

## Specialist Anaesthesia

**Anaesthesia for Neurological Surgery.** P. B. McComish, F.F.A. R.C.S., and P. O. Bodley, F.F.A. R.C.S. (Pp. 412; £5.50.) Lloyd-Luke. 1971.

With the increasing popularity of regional centres for specialist subjects the anaesthetist may find it difficult to gain experience in a particular field such as anaesthesia for neurosurgery. Drs. McComish and Bodley have

produced a very readable account of the whole field, starting off with the history of neurosurgical anaesthesia, progressing through the problems encountered in various operations, and finally giving the reader some information on the techniques for radiological investigations. There are some particularly helpful chapters on the reasons for raised intracranial pressure, deliberate hypotension and the control of bleeding, and the place of

hypothermia. All are treated cautiously and each chapter is well referenced.

It is clear throughout that this manual is written by experts who have pondered carefully over each manoeuvre. There is no doubt that it will be a most useful aid to all those in training, but many who have long since passed their examinations could benefit from studying this book.

H. C. CHURCHILL-DAVIDSON

## Keeping Up to Date

**Progress in Clinical Medicine.** 6th edn. Ed. Raymond Daley, M.D., F.R.C.P., and Henry Miller, M.D., F.R.C.P. (Pp. 627; £5.50.) E. & S. Livingstone. 1971.

This book has expectedly increased in size since it adopted multiple authorship in the last edition, and while the number of contributors remains the same nine of them are new. This has meant the inclusion of much material in fields not considered last time. About one sixth of the book deals with psychiatric disorders—the old one of schizophrenia and the newer one of drug addiction,

including alcoholism.

Computerization and immunology as presented here are examples of modern disciplines applicable to all specialties. Transplant surgery and chromosomes, even though not the constant concern of most clinicians, are ably discussed in a way to interest us all. Samples of other subjects attractively considered are clinical virology, the neurological complications of chronic renal failure, extrinsic allergic alveolitis, and analgesic neuropathy.

While the aim of this popular book has always been to present new developments

and ideas in a way acceptable to the general medical reader its focus has necessarily changed from a purely clinical to a more biochemical aspect. Those who ask whether there has been enough progress since the fifth edition in 1966 to make it worth while spending £5.50 on the sixth can be confidently advised to buy the new one. It is a must for the Membership, and its chapter headings should be searched by all doctors who want at least a feeling of being up to date.

C. ALLAN BIRCH

## Disposing of Inconvenient Relatives

**Infamous Victorians: Palmer and Lamson, Two Notorious Poisoners.** Giles St. Aubyn. (Pp. 242; £2.50.) Constable. 1971.

Murder by poisoning has a special fascination for the student of criminology. So seriously is it regarded by the law that the Attorney-General in person conducts the prosecution. Dr. R. Goulding in *Portfolio for Health* (see *B.M.J.* 7 August, p. 379) maintains that "poisoning by strychnine and the like has virtually been relegated to history," but in Victorian times, when anyone purporting to be a doctor could stroll into a strange chemist's shop and purchase deadly vegetable alkaloids without signing, the path of the occasional poisoner must have been easy.

With enthusiasm for all forms of Victoriana at its zenith, that distinguished historian Giles St. Aubyn has written this book on the murderous activities of two Victorian young doctors (each 32) who with the aid of strychnine and aconitine accomplished their fell objects for cash benefits.

The author states that he has quarried extensively in the famous trials series and other standard works, but the book is worth reading as a study in psychology.

