officer of health and quarantine officer on the death of Dr. Toll. His experience and sound knowledge of hygiene rendered him a very valuable officer in the quarantine service.

Dr. Helen Kelsey has commenced practice at 55 Brighton Road, St. Kilda, Melbourne.

Dr. Theodore Ambrose has removed to 258 St. George's Terrace, Perth, Western Australia.

Dr. Lionel J. Robertson, late of Busselton, has started practice at 322 Hay Street, Subiaco, Western Australia.

Dr. Victor E. Ludlow, of Waverley, Sydney, has disposed of his practice to Dr. James Hunter, late of Gosford and North Queensland.

Proceedings of the Australasian Medical Boards.

QUEENSLAND.

The following have been registered under the provisions of the "Medical Act of 1867" as duly qualified medical practitioners:—

Barbour, Eric Pitty, Toowoomba, M.B., Univ. Syd., 1915.
Hoggarth, Thomas Whitecross, Townsville Hospital, M.B., Ch.B., Univ. Melb., 1914.
Rivett, Amy Christine, Brisbane Children's Hospital, M.B., Univ. Syd., 1915.
Shaw, Alfred Eland, Laidley, M.R.C.S., Eng., L.R.C.P., Lond., 1892.
Stevens, Percy Alexander, Townsville Hospital, M.B., Ch.B., Univ. Melb., 1913.

Books Received.

JOURNAL AND PROCEEDINGS OF THE ROYAL SOCIETY OF NEW SOUTH WALES, Vol. XLVIII., Part III. and Part IV., Demy 8vo., Part III., pp. 289-520, containing six plates; Part IV., pp. 22, containing Abstract of Proceedings, Title Page, Contents, List of Publications, List of Members, etc., and Index.

MEDICAL ELECTRICITY AND ROENTGEN RAYS AND RADIUM, by Sinclair Tousey, A.M., M.D.; Second Edition, thoroughly revised and enlarged, 1915. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; 8vo., 1219 pp., with 798 practical illustrations, 16 in colours. Price, 35s.

A LABORATORY MANUAL AND TEXT-BOOK OF EMBRYOLOGY, by Charles W. Prentiss, A.M., Ph.D., 1915. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; 8vo., 400 pp., with 368 illustrations. Price, 17s. 6d.

DIAGNOSTIC AND THERAPEUTIC TECHNIC: A MANUAL OF PRACTICAL PROCEDURES EMPLOYED IN DIAGNOSIS AND TREATMENT, by Albert S. Morrow, M.D.; Second Edition, thoroughly revised, 1915. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; 8vo., 834 pp., with 860 illustrations. Price, 22s. 6d.

A PRACTICAL TEXT-BOOK OF INFECTION, IMMUNITY AND SPECIFIC THERAPY, WITH SPECIAL REFERENCE TO IMMUNOLOGIC TECHNIC, by John A. Kolmer, M.D., Dr.P.H., with an Introduction by Allen J. Smith, M.D., 1915. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; 8vo., 899 pp., with 143 original illustrations, 43 in colours. Price, 25s.

DIFFERENTIAL DIAGNOSIS, by Richard C. Cabot, M.D., 1914. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; 8vo., 709 pp., 254 illustrations. Price, 25s.

A TEXT-BOOK OF DISEASES OF THE NOSE AND THROAT, by D. Braden Kyle, A.M., M.D.; Fifth Edition, thoroughly revised and enlarged, 1915. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; 8vo., 856 pp., with 272 illustrations, 27 of them in colours. Price, 18s. 6d.

THE CLINICS OF JOHN B. MURPHY, M.D., Vol. III., No. VI. (Published bi-monthly), 1914. Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; 8vo., 175 pp., 51 illustrations. Price, per year, 35s.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., Vol. IV., No. I., February, 1915 (Published bi-monthly). Philadelphia and London: W. B. Saunders Company; Melbourne: James Little; 8vo., 185 pp., 41 illustrations. Price, per year, 35s.

Diary for the Month.

