

and opened a drawer of his desk, showing that it was full of applications. Corrie Hudson, not a bit perturbed, asked, "How many of these applicants have commanded a field ambulance on active service?" Sir Frederick replied, "None. Have you?" "Yes," said Corrie. "That makes a difference," Sir Frederick said. "What position are you prepared to hold?" Corrie replied, "Either I command it or nothing." He got command. On the eve of his departure from the Balkans he was given a farewell dinner. He was shaking hands with the officers, when one said, "Not good-bye: au revoir. We shall meet in Berlin." At this the other officers laughed, and Corrie, seeing that there was something behind the remark, asked for an explanation. After an incredulous, "Don't you know?" the explanation was given, "Austria will declare war against Serbia, Germany will go with Austria. Against Germany and Austria will be Italy, France, Britain, Belgium, Holland, and Denmark. It is not good-bye but au revoir. We shall meet in Berlin." C. H. was greatly impressed, and on his return to London went to various departments of the War Office and attempted to impress them with the story. Eventually he got an interview with Sir Edward Grey, but there too he did not seem to have any success.

#### H. A. SANDIFORD, M.C., M.B., D.P.H.

The obituary of Brigadier H. A. Sandiford was printed in the *Journal* of August 23 (p. 513).

Dr. J. G. HUNTER, General Secretary of the Federal Council of the British Medical Association in Australia, writes: We here in Australia were grieved to learn of the death of Brigadier H. A. Sandiford. "Sandy," to all who knew him well, with his quizzical smile, warm welcome, and charm of manner, was a friend indeed to all overseas members visiting London, and the Commonwealth Medical Advisory Bureau is a monument to his enthusiasm to industry. I have the happiest of recollections of my association with Sandy during several visits to London, and on behalf of the Association in Australia I would like to pay tribute to the great work he did as director of the Bureau, and to extend deepest sympathy to his widow, son, and two daughters.

J. L. G. writes: I am one of those who have been deeply interested in the Commonwealth Medical Advisory Bureau since, and even before, its inception, and I would like to add my quota of admiration for the great work which Sandiford performed, and of sorrow at his death. His energy and organizing ability and, above all, his kindness of heart combined to create an instrument more efficient than even the most sanguine of us could have hoped. Scores of letters from overseas testify to the aid which he so cheerfully gave to visitors who might otherwise have remained friendless. The Bureau will be a lasting memorial to the man whose work as its first director must have helped in no small degree to strengthen the links between Britain and the other members of the Commonwealth.

## Universities and Colleges

#### SOCIETY OF APOTHECARIES OF LONDON

The following candidates, having completed the final examination, have been granted the diploma of L.M.S.S.A.:

D. H. Perkins, J. R. Carling, M. C. Liu, I. H. Bales, R. J. Priddy, J. R. Johnson, R. N. Brain, S. K. C. R. Villayarayan, M. A. Saber, E. M. Blenkinsop, P. W. F. Chan, N. Mustapha, J. A. Saunders, D. F. Fergie-Woods, M. T. Haslam, H. Hunt, E. McIlwaine, P. Nour-Eldin, J. F. Rivers, M. Budd, L. B. Cannell, A. J. Casson, M. A. Gibson, A. M. Hazell, R. G. Hornung, J. G. Williams.

P. R. Sathyanadhan was awarded the Diploma in Mastery of Midwifery and F. de S. Donnan, G. F. Smith, and W. O. Thompson the Diploma in Industrial Health.

## Medico-Legal

### FATAL AGRANULOCYTOSIS AFTER "NOVALGIN"

[FROM A HAEMATOLOGIST]

In 1945 a healthy man aged 45 was seriously injured in a road accident. After 17 weeks in hospital he was discharged with residual pain for which was prescribed "novalgin," an amidopyrine derivative, 5 gr. (320 mg.), and phenobarbitone,  $\frac{1}{2}$  gr. (32 mg.), every night. All attempts to wean him from this combination failed, so that in the last 12 years he must have consumed some 1.5 kg. of novalgin and 150 g. of phenobarbitone.

In August, 1957, he had a chill and developed an inflamed mouth, diagnosed as thrush, from which he recovered completely. On January 30, 1958, he was found to have a second attack with bleeding from the gums and a haemorrhagic rash on thighs and arms. This time he did not respond to treatment and was admitted to hospital on February 6 with severe ulceration of the mouth, palate, and pharynx, generalized purpura, and bilateral basal pneumonia. A blood count showed virtually no leucocytes. His mouth swabs yielded profuse growths of monilia, streptococci, and haemophili. He died 55 hours later; necropsy confirmed the clinical findings. At the inquest the coroner recorded an open verdict, considering that the drug novalgin was responsible for the man's death (*East Anglian Daily Times*, March 13).

#### Comment

There seems no reason for doubting that the novalgin caused this man's death. It is a derivative of amidopyrine and no less dangerous. The makers have withdrawn their brand of amidopyrine from the British market, and do not advertise novalgin; but they still distribute it because there are a few people who seem to obtain relief from pain with no other analgesic drug. It was the manufacturers themselves who asked that novalgin should be placed on the Schedule of Poisons, and this was done in 1952.