Dr. William Palmer, "The Prince of Poisoners," murdered many of his offspring and relations whose existence was inconvenient for him, but was tried and hanged, in public, in 1856 for one murder, that of a betting acquaintance. Invitees to his home suspected that they would be poisoned. They were—but they went! Why? Dr. Lamson, a member of the B.M.A. who was hanged in 1882, ingeniously introduced a fatal dose of aconitine into a raisin in a Dundee cake before visiting his young brother-in-law at school where he cut and tendered the lethal slice. He had previously disposed of the boy's brother in order to finance his practice in Bournemouth. As a rule doctor poisoners in Victorian times operated on a multiple scale. Dr. Warder, lecturer on forensic medicine at St. George's Hospital is believed to have killed his three wives in succession with aconitine before drinking prussic acid

himself. In the Lamson case the judge drew the attention of the Home Office to defects in the law on the sale of poisons. It is probable that if the Married Women's Property Act had operated at that time Lamson's victims might have survived.

The use of vegetable alkaloids for poisoning in Victorian times gave wonderful opportunities to the defence to question the validity of tests performed by Home Office experts, particularly experiments on mice, but it is well to remember that "even today in searching for analytical procedures for the majority of drugs and poisons there is no established set of methods that are specific, reliable, and practicable" (Goulding). The author reminds us that in Victorian times, when it was more surprising to survive than to die, sudden death was accepted with so little question that the poisoner ran little risk of detection. The book is well produced and copiously illustrated.

GEORGE R. MCROBERT

## SELECTED NEW TITLES

**A Colour Atlas Ophthalmological Diagnosis.** M. A. Bedford, F.R.C.S. (Pp. 190; £2.50.) Wolfe Medical Books 1971.

**Strabismus.** A History of Orthoptic Techniques. M. J. Revell, D. Orth., (Pp. 278; £6.30.) Barrie and Jenkins. 1971.

**A Compendium of University Entrance Requirements.** For First Degree Courses in the United Kingdom in 1972-73. (Pp. 288; £1.30.) Copies obtainable from Lund Humphries, The Country Press, Priestman Street, Bradford BD8 8BT.

**International Encyclopedia of Pharmacology and Therapeutics.** Section 36 Vol. 1. Hematinic Agents. Ed. J. C. Dreyfus. (Pp. 380; £7.); Section 71 Vol. 1. Ed. H. Rašková. (Pp. 368; £7.50.); Section 78 Vols. 1 & 2. Radionuclides in Pharmacology. Ed. Y. Cohen. (Pp. 962; £17.50.) Pergamon. 1971.

**Bibliography of Mediaeval Arabic and Jewish Medicine and Allied Sciences.** R. Y. Ebied. (Pp. 150; £2.) Wellcome Institute of the History of Medicine. 1971.

**Yearbook of Education and Training Opportunities.** Vol. 1. 1971-1972. Ed. J. C. Tomlinson, B.A., (Pp. 379; £3.15.) The Whitefriars Press. 1971.

**International Index of Laboratory Animals.** 2nd edn. M. F. W. Festing, Ph.D. (Pp. 89; price not given). Compiled and distributed by Medical Research Council, Laboratory Animals Centre, Carshalton, Surrey. 1971.

**Clinical Aspects of Child Development.** An Introduction Synthesis of Psychological Concepts and Clinical Problems. Melvin Lewis, D.C.H. (Pp. 212; £2.15.) Henry Kimpton. 1971.

**Clean Air Year Book 1971-1972.** (Pp. 99; 60 p.) National Society for Clean Air, Brighton.

**The Digestive System—An Ultrastructural Atlas and Review.** P. G. Toner. (Pp. 303; £10.) Butterworths. 1971.

practitioners at Clatterbridge and St. Catherine's Hospital, October-November, are obtainable from the group secretary, Clatterbridge Hospital, Begginton, Wirral, Cheshire L63 4JY. (Tel. 051-334 4000.)

**Willesden General Hospital Medical Society.**—Details and copies of the programme, October-May, are obtainable from Dr. E. M. Jepson, Willesden General Hospital, Harlesden Road, London NW10 3RY. (Tel. 01-459 1292.)

**Gwent Postgraduate Medical Centre.**—Details and copies of the programme 1971-2 are obtainable from the postgraduate secretary, Royal Gwent Hospital, Newport, Mon., to whom doctors in adjoining areas may apply to be placed on the mailing list.

