retina it is assumed that when they reach the retinal vessels they pass into, and settle in, the perivascular spaces of the veins through the post-capillary area, or possibly by way of the vitreous.

THOS. SNOWBALL.