The Annual Congress of the Ophthalmological Society of the United Kingdom was held on April 4, 5 and 6 at the Royal Society of Medicine, London under the presidency of Mr. R. Foster-Moore.

The President in his opening address to the congress said that it had been his intention to give his "accumulated evidence and settled conviction that apart from miliary tubercules of the choroid intra-ocular tuberculous lesions of any kind are very rare." He deplored "the marked tendency in many quarters to attribute to the tubercle bacillus, many ocular lesions of unknown cause, on no satisfactory or convincing grounds." However, he felt that a subject with constructive features would be more helpful than one containing destructive criticism so had chosen to speak about the value of radium in certain intra-ocular lesions.

The President described the indications for radiotherapy in intra-ocular diseases such as glioma retinae, sarcoma of the choroid, haemangiomatosis retinae and retinal detachment. The results of his work with radon seeds in the treatment of glioma retinae affecting the second eye of children thus afflicted have fully justified the recommendation of radiotherapy to such cases where there is sufficient healthy retina remaining for some useful degree of vision to be conserved. For small neoplasms a radon seed or seeds of appropriate strength attached to the sclera by suturing or by a special clip designed by the President, is the method of choice whereas for a more extensive neoplasm he recommends interstitial irradiation by inserting the radon seed through an incision in the sclera over the site of the densest part of the growth.

For sarcoma of the choroid he holds that irradiation is only justifiable in cases where either the other eye has been lost or its vision is very defective, or the patient has refused excision.

Irradiation by the application of radon seeds attached to the sclera over the site of areas of haemangiomatosis retinae resulted in the successful production of obliterator endarteritis of the dilated and tortuous vessels feeding the neoplasm and its subsequent disappearance.

The President spoke of his experience with radon for the treatment of retinal detachment and suggested that this therapeutic agent would also be worth an extended trial for cases of Eales' disease if the site of the bleeding point could be located and a
radon seed placed over this. He suggested that certain destructive cases of iridocyclitis should receive a trial with radiotherapy. Many interesting illustrations of the President's admirable work in this field were shown.

Sir John Parsons in proposing a vote of thanks alluded to the President's pioneer work in employing radon seeds for the treatment of certain ophthalmic disorders and paid a tribute to this valuable contribution.

An abbreviated account of the discussion on "Disorders of the blood and their ophthalmological complications" is given in the abstracts of papers published in this number.

Thursday afternoon was devoted to a number of papers. Three of these concerned the much discussed problem of the surgical treatment of retinal detachment. Dr. Marc Amsler dealt with methods of localizing retinal tears before and during operation and commented that no apparatus however perfect will ever dispense with the necessity for a thorough, minute and complete clinical examination.

Dr. Leon Coppez spoke of his experiments with pyrometric diathermy in which a pyrometric electrode measured the temperature of the coagulated tissue at the moment the eschar appears on the sclera in scleral diathermocoagulation.

Dr. Coppez commented that the temperature of a tissue which is being heated by diathermy cannot be calculated by simply reading the intensity of the current but only by reading the temperature itself.

Dr. Miklos Klein gave an interesting account of his researches into the physics of diathermy coagulation. By measuring the electrical resistance in eyes subjected to varying strengths of the diathermy current in the micropuncture method, surface coagulation and using the pyrometric electrodes he was able to work out a reasonable dosage and to assess the method of choice for treating cases of retinal detachment. He favours the micropuncture with micro-pins employing a current of 35 milliamps. for 2-3 seconds during the insertion of the pin.

Friday, April 5.

Mr. E. F. King contributed an interesting paper on a rare condition, periarteritis nodosa which showed changes in the retinal vessels characteristic of this disease, papilloedema followed by optic atrophy in one eye and recurrent attacks of sub-acute uveitis and retinitis followed by secondary glaucoma in the other eye, which eventually had to be excised. Biopsy examination of the small and medium arteries of skin and muscle confirmed the
diagnosis. The excision of the glaucomatous eye gave the opportunity for pathological examination of the retinal vessels. Disease of the retinal arteries is apparently an unusual complication of this disease. In King’s case there were no characteristic changes in the anterior parts of the uveal tract.