## UNIVERSITIES AND COLLEGES

### ROYAL AUSTRALASIAN COLLEGE OF PHYSICIANS

Examinations held in Singapore in July and in Australia in September have resulted in the following being admitted to the Membership:

M. Chan Chew Koon, Chay Swee On, Huang Chen-Ya, Lim Chin Hock, M. Lit-Kee Lee, A. F. Ngan, Ong Ah Soon J., Pwee Hock Swee, Tan Yeang Tin, M. Yap Hock Leong, K. R. Kamath, Wu Hoon Loom, A. F. Amos, I. K. Bailey, A. S. Balint, G. P. Blake, R. J. Bullock, J. J. Burke, R. J. Butler, D. M. Coles, A. J. F. D'Apice, A. J. Dunstan, B. S. Gaynor, C. R. P. George, G. B. Goldstein, J. M. Gupta, D. J. D. Hammill, M. J. Hooper, L. S. Ibels, P. A. L. Lancaster, J. S. Mann, B. J. O'Neill, M. J. Swinburn, P. C. Thorpe, P. V. Twomey, G. S. Whyte, M. Wilson, I. H. Young, L. B. Arkles, D. R. E. Barracough, K. F. Bendall, J. C. Ding, Fan Shing Tung, P. Fox, A. Friedman, J. H. Iser, K. R. Mountain, J. M.

O'Connell, R. J. Pepperell, H. R. Powell, R. N. D. Roy, A. H. Sharp, A. L. Smith, D. M. Wilson, D. G. Banney, P. C. Bartley, D. B. Carselaine, A. E. Cowen, L. C. Harrison, P. G. Matthews, P. J. Ravenscroft, J. M. Sands, A. J. C. Buchanan, R. A. Geddes, R. I. Hewlett, A. C. Robertson, J. R. Wall, F. Kee Chin Bong, A. W. Musk, R. H. Redstan, G. R. J. Lewis.

## APPOINTMENTS

UNITED SHEFFIELD HOSPITALS.—Dr. E. J. W. Gumpert (consultant neurophysiologist (with sessions in clinical neurology)).

UNITED BIRMINGHAM HOSPITALS.—Dr. Mary Ducrow (consultant anaesthetist).

## SOCIETIES AND LECTURES

*For attending lectures marked \* a fee is charged or a ticket is required. Applications should be made first to the institution concerned.*

### Monday, 4 October

INSTITUTE OF LARYNGOLOGY AND OTOLGY.—5.30 p.m., Clinicopathological conference.

### Tuesday, 5 October

INSTITUTE OF OBSTETRICS AND GYNAECOLOGY.—At Queen Charlotte's Hospital, 11.15 a.m., discussion, Mr. J. A. Riedel, Mr. R. T. Sears: Abruptio-placenta. (Admission by ticket only, obtainable from secretary, Institute of Obstetrics and Gynaecology, Chelsea Hospital for Women, London S.W.3.)\*

ROYAL ARMY MEDICAL COLLEGE.—5 p.m., Professor J. G. Scadding: Smoking.

ST. BARTHOLOMEW'S HOSPITAL.—5 p.m., Dr. K. Backhouse: Anatomy of the Hand for Rheumatologists.

### Wednesday, 6 October

INSTITUTE OF DISEASES OF THE CHEST.—5 p.m., Mr. M. Paneth: Pulmonary Embolism—Diagnosis and Management.

INSTITUTE OF PSYCHIATRY.—5.30 p.m., Mr. M. Falconer: Place of Surgery in Temporal Lobe Epilepsy of Childhood and Adolescence.

INSTITUTE OF UROLOGY.—5 p.m., Dr. A. R. Harrison: Acute Renal Failure of Surgical Origin.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—7 p.m., Mr. C. N. Hudson, Mr. G. Madill: Pregnancy Testing.