This is the classical story of agranulocytosis as caused by amidopyrine and its derivatives. There is no reliable information about the frequency of this complication with these drugs, but estimates of up to 1% have been published.<sup>1</sup> It is now believed that agranulocytosis results from a sensitization process in which an antibody is formed to the leucocyte-drug complex; in the presence of the drug the leucocytes are agglutinated and filtered off in the lungs. If the drug is stopped, the bone marrow soon repairs the deficit, but if it is continued the bone marrow liberates ever younger cells, and ultimately all recognizable granulocyte precursors are destroyed.<sup>2</sup> In such cases recovery is unusual.

There are many drugs which may cause agranulocytosis, but only four groups are of much importance: first and most dangerous, because more potent than the others, amidopyrine and novalgin, still used in a few cases as analgesics, especially in combination with barbiturates under proprietary names, e.g., "amidophen," "amytal compound," "cibalgin," "corosedine," "optalidon," "somnosal," "veramon," "veropyron" (but "allonal" and "taumasthman" no longer contain amidopyrine); secondly, phenylbutazone, sometimes the only drug which renders existence tolerable for the arthritic; thirdly, antithyroid drugs, especially the thiouracils; and, lastly, the anti-convulsants troxidine and methoin. Of course, occasional cases occur with almost any synthetic drug, including anti-histamines and sulphonamides.

The best way to prevent agranulocytosis is to avoid prescribing drugs which cause it; the analgesics containing a barbiturate with aspirin or with phenazone or a derivative can often replace an amidopyrine mixture, especially if used from the beginning, because many patients become reluctant to change from a proved friend. However, there will still remain a few people who may need the more

totalling one and three-quarter millions. Port Moresby General Hospital, a modern fully-staffed and equipped 370-bed hospital, will be the centre for research in the territory. The most important diseases in the area are malaria and tuberculosis. Infant and child mortality is a problem of particular concern, and medical anthropology and demography are among the many other broad and relatively untouched fields for investigation.

**Doctors' Hobbies.**—The Doctors' Hobbies Exhibition sponsored by Bengel Laboratories, Ltd., is being repeated this year. It will be held in the Great Hall at B.M.A. House from November 10 to 14. This time the number of classes has been increased to cover so far as possible the extremely varied spare-time activities of the medical profession. There will be a silver cup for the winner of each class, and three cheques of £75, £50, and £25 for the three outstanding award winners. Entry forms are obtainable from the public relations officer, Bengel Laboratories, Ltd., Holmes Chapel, Cheshire. Entries close on September 12.

**Inquest on Christmas Island Soldier.**—At an inquest at Swansea on August 27 a verdict of death from natural causes was returned in the case of ex-Sapper W. B. Morris (*Manchester Guardian*, August 28). Morris, who was on Christmas Island at the time of a nuclear explosion last December, died on June 14 of acute lymphatic leukaemia. At the inquest Morris's commanding officer stated that Morris had no contact with radioactive material and that at the time of the explosion he was in a safety zone. Lieutenant-Colonel R. M. Johnstone, R.A.M.C., said that two years was, so far as he knew, the shortest period in which leukaemia had first shown itself after a nuclear explosion. A report from Harwell stated that the amount of strontium-90 in Morris's femur was 0.15 unit (a normal value). We understand that the Swansea Branch of the British Legion, which is conducting a pension appeal in this case, is making a further application to the Ministry of Pensions in the light of the evidence at the inquest, and that if that is rejected the Branch intends to carry the case to the Pensions Appeal Tribunal.

**Another Christmas Island Inquest.**—The coroner for S.E. Hampshire adjourned the inquest on the late Lieutenant D. C. Franklin, R.N., on September 1 in order to allow examination of his bones for evidence of abnormal radioactivity (*The Times*, September 2). Lieutenant Franklin served in H.M.S. *Warrior* during the nuclear explosions at Christmas Island last year. His death, which occurred last week, is reported to have followed aplastic anaemia.

**East African Medical School.**—Earlier this year (*Journal*, February 1, p. 277) we drew attention to a report recommending the setting up of a medical school at the University College of Rhodesia and Nyasaland in Salisbury. The full report of the planning committee which recommended this step has now been printed as a supplement to the June issue of the *Central African Journal of Medicine*. The committee, appointed by the University College, was under the chairmanship of Mr. L. FARRER-BROWN, director of the Nuffield Foundation. The committee describes its report as a "first report."

**Overseas Students in Britain.**—10,889 overseas students enrolled for full-time study or research in United Kingdom universities at the start of the last academic year (1957-8), according to the Association of Universities of the British Commonwealth. This was an increase of 456 on the previous year. Nearly 7,000 of them came from other parts of the Commonwealth. Of the total, 1,812 came to study medicine or a related science, 718 being postgraduate students. London University took by far the largest number of overseas students—4,577 compared with Oxford's 894, Cambridge's 812, Edinburgh's 531, and Manchester's 428, the four universities with the next highest totals. The medical schools in London took a very appreciable share: Charing Cross 12, Guy's 88, King's College Hospital 17, The London 29, Middlesex 39, Royal Free 43, Bart's 58, George's

17, Mary's 39, Thomas's 30, U.C.H. 18, and the Westminster 24. The British Postgraduate Medical Federation accounted for 584 and the London School of Hygiene and Tropical Medicine for 126.