Mr. C. Dee Shapland and Dr. J. G. Greenfield read a paper about a case of neurofibromatosis with meningeal tumour involving the left optic nerve. Post-mortem examination revealed neurofibromatosis in the skin of the lumbar region, the right fronto-cerebellar angle, the left acoustic and trigeminal nerves, the roots of the cauda equina and some of the dorsal root ganglia, and meningiomata affecting the inner surface of the dura over the vertex and along the falx cerebri, the base of the middle cranial fossa and left optic nerve sheath, and along the 3rd and 9th thoracic and 2nd lumbar segments of the cord. Dr. Greenfield commented that in von Recklinghausen's disease where there are multiple skin lesions the central nervous system is relatively unaffected. In the case reported he suggested that the tumour in the optic nerve sheath was secondary to the neoplasm in the skull.

In the discussion that followed Mr. Hudson spoke of the pathology of endothelioma (psammoma) and asked whether the author of the paper considered that the growth in the optic nerve sheath was a true neoplasm or a degenerative overgrowth. Professor Van der Hoeve in discussing the differential diagnosis asked whether the optic foramen had been X-rayed and spoke about the possibility of metastases in the optic nerve sheath, congenital aberrations and tuberose sclerosis.

Miss Ida Mann contributed a most interesting paper on "A theory of the embryology of oxycephaly." The clinical features of oxycephaly and its distinction from other deformities of the skull were reviewed and aetiological factors other than those based on the grounds of embryological anomalies were briefly examined and abandoned. Failure of full development of the alae sphenoid and temporal bones formed from visceral mesoderm explains the abnormality seen in the base of the skull in oxycephaly. An explanation of the cause of optic atrophy is afforded by the possibility of kinking of the optic nerves as they pass forwards and upwards from the depressed middle cranial fossa to reach the optic foramen. A corresponding upper visual field defect fits in with this conception.

Mr. Keith Lyle demonstrated a case in which such a field defect was present. Radiographs of the skull showed that the middle fossa was lower than the optic foramen.

Dr. Waardenburg discussed the case and spoke of hereditary factors in oxycephaly, the index cephalicus, varieties of oxycephaly and the association of this disease with other congenital anomalies.
Mr. Charles Goulden spoke of the absence of the occipital protuberances and the association of these defects such as syndactyly and cleft palate. He discussed the aetiology of optic atrophy in this disease.

Mr. Fincham illustrated his interesting paper on the mechanism of accommodation by photographs of the living lens and ciliary body in the case of a young emmetrope who had suffered traumatic aniridia. The apparatus was so arranged that photographs of the lens by direct illumination, slit-lamp and transillumination utilizing the fundus glow were obtained and recorded alterations in the sagittal and equatorial diameters, the surfaces of the lens and the ciliary body. Photographs were taken with the accommodation relaxed by the eye fixing an object at 6 metres distance and then in the accommodated state at another object 12.5 cms. away. The photographs showed quite conclusively the increase in the antero-posterior diameter and in the shape of the nucleus, the diminution of the transverse diameter and the alteration in curvature of the anterior and the posterior surfaces of the lens. The centripetal movements of the ciliary body in accommodation were also shown.

In the discussion that followed Mr. Hudson enquired about the possibilities of cinematography in such a case; Mr. Goulden stated that this demonstration proved the Helmholtz theory to be true and Professor Nordensen said that quantitative proof and a careful trigometric survey of the surfaces of the lens was required to elucidate fully the mechanism of accommodation.

Mr. J. D. Magor Cardell read an instructive paper about the use of polarized light in ophthalmology with special reference to its use in ophthalmoscopes. By this means it is possible to examine the fundus in diseases and opacities of the cornea and lens, a valuable asset to the investigation of such cases. Polarized light applied to the ophthalmoscope and slit-lamp was demonstrated in the Trade exhibition.

Mr. J. Foster presented much physiological and clinical evidence to support his contention that colour fields except for the purpose of scotometry have very little clinical value and are a waste of much time. He has made an interesting study of the colours used in field testing, of the conflicting results obtained by plotting such fields in varying degrees of illumination, of the wide variations in the normal and of the impossibility of assessing properly the results obtained in pathological cases.

Dr. Ransom Pickard in discussing this paper stated that he had found the red field variable but that in his opinion there was no great difference in the fields within a certain range of light. Using a 3 mm. white object he had obtained similar readings in 95 and 4.5 candle power of daylight.
The afternoon was devoted to a series of five minute demonstrations on scientific material and apparatus. Mr. J. Foster showed a device for securing binocular fixation when mapping central scotomata; Mr. F. W. Law an ultra-violet lamp; Sir Arnold Lawson visual test objects for young children unable to read letters; Mr. Leslie Paton an illuminated test type inside an attaché case for travelling purposes and bedside testing; Mr. Williamson-Noble a pair of bifocals with a bridge device for elevating the lower segment; Sir Richard Cruise a new series of stereoscopic training cards in which the child’s attention could be arrested and maintained by a large yellow or brightly coloured object on a black background; Dr. Cameron a Cruise-Whittington stereoscope; Mr. Collyer Summers a small transilluminator for use in locating tears in cases of retinal detachment and a mobile perimeter for bedside use.

Miss Cass read several short papers for M. Lopez Enriques dealing with a projection device in determining the plane of retinal images; a modification of the slit-lamp arm employing mirrors to deflect the beam of light and change its course; and some excellent pathological sections demonstrating the presence of Hortega cells in the retina and vitreous in a case of retinitis.

Dr. G. Erlanger gave an enthusiastic account of his successes in the treatment of keratitis, corneal ulcers, vascularized corneal, sclerosing keratitis and several intra-ocular lesions by ionization with zinc sulphate using a current of 12 milliamperes for surface application for 2 minutes and 15 minutes when a deep effect is desired. He spoke of his experiences with keratitis in dogs.

Dr. Miklos Klein demonstrated his apparatus for the localization of a retinal tear in cases of detachment of the retina and showed how this instrument could also be employed as a perimeter for bedside use.

The Bowman Lecture

Mr. C. H. Usher delivered the Bowman lecture on a subject in which he is a well recognized master. He chose as the title "A few hereditary eye affections." The lecture illustrated admirably the thoroughness and care which have characterized all his investigations and the honesty which he has brought to bear in assessing the scientific value of the facts he has collected from a wealth of material.

As an introduction Mr. Usher paid a tribute to the memory and work of Sir William Bowman. In the main the lecture concerned hereditary ocular affections such as choroideremia, retinitis pigmentosa, epicanthus and ptosis, gyrate optic atrophy and angiomatosis retinae. Pedigrees were shown illustrating the hereditary
characters of these diseases. It would be impossible in the brief space allotted for this report to do complete justice to this lecture which should be read as a whole to be appreciated fully.

In proposing a vote of thanks Sir John Parsons paid a tribute to Mr. Usher's tenacity of purpose and to the valuable results he had obtained. Dr. Traquair in seconding added appreciative remarks about the lecturer's persistence, enthusiasm and activity in the investigations of his subject.

Saturday, April 6.

Mr. E. B. Alabaster contributed an interesting paper on the physiology of convergent concomitant strabismus. He confined his remarks to facts of special interest concerning the significance of suppressive, projection and synoptophore findings. This paper was particularly acceptable at a time when the scope of orthoptic training is under trial.

Mr. B. W. Rycroft read a paper about the clinical significance of the influence of local extra-ocular factors on the intra-ocular pressure.

Mr. Tudor Thomas demonstrated the microscopic appearances of two eyes on which corneal graft operations had been performed which were obtained post-mortem, in one case 6 months after operation and in another 3 weeks after grafting.

Mr. S. Spence Meighan's paper was of interest in showing that so far as his experience goes cervical sympathectomy for cases of retinitis pigmentosa fails to improve or arrest the progress of the disease. Recently some extravagant claims have been made for the beneficial results following this operation for retinitis pigmentosa and Mr. Spence Meighan's impartial and critical opinion will be appreciated at this time.

Mr. E. Wolff contributed a paper expressing his views about the cause of amblyopia following gastric and other haemorrhages. He suggested that extreme lack of oxygen and resultant arterial spasm are responsible factors.

On Saturday afternoon a visit was made to the National Physical Laboratory at Teddington where many demonstrations of scientific and optical interest were on view.

Mr. N. Bishop Harman has kindly contributed reports about the activities of the International Association for the Prevention of Blindness and the Government Reception at Lancaster House which will appear in our next issue.

The Dinner

The Annual Dinner of the Society was held at the Langham Hotel on Thursday, April 4. The President was in the Chair and proposed the health of the Society. He gave a brief outline
of the history of the Society from its initiation to the time of its cleavage from the Royal Society of Medicine and thence to the present day. He mentioned the establishment of its affiliated societies especially that in South Africa.

Mr. Leslie Paton in proposing the toast of the guests commented on the importance of this toast on this occasion when the Society welcomed so many distinguished members of the International Ophthalmological Council, the International Association for the Prevention of Blindness, the International League against Trachoma, and also representatives of the Clothworkers' Company which had done so much to finance and support the National Prevention of Blindness Committee in this country. The chairman of this latter committee, Mr. P. M. Evans, the secretary, Miss Cracknell and Mr. Eager representing the National Institute for the Blind received a welcome. Among the distinguished guests from abroad Mr. Leslie Paton mentioned the names of Professor van der Hoeve, Professor Nordensen, Dr. Marx, Dr. Pfleger, Dr. Park Lewis, Mr. Carris, Dr. Churchill, Professor de Grosz, Dr. and Mme. Wibaut, Professor Marquez, Dr. Maziny Bey, Professor Terrien, Professor and Mme. van Duyse, Professor Franceschetti, Dr. Amsler, Professor and Mme. Zeeman, Professor and Frau von Szily, Professor Fleischer and Dr. Alvaro.

Among the English guests welcomed were Air Commodore Iredell representing the Defence Services and Sir Arthur Robinson from the Ministry of Health.

In replying to the toast of the guests Professor Nordensen spoke of the post-war history of the International Ophthalmological Congress and Sir Arthur Robinson of the part that the Ministry of Health was playing in the prevention of blindness.

Exhibitions

The Trade Exhibition was held in the College of Nursing adjoining the Royal Society of Medicine. The following firms of dispensing opticians and surgical instrument makers exhibited:—T. Bowing & Co., Ltd.; Clifford Brown, Ltd.; Clement Clarke, Ltd.; Curry & Paxton, Ltd.; C. W. Dixey & Son, Ltd.; Down Bros., Ltd.; Theodore Hamblin, Ltd.; Alfred Hawes & Son; C. Davis Keeler, Ltd.; Rayner (Rayner & Keeler, Ltd.); The Uni-Luxe Optical Co., Ltd.; John Weiss & Son, Ltd.; Carl Zeiss, Ltd. and H. K. Lewis & Co., Ltd., Booksellers.

This exhibition is a great feature of interest and affords a useful link between the ophthalmic surgeon and the producers of consulting room equipment, lenses and surgical instruments. A panoramic view of recent mechanical improvements in the professional armamentarium is made readily accessible by this exhibition and the...
high standard of British workmanship is good to behold. A number of industrial firms and the Industrial Museum kindly lent a variety of protective devices used to shield the eyes of grinders, chippers, welders, ladlers and others engaged in occupations where the eyes may be endangered from exposure to flying particles, excessive heat and bright light. Helmets covering the entire head and neck, screens for the front and sides of the head and face, goggles and other objects of interest were on view. Details about these exhibits can be obtained on application to Messrs. Theodore Hamblin, Ltd., Wigmore Street.

OFFICIAL ABSTRACT OF PAPERS

"Disorders of the Blood and their Ocular Complications." By Sir Arnold Lawson.

A discussion on this subject was held 12 years ago. It is not necessary to review old ground therefore, but to examine fresh knowledge that has come to light during the last 12 years. Bacterial infections do not come within the scope of this discussion as the blood changes bear no part in the ocular complications. Long continued gross sepsis may, however, produce blood changes which have a peculiar significance with regard to prognosis and treatment, and this phase of blood change is mentioned.

It is highly probable that ocular haemorrhages seen in the primary anaemias are not directly due to the blood changes themselves, but to nutritional defects in the capillary endothelium set up by toxins, whereby the permeability of the endothelium is increased.

Strictly speaking, there are probably no ocular complications which can positively be ascribed directly to altered conditions of the blood. Assuming that toxins, the nature of which can only be surmised at the present time, are the primary agent whereby retinal haemorrhages occur in the primary anaemias we have an explanation why

1. They only occasionally occur.
2. They are only noted in severe cases.
3. They only occur as a late manifestation of the disease.
4. They are of bad prognostic significance.

They thus fall into line with the ocular changes seen in nephritis and diabetes, though these are of a different type. An explanation is also furnished of the rarity of haemorrhage in pernicious anaemia contrary to text books.

It is generally accepted now that chlorosis presents no special ocular complications beyond functional disorders associated with
a general loss of nutrition. No new facts have come to light with regard to leukaemia.

Several disorders of the blood, as apart from actual disease, have great ophthalmic interest.

*Eosinophilia* has a special interest because of its invariable local and general presence in spring catarrh. Eosinophilia is commonly present in many skin diseases and also in the hay fever group, which is essentially allergic in nature. It is suggested that spring catarrh is really a modified dermatitis and that its tendency to aggravation at certain periods of the year is allergic in character.

*Monocytosis* or increase in the large mononuclear cell count has great interest because it forms a characteristic feature of sympathetic ophthalmitis. The same feature is seen in the blood count of all protozoal diseases and sympathetic ophthalmitis is treated very successfully on the same lines as syphilis and malaria. Monocytosis seems to negative conclusively the tuberculous origin ascribed to sympathetic ophthalmitis by Meller. There is no special blood picture in tuberculosis and no monocytosis.

*Eales's disease* or juvenile vitreous haemorrhage is associated with considerable difficulties. Delayed coagulation is a common feature, and the cause of this needs further investigation. It is suggested that there may be some relationship between the vitreous haemorrhage and the epistaxis of adolescence.

The *blood calcium* is another elusive problem. Its influence on the coagulation of shed blood is well known, but nothing certainly is known with regard to any influence deficient blood-calcium may have on haemorrhage. A deficient blood-calcium is very common in diabetes, and when found in cases of diabetic retinitis may be one causal factor in the formation of retinal haemorrhages.

Delayed post-operative haemorrhage coming on without apparent cause about the third or fourth day after intra-ocular operations is an accident for which no explanation may be forthcoming. It occurs in the young as well as in the old subject, and has ruined many excellent operations. It is suggested that some cases may be due to an inherent defect in the constitution of the blood.

Stress is laid on the importance of differential blood counts by an expert. Ophthalmic surgeons seem often to fail to take advantage of this means of investigation. The knowledge to be gained nowadays has enormously progressed in the last 12 years and may be of great importance as regards prognosis and treatment.

Lastly, is is very doubtful if the eye is especially sensitive to toxins as is commonly asserted. Much has been written and little proved with regard to this point, and it is probable that the eye
is no more allergic than the ear, the nose, or the gastro-intestinal tract.

"Diseases of the Blood and their Ophthalmological Complications." By Dr. H. Lethaby Tidy.

Definition of diseases to be included; diseases of the blood in which ocular manifestations may be reasonably accepted as the direct result of the changes in the blood. Sepsis thus is not included.

Rarity of ocular manifestations as an important feature of such diseases.

Discussion of the origin of retinal haemorrhages in diseases of the Blood, and their relation to haemorrhages elsewhere. Special factors operating on retinal vessels.

Discussion of optic atrophy developing in post-haemorrhagic anaemia.

Consideration of ocular manifestations in special diseases of the blood: leukaemia, secondary anaemia, pernicious anaemia, haemorrhagic diathesis, erythraemia.

"Diseases of the Blood and their Ophthalmological Complications." By Professor E. C. Dodds.

The terms of reference have been assumed to include the effect on the eye of diseases in which there is an alteration in either the form or chemical composition of the blood. If the discussion were confined to the effect of the primary blood diseases upon the eye, so little is known that it would be regrettably limited. It is hoped, therefore, that it is justifiable to interpret them in their widest sense.

A very general review is given of the relationship existing between the eye and the blood and tissue fluids and the alteration in composition of the blood, and its effect upon the composition of the fluids in the eye, considered. The two diseases which produce perhaps the most significant alterations in the chemical composition of the blood are diabetes mellitus and nephritis in its various forms. In diabetes mellitus two phenomena strike the observer, the familiar soft eye of diabetic coma, and the alterations in vision occurring throughout the disease. Possible theories to account for these are reviewed. In nephritis the sudden loss of sight and the various types of retinitis are considered from a biochemical point of view.

The question of exophthalmos is reviewed from the modern standpoint and experiments described in which it is shown that the degree of exophthalmos is proportional to the concentration in the blood stream of the thyreotropic hormone. The application of these observations to a study of Graves's disease and the possible chemical explanations are discussed.
"Ophthalmological Complications in Diseases of the Blood."

By Dr. P. N. Panton.

1. Pernicious Anaemia.—A short analysis of a considerable series of cases of pernicious anaemia observed before the days of liver treatment with a consideration of the relative frequency of symptoms referable to the eyes and changes found in the fundi.

A reference to cases of pernicious anaemia now undergoing liver treatment.

2. Some account of the relative frequency of chronic and acute myeloid leukaemia, chronic lymphoid leukaemia and primary erythroblastosis and some reference to the importance of ophthalmological complications in these conditions.

3. Chloroma.—A brief account of the cases met with in the last 28 years at the London Hospital with specimens of chloromatous infiltration of the orbit and blood films from the cases.

"How we stand to-day as regards Locating Tears in the Retina."

By Dr. Marc Amsler.

A brief historical survey of the subject is followed by a discussion of advances in three directions:—(1) Localizing instruments; (2) diffuse therapeutic agents; (3) localization during operation. The advances are described, the greatest value being attached to electrical methods of operating (diathermy and cathode current) combined with localization during operation, but it is to be emphasized that no apparatus, however perfect, can ever do away with the necessity for a thorough, minute and complete clinical examination.

"The Treatment of Detachment of the Retina by means of Pyrometric Diathermy."

By Dr. Leon Coppez.

Scleral diathermocoagulation or surface coagulation seems to be the most logical method, but an important feature as regards the correct execution of it has failed, up to the present day, and that is the exact measurement of the diathermic effect.

Joule's law does not apply to diathermic currents. We cannot calculate the temperature of a tissue which is being heated by diathermy, simply on reading the intensity of the current, but only in reading the temperature itself.

The pyrometric electrode measures the temperature of the coagulated tissue at the right place and at the very moment the eschar appears.

We have thus for scleral coagulation an objective method of measurement, which enables us to study the diathermic effect, both on rabbit eyes and human eyes.

For a given temperature, the effect is always the same, whatever the conditions may be.
The pyrometric method is slow heating, each coagulation lasting 30 seconds. This is why it differs entirely from all other diathermic methods.

Presentation of two human eyes upon which coagulations have been done at different temperatures. Retinographies and anatomical sections.

"Some Researches into the Physics of Diathermic Coagulation."  
By Dr. Miklos Klein.

By means of electric resistance measurement the following were tried:—(1) Micropuncture method; (2) surface coagulation method; (3) pyrometrical electrodes were investigated in comparison with the above electrodes.

On the basis of these experiments it was possible to analyse the proceedings of coagulation and to obtain some results concerning reasonable dosage.

Some suggestions as to the performance of the operation were obtained.

"Ocular Involvement in a Case of Periarteritis Nodosa."  
By Mr. E. F. King.

The manifestations of periarteritis nodosa are discussed. It is pointed out that the disease is a severe generalized infection, usually fatal, affecting particularly the medium and small arteries throughout the body, in which there occurs a coagulative necrosis followed by cicatrization of the vessel or aneurysm formation.

The clinical picture is necessarily varied, though the arteries in the kidneys appear to be the most constantly affected.

Details of a case are reported, the diagnosis of which was confirmed by a biopsy examination of skin and muscle, in which the vessels showed the characteristic changes.

During the course of his illness this man developed a marked papilloedema of one eye, which later subsided leaving considerable atrophy, and in the other eye recurrent iritis with secondary glaucoma, necessitating removal of the eye. Pathological examination of this eye revealed a marked sub-acute uveitis and inflammatory infiltration of the retina; in the latter the infection was particularly confined to the arterial walls and periarterial zones. While such a distribution of infection in the retina cannot be regarded as diagnostic of the disease it is suggested that the toxin is here showing the predilection for small arteries characteristic of periarteritis nodosa.

The literature of the disease is discussed, from which it appears that the usual fundus picture is renal retinitis coincident with a terminal nephritis. No report of undoubted papilloedema, such as was seen in this case, has been found. Nor has the onset of
acute iritis during the course of the illness been described. Changes characteristic of periarteritis nodosa have been reported in the ciliary vessels within the orbit, the circulus iridis major, and the choroidal vessels, and one case in which the retinal arteries were affected, but it would seem, from the limited number of eyes which have been submitted to examination, that involvement of the latter is rare in the ocular pathology of this disease.

"A Case of Neurofibromatosis with Meningeal Tumour involving the Left Optic Nerve." By Mr. C. Dee Shapland and Dr. J. G. Greenfield.

The subject of this communication, a young woman, aged 22 years, first attended the Ophthalmic Department at University College Hospital on January 5, 1934. Her left eye had been "blind" for five years and had become increasingly prominent during the previous 12 months. She had been quite deaf in both ears for two years.

The right eye showed papilloedema with about 3 D. of swelling and its visual acuity 6/18 pt.; the left eye was proptosed forwards, downwards and outwards, showed an almost complete external ophthalmoplegia, the disc was swollen about 6 D., and was surrounded by a zone of yellowish dots and soft white lines and its visual acuity was no perception of light.

The case was admitted to University College Hospital and was later transferred to the National Hospital, Queen Square, where she died on December 9, 1934. The autopsy was performed by Dr. J. G. Greenfield, and at this were found:

A small dermal neurofibroma was present in lumbar region one inch above the iliac crest. A flat pad of tumour was found under the scalp over the right parietal eminence. Numerous rounded tumours (meningiomas) none much larger than a hazel nut were attached to the inner surface of the dura mater, both over the vertex, along the sides of the falx cerebri, and on the base in the middle cranial fossa. The sheath of the left optic nerve was swollen to half an inch in diameter and was twisted in "S" shape in the posterior part of the orbit. These tumours were all meningeal fibromas and psammomas; that in the sheath of the optic nerve surrounded the optic nerve without invading it. In the left eye the retina was lifted off the choroid by exudation.

A large acoustic neurofibroma lay in the right ponto-cerebellar angle and there were smaller tumours in relation to the left acoustic and trigeminal nerves. Three psammomas lay against the third and ninth thoracic and second lumbar segments of the cord and several minute neurofibromas were seen on the roots of the cauda equina and in some of the dorsal root ganglia. Ependymal gliomas were found in the first and second cervical and tenth and eleventh thoracic segments of the cord.
"A Theory of the Embryology of Oxycephaly." By Miss Ida Mann.

After a summary of the clinical features of oxycephaly and its distinction from other deformities of the skull, the question of its aetiology is discussed. Various theories (rickets, syphilis, foetal meningitis, pre-natal osteitis) are examined and abandoned. The hereditary and familial cases collected by Allison Davies are examined and a theory based on the comparative embryology of the skull base put forward. The morphological value of the bones of the skull base is explained in terms of visceral and paraxial mesoderm and oxycephaly then seems explicable as a failure of the last acquired (visceral mesodermal) regions to develop to the full.

"A Study of Accommodation by Photography of the Living Eye and Ciliary Body in a Case of Aniridia." By Mr. Edgar F. Fincham, F.Inst.P.

The case which was studied was one of traumatic aniridia in a young man. The somewhat rare opportunity of acquiring direct evidence of the change in the form of the lens and the movements of the anterior part of the ciliary body during accommodation, made it desirable that photographic records of these processes should be obtained. Two methods of illuminating the eye were used; the transillumination of the media by light from the illuminated fundus, as with the ophthalmoscope, and the slit-lamp method. The eye was photographed in the unaccommodated and accommodated conditions under both types of illumination. An optical method of projecting the slit-lamp photographs to obtain a perpendicular view of the illuminated section was employed and is described in the paper. The photographs show that in accommodation the equatorial diameter of the lens is reduced, while its sagittal dimension is increased. The general change in form of the lens is seen to apply to the nucleus of the lens as well as to its external surfaces. A centripetal movement of the inner edge of the ciliary body in accommodation is also shown in the photographs. Measurements of the changes are given and the significance of the results is discussed.

"Recent Developments in the Use of Polarized Light in Ophthalmology with special reference to its use in Ophthalmoscopes." By Mr. J. D. Magor Cardell.

A short description of the properties of polarized light as they affect the examination of the fundus—the method of applying them in the ophthalmoscope—the advantages to be obtained therefrom. Polarized light applied to the retinoscope and slit-lamp. Demonstration in the Trade Exhibition.
"A Note on the Clinical Value of Colour Fields." By Mr. John Foster.

1. There is a huge amount of literature on colour fields (which are still extensively used as a diagnostic measure). An attempt to obtain clinical standards from this literature has led the writer to the belief that colour fields have very little clinical value, and waste much time.

2. Summary of the clinical signs alleged to be found in pathological cases, and the conclusions drawn from them.

3. Ferree and Rand, and Wentworth, in strictly controlled testing to establish a physiological normal, have shown that the signs mentioned in the summary above can be found quite frequently in normal people.

4. Factors inducing the variation in normal people.

5. Classification of the signs elicited by colour fields with application of the above work to their interpretation.

"The Parallel Corneo-Scleral Suture in Cataract Operations." By Mr. R. Lindsay Rea.

Various suture methods for the safety of the incision in cataract extraction have been described in the past. After some years of simple extraction experience, certain cases recently have led to the use of a method of suture which has proved very successful. The details are described.

"Remarks on the Physiology of Convergent Concomitant Strabismus." By Mr. E. B. Alabaster.

No attempt has been made to give a comprehensive survey of the whole subject. Facts of special interest to the writer have alone been dealt with. These include: Suppression; projection; findings on the Synoptophore, and the possible significance of such.

"The Influence of Local Extra-ocular Factors on the Intra-ocular Pressure, and their Clinical Significance." By Mr. B. W. Rycroft.

The extra-ocular factors which control the intra-ocular pressure are discussed and illustrated by experimental methods. Their bearing on local anaesthesia and intra-ocular operations is noted.

"Clinical Record and Histology of Two Successful Corneal Grafts in Man." By Mr. J. W. Tudor Thomas.

One of the cases described in this paper was a man on whom corneal transplantation was performed in June, 1934, and who died six months later with 6/60 vision. The other patient died three
weeks after corneal transplantation, with a transparent corneal graft.
In each case the eye was obtained post-mortem for examination and the microscopic appearances are described and illustrated.

"Final Report of a Case of Retinitis Pigmentosa, treated by Cervical Sympathectomy, with notes on two other cases." By Mr. S. Spence Meighan.

At the Annual Congress of this Society in 1931, the author reported a case of retinitis pigmentosa, which had been treated by cervical sympathectomy, four months previously. At that time the operation had been followed by an apparent improvement in the visual fields, and visual acuity, and this had taken place in both eyes. It was realised that too short a time had elapsed since the carrying out of the procedure to draw any definite conclusions. This paper gives the findings in the case at the present time, four years after the treatment had been carried out, and also notes on two other cases, which have been treated in a similar fashion. It is shown in the original case, that the apparent improvement has not been maintained, and that the boy is much worse than he was in 1931, prior to cervical sympathectomy. In the other two cases, while one has shown and maintained a slight improvement in visual acuity, in both there has been a progressive contraction of the visual fields. This has been taken as showing that the disease process has not been arrested.

The temporary improvement, and its bearing on the aetiology of the disease are briefly discussed. The conclusion is arrived at, that in the author's experience, sympathectomy in retinitis pigmentosa fails to improve or to arrest the progress of the disease.

"The Causation of Amblyopia following Gastric and other Haemorrhages." By Mr. Eugene Wolff.

The typical picture of small retinal arteries and a white disc is compared with those resulting from quinine and blocking of the arteria centralis.

It is suggested that these are all produced as the result of spasm of the arteries due to extreme oxygen lack.

An attempt is also made to explain the variability of the fundus picture by the amount of blood lost, the rapidity of recovery and the time of onset of the amblyopia.