ROYAL FREE HOSPITAL.—5.15 p.m., Dr. R. Hall: Clinical Applications of TSH and TRH.

WEST LONDON HOSPITAL.—5.30 p.m., Alex Simpson Smith memorial lecture by Mr. J. S. H. Wade: Clinical Research in Thyroid Surgery.

### Thursday, 7 October

INSTITUTE OF CHILD HEALTH.—5.30 p.m., Alex Simpson Smith lecture by Professor C. E. Koop (Philadelphia): Neuroblastoma.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—5.15 p.m., Dr. M. C. Anderson: Aspects of Pathology of Ovarian Tumours.

### Notice to Authors

When original articles and letters for publication are not submitted exclusively to the *British Medical Journal* this must be stated.

Correspondence on editorial business should be addressed to the Editor, *British Medical Journal*, B.M.A. House, Tavistock Square, London WC1H 9JR. Telephone: 01-387 4499. Telegrams: *Aitiology, London, W.C.1.*

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## Fifty Years Ago

# The Manner in which Quinidine Sulphate Acts in Auricular Fibrillation

THOMAS LEWIS, A. N. DRURY, C. C. ILIESCU, A. M. WEDD

*From the British Medical Journal, 1 October 1921*

The action of quinidine sulphate upon the fibrillating auricle, an action but recently discovered, is perhaps one of the most remarkable and dramatic which is now known to therapeutics. The essential feature of the reaction is an invariable and conspicuous reduction of the rate at which the auricle beats; in patients in whom treatment is successful this progressive slowing of the auricular action is abruptly disturbed, the disordered action ceases, and the normal action is at once resumed.

To understand how these changes are brought about is of obvious importance; but this problem cannot be solved unless we are able first to understand the mechanism of fibrillation itself. Several views of the reaction of the fibrillating auricle to quinidine have been published, but as these all assume that fibrillation of the auricle is caused by rapid impulses, arising at one or more irritable centres in the muscle of the auricle, and to which the auricle responds in a confused manner, the explanations founded upon such an assumption remain inadequate. These theories of auricular fibrillation, until recently widely held, have undergone extensive revision, and are now scarcely acceptable.

Recently a series of papers has been published from this laboratory, in which it has been shown that in auricular fibrillation a circus movement exists in the auricle; that a single wave is propagated and revolves perpetually upon a re-entrant path. The circus movement is repeated in the average 450 times a minute, and it is this circulating wave which, in its revolution, alone controls the beating of the auricle. The auricle is no longer controlled by discrete impulses arising at a single point on the auricular muscle, each impulse originating a corresponding discrete wave of concentration in the auricle which dies away and is renewed, but by a never-ending wave which passes over and over again through the same muscular channels. . . . In recent experiments, a full report of which will be published elsewhere, we have found that the most striking action of quinidine upon the auricle is a lengthening of the refractory period; the lengthening which occurs, when doses comparable to those used clinically are employed, amounts to 50 per cent or more. The reason why quinidine brings fibrillation of the auricle to an end seems to us therefore not to be in doubt. It prolongs the refractory period of the auricle

and delays the recovery of the tissue, thus rendering the gap between the crest and the wake of the circulating wave shorter and eventually abolishing it altogether; when the last event happens the abnormal action of the auricle ceases and the normal impulses are thus enabled once again to resume control.

Though we do not doubt that this is the explanation of the successful treatment, the problem is not quite so simple as it may at first seem; for quinidine has not only this action upon the refractory period, it has further actions. The most important of them from our present standpoint is an effect on the rate of conduction; it slows conduction in the auricle. Now slowing of conduction favours re-entry; it prolongs the gap. Thus quinidine exerts two effects which, so far as circus movement is concerned, are opposed to each other; on the one hand, by prolonging the refractory period it tends to shorten the gap; on the other hand, by slowing conduction it tends to lengthen the gap. It is only in those cases where the first effect predominates over the second that the gap will close and the circus movement will terminate.