**Bagdad University.**—Professor J. H. BIGGART, professor of pathology and dean of the faculty of medicine at Queen's University, Belfast, has been notified that his appointment as one of the three founding members of Bagdad University has been cancelled (*The Times*, September 2).

## COMING EVENTS

**"The Catarrhal Child."**—N.A.P.T. symposium at the Royal Faculty of Physicians and Surgeons, Glasgow, October 1, 3.30 to 6.30 p.m. Tickets, 10s., from the N.A.P.T. Scottish Branch, 65, Castle Street, Edinburgh, 2.

**St. George's Hospital Medical School.**—Sir CLAUDE FRANKAU will give the inaugural address at 3 p.m. on October 3 at the School.

**"Space Medicine."**—Symposium organized by the British Interplanetary Society with the co-operation of the Royal Air Force Institute of Aviation Medicine, October 16 and 17, at B.M.A. House. Details from the Secretary, British Interplanetary Society, 12, Bessborough Gardens, London, S.W.1.

**St. Thomas's Hospital.**—Old students' dinner, October 31, at the Savoy Hotel, at 7 p.m. for 7.30 p.m. Tickets (2 gns.) from Dr. A. P. C. BACON, St. Thomas's Hospital Medical School, London, S.E.1.

**Edinburgh Course in Endocrinology.**—Professor D. M. DUNLOP is arranging a course to be held at the Royal Infirmary, Edinburgh, on March 16-20, 1959, by members of the departments of therapeutics and of medicine in the University of Edinburgh and by visiting consultants. It is planned for physicians or surgeons who already hold a higher diploma. Class limited to twenty students; fee, £15. Applications should be received before February 16, 1959, by the Director of Studies, Edinburgh Postgraduate Board for Medicine, Surgeons' Hall, Edinburgh, 8.

## SOCIETIES AND LECTURES

A fee is charged or a ticket is required for attending lectures marked ●. Application should be made first to the institution concerned.

### Friday, September 12

INSTITUTE OF DISEASES OF THE CHEST.—5 p.m., Dr. E. H. Hudson: clinical demonstration.

## BIRTHS, MARRIAGES, AND DEATHS

### BIRTHS

**Penney.**—On August 26, 1958, at Bishop's Castle, Salop, to Belinda (formerly Rudd), wife of Dr. G. St. John Penney, a brother for Adrian.  
**Reed.**—On June 24, 1958, in Bali, Indonesia, to Elisabeth (formerly Newnham), and Spencer Reed, M.B., B.Chir., D.T.M.&H., a sister for Anthony—Susan Alethea.  
**Steele.**—On August 29, 1958, at the General Hospital, Kuching, Sarawak, to Eileen (formerly Selby-Brown), and Bill Steele, Education Department, Kuching, a sister for Jonathan—Jennifer Mary.  
**Whelan.**—On August 20, 1958, to Noreen and Ranger M. Whelan, F.F.A. R.C.S., of "Red House Cottage," Totteridge, London, N., a daughter—Ann Pengelly, a sister for Timothy on his birthday.

### MARRIAGES

**Mackay-Lockwood.**—On August 23, 1958, Lieutenant-Colonel H. G. Mackay, O.B.E., M.C., to Barbara R. Lockwood, South Kinangop, Kenya Colony.

### DEATHS

**Chambers.**—On August 12, 1958, at Saddlers House, Alfriston, Sussex, James Ramsden Chambers, M.B., B.Chir., late of Northwood Hills, Middx.  
**Heriot.**—In August, 1958, Christine Margaret Heriot (formerly Stacey), M.B., B.S., M.R.C.O.G.  
**Kearns.**—On August 16, 1958, at 228, Goldhawk Road, London, W., John Louis Kearns, M.B., B.Ch.  
**Mills.**—On August 16, 1958, at Southwold Cottage Hospital, Suffolk, Charles William Mills, L.M.S.S.A., aged 56.  
**Pailthorpe.**—On August 12, 1958, Frederic Gerald Pailthorpe, M.B., Ch.B., late of Norbury, London, S.W.  
**Robins.**—On August 10, 1958, at Folkestone, Kent, John Norman Robins, M.D., aged 81.  
**Roderick.**—On August 29, 1958, at Addenbrooke's Hospital, Cambridge, Henry Buckley Roderick, O.B.E., T.D., M.D., M.Chir., F.R.C.S., D.P.H., of Newnham Cottage, Queens Road, Cambridge, aged 84.  
**Waterhouse.**—On September 1, 1958, at The Royal United Hospital, Bath, Somerset, Rupert Waterhouse, M.D., F.R.C.P., of 12, Marlborough Buildings, Bath, aged 85.