July 6.—N.S.W. Branch, B.M.A., Council (Quarterly).
July 7.—Vict. Branch, B.M.A., Monthly.
July 8.—Vict. Branch, B.M.A., Council.
July 9.—S. Aust. Branch, B.M.A., Council.
July 9.—N.S.W. Branch, B.M.A., Clinical Evening.
July 13.—Tas. Branch, B.M.A., Monthly and Council.
July 14.—Melb. Pædiatric Soc.
July 14.—Western Med. Assoc. (Cowra), N.S.W.
July 16.—E. Suburbs Med. Assoc., N.S.W., General.
July 17.—N. Suburbs Med. Assoc., N.S.W., General.
July 20.—N.S.W. Branch, B.M.A., Executive and Finance Committee, Ethics Committee.
July 21.—Vict. Branch, B.M.A., Clinical Evening.
July 21.—W. Suburbs Med. Assoc., N.S.W., Clinical Evening.
July 21.—W. Aust. Branch, B.M.A., General.
July 23.—Q. Branch, B.M.A., Council.
July 27.—Vict. Branch, B.M.A., Eye and Ear Section.
July 27.—N.S.W. Branch, B.M.A., Organization and Science Committee, Medical Politics Committee.
July 28.—Vict. Branch, B.M.A., Council.
July 29.—South Aust. Branch, B.M.A., Monthly.
July 30.—N.S.W. Branch, B.M.A., Ordinary.

Covers for binding *The Medical Journal of Australia* for Vol. I., 1915, can be obtained on application to the Manager, B.M.A. Building, 30-34 Elizabeth Street, Sydney. The price of a cloth cover is 2s., and of half leather 3s. 6d.; postage, 7d.

Important Notice.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
QUEENSLAND. (Hon. Sec. B.M.A. Building, Adelaide Street, Brisbane).	Brisbane United F.S. Institute. F.S. Lodges at Longreach.
WESTERN AUSTRALIA. (Hon. Sec. 230 St. George's Terrace, Perth).	Swan District Medical Officer. All Contract Practice Appointments in W.A
NEW SOUTH WALES. (Hon. Sec. 30-34 Elizabeth Street, Sydney).	Australian Natives Association. Balmain United F.S. Dispensary. Burwood District F.S. Institute. Canterbury United F.S. Dispensary. Goulburn F.S. Association. Leichhardt and Petersham Dispensary. M.U. Oddfellows Med. Inst., Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. Mullumbimby District Friendly Societies. N.S.W. Ambulance Association and Transport Brigade. N. Sydney United F.S. People's Prudential Benefit Society. Phœnix Mutual Provident Society. F.S. Lodges at Braidwood. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Mudgee. F.S. Lodges at Orange. F.S. Lodges at Parramatta, Penrith, and Auburn. F.S. Lodges at Wellington. Newcastle Collieries— Killingworth. Seaham Nos. 1 and 2. West Wallsend.
SOUTH AUSTRALIA. (Hon. Sec. 3 North Terrace, Adelaide).	The F.S. Medical Assoc. Incorp., Adelaide.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to "The Medical Journal of Australia" alone, unless the contrary be stated.

All communications should be addressed to "The Editor," "The Medical Journal of Australia," B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.

THE MEDICAL JOURNAL OF AUSTRALIA.

Vol. II.—2ND YEAR. SYDNEY, JULY 10, 1915. No. 2.

TRACHOMA AND ALLIED EYE AFFECTIONS IN WESTERN QUEENSLAND.

By Douglas Rodger, M.B., Ch.B., F.R.C.S. (Ed.),
Ophthalmic Inspector of Schools, Department of Public Instruction, Queensland,
and H. Priestley, M.B., Ch.M. (Syd.),
Australian Institute of Tropical Medicine, Townsville.

It is a well recognized fact that in Western Queensland external diseases of the eye are very prevalent, amongst them are cases which resemble in many respects trachoma, and have hitherto been considered as such. As persons affected with these eye troubles are seriously handicapped during their youth, and even in later life, measures have been taken during recent years to cure and to prevent, as far as possible, these complaints amongst school children.

The success of these measures can be gauged by the fact that the incidence of "trachoma" in school children has fallen from 20% to 9.46% within the last three years.

Definition.

There is considerable divergence of opinion as to what constitute the essential clinical features of trachoma.

If a case exhibits chronic inflammation of the conjunctiva and follicles, associated or not with papillary hypertrophy, hyperplasia, cicatrization and pannus, nearly everybody will agree to the diagnosis of trachoma. It is in those cases where not all these features are present that divergence of opinion exists. Fuchs, for example, lays stress on the presence of chronic hyperplasia and secretion; Morax, on the other hand, ignores secretion, emphasizes the presence of follicles, and does not consider the development of scar tissue an invariable feature.

According to Römer, "the nature of trachoma is to develop a chronic inflammatory hypertrophy of the mucous membrane, and to transform the portions of conjunctiva affected into cicatricial tissue," and he even asserts that no disease which does not lead finally to cicatrization can be considered trachoma.

MacCallan states that pannus is always marked, except in the early stages, whereas others do not include this condition in their definition of trachoma.

No one clinical feature is peculiar to trachoma, since any one of the conditions which may be found in cases of trachoma, may be present in other affections of the conjunctiva. Although follicles are almost an invariable accompaniment of certain stages of trachoma, they are also present in folliculosis and in the so-called follicular conjunctivitis, and cannot be differentiated clinically nor microscopically. Pannus may be a strong factor in determining the diagnosis, but many cases of a mild type do not exhibit this condition, which is frequently found also in districhiasis.

Formerly, secretion was considered a constant accompaniment of trachoma; at the present time, most authorities attribute any secretion to the effects of a secondary infection. Papillary hypertrophy usually co-exists with follicle formation in trachoma, but may be present without follicles, and it occurs as well in acute non-trachomatous infections. In those cases where a previously trachomatous eye becomes affected by an acute conjunctivitis, the papillary hypertrophy loses its diagnostic significance.

Though cicatrization is not essential for the diagnosis of trachoma, the tendency of all cases is to the formation of scar tissue. A certain number of mild cases, on the other hand, resolve with the formation of a minimum amount of scar tissue, in spite of the absence of any treatment. And formation of cicatricial tissue may be the result of certain non-trachomatous affections of the conjunctiva, such as those caused by the Morax-Axenfeld bacillus and the gonococcus.

Clinical Description of Trachoma in Western Queensland.

A study of the clinical features of trachoma in Western Queensland makes it apparent that there is, generally speaking, a considerable difference between the manifestations of the disease in Queensland and those observed in Europe. The disease here is characterized by its extreme mildness, and by the very slow development of changes, which may ultimately result in permanent injury to the eye. There is, however, a small proportion of cases which possesses all the clinical features of European trachoma in its severest form.

Owing to the difficulty of observing a sufficient number of cases from the beginning to the end of the disease, a full clinical account of the course cannot be given.

In Queensland, trachoma is invariably chronic, and never shows an acute onset, although acute conjunctivitis, as will be shown later, is a potent factor as predisposing cause.

The early history given by the patients, at any rate in the case of children, is unsatisfactory. The only points of interest which can be elicited are that the patient has suffered from a series of attacks of acute conjunctivitis, and that little, if any, treatment was adopted, which is not surprising, since children suffering from trachoma come from homes where the hygienic conditions leave much to be desired.

As a result of a number of attacks of acute conjunctivitis, the eye gradually drifts into a state of chronic conjunctivitis, characterized by slight injection and relaxation of the mucous membrane and scanty discharge.

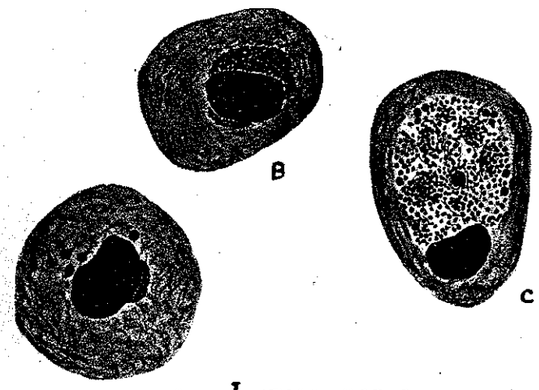
The development of follicles and papillary hypertrophy, in addition to these pre-existing conditions, ushers in the stage when trachoma can first be diagnosed clinically. Although papillary hypertrophy may be present without follicles, it does not usually occur alone. The follicles are at first found along the upper edge of the tarsus, and are gelatinous in consistence, becoming firmer at a later stage. The

might not be present in normal eyes, with the exception of the Koch-Weeks bacillus, grown from two cases of trachoma (see Table I.).

Table I.

	Trachoma Cases.	Non-trachomatous Cases.
Cases Examined	18	4
Xerosis bacillus	12	3
Koch-Weeks bacillus	2	—
Pneumococcus	1	—
Streptococcus	3	—
Staphylococcus albus and aureus	5	—
Other cocci	1	—
Other bacilli	3	—
No growth	3	1

The stained smears were searched for trachoma bodies, and these bodies were only found in cases previously diagnosed as trachoma. In none of the cases were trachoma bodies abundant, and in several they were found only after prolonged search. They



were, however, in every respect typical, and all the stages described by Prowazek were observed. They were found most frequently in cases showing Stellwag's brawny œdema (Table II.).

Table II.

	Cases.	Trachoma bodies found.	Trachoma bodies not found.
Acute conjunctivitis	5	—	5
Sub-acute conjunctivitis	3	—	3
Folliculosis	3	—	3
Folliculosis, with acute conjunctivitis	3	—	3
Early trachoma—Precicatricial stage	6	4	2
Intermediate trachoma — Scarring commencing	11	8	8
Late trachoma—Almost healed	12	1	11
Advanced trachoma — Marked scarring and pannus	3	3	—
Late trachoma, with acute conjunctivitis	4	1	3

Among predisposing causes of trachoma the most important are the effects of dust, dirt, flies, glare, and the prevalence of acute catarrhal conjunctivitis, all of which are prevalent in the western districts of Queensland, to which parts trachoma is practically confined. Dust, flies and glare are almost constant features, and acute conjunctivitis is extremely prevalent during certain seasons of the year. In addition, perhaps 90% of the patients belong to families in which the want of cleanliness is obvious, whilst well-cared-for children rarely contract the disease.

It is striking that the nearer one approaches the coast, the fewer are the children suffering from conjunctival affections. This distribution of eye diseases seems to be directly related to the prevalence of flies. Flies are found in greatest numbers in black soil and salt-pan country, and are less evident in ironstone and desert country.

From these facts, it may be inferred that flies play a rôle in the transmission of the infection, and it is in all probability not the common house fly, *Musca domestica*, but a smaller species of Musca, commonly known as the "bush fly."

Probably the most important predisposing cause of trachoma is acute conjunctivitis. This disease, of itself, if appropriately treated, is of little moment; the danger lies in its neglect, when it tends to drift into a chronic state, in which subsequent acute attacks are common, and the resistance of the conjunctiva to secondary infections is reduced.

In almost all cases of trachoma a history of frequent attacks of acute conjunctivitis can be obtained. The question must therefore be raised whether this series of acute infections leads finally to the condition hitherto regarded as trachomatous, the whole series being the expression of a continuous non-specific infection, or whether these acute attacks only reduce the resistance of the conjunctiva, and prepare the ground for the reception of the trachoma virus.

In support of the former view, the following observations may be made:—

(1) The transition from acute conjunctivitis through chronic conjunctivitis to trachoma is continuous, and the point at which trachoma begins is certainly not definite.

(2) The disease, as found in Queensland is, on the whole, extremely mild; cases of acute trachoma are not observed, and only a small proportion of the cases show the changes typical of advanced, classical trachoma.

(3) The distribution of the disease is co-extensive with that of acute conjunctivitis, and the greatest number of cases of trachoma are seen in the far western towns, where acute conjunctivitis is very prevalent.

(4) As compared with trachoma in Europe, the disease in Western Queensland has an extremely feeble contagiousness.

In spite of these observations, it seems more likely that the second view is the correct one, *i.e.*, that the acute conjunctivitis prepares the ground for the infection with the trachoma virus. Although the disease is more gradual in its progress, and milder,

every clinical feature of typical, classical trachoma can be observed, if a series of cases be studied; moreover, small numbers of advanced cases show all the lesions of the worst type of trachoma.

That the mild course of the disease in Queensland does not exclude the diagnosis of trachoma is strengthened by the observations of Foley, Sergent and Meslin among the Haratin tribe in the Sahara. Amongst these natives trachoma is prevalent, but corneal complications are very rare, and spontaneous cure, without cicatricial complications, is the rule.

Another argument in favour of the specificity of "trachoma" in Queensland is that the trachoma bodies of Prowazek and Halberstaedter were found in 17 out of 36 cases, clinically diagnosed as trachoma, and were never found by us in non-trachomatous conditions.

The extreme mildness of the majority of the cases of trachoma in Queensland, the gradual progression, the feeble contagiousness and the association with acute conjunctivitis, are features in which it differs from the classical type. These features can be explained on the assumption that the trachoma virus in Queensland is of an attenuated type. In our opinion, attacks of acute conjunctivitis so lower the resistance of the conjunctiva that the attentuated virus which cannot infect a normal, healthy conjunctiva, is enabled to obtain a foothold.

Conclusions.

(1) Chronic conjunctival affections are very prevalent in Western Queensland. Many of the cases are clinically analagous to European trachoma, but differ in their extreme mildness.

(2) The opinion that the disease is true trachoma is supported by the finding of trachoma bodies, which many authorities consider pathognomonic of the disease. These trachoma bodies were observed by us only in cases which exhibited the clinical features of trachoma, and which were diagnosed as such.

(3) The mildness of the disease can be accounted for by the assumption that the virus is of an attenuated type.

(4) Acute conjunctivitis is the most important predisposing cause in the incidence of trachoma. Repeated attacks of acute conjunctivitis lower the resistance of the conjunctiva, and the attenuated trachoma virus, though unable to attack the normal eye, is able to establish itself on an already weakened conjunctiva.

References.

Blumberg—Quoted by Williams.
Flemming—Quoted by Heyman.
Foley, Sergent and Meslin (1913)—*Bulletin de la Société de Pathologie Exotique*, T. VI., p. 634.
Fuchs (1913)—*Text-Book of Ophthalmology.*
Greef (1909)—Quoted by Heyman.
Halberstaedter and Prowazek (1907)—*Arbeit. aus dem Kais. Gesundheitsamte.*
Herzog (1910)—*Ueber die Natur und die Herkunft des Trachomerregers*, Urban and Schwartzenberg, Vienna.
Heyman (1913)—*Handbuch der Pathogenen Mikroorganismen*, Kolle and Wassermann, 2 Auf., B. VIII.
MacCallan (1913)—*Trachoma and its Complications in Egypt.*
Morax—Quoted by Williams.
Nicolle, Cuénod and Blaizot (1913)—*Archiv. de l'Inst. Pasteur de Tunis*, III., IV.
Römer (1912)—*Text-Book of Ophthalmology*, translated by M. Foster.
Williams and others (1914)—*Journal of Infectious Diseases*, Vol. XIV., No. 2.
Wolfrum (1910)—Quoted by Heyman.

SURGICAL DISORDERS IN INFANCY AND CHILDHOOD IN GENERAL PRACTICE.*

By E. H. Binney, M.B., Ch.M.,
Honorary Surgeon, Royal Prince Alfred Hospital; Honorary Assistant Surgeon, Sydney Hospital.

This is a subject on which I might be accused of repeating myself, seeing that a good deal of what I am about to say has appeared elsewhere, *i.e.*, in the *Transactions of the Australasian Medical Congress*, 1911, and in the columns of the *Australasian Medical Gazette*. I have also spoken elsewhere on the scope of surgery in a children's hospital, but here I wish to dwell on the subject from the point of view of the general practitioner. In the articles referred to, the duties of the attendant general practitioner were emphasized, and also the position and responsibilities of the operating or consulting surgeon. Each in his particular sphere may assist the other, each having his responsibility and duty, which are equally important.

I had a case the other day, alarming in appearance—a large exomphalos or hernia into the tissues of the umbilical cord. This was viewed very gravely by the attending obstetrician, and a bad prognosis was given. The patient was sent to the hospital as a serious case, where the hernia was found to be quite reducible under an anæsthetic. The cord was tied, and recovery was perfect. Such a case need not have come for special treatment. As it was, the operating surgeon got great *kudos*, which might easily have belonged to the ordinary medical attendant, whose reputation, in this case, I fear, may have suffered. Cases of exomphalos in a minor degree are common, but when extensive are alarming. It sometimes happens, as in this case, that reduction is easy; in others, important abdominal organs, notably the liver, are included, and here the prognosis is grave. At other times, apart from the question of contents, the mass is difficult to reduce; this necessitates an open operation, which adds greatly to the seriousness of the case. The appearance of such a congenital defect need not alarm the obstetrician, and an attempt at reduction should be made. The question of an anæsthetic at such an early age, even hours only, need be no deterrent, although complete anæsthesia in a new-born infant is frequently difficult to obtain. It is in connexion with congenital defects and diseases of the newly-born that the general practitioner is often called in to perform what might prove to be life-saving operations. Imperforate anus is a congenital condition demanding immediate notice and operation for its relief. Many of the cases are only of a minor degree, needing puncture with a tenotomy knife for evacuation of retained meconium. Others show an association with a deficiency of the lower bowel, and need colotomy, either right or left sided. The prognosis

* Read before the Northern Medical Association, at Glen Innes, on April 17, 